



MONEY FOR NOTHING

DIRE STRAITS IN VALUATIONS; STOCKS FOR FREE;
THE IMPERATIVE OF NO; AND – THE BERKSHIRE
FUMBLEROOSKIE, PLUS MORE!

2019 LETTER TO CLIENTS

February 14, 2020

Semper Augustus Investments Group, LLC is an independent SEC registered investment advisor. The firm claims compliance with the Global Investment Performance Standards (GIPS).

The SEC introduced a new “marketing rule” effective in November 2022, after this letter was written. One aspect of the new rule alters the way composite returns are calculated which is a different method than prescribed under GIPS. Specifically, the SEC began requiring non-fee paying accounts to impute a management fee for the net fee presentation. As such, SAI has revised its net fee presentation to include a model management fee in the net fee calculations for accounts that do not pay an advisory fee which include employees and certain family members of SAI.

Any references to performance herein should be ignored. Early years of composite return calculation saw annual returns reduced by as much as 0.20% on a cumulative basis.

The firm maintains a complete list and description of composites, which is available upon request. Policies for valuing investments, calculating performance, and preparing GIPS reports are available upon request. A copy of Semper Augustus Investments Group LLC’s Fundamental Intrinsic Value Equity composite can be obtained by contacting Semper Augustus at (303) 893-1214 or at csc@semperaugustus.com. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

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Now look at them CEO's that's the way you do it
You play the leader of the company
That ain't workin' that's the way you do it
Money for nothin' and your stocks for free

Now that ain't workin' that's the way you do it
Lemme tell ya them guys ain't dumb
Maybe add a comma to your little fortune
Maybe get a billion in your sum

We gotta install the printing presses
Grants for you and grants for me
We gotta get restricted share units
We gotta lift the shares for me

We gotta install the printing presses
Grants for you and grants for me
We gotta get restricted share units
We gotta lift the shares for me

I had to learn to play dilution
I had to learn to buy them up
Look at that mama she got her shares out of pocket
Man, how is she so dumb

And he's up there, what's that? Share repurchases?
You bangin' on the repos like capital's free
Oh, that ain't workin' that's the way you do it
Get your money for nothin' get your stocks for free

We gotta install the printing presses
Grants for you and grants for me
We gotta get restricted share units
We gotta lift the shares for me

Listen here, now that ain't workin' that's the way to do it
You play the leader of the company
That ain't workin' that's the way you do it
Money for nothin' and your stocks for free
Money for nothin' and the stocks for free
Get your money for nothin' and stocks for free
Money for nothin' and the stocks for free (I want my, I want my money free)
Money for nothin' and the stocks for free (I want my, I want my money free)

IN THE LETTER – INTRODUCTION

Mark Knopfler and the boys had no idea how prescient they were. Money for Nothing isn't just a classic song, it's a racket. From central banks and their printing presses to compensation committees and their share grants, never in the field of human wealth have so many done so little for so much. Profound apologies to Sir Winston.

The theme of this year's letter centers on share repurchases. An extraordinary amount of company profits is spent repurchasing shares from the market at prices that destroy shareholder wealth. The issue is front and center collecting attention and scorn. However, underappreciated is the *cause* of the angst. Without fuel there can be no fire. If business executives weren't awarded obscene amounts of company stock, share repurchases wouldn't be a thing. After a modest portion of profits are paid to shareholders as dividends, more than the balance, gargantuan sums, are spent by companies purchasing their shares mostly to offset the dilution that comes from the issuance of shares to executives in the first place. The "more" in more than the balance is funded with new debt. Gone missing is how much wealth is transferred to a small handful of industry captains and their trusty Gilligans. When the tide goes out, we'll find out who's been gorging at the shareholder buffet, and it's not the shareholder.

Far removed from the conveyance of wealth from shareholders to executives, a day spent with the captain of a remarkable private business helped codify an immensely useful model for evaluating not only investments in public businesses but in our own. I hope sharing highlights of the day and the lessons provided will be as useful to you as has been the case here, enough so that a mission statement resulted. The section is titled *The Peter Principle*.

Any investment process worth its salt begins with diligent research and moves to action. The opportunity to speak to a great group in Zurich led to a discussion about the reasons *not* to invest in a business. Call it reverse engineering or inverting, but the reality is for every investment action taken, saying no to countless others paves the way. Patience may be a virtue, but it's the imperative to the way we invest capital. The letter takes a stab at converting the discussion in Zurich to a section on *The Imperative of No – The Luxury of Patience*.

When we do invest, we find ourselves in partnership with people and businesses we admire. Generally, we sell a position for price reasons. Beyond valuation, when we are wrong on the business or the people, or a situation changes for the worse, we vote with our feet. Rare is the occasion when we like the business, we like the price, but some action compels us to action. We are the last investor on the planet you would call an activist, but the announcement of a "hostile" takeover by the majority owner of a longstanding portfolio holding at too low a price forced us to try to protect our interest. The takeover declaration was really more of a surprise attack, launched the morning before Thanksgiving. The outcome is TBD, but if history is a guide then don't hold your breath for a favorable outcome. The letter discusses a small handful of occasions where we were forced to the role of *The Reluctant Activist*.

We'll dig back into an overview of market valuation, which we find expensive, and to our portfolio, which we do not! The market raced skyward last year. Half of our holdings gained more than 30%, yet none of the underlying businesses are growing remotely that fast. Market valuations are at levels only seen historically at secular peaks. Like the late 1990's, there are pockets of value, and a considerable portion of our portfolio remains undervalued. We'll update valuations for the market and for the intrinsic value of our portfolio. Business quality couldn't be higher and the people managing our businesses have never been of higher caliber. The portfolio closed the year at 13.5 times earnings and a 7.4% earnings yield, which is our base expected return. In addition, we expect returns to climb toward the mostly unleveraged 13% return on equity of our combined portfolio holdings. The folks running our portfolio

companies invest retained earnings at very attractive returns. By contrast, the market at 23 times earnings and a 4.4% earnings yield, benefits naught by reinvested capital. With the entirety and then some of retained earnings going to share repurchases at today's 4.4% earnings yield, our advantages prospectively couldn't be greater and more durable.

Sitting atop the market are the Fab 5 tech businesses, Microsoft, Apple, Google, Amazon and Facebook. Their incredible performance businesswise and returnwise over the past decade is nothing short of breathtaking. With their combined market capitalization now at a staggering 20% of the S&P 500, and with sales and profits at 8% and 13% respectively of the market's total, investors must brace for returns during the 2020's that come *nowhere close* to the 23% annual returns enjoyed over the past decade. Expectations are out of whack, for the stocks and for the businesses. By how much? *We take a stab at illustrating the impossibility of growth for the Fab 5 anywhere remotely close to what's transpired over the past decade.* I'm sure we'll get a lot of pushback over the conclusion.

The letter, as has become custom, closes with some thoughts and a valuation update on Berkshire Hathaway. The shares gained 11% last year, roughly matching our expectation for growth in intrinsic value. Despite the stock portfolio up 40% and book value per share up an expected 24%, thanks to monster gains in Apple and Bank of America, pundits have you believe everything is broken at Berkshire. How wrong they are. The shares remain nearly as undervalued as at any time in the company's history under the care of current management, and we are happy owners and buyers at current prices. We do have a bone to pick regarding some useful data no longer supplied by management, information that allows us to measure the earnings power of the business against the capital of the business. It appears some parts of the company are weaker than hoped, and we'll break down our case. In short though, we've yet to find another business managed more appropriately for the shareholder. The 55-year record at Berkshire is devoid of abuses so common in far too many other businesses.

In one aspect the letter is an abject failure – length. I'd promised so many, the fool at the keyboard included, that the page count would come in south of last year's 112 (with appendix!). The problem stems from accumulating a running list of issues to tackle throughout the year. Given the length of this year's product, you would be surprised to know that several sections were eliminated postproduction. Next year, instead of taking a scalpel to the completed draft, I'll take a machete to the outline. Perhaps there is a book out there that can help me, *How to Win Friends and Influence People by Writing Less*. If you find it, please, please let me know.

KUDOS

Writing in depth forces introspection. Committing thought to paper is a great way to challenge depth of understanding. I was going to write about the overnight repo market this year and drafted a section. I think we have a pretty good understanding of how the Federal Reserve works, and at a minimum think we know quantitative easing when we see it. After several pages and an entire night of writing, I realized I wasn't doing the subject matter justice and wasn't making a complicated subject matter any less so, so I stopped typing and scotched the piece. I hope what finds its way into the final product each year is useful. The process is immensely helpful to me; it requires thinking outside the customary box of researching companies. Spending a small carve out of time engaged in more of a world view and various themes augments the heavy lifting of ongoing analysis and portfolio management.

I owe a huge portion of any professional success so far to the teachings of those who shared what they knew about investing with broad audiences, particularly Ben Graham and Warren Buffett. I doubt Mr. Graham's motivation for penning *Security Analysis* and *The Intelligent Investor* was the vast riches that come with textbook writing. Mr. Buffett for sure could have kept his Chairman's letters specific to the

business affairs of Berkshire, and even had a staffer write the letter, as happens in other places. Instead he used the annual letter, and six hours on the first Saturday in May every year, to teach, and in doing so I'm sure was gratified for having given back to the profession that has identified his being. Motivated by the generosity of these giants, I can't begin to tell you how rewarding it is to mentor young people, to speak on college campuses, and now to share our thoughts with some section of the investment community. If there is some aspect of utility to the letters, even if only to those just now learning the profession, then I've been able to give back.

The Semper year-end letter involves burning volumes of whale oil. For most of the firm's 21-year history the letter was sent to clients and a handful of great friends, colleagues and peers. The four years from 2012 to 2015 saw our returns for the most part match our long-term expected return but lag the S&P 500 in each of the four years, bigly. The bellwether raced ahead by 15.3% annually. The final year of the four was particularly difficult. 2015 was brutal, with the median stock in the market dropping more than 20%. Our stocks had a relatively favorable year, down just over 10%, but crushed by the S&P, again, which managed a small gain of 1.4%. Who wanted to hear that the "FANGS" added 4% to the return, which would have otherwise been down like everything else? After three years of averaging 10% returns, half of what the index posted, and then losing 10% in an up year for the market, reason was falling on deaf ears. The natives were as restless as they were in 1999 and early 2000 when we owned no tech or internet. Our largest holding in 2015, Berkshire of course, was down 12.5%, and inbound queries wondered whether St. Louis or Omaha had lost it.

The 2015 letter thus set out to address how neither we nor Omaha can control stock prices for a year, or for four years, and the more logical conversation ought to be about how the underlying businesses were faring. Three pages in, the message wasn't clearly leaping from the page, so continued on with a lengthy write-up on how we view and value Berkshire, the large "weight" in the portfolio, the weight being the stone tied around the waist that would sink you to the bottom for good. The letter went to our customary clients and friends, among them Joe Koster, who pointed out the folly in not having the letter read by a wider audience, particularly if we ever wanted to grow the firm with like-minded institutional investors that might find what we do interesting. Joe was right, of course, and he sent the letter out in his incomparable *Value Investing World* blog. I like to think the letter calmed the crowd, and perhaps it did. More likely, and fortunately, our stock portfolio and Berkshire made dramatic "recoveries," each up more than 50% combined over the next two years, both also outpacing the turbo-charged index. The wolves were kept at bay.

The point of that story is really one of gratitude. I think our clients like reading (or skimming) the letter after all these years. It's found its way to a number of very thoughtful and terrific people, and the feedback and new friends gained for it are both extremely gratifying and rewarding. There are wonderful people in our profession, and perhaps for the letter we've gotten to know so many more of you.

INTRINSIC VALUE UPDATE – ADVANTAGES ARE GREATEST AT MARKET HIGHS

The Semper Augustus investment approach blends high quality businesses with value in excess of price. Quality and price combine to provide dual margins of safety. Business quality can be controlled through process and judgment. Value measures what a business or asset is worth to rational, informed parties on both sides of a transaction. Price on the other hand, is immediately knowable, in the world of public markets at least, and can fluctuate wildly and around value. Value generally progresses slowly, often in tandem with changes in the growth and durability of earning power. It can change suddenly for the worse, via disruption, obsolescence or by poor management or capital allocation, and for the better thanks to new discoveries, through good capital allocation and management and can come with or without the requirement for additional capital.

Price can exceed value, as it does now for much of the broad stock market and other asset classes, here and abroad. Price often resembles value, and at times can exist below, even far below value. In the case of price matching value, given last year's surge in the markets, a number of our holdings are no longer undervalued but more closely approximate our appraisals of value. Fortunately for prospective returns, the overall portfolio and many holdings still enjoy the state whereby value exceeds price. Undervaluation seems to be a shrinking universe, but where found it yields an enormous advantage.

Environments where assets can be had at a discount to intrinsic value are preferred. To the extent we have cash and cash flows to invest, via sales, contributions or from dividends, it makes far more sense to long-term returns to be able to deploy that cash in undervalued businesses. Most investors cheer for rapidly rising stocks and asset prices. Who doesn't like seeing their net worth grow? We typically cheer the opposite, depending on circumstance. When would we want to see a rapidly rising price? If we own a cyclical business or are invested in a special situation where we have a price in mind at which we would be a seller of all or a portion of our position, then the sooner we can get to our price the better off we are – on one condition. The condition requires that a *maximum* amount of capital is already deployed. If we are building a position or expect new cash flows that need to be invested, then the lower the price to value the better. However, in cases where we expect to own the business for a very long time, even forever, then we *never* want to see the price reach or exceed value. We will always have incremental capital to invest, and so are generally happiest when others are suffering. Life's a beach. Conversely, we lament getting too rich too soon, because it means that recent gains robbed from the future.

2019 saw us get rich too soon, but to some not rich enough. Huh? We own no businesses that can compound their durable earning power by 23% per year, yet that was the total return of our stocks. We do own some businesses with the ability and the opportunity to invest incremental capital at returns approaching that figure for a period of time and in certain projects, but realistically lack the ability to do so in perpetuity. It was a wild year. Half of our portfolio holdings returned more than 30%. The underlying businesses simply don't grow that fast and they don't earn that much on properly measured capital and incremental capital. We become uncomfortable at times like these, and when necessary will trim positions when prices exceed underlying value and will even sell outright holdings when overvaluation becomes material. Mama said there'd be days like this...

The S&P 500 continues to outpace nearly every other stock index and asset class, both domestic and international. The index logged a total return of 31.5% in 2019. By comparison, the combined businesses that make up the best performing stock index saw their revenues and profits climb by 4% per share, less in dollar terms due to fewer shares outstanding at yearend. Of course, interest rates have a profound impact on valuations. The 10-year Treasury note saw its yield decline from 2.69% to 1.92%, a 29% decline. Any asset can be valued as the sum of its future cash flows, with a discount rate of interest used to pull each of the future cash flows back to present dollars. Changes in interest rates at lower and lower yields have a larger impact on price. Without a discussion of measuring duration, know that a decline

from 3% to 2% will have more impact on price than a move from 7% to 6%. Falling rates in 2019 surely helped asset prices. Rising rates in 2018 would have had the opposite effect. It's not a perfect correlation between rates and stock prices and it will be interesting to see lower rates collide with lower growth.

Despite nascent growth in profits for the index, there was plenty among the big tech businesses. But even the "Fabulous 5" – Apple, Microsoft, Google, Amazon and Facebook, the 800-pound gorillas of the titanic index, didn't have a single member among that exclusive club grow sales *or* profits by a rate matching the index return. Yet, these five saw total returns race far ahead of the more pedestrian result of the index. Price growing faster than value? We think so. Price in excess of value. Yes, as well, for the index and surely for the two tons of gorillas. More on the Fab 5 to come.

We view expected return two ways and are really saying the same thing a bit differently. The base assumption presumes that as long as economic profitability is properly measured and is durable, regardless of organic growth, that we will earn the earnings yield of our portfolio companies. The earnings yield is simply the P/E multiple inverted and measures the amount of earnings per market price.

The first iteration of expected return assumes that any discount or premium that exists relative to intrinsic value will close over some period of time. To illustrate, when we first ran our intrinsic value report on March 31, 2000 (to keep restless clients who owned no technology or internet stocks at bay), the aggregate portfolio had a P/E of 15.6, which equates to an earnings yield of 6.4%. Our stocks traded at 83% of our appraisal of intrinsic value, which suggested an estimated 20% accretion over time. The discount is rarely earned right away (last year being an exception). To that degree of discount, we'd add 2% to 3% per year to the 6.4% earnings yield to arrive at an expected long-term return of 8.4% to 9.4%. How predictive was the math in 2000, only weeks from the market's secular peak? Our stocks produced a total return of 10.0% per year to year-end 2019.

By contrast, investors were enamored with passive investing and with the darlings of the technology world. Sound familiar? On March 31, 2000, the S&P 500 traded at over 40 times earnings and an earnings yield of 2.5%. Our estimate at the time suggested the index needed to fall more than 60% to reach intrinsic value. You read that correctly. The index closed at 1,499 and our appraisal of value was 590. Our number anticipated an investor would earn no more than the 2.5% earnings yield for a whole bunch of years or would see a significant decline in price. Considering the index traded down to 769 in 2002 and to 666 in 2009, the expectation and calculation of fair value wasn't far off. But one would suggest here twenty years on that the market earned 6.0%, way more than the 2.5% earnings yield. To that we'd counter that the only way to have gotten to 6% required the market's return to a valuation extreme far above value. At 2019's closing price of 3,231, the index should return no more than its 4.4% earnings yield for a whole bunch of years – or – will again trade far below the current price. *None of this is meant to forecast an immediate decline or peak.* Overvalued markets can become even more overvalued, but any return above underlying growth robs even more from the puny return expected.

For what it's worth, had the index traded at 590 in March 2000 instead of 1,499, the price gain from that point to the actual close in 2019 would be 9.0%. Throw in a couple percent for annual dividends and you get to an Ibbotsonesque 11.0% total return. *Oh! I love to climb a mountain, and to reach the highest peak, but it doesn't thrill me half as much as dancing peak to peak.*

The second iteration of expected return somewhat parallels the prior. As with the first, we begin with the earnings yield as the base. From there returns will ultimately gravitate toward the underlying return on equity. This view requires a number of things:

- First, it requires long holding periods.

- Second, it requires a substantial amount of the profits earned by our portfolio companies be retained instead of paid as dividends.
- Third, it requires that the retention of earnings by our portfolio companies be invested at incremental returns at least as great as their current returns on equity capital, with the investment utilizing any logical combination of allocation tools available to management.

On the first point, long holding periods, the underlying economics of a business or investment don't matter if the holding period is ephemeral. Only over time will the return on an investment match the economics of the business. Trading strategies can capture any number of things – misses or beats to earnings or sales, changes in multiples, the expectation of a merger, a new drug approval, increased enthusiasm, new analyst coverage or whatever. To *earn* what a business earns requires time, and the shorter the holding period the more an investment return will come from anything else.

Our second requirement regarding substantial retained earnings is a driver in our process. We generally aim to own businesses possessing the ability and the opportunity sets to reinvest in their businesses. We have some, one to be discussed later in the letter specifically, that distribute nearly all of their profit as dividend, and in these cases, we know our return will come from income plus or minus any valuation change during our holding period, not from return on reinvested capital.

The third point about needing to meet a hurdle rate on retained profit goes to the types of companies we own. We find ownership in companies with these attributes is a huge advantage. In too many cases retained earnings are squandered or badly invested. The importance of getting it right can't be overstated.

Forward Expectations

Mathematically, we begin as a base with our current earnings yield of 7.4%. To that we assume returns on the portion of profits not paid to us as dividends will gravitate upwards toward 13%, which is the return on equity of our aggregate portfolio. We are paid 19% of our companies' profits as dividends. The balance of 81% is retained at least at the return on equity, and we think that's correct. Top to bottom in the portfolio, our businesses have prospects for the use of incremental capital at good returns. We own a number of businesses who can invest at higher incremental returns than the current portfolio's return on equity. The total is held materially in check by Berkshire Hathaway, which earns about 10% on completely unleveraged equity. The remainder of portfolio companies earn higher returns pushing 15%. We maintain the Berkshire position as our anchor holding because of its predictability and knowability. While we *believe* the rest of our businesses will earn higher returns on equity capital (again, mostly unleveraged) employed, we *know*, or at least have a very high degree of conviction in the notion that Berkshire can maintain a 10% return.

The problem with dividends is one-fold for some, and two-fold for others. For all, if a dividend isn't consumed it must be reinvested. In the present world of price and value, you invest at the market price for whatever is bought and that's the earnings yield, ours today at 7.4%. Only over time will the retained portion of our newly reinvested dividend earn the underlying return on equity capital of the business itself. The second problem with dividends impacts taxable investors. Dividends are taxed. The amount reinvested can only be done so after the various taxing authorities take their cut. If the 19% of company profits that we receive are taxed at 20%, then we're only left with 15.2% to redeploy at the earnings yield.

Having just discussed the problems with dividends, the answer for most companies is *not* to simply not pay dividends. The reality is very few companies possess the opportunity set for attractive retention of profit and the deployment of incremental capital. On top of that, in too many cases, even if a company does possess a nice opportunity set to reinvest retained earnings, too few corporate executives possess the skill to invest well. Thus, most companies *ought* to pay most of their profits as dividends for lack of

opportunity or lack of skill. Most public companies do, however, retain the majority of profit, and because most do often squander it, to the extent we can identify the businesses lacking investment opportunity or that lack talent, we can simply *not* invest there. We think it's another material advantage in our favor, an advantage no doubt masked at times by raging bull markets, when all boats rise with the tide.

With our stocks producing a total return of 23% last year, the degradation of price to value can be seen in the numbers. During the year, the P/E multiple on the portfolio grew from 12.3 to 13.5, a 9.8% expansion. The earnings yield thus declined from 8.2% to 7.4%. Dividends averaged 1.5%, with the balance of the difference made up for with earnings growth and portfolio activity. Portfolio activity consisted of trimming back some holdings that had raced ahead, approaching and even exceeding our appraisals, and also adding to some more undervalued positions, plus the addition of one new very undervalued business. Prospectively, our long-term total return expectation is now the current earnings yield of 7.4% plus a closing of the discount from 78% of intrinsic value, which should again add 2% to 3%, perhaps a bit less, per year to total return, so 9.4% to 10.4%. At this time last year, the long-range estimate was 10.2% to 11.2%, so you can see how much a 23% gain eats from future return expectations. The good news is, had it not been for portfolio activity, the portfolio would be more expensive today relative to intrinsic value. We have a good history of trimming positions when they are rich and adding to those that are cheaper.

The movement of price and value are often not evenly distributed over short intervals. As mentioned, half of our individual positions returned more than 30%. A few holdings, mostly energy related or cyclical, that gained very little or even declined in price. Our arbitrage holding in USG closed early in the year but only returned 1% in 2019 (the position dated back to last year and produced a nice annualized return, but a nominal gain when most everything else is racing upward impacts the whole by not participating).

Our anchor holding in Berkshire Hathaway matched its gain in intrinsic value, gaining 11%. Given Berkshire's size in the portfolio, its more modest gain kept the overall portfolio return in check and well below the returns of the majority of holdings by number, not by total capital invested. Said differently, two-thirds of our individual holdings outperformed the overall return of the equities in the portfolio, but Berkshire and the energy and cyclical positions offset the majority. With Berkshire up 11%, about 1% more than we expect the business to earn annually over a long period of time, given the screeching in financial media, you would think the company had gone bankrupt. More on this, naturally.

It may appear that our estimates of intrinsic value and expected return are calculated with laser precision. Reality is far from that. Myriad assumptions and judgments are made during the valuation process. We tried to demonstrate that last year with our discussion about estimation of earnings and how to capitalize them. Observing price is easy, but value has nothing to do with the green and red numbers flashing on a screen. You can walk through the adjustments we make to Berkshire's GAAP earnings to arrive at an assessment of economic profitability as an example. We do the same for each of our holdings. In Berkshire's case the adjustment is upward. With most public companies the adjustment is downward.

In our expectation for the S&P 500, earnings numbers are presented as reported, which are after write-offs and writedowns. On a normalized basis, further downward net revisions are necessary, but we don't apply the additional haircuts in this particular analysis of Semper's portfolio versus the index and in the fundamentals versus the market section immediately below. No need to appear more wackadoo than necessary. Investors that prefer using S&P's *operating* earnings, know that a normalized haircut that adjusts for write-offs and writedowns, unrealistic pension assumptions and that adds back a portion of amortization of intangibles expense shaves more than \$235 billion from annual earnings each year, nearly \$30 per share! Details were covered in-depth last year.

Our advantages today are greater now than perhaps as far back as early 2000. Given the strength of the overall market over the past decade, price far outpaced value. An investor owning the overall market or

an index fund, or index mimicking portfolio, faces much more downside risk than upside reward. Investors placing a premium on a reasonable price have not been rewarded to the extent that those seeking growth or even passivity have. To most, markets are only overvalued in retrospect.

Fundamentals Versus the Market

Our portfolio holdings are regularly viewed as though they are a single business through common size balance sheet and income statement figures, plus leverage and profitability ratios and finally some valuation measures. Our “company” is presented side by side against the S&P 500, similarly consolidated as though all 500 businesses were a single entity. We’ve always found common size analysis extremely useful. It has been surprising and gratifying how appreciative so many investors are that we share the method. Several now employ the process in their work.

Here are the side-by-side figures with a twist this year. Instead of simply presenting the numbers at December 31, given the surge in prices last year it seemed logical to compare the last two years in sequence, hopefully demonstrating not only what 31.5% and 23% returns will do to a stock portfolio over twelve months, but also what a bit of active portfolio management can do as well.

Key Common Size Figures for the Semper Portfolio and S&P 500

Income Statement Figures	2019		2018	
	S&P 500	Semper	S&P 500	Semper
Sales	\$100	\$100	\$100	\$100
Earnings Before Interest and Taxes	15.4	17.5	15.6	17.3
Interest Paid	2.4	1.3	2.2	1.1
Pre-Tax Profit	13.0	16.1	13.4	16.3
Tax Rate	21.6%	20.0%	21.0%	22.5%
After-Tax Profit	10.1	12.9	10.6	12.6
Dividends	4.2	2.4	4.1	2.4
Retained Earnings	6.0	10.5	6.5	10.2
Balance Sheet Figures				
Equity (Book Value)	\$64.1	\$101.2	\$63.0	\$102.0
Debt	79.0	43.7	74.6	35.0
Cash	19.1	28.5	18.6	30.7
Net Debt	59.8	15.3	56.0	4.3
Total Capital (Equity + Net Debt)	123.9	116.4	119.0	106.2
Leverage Ratios				
Debt / Equity	123.2%	43.3%	118.5%	34.3%
Net Debt / Equity	93.4%	12.8%	88.8%	4.3%
Net Debt / Total Capital	48.3%	13.1%	47.1%	4.0%
Profitability Ratios				
EBIT / Total Capital	12.4%	15.0%	13.1%	16.3%
Return on Equity	15.9%	12.8%	16.8%	12.4%
Return on Total Capital	9.6%	12.0%	10.4%	12.4%
Key Valuation Figures				
Price (Market Value)	\$232	\$174	\$189	\$155
Price / Sales	2.3	1.7	1.9	1.6
Price / Book Value	3.6	1.7	3.0	1.5
Price / Earnings	23.0	13.5	17.9	12.3
Earnings Yield (Earnings / Price)	4.4%	7.4%	5.6%	8.2%
Dividend Yield	1.8%	1.4%	2.1%	1.5%
Retained Earnings Yield	2.6%	6.0%	3.5%	6.7%
Dividend Payout Ratio	41.8%	19.0%	37.5%	18.3%
Enterprise Value / EBIT	19.0	10.9	15.7	9.2

Figures are rounded and may appear off; Index data are estimates for 2019.

Sources: Semper Augustus; Standard & Poor's; Bloomberg

Seeing the two disparate years together is fascinating, particularly in 2019 with prices racing higher following a weak 2018 for returns but strong for earnings growth. A “common size” basis sets all balance sheet and income statement numbers relative to a constant \$100 in sales. Price, or market value, is also relative to the same \$100 in sales. The figures for EBIT, pre-tax profit and after-tax profit are thus effectively the margins of the index and of our portfolio. Likewise, the balance sheet figures demonstrate how many dollars of equity and net debt are required to produce \$100 in revenues. The balance of the figures are ratios.

My mind thinks first in terms of margin structure and leverage, and then moves to growth and its origin. The margin and capital structure of a business are critical to understand. One of the most important things an investor can do is determine the profitability of a business relative to the amount of capital invested and to then measure the return on incremental capital. This side-by-side common size analysis is limited in one sense – it excludes the assessment of growth and all of its aspects – rate, durability, predictability, source, degree to which organic, capital required and so forth. Without an understanding of the variables affecting growth, an investor can’t get to the correct value and thus the correct price.

The first section under “Income Statement Figures” reveals that our “company” produces higher margins than the aggregate of the index. In isolation that doesn’t matter at all. Investing is all about measuring profits against the equity and capital employed and those ratios can be seen under “Profitability Ratios”. Before moving there, take a look at the year-over-year change in margins for both the index and for our portfolio. Margins modestly declined during the year for the index while our companies enjoyed a bit of expansion. Broadly speaking, it looks like the economy may be tilting to a slowdown, and the second half of the year saw many businesses with shrinking revenues and profits. Due to operational and financial leverage, pressure on the top line will translate more violently on margins, and we saw that in the fourth quarter, particularly among the index.

It appears that the maximum benefit from the numerous changes in the 2017 TCJA tax code reform were felt in 2018. We believe much of the newfound profit, absent new capital, will be competed away. This appears underway, exerting additional pressure on overly optimistic Wall Street earnings forecasts for 2020. Importantly, the slight expansion in our portfolio companies’ margins was accompanied with an expanding return on equity, while the return of the index declined with its decline in margins.

Leverage continues to grow across the index. Excluding financial company debt, corporate debt is dangerously high. We tilt the other way, though on average our portfolio companies did see a net increase in debt (from essentially none to a wee bit). Some of the increase is through portfolio specific activity and some from companies who have ramped up borrowing. Starbucks, discussed later, has borrowed so much money to repurchase its shares over the last couple years that their stated equity balance is now negative. If the repurchases were at cheap prices, and in 2018 they certainly were in our opinion, then bully, who needs stated book value. If they continue and are made in size at what are now high prices, then the activity becomes harmful. It’s amazing that a 5% holding can move the portfolio return on equity higher at the margin with a sizable enough shift in the capital structure.

The degree to which we and the managers of our portfolio companies in general shun leverage is a huge competitive advantage. Financial engineers, we and they, are not. The distinction between our businesses and the index can be seen in the sections, “Balance Sheet Figures” and “Leverage Ratios.” To produce each \$100 in revenues, our businesses utilize a like \$101.16 in equity capital, augmented with very modest net debt of \$15.26, thus employing \$116.42 of total net capital. By contrast, the companies that make up the index use as much debt in the capital structure, with equity capital at only \$64.08 and a far higher \$59.84 in net debt such that total net capital of \$123.92 is greater than that required by ours.

A remarkable 15% of profits disappear annually on average due to write-offs and writedowns by index companies. The cumulative effect shrinks stated book value, further reduced via enormous share repurchase programs at increasing multiples to stated book values. Thus, the index's return on equity of 15.9%, down year-over-year, *materially* overstates the profitability of the index. Think about how illogical it is to measure profitability *before* write-offs and writedowns against perpetually written down equity. Asset values can be monkied with but take comfort that it's very difficult to understate the right side of the balance sheet, at least the portion that includes debt! To the extent companies fund operations and share repurchases with debt, that portion of capital is properly identified, making the return on capital a critical acid test of profitability when companies employ increasingly large amounts of leverage. On that front, our businesses earning 12.0% on total capital are significantly more profitable than the index. Our return on equity of 12.8% only drags to a 12.0% return on total net capital thanks to miniscule net leverage. The index sees a huge drag from 15.9% to 9.6%. Said better, *the Semper portfolio companies earn more absolute profit per dollar of capital employed and require less absolute capital to produce a dollar of revenue*. It's a sizable advantage and it goes to conservatism and rational behavior among our managers.

From here the advantage only grows. Price matters. Note the yearly increases in the P/E multiple and in enterprise value as a multiple of EBIT, a favored metric of private equity and those using large amounts of debt in business. The index saw its EV/EBIT multiple balloon from 15.7 to 19.0. Ours moved up from a much lower 9.2 to only 10.9. The index P/E shot from 17.9 to 23.0 while Semper's moved from 12.3 to 13.5. If our businesses earn far more on total net capital employed and earn a high (or at least acceptable) return on equity requiring very little financial leverage to attain, then the prices we pay and at which our companies trade is the icing on the cake. To wit: A 13.5 P/E versus 23.0 mathematically means 7.4 dollars earned per \$100 of price paid versus only 4.4 for the index. Thanks to a much lower price paid for earnings, we enjoy a full \$3 of additional profit. Also, the index requires a much higher payout rate of dividends to produce only 40 basis points of higher dividend yield. Why? The differential in the price to earnings is so much higher for the index.

Continuing, what happens with the balance of our profits not distributed to shareholders as dividends? Since we receive only 19% of profit, the remaining 81% is retained. Critically, we are confident that the majority of the profits retained by our portfolio companies are incrementally invested *at least* at the current return on equity of 12.8%. By contrast, of the 58% of profits retained by the index companies, how much is being invested at the overstated 15.9% return on equity? We would argue *none* for the aggregate of businesses (while there are plenty of businesses with places to invest, but for those that can there are equal numbers that can't, or worse, do and destroy capital).

We have a section upcoming on share repurchases, but as a preview, over the past decade, the companies of the S&P 500 have spent more than 100% of their profits paying dividends and repurchasing shares. Also know that for much of the past decade, these repurchases were made at multiples averaging about 20 times earnings, or at a 5% earnings yield. At today's 23 multiple to earnings the index earnings yield is 4.4%. It's financial engineering to an extreme. It has also masked an enormous transfer of wealth from shareholders to company executives, so far undetected by a decade of rising stock prices.

Index investors are paying 23 times overstated, leveraged profits and having *none* of their income reinvested at returns anywhere near the apparent return on equity. Alternatively, the Semper portfolio trades at 13.5 times for our companies' largely unleveraged profits, with most retained and invested by competent managements possessing the skill and opportunities to invest capital at returns matching or exceeding their collective 12.8% return on equity. Our company advantages are wide on a profitability test alone, with the quantity and quality of profit of equal importance. But the yawning gap paid for the respective profit streams is a canyon.

THE PETER PRINCIPLE

On a Mission

Semper Augustus lacks a formal mission statement. Had we sat down to craft one at the founding some 21 years ago, it would have undoubtedly begun with making money for our clients, not losing it for sure, and helping them to achieve their objectives. When we think about objectives in the investment sense, they are typically oriented around maximizing investment return while simultaneously managing and minimizing risk, with risk in our world properly defined as permanent impairment of capital. You could call the first maxim, “Thou shall not lose money, but shall also make as much as possible.”



Continuing with a mission statement, at the outset ours would have certainly involved treating our clients fairly, something on the order of the Golden Rule – Do unto others... In the beginning, the firm consisted of Chad and I as the two founding principals and a handful of clients willing to place their trust and their capital, in most cases all of it, in the hands of a 29 and 28-year old. The Golden Rule is a pretty good maxim for how to conduct your business affairs and your lives. When employee three, and then four and so forth came along, it was obvious that the Golden Rule must extend to them as well.

When you run a money management business, you immediately have vendors. In the investment world these are custodians, brokers, research providers, accountants, lawyers, landlords, database providers, IT providers and so forth. Over time, and it doesn't take long, you realize that in business, many are concerned more about their own interests instead of simultaneously working toward ensuring that their clients' best interests are likewise accommodated. Semper: “I thought we had a contract?”

Custodian/broker, database vendor: “We did, but we didn't like the terms, so now either sign the new one or find a new vendor.” When others aren't conducting their affairs in the context of the Golden Rule, it's a problem and can be not fun. So, a well-crafted mission statement would extend the Golden Rule beyond our clients, between each of us as business partners and owners of the firm, our employees and now also to our vendors. Perhaps by being honorable and fair with them they will reciprocate.

When you run a money management business, you also have regulators, lots of them, and they are very powerful. If you run afoul of their rules, you won't run a money management business. It didn't take a collective CFA charter, CPA license and Eagle Scout badge to know when launching and running the firm that when it comes to dealing with regulators, there is black, there is white, and there is not grey. When a message is received on Friday letting you know a regulator will be in your office on Monday, and here are the 65 items we need to see when we arrive, you are prepared to hand them everything at 8:00 on Monday and stand ready to give them anything else they need and answer any and all questions. In Eagle Scout parlance, that's, “Be Prepared”. As far as a mission statement, it must extend the Golden Rule to all of your regulators in hopes they will find you prepared.

When you run a money management business, ours at least, you are familiar with Berkshire Hathaway and its Chairman and CEO and its Vice Chairman. At a point, you heard both of those gentlemen proffer advice on how to conduct one's business life by living as though if you'd read about your actions on the front page of your local paper or the Wall Street Journal, you won't have embarrassed your family. When you heard that for the first time, if you run a money management business, your reaction had better have been, “Of course, that's common sense.” But, of course, newspapers aren't sold by writing about the virtuous above the fold, so perhaps it's uncommon sense. Regardless, the message seems to fall within the Golden Rule and so extends beyond just the business to your family and your community. Words to live by, for sure.

I've been privileged to meet with lots of students, mostly college students, to mentor some, and to speak about investing at a growing number of campuses. The two gentlemen mentioned at the outset of the prior paragraph are mentors to me in ways beyond description. I have such deep sense of gratitude that giving back to the profession that feels more like a hobby and not at all like a job just comes effortlessly. Any time given the chance, I always pass along the story from the prior paragraph about how to live your life when it comes to what a newspaper would write about your actions. You can call that message the Buffett and Munger maxim. I also like to tell a longer story about my great friend, Ellen Port. The investment world knows nothing of Ellen, but if you are in the world of golf, you surely know of her. Ellen took up golf at the age of 24, and if you play golf, or have tried, you can appreciate how hard it would be to start playing that late in life. Between here and there, Ellen has won seven, that's 7, USGA national championships, and counting. She's won four USGA Women's Mid-Amateur and three USGA Senior Women's Amateur Championships – and she still has the game to win more. In terms of most USGA titles won, she sits behind only Bobby Jones and Tiger Woods with nine each and JoAnne Carner and Jack Nicklaus with eight apiece. Rarified company.

Ellen has also played in a number of Curtis Cup championships, similar to the Ryder, Solheim and Walker Cups, with the Curtis Cup pitting the best US Women Amateur golfers against the best from Great Britain and Ireland. Ellen captained the victorious US squad in 2014, and it was in preparation for that event, that my daughter, who was to play high golf for Ellen as the then coach of her high school team, was invited to hear her speak to a select group before the tournament. My daughter's father was lucky to tag along. It was there that Ellen gave a memorable speech about the history of the Cup, what participating meant to her, and about how the game of golf had impacted her over the course of her adult life. It was to the latter that she shared the following story. I wish I had a recording, but I'll do my best to re-tell it in Ellen's words:

I was playing in a USGA Mid-Am a few years ago. If you know the format of how the USGA conducts its national amateur championships, you know that the qualifying field of 156 plays the first two rounds as stroke play, with the top 64 finishers then being seeded and advancing to match play, where you play head to head, similar to how the NCAA basketball tournament works. You have to play nine total rounds and win six times in match play, with the final championship match contested over up to 36 holes, to win the tournament. For my entire golfing life, every night following a tournament round I have a routine where I lay in bed and replay the day's round in my head, recounting where I made bad decisions and where I could do things better and differently. Following the opening round of stroke play, the first round of the tournament, I went through my process and the round hole by hole. When I got to the 11th hole, I realized, oh my God, Ellen, I made a bogey 4 but thought and recorded that I'd made a par 3. My playing partner didn't realize the mistake and also recorded me as a 3. There were no scorers in my group, no reporters, no TV cameras, no witnesses, so nobody would have known any better. Well, the drive back home to St. Louis from Michigan that day was the longest drive of my life.



I've learned that when telling this impactful story to college students, which always chokes me up, often there are no golfers in the room. When I heard Ellen tell the story in the original, the hair on the back of my neck stood up. If you know the rules and the expected etiquette of golf, you know what had happened. When I ask the students what had happened, too often I have to explain that Ellen reported the error the next morning to the tournament committee, and because she had signed her scorecard incorrectly, with a score one stroke better than she had actually shot, she had disqualified herself from the tournament. Nobody had known, and there's a good chance that had she not done the honorable thing, she'd be sitting tied with Jack and JoAnne and only behind Tiger and Bobby for all-time national championship victories.

Ellen Port is one of my heroes, and between that story and Mr. Buffett's and Mr. Munger's advice about living life and the newspaper, it's a pretty good set of examples to go with a mission statement.

If we had a mission statement, this would be it: Thou shall endeavor to not lose money for our clients; but shall also make as much as possible for our clients; and shall deal with everyone involved in running our business by doing unto them as they would do unto Semper.

The Peter Principle

Now, the only reason I chose to go down this road in this year's letter is thanks to having had the privilege of spending a day with Peter Kaufman at his offices in Glendale, California, a highlight of the year that blessedly included a number of them. As readers of our investment letter, one that delves perhaps too often into Berkshire Hathaway, most if not all of you will know of Peter. He's the fellow that assembled *Poor Charlie's Almanack*, the timeless collection of speeches and other gems by Berkshire's Vice Chairman, Charlie Munger. Mr. Munger is known for his affection of Benjamin Franklin, so the Kaufman compilation is naturally a tribute to Franklin's *Poor Richard's Almanack*.



When the opportunity presented itself to spend some time with the guy who put together the brilliant book, I leapt at the chance. I expected a quick chat and maybe lunch, but the entire day that unfolded was one of the most unusual, educational and gratifying days I've had in a long time.

Peter and I sat in the lobby and then a common area of his company's headquarters, Glenair, for a couple hours, meeting passersby who all shared quick stories about themselves and their roles and experiences at Glenair, and it quickly dawned on me that this was an exceptional business leader, and as the day progressed, that Glenair was an exceptional business. Between the brief conversations with Glenair associates, during the early interludes Peter conducted our conversation as though I was a student sitting in a university lecture hall. Thirty minutes in, I thought this was one of the oddest meetings I'd ever had. An hour in, I regretted not having a tape recorder. Oh-for-two on that front with both Ellen and now Peter. At a point, having asked about Glenair and how similar the business was to Amphenol (very little, it turns out, if the larger and publicly traded competitor truly plays second fiddle to the smaller and better-run private outfit in LA, which is not only the case but I believe there to be no other violins, only a masterful soloist), Peter harrumphed and proceeded to explain why my business as an investor in public companies was too hard, why the universe of public companies was fatally flawed. What came next was a mesh of common sense and a useful model helpful in evaluating businesses.

Peter suggested why Glenair, and any truly great business, must satisfy six agencies, and why, for each, that must be the case. The six agencies to satisfy:

- You have to take care of your owners.
- You have to take care of your customers.
- You have to take care of your employees.
- You have to take care of your suppliers.
- You have to take care of your regulators.
- You have to take care of your community.

When he had finished working through his list and a coherent and thorough explanation of why taking care of each was so important, he then said to me, "Now Chris, I know you are a thoughtful investor, and I'm sure you're sitting there working through each of your portfolio companies in your head, racking your

brain as to whether any of them, *any of them*, pass the test on all six counts. You won't have one because no public company can satisfy all six agents."

Me and my three decades of experience was a little taken aback, but I thought I had the right answer. I said, "Peter, you are exactly right, I am sitting here having thought through all of our holdings, and you wouldn't have reason to know it but we own Costco, and on at least five and most of the sixth they pass the test." "What's the sixth that they don't entirely pass on?" he asked. "Suppliers" I said immediately. "Yep." We agreed that in general, Costco is fair with their suppliers, knowing that for them to be great suppliers they need to make good returns on capital. Win-win. Bentonville had a history of not recognizing this. However, for any supplier that had made investments scaling up to satisfy Costco, but eventually was let go, replaced with a competitor, or more likely, by Costco's own burgeoning private label brand, Kirkland, there could be no feelings of great affection.

The reality is, as we've evolved as investors, we've spent increasingly considerable time thinking about companies' relationships with all six of these agencies but have never put it together in such a concise format. Charlie Munger would call the matrix a mental model, I suppose. It's an enormously useful way to think about a business, both those that we invest in and even in our own, hence the mission statement.

Most companies fail on a few of these fronts. Some fail on all. When CEO's take care of themselves at the expense of their shareholders, they fail the first test. When you unreasonably raise prices to the detriment of your customer lacking bargaining power, and in doing so take advantage of them, you fail the second test. Think Valeant here, or more recently Mallinckrodt, or with orphan drugs. How about the business that squeezes its employees on wages or benefits, or is quick to terminate when the top line slows? How about the private equity firm that guts the workforce and slashes costs, hoping to sell the bled, near-dead shell to a higher bidder? You fail on the third. You constantly pit your suppliers against each other, taking the low bid even though you know the contract is a money-loser for them, you are failing number four. You tamper with a vehicle's emission regulating device, or you underinvest in maintenance capex as an electric utility to make extra short-term profit, or you thumb your nose at the FAA after two of your planes crashed, killing hundreds, failure on five. You acquire a brewery, and in its home market, despite promises to the charities that depended on the brewer's support for years, that you would continue to do so post-merger, you pull the rug out from under them, you disgracefully fail on six. The list of sinners is long, way longer than the list of saints.

The rest of the day at Glenair was terrific. I hope that Peter ultimately puts out another book, in this case something on the order of *Poor Peter's Almanack*. Peter has a *large* collection of speeches he's given at universities and to companies. It's a brilliant set of wisdom, and a compilation done in the format of *Poor Charlie's Almanack* would be a gift to the investment world. In the meantime, I have my six-agency checklist, and a great lesson in why each side in a business transaction needs to win, and another great lesson about looking out for blind spots, and a whole bunch more. I'll call my new mental models The Peter Principles.

ESG



I've spent a lot of time since meeting Peter thinking about how his six-agency checklist applies to the businesses we own and those in the pipeline. Where it's really useful is in thinking about a question that we've been asked a *lot* about recently, and that's how does Semper Augustus think about ESG investing?

ESG investing is environmental, social and governance. It would be a better acronym as GES, as in guess, because none of the official "raters" of which businesses are winning and which are failing in the three areas are clear with their standards, which in many cases defy logic.

My genuine answer to how our companies fare in a world increasingly concerned about ESG issues is that we own businesses run by people we admire, and that those types of people running businesses are few and far between. We don't own companies where the shareholders are harmed or abused by managers out for number one. You can spot integrity in the proxy statement and in the manner in which executives are compensated. You can spot it in the way share repurchases are conducted. You can spot it in the logic behind and the prices paid when making acquisitions. You can see it in an addiction to debt or by an aversion to its excessive use. Many of our companies are run by founders, or by families or individuals that have acquired material stakes with their own money, or are simply run by managers that think like owners, and who understand intrinsic value, and who strive to take care of the six agencies.

The environmental component in ESG is a tough one to quantify. There are those in society with extreme positions on either side of the climate change debate. Regardless of the science, if we are going to err, we should probably do so on the side of caution. Building out and encouraging the use of more sustainable energy sources probably makes sense from a public policy standpoint, and certainly if natural resources are scarce and collide with Malthusian theory. Would wind or solar be economically viable in the absence of tax credits, probably not. But would an electric utility have built a coal-fired plant, or a nuclear plant, or a gas-fired plant without some assurance that the investment largely made for public good would be made with an allowed rate of return? There are those in the climate debate that would like to completely eliminate the use of all fossil fuels in all of society, and now. It should be obvious how integral the use of oil, natural gas and other fossil fuels are to our functioning society. Beyond transportation and heating and cooling, how about plastics in medical devices? But it should be equally obvious that our society needs to move forcefully toward preserving scarce resources, and if alternative energy produced in scale can be reasonably economically produced then we're all for it.

Our answer so far regarding the environmental issue is that plainly we are far removed from the 1970's. We no longer have chemical companies dumping byproduct into rivers, knowing of their harmful effects. We have had a trading position in Exxon Mobil for a number of years. When you read their annual report or see their advertising, at a minimum they are talking a good game on the sustainability front. The financial reporting of the European companies we own or follow, even those not having anything to do with energy, devote incredible resources to how they are dealing with not only environmental but myriad social and governance issues as well. While Exxon Mobil gets dinged by raters, another portfolio company tops many lists as a great business on the environmental front (actually all three aspects) and it's counterintuitive. Cummins manufactures diesel engines, and you would think that alone would be considered a no-no. To the contrary, the amount of research that's gone into progressively removing emissions of particulates and nitrates over the last couple decades to conform to progressing environmental standards is nothing short of amazing. On the order of 95% to 99% of hazardous emissions have been eliminated. We also have a large allocation to a number of European businesses. The typical European annual report has doubled in size, and the increase is almost all ESG issues. Often you have to

hunt for the financial information. A lot of thought and commitment is going into the issues, and that's a good thing.

Governance is a tricky issue. Initiatives seek to encourage board independence and diversity, voting rights, executive versus employee pay and accounting standards and transparency. Our largest holding, Berkshire, gets heavily dinged by the proxy voting advisors because the CEO happens also to be the Chairman of the Board. The company further stumbles because they have two classes of shares with differing voting rights. Heck, we got our mind around these issues twenty years ago almost to the day when we first bought our shares. Had they been problematic issues for us we wouldn't have made the investment. From what we knew of the man running the show, we couldn't imagine an individual better suited to wear both hats, and he had the shares to go with it, none of which, by the way, ever came from a stock option grant or an RSU. The shares were bought and paid for between 1962 and 1964 with his own money. If he had 100% of the voting rights, we'd have been fine with it.

The new Co-CEO and longtime CIO at Markel gets dinged for sitting on more than three boards of directors – Markel, Graham Holdings, Colfax, Cable One, and the Davis Funds. According to ISS and to Glass Lewis, four is one too many, three is perfectly fine. As such, the proxy advisors suggest a no vote for Tom whenever he is up for election or reelection by shareholders. I'd argue that sitting on boards as a director is a great way to learn about the innerworkings of businesses. He's not on these outside boards for the money or the prestige. Believe me, he's handsomely paid for his duties at Markel, and he's plenty well known in the circles that matter. He's there because of his investment and business experience as an asset to the boards on which he sits. There are plenty of directors that accept board roles for selfish reasons, even if they know little of the company or the industry which they are asked to govern.

In the governance areas of executive pay and accounting and tax transparency, these issues have been such an integral part of our research process for so long that they are part of our DNA. Our hot button issues don't necessarily overlap with the dictates of the groups performing the ratings. We squirm when folks with no skin in the game feign expertise in dictating to companies how to conduct their affairs in these areas in particular. What we've seen so far are prescriptions that don't fit the patient. In some areas more harm is done than good, despite noble intentions. I know there are numbers of investors like Semper that, as *users* of financial statements, when we get to talk to management, we are open with our opinions about best practices. ESG scorers, and even professional society groups like my own CFA Institute often fail to approach governance with the proper perspective.

The social aspect runs the gamut of labor relations, employee relations, promotion of a safe workspace, community impact, equal employment opportunities, healthcare, education and housing initiatives. Here as well, like dictating how accounting standards should work when you are not a user of financial statements, prescribing best practices without running a business can be a recipe for special interests and favoritism.

We intend to come back to the issue of ESG in future letters and don't know enough to pass judgment more fully now. It's very much an evolving issue and we're early in the learning curve about what makes sense and what doesn't. We've had our portfolio scored and couldn't begin to tell you why one company gets an AA and another a B when we would have expected the opposite. Then again, I never thought I'd get a C in a high school Volleyball/Weightlifting class either. At bottom, we try to align ourselves with managements we admire, and for that, generally believe that on issues related to the environment, social policy and governance our companies are doing the right things. Stay tuned.

THE IMPERATIVE OF NO: THE LUXURY OF PATIENCE



Life is made up of a series of judgments on insufficient data, and if we waited to run down all our doubts, it would flow past us. - Learned Hand

I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description ["hard-core pornography"], and perhaps I could never succeed in intelligibly doing so. But I know it when I see it, and the motion picture involved in this case is not that. – Potter Stewart

Business and industry change daily, and no two businesses are the same. The notion that capital can be deployed over time in a formulaic method strikes us as silly. Judgment, constant reevaluation and a healthy dose of skepticism are three paramount essentials when it comes to investing. Combined, if the process arrives at yes more than a fraction of the time, then the process, in our opinion, is flawed.

Portfolio turnover averages 15% per year over our history with a number of names held more than 20 years. Only one new position made its way into the portfolio last year. The long-run average is two to three. The process turns over lots of rocks but results in “no” nearly all the time. John Mihaljevic, who runs the terrific Manual of Ideas platform, asked me to speak at his Zurich Project this past June. It’s a great setting and even better group of people. We spend a lot of time talking about why we own things. A discussion about why we don’t, delving into the reasons why the research process is suspended seemed like it might make for an interesting discussion, so we put together some slides outlining where in the process we stop, and, in the words of Nancy Reagan, just say no.

Getting to “no” in the investment process is far from an original concept. Charlie Munger, the most famous sounding board in the history of investing and undisputed heavyweight champion thinker, was infamously referred to by his Chairman as the Abominable No-man for his response to the vast majority of investment ideas out of Omaha. Great, actionable investments are few and far between, and the great investors we know well all are hard-wired with the proper reticence and patience.

The First Step is the Hardest

If you can’t explain it simply, you don’t understand it well enough. -Albert Einstein

I’d like to modify the header here. Once you appreciate your own circle of competence, recognizing and admitting that you don’t understand something becomes reflexively easier. Thus, saying no to something you don’t understand hopefully becomes the easiest step in the investment process. Lack of understandability is the “too hard pile.” Ours is a really large pile, and if you’d asked me twenty or thirty years ago if I thought my too hard pile would be larger or smaller, I would have instantly said smaller, believing through hard work and time more and more would become understandable. I would have been correct from the standpoint of wisdom, or at least knowledge, accumulating over time. What I wouldn’t have known, however, would be through wisdom, or at least a cumulation of mistakes and lessons, that an awareness of one’s limitations is an asset.

You get there honestly, by making mistakes. Last year I wrote about some of the most profound investment mistakes *so far* in an investment career. From a too-early sale of Ross Stores in advance of a more than twenty-fold subsequent gain; to the bankruptcy of the first stock I ever bought, done with zero real fundamental analysis; to an attempt to catch a falling knife in Williams Communications; and, with the failure to purchase a meaningful position in Brown-Forman for stinginess and naiveté on the trading front, mistakes abound in this business, and you must learn from them. When I was with Peter Kaufman, he suggested it might be easier to learn vicariously through the mistakes of others and to avoid them myself. Well, that sounded really great and logical, but as I thought about it concluded that there can be no 1.000 batting averages in investing. If you aren't making mistakes you aren't working, but if you aren't learning from those that you do make, then, well, you shouldn't be investing. We've made plenty of errors and will continue to do so. I do know that my circle of competence is far, far narrower now than it was those twenty or thirty years ago, and for knowing that, presume that the circle will be yet tighter in another twenty or thirty, Odin willing.



Understandability

Not all mistakes result in losing money. Over the history of Semper we have made a lot of money investing in pharmaceutical companies, both branded and generic. In retrospect we were lucky.

Early in our history we owned Mylan Labs as an example. We had known under Hatch-Waxman, a piece of 1984 legislation, that myriad branded drugs would begin losing patent protection, subjecting them to competition from generic drug manufacturers. Valuations of most large businesses were off the charts in the late 1990's and the drug companies were no exception. Schering-Plough traded for more than 40 times earnings, despite Claritin, its antihistamine and then the best-selling drug in the world set to lose patent protection in 2002. In 2001, the drug represented a third of Schering's \$9 billion in revenues but fully three-fourths of its profits, and the world knew that once off the patent cliff, sales and earnings would plummet. They did, and in no way was the market valuation warranted. But it was a new era.

At the time, the number of generic prescriptions written by doctors were about 10% of the total. Investors in generic pharmaceutical manufacturers recognizing the percentage would rise (to 90% today) enjoyed an enormous tailwind. Semper owned Mylan Labs two times over a ten-year period (1999 to 2003 and, lured again by the sirens, from 2004 to 2009). We talked to management, visited them, and didn't like them, not as people but as stewards of capital. The generic business was a sleazy business. Battles were won in the courtroom, not in the laboratory. Executive compensation was out of control, justified only in the sense that the business had grown considerably. The accounting was aggressive. We simply didn't care for the culture. Owning the stock required tasting a bit of your own vomit. Finally, despite having made money and even though some residual tailwinds remained, we parted company. When growth slowed most players shifted more and more resources to developing branded drugs, a tough game. As one telltale red flag, we've never liked the notion of companies sponsoring stadium naming rights, and when the founder's name appeared on Mountaineer Field in Morgantown, West Virginia, we knew the final sell ticket was no mistake.

Over the years, we also owned Merck, making it a big position in the fallout of the VIOXX issue. VIOXX was a COX-2 inhibitor (a selective nonsteroidal anti-inflammatory drug – NSAID – akin to a strong ibuprofen) that was found to potentially cause cardiovascular side effects (like death) and was voluntarily pulled from the market. Lawsuits ensued, of course, and the stock was punished from the moment the drug was removed. The drug appeared safe and is rumored to even be brought back to market. We wound up getting the legal outcome correct and owned a terrific pharmaceutical manufacturer for a number of

years, getting in when the stock sold far below value. We still own some shares in accounts with low tax basis.

Other forays into drugs (ethical ones) was with aforementioned Schering-Plough. Once the world caught onto the impact of losing the patent on Claritin, the stock sold way off and became too cheap. The position was ultimately taken away from us when the company was acquired by none other than Merck. We also owned Sanofi and successfully traded around the position a number of times. In all, I can't tell you how many clinical trials and medical journals we read and how many doctors and clinicians we talked to. We attributed our success to hard work. Ultimately, the more we learned and the harder we worked, the more we realized that we really didn't know what we were doing. The approval process for new drugs with the FDA and the EMEA are expensive, long and very unpredictable. Bad practices abound. Companies try to game trials and almost universally report clinical progress in only the most favorable light. The cost of bringing new drugs to market grew exponentially, with the lost revenue from losing patent protection so great and the replacement cost of finding new drugs, therapies and equipment so much greater still. There are armies of investors in pharma, specialists with paid M.D.'s, chemists and bioengineers on staff trying to find the next Claritin. We're not even convinced most of those can do it well. Often, success comes from good or lucky capital allocation decisions, such as Pfizer's home run purchase of Warner-Lambert and their drug Lipitor, which went on to be the top selling drug of all time. Pfizer's attempted subsequent purchase of Allergan for \$150 billion would have been a disaster, and lucky for Pfizer the tax-inversion deal was scotched by the Obama administration. Luck or skill? Regardless, it's not an area where we have genuine expertise. It finally dawned on us that our circle of competence, despite years of research and hard work, simply wasn't there. To the too hard pile.

We even tried our hand in biotech, with an investment in Vical, a company we owned for a number of years, too many, in fact. When we bought it, the company's cash balance exceeded its market cap. With no debt, a seeming margin of safety existed. Management came out of Merck, and when we met them and listened to ongoing calls with shareholders, believed they could be successful. Their pipeline always showed promise, with interesting phase II and even phase III trials having intermittent successes. The company would earn royalties and had some success leasing its technologies to other researchers, generating some revenue at least, despite never bringing a successful drug to full FDA approval. Measuring the "cash burn" was easy, and when the company announced any successes and the stock rose in tandem, management was very good at raising new equity capital at the same time (for the company and current shareholders, not so much for the newbies coming in at too-high prices). Over a number of years, our position size shrunk and shrunk, and not for selling our shares. The dilution was massive, and much like our conclusion regarding investing in pharma, investing in biotech was even less our game. Unfortunately, in the case of this investment, we parted with less cash than when we entered, so an addition to the mistake column. Where was Peter Kaufman when we needed his, "Let others make the mistakes" advice? You can still buy the company today. Same management. Different name. Lots more shares outstanding, despite the reverse stock splits (yes, plural). Same promise in the pipeline. Feel free to take it from our too hard pile if you like, we have no need.

Beyond pharma and biotech, there are a number of other places we just don't go. Electric utilities are one (with the exception of those within Berkshire Hathaway and a one-off special situation during the financial crisis). The concept of owning a business with a regulated return of 9% or 10% on equity in today's low interest rate world (albeit using 40% to 60% debt generally in the capital structure to get there) *should* make sense. A business encouraged to make large capital investments for the public good and that has a regulatory body over it assuring a reasonable payback makes lots of sense. Our struggles with utilities are generally price and lack of growth. Thanks to the predictable, monopolistic nature of a business selling something everyone needs, the income-oriented investment crowd bids them up in price. A 10% return on equity is pretty much our threshold, and having to pay prices that approach twice book, makes the adjusted return to the owner 5%. Not interesting. To some, if 80% of that profit is paid in

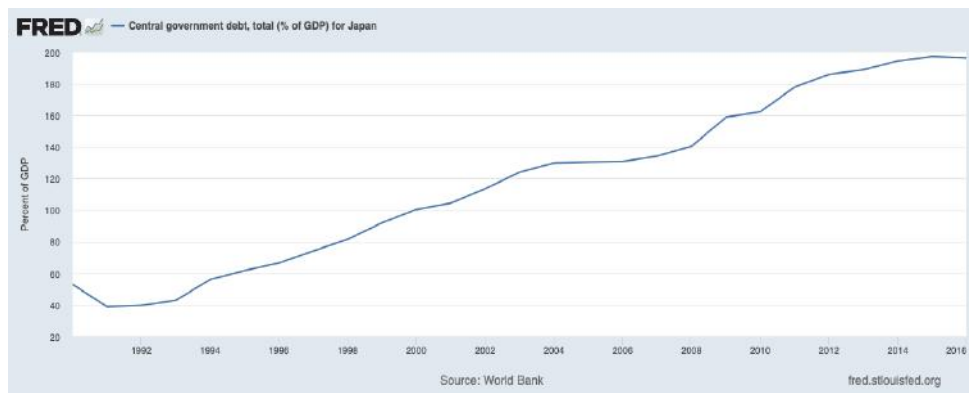
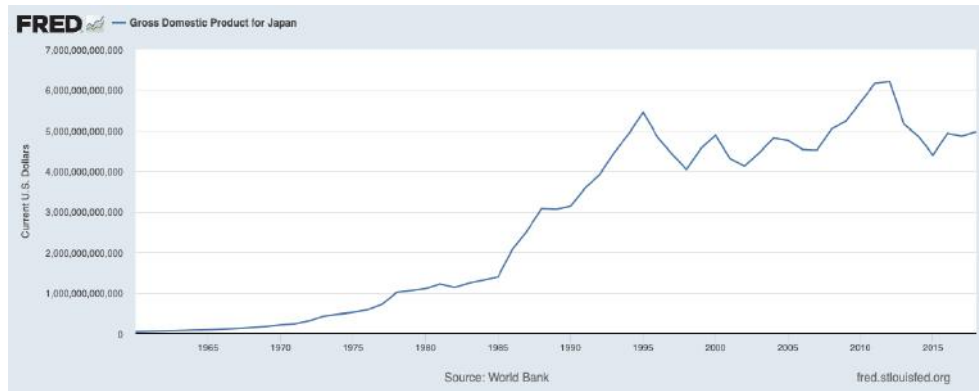
dividends, the 4% dividend yield might be attractive. Not to us – and considering in most cases the portion of earnings that are retained often must be spent on maintenance capex, we choose to pass, not to the too hard pile, just to the not attractive pile.

Another place we've never invested is cable television. Perhaps we've missed out, particularly Charter's ascent from the dustbin not many years ago, but there it's a bet on the pipe to the home for data and less on the television. The balance sheets alone always gave us pause, making the decision to stop an easy one. The cable industry pioneered the definition of and the use, and ultimate abuse, of the profit measure, EBITDA. I know, it's shocking that it wasn't an invention of private equity. We followed the cable companies for decades; and we watched them announce time and time again that the majority of their "growth capital expenditures" were behind them and to just watch the free cash machine now. The capex never ended, EBITDA never converted to EAITDA, earnings after interest is paid, after depreciation is funded by maintenance capex, and after taxes are paid (very little ever were). Did shareholders and operators get rich? Yep. We'd argue most of the wealth was created by selling assets back and forth to each other. Simpletons here at Semper, perhaps, and probably so in this case, but we've never gotten our minds around the now changing industry. It was never one we could get comfortable with. Give us Disney, and their content, and the free cash that goes with it.

We do invest internationally at Semper, with two Japanese companies in the early days to a material concentration of European businesses today. Where we don't go are places lacking rule of law. Companies headquartered in emerging markets? Nope. We do love it that portfolio companies like Nike and Heineken are significant beneficiaries of selling into these markets, but we don't have to tolerate all of the difficulties that go with trying to make direct investments. Direct investments in China? Nope. No trust factor. Will Nike, or Heineken or Starbucks, another portfolio holding, benefit from ongoing growth of the middle class there? We are banking on it. Has Richemont, another holding, benefitted over the last decade from sales of jewelry by Van Cleef & Arpels and Cartier to their wealthy Chinese customers. You bet, and they will continue to do so, in their stores in New York and Paris, and also their own stores in Shanghai. But that's as far as we go. China is a country, or a government at least, playing a long game, with a far longer and perhaps better investment plan than in the west. However, the regime is communist, and the country has a miserable history when it comes to respecting property rights, intellectual ones or otherwise. Can we wake up to find Starbucks booted from the country? While that risk is on the table and must be constantly evaluated, we prefer and take comfort that the parent is headquartered in Washington state and not Wuhan province.

Even Japan, now more than three decades removed from the peak in their stock market and their economy, looks very cheap. To the extent we run screens, value among smaller companies seemingly abounds. In larger cap names, not so much. If you know Japan, however, you know Japan, Inc. and capital allocation are antonyms. Headwinds have buffeted Japan for decades. A geriatric population continues to age. Booming after World War II, Japan's nominal GDP grew to 72% of US GDP by 1994. Since then, while US GDP tripled in size, Japan's flatlined and is no larger today at \$5 trillion than it was 25 years ago. On a per capita basis, the economy shrunk.

Struggling with lack of growth, the Bank of Japan undertook a thirty-year experiment in quantitative easing. Federal government debt ballooned from 40% of Japanese GDP to 200%. In addition to government debt, the central bank owns corporate bonds, exchange traded funds and outright positions in common stocks. Despite little traction gained in growing the economy, the central bank intermittently succeeds in propping up asset values. Bond prices soared, as they would when interest rates are negative. Japanese market capitalization to GDP doubled from 60% as recently as 2012 to more than 120% today, hence less value in larger cap names today than six or seven years ago.



Source: Federal Reserve St. Louis

A great friend recently asked a terrific question, positing that if I couldn't ever invest in another US headquartered business, what would I do with the rest of my life, correctly presuming I wouldn't pick up and move to Venezuela. Answering then and having thought about the question since, I replied that I'd probably move to Singapore and use that as a launchpad for investing in developed markets in Asia, particularly in Japan and South Korea, which looked statistically cheap. We can easily analyze and invest in European businesses from our US perch, but to make material investments in Asia local presence would be required. To get a sense of whether the people allocating capital on behalf of companies not famous for skilled allocation, sometimes you need to look them in the eye and indulge in lots of sake or soju. Fortunately, we aren't faced with the notion of not being able to invest domestically, so the answer will fortunately and indefinitely remain hypothetical, particularly as there is no dearth of terrific companies in our present universe.

Suspending the investment process for lack of understanding has become an easier step over time, thanks to a growing awareness of our limitations. If we don't understand it, it's out. If we can't answer why the business can't be killed, out. Lousy industry, industries requiring luck instead of skill to succeed, no rule of law? Three strikes, you're out.

Second Verse Same as the First – Business Quality

Moving forward in the research process involves getting comfortable with business quality. Experience, thinking and judgment are required here. Business quality can be measured quantitatively and be straightforward. More likely, analysis is much more qualifiable and subjective.

Leverage

When it comes to business quality, an easy first test is financial leverage. While simple to measure, different businesses can tolerate varying amounts of leverage and it can be properly employed in size at times that make sense. We are generally averse to significant use of debt in the capital structure.

An example we used in 2007, immediately prior to the financial crisis, demonstrated varying degrees of leverage among three highly regarded finance businesses, one of which we owned, two of whom we had run away from over the prior decade. The example was pertinent for many reasons and made illustrative in that all three had roughly the same amount of equity, or book value.

Leverage and Valuation in 2007 (*figures in billions of dollars*)

	General Electric	AIG	Berkshire Hathaway
Assets	\$795	\$1,060	\$273
Equity	\$116	\$96	\$121
Debt	\$514 *	\$176 *	\$34
Cash	\$16	\$2	\$44
Earnings	\$22	\$17 **	\$13
Market Cap	\$370	\$148	\$219

* Excludes SPE's, off balance sheet swap liability, and capitalized operating lease liability

** AIG earnings exclude a ~\$11 billion mark to market adjustment for swap portfolio

Sources: Semper Augustus; General Electric; AIG; Bloomberg

The leverage employed by GE and AIG in the production of higher profits on a like amount of equity capital was obvious. Less so were substantial off-balance sheet liabilities in varying special purpose entities, swaps as well as the use of significant operating leases, which if capitalized, raised debt levels relative to income and equity by a wide margin. Of course, survivability for GE and AIG was tested in 2008. GE couldn't roll over its more than \$90 billion in commercial paper facilities, requiring the government to functionally "guarantee" all top-rated paper. AIG fell into receivership, which as a non-bank holding company required congressional action to do so. Both companies were effectively bankrupt, and shareholders are likely to never recover their investments from prior to the crisis. AIG required a fifteen-fold increase in shares outstanding as a recapitalization, and its share price remains 97% below its 2007 value. GE is 80% below its all-time high. While shareholders received a handful of dividends and spin-offs, next to the opportunity cost of how the rest of the stock market fared, it's a wipeout. The discipline of simply passing at the debt burden alone with either company would have saved fortunes. These were big companies with likewise big market caps. They had lots of shareholders.

We don't have any hard and fast rules about leverage. Borrowing from Potter Stewart, if asked how we can tell if a company has too much debt, our reply, "We know it when we see it." You can see in our aggregated portfolio holdings that our businesses earn nearly as much on equity capital as they do on total net capital, which includes debt and eliminates cash. When a company's debt burden approaches roughly three times its EBITDA, we get squeamish. As stated earlier, we do support the judicious use of debt, even large amounts of it, when intelligent capital decisions are available, provided the leverage won't kill the business in a downturn. We applaud the use of debt capital when an attractive and accretive acquisition improves the competitive position. Using leverage to repurchase shares, when the shares are cheap relative to value and if there are no better uses of capital can make sense. At bottom, our take on debt is, "less is more."

Starbucks is an example of having to adapt to an evolving capital structure geared with debt. The investor here must now look beyond conventional measures such as debt to equity, or debt as a percent of net capital. Starbucks was historically never a material acquirer of its stock. It dabbled during the years 2005 to 2008, retiring a net 7.5% of its shares, but when the stock really got cheap in 2008 and early 2009, they did what most companies did and hoarded resources, not sure how deep or for how long the economic downturn would last. The approach to repurchases changed in 2017 when Kevin Johnson was elevated to the role of CEO. Mr. Johnson joined the Starbucks board in 2009 during his days as CEO at Juniper Networks and came to Starbucks in the COO role in 2015. Prior to Juniper, he was one of the key executives at Microsoft from 1992 to 2008, with a background as a systems engineer and ultimately in sales. Prior to that he'd begun his career at IBM in 1986 as a software developer. His background is introduced here because during his life prior to Starbucks, he worked in companies that know a thing or two about repurchasing shares, particularly the one headquartered in Redmond.

Starbucks repurchased 18% of its outstanding shares in the past two years, financing the buybacks with the half of profits not paid as dividends but also by adding \$8 billion in debt to the balance sheet. 132 million shares were repurchased during Starbucks's 2018 fiscal year (ended 9/30) at an average \$54 per share, a price not far above where we were buying shares for the first time. We naturally endorse those purchases! For the most recent fiscal year, Starbucks ramped up the expenditure from \$7 billion to \$10 billion. However, given a rising stock price, the company wound up not repurchasing many more shares than the year prior, 140 million for an average share price of \$73 per share. We wouldn't own the stock if we didn't think the business had a long ramp to open new stores with great unit economics and an ability to scale margins higher, but we aren't big buyers at current prices. To put 2019's repurchases of \$10 billion in context, cash flow from operations totaled \$5 billion with \$3.6 billion in net income. With dividends paid of almost \$1.8 billion, combined with the repurchases, the company spent more than 2.5 times one-years' worth of cash flow from operations.

The magnitude of the share repurchases at Starbucks, effectively a swap of debt for equity in the capital structure, burned through all of the company's retained earnings and flipped shareholder's equity from a positive \$6 billion to a negative \$6 billion! The debt levels are even higher when the company's \$1.3 billion in operating leases are capitalized and considered as debt. Being in the business of figuring out durable earning power and how fast it can grow organically and with new capital, we can look past a negative equity balance. Believe me, when we calculate consolidated portfolio economics, with Starbucks as a large holding, it tends to screw up the numbers. Debt to equity gets magnified, yet it pushes portfolio return on equity higher.

The best way to deal with a situation like we have with Starbucks is to mesh our estimate of earning power and its predictability and growth with the strength or weakness of the current balance sheet, and to reassess which capital tools remain available and which make the most sense to use. If 2019's repurchases were at a wide discount to value, and as long as the cash flows allow for today's higher debt service as well as all capital needs for growing the store base, both company-owned and licensed, then the allocation makes sense. Our appraisal of intrinsic value is modestly higher than the average price paid in repurchasing shares last year, but I'm guessing that we were on the other side of some of the higher priced trades, as we trimmed our holdings back last year at prices north of the company's *average* repurchase price. What to do now? We watch ongoing repurchases and capital decision making even closer than before, particularly the company's willingness to acquire shares approaching or above our appraisals of value. Simply, the company cannot add an additional \$8 billion in net debt to finance share repurchases if they are made at prices at or above value. Actually they can, but won't count Semper as an owner.

Blocking and tackling at Starbucks is very good. The company early on figured out the customer stickiness of a well-run rewards program and has nearly 16 million members in its digital rewards

program. Watch what their rewards program looks like in China in a decade. We believe the reaction will be, “wow!” That said, success doesn’t come without the need to adapt. With increased use of mobile pay, delays in the in-store customer line resulted from an understaffed and overtasked crew struggling to accommodate the growing channel, plus a drive-through in many stores. Staffing now looks beefed up at rush times, as well as adding additional warming ovens and other equipment, all at the sacrifice, for now, in operating margins, but all to improve and enhance the customer experience. Scale should allow the recovery of operating margin over time. Selling the distribution rights for packaged goods to Nestlé looks like a great move, for both parties. Starbucks can lean on Nestlé’s key asset, it’s global distribution network, the perfect outlet for expanding efficient sales of its products, while at the same time allowing Starbucks to do what it does best, focus on the customer experience and expansion of its global store network.

Once balance sheet integrity can be established, or not, we like to get to an understanding of profitability as measured by economic earnings. Last year’s letter included a long (of course), section on measuring profitability, which mercifully won’t be repeated here. That said, a thorough understanding of the durability of a company’s profitability, up and down the entire margin structure of the business, is a no-brainer. In our world, we prefer profit fall to the bottom line. We understand measures like EBITDA allow for comparison of businesses without considering the leverage in the business, but assessing the risk of leverage, especially too much of it, can’t be overemphasized. The list of bankrupt companies with no debt is a short one.

Management Quality

Assessment of management quality and also of controlling owners is a must. For investors with an intent of holding investments for a long time, who you are doing business with can be the most important decision of all.

There are a number of ways to think about management quality. How well managements allocate capital is of utmost importance. A basis for measuring the success of capital allocation begins with a genuine understanding of business valuation and intrinsic value. Does management have a good grip on knowing their own worth and are they capable of assessing the worth of other businesses or projects? Decision making regarding which capital levers to push and pull must consider opportunity cost, and the use of shares and equity is a primary arrow in the quiver. Does the business have the capacity to retain capital and invest it in worthwhile projects or capacity expansion, either through capital spending or in R&D, or both? Are there businesses that would be attractive acquisition or merger partners? Would employee relations improve, or do they need to improve by increasing compensation or changing incentive structures. All of these decisions should be made through the lens of prudent use of debt, how much to employ, when to use it and when to pay it down, and whether to buy it back or refinance it.

Continuing with our example of Starbucks, executive compensation is a great barometer of capital allocation, a great proxy from the proxy! We discussed leverage already, and it has a place here given its use as a capital tool in replacing shareholder’s equity with debt. Management gets the benefit of the doubt so far. With the exception of leases, debt was used sparingly until two years ago. The repurchase program changed that. We have long viewed the best use of capital at Starbucks as adding to the store base. It was a mistake that we waited so long to invest in the company. The unit economics were measurable, the growth curve was predictable, and our families consume too much of the product. The concept is far more mature in North America yet continues to profitably open stores. Cannibalization occurs, and the number of closures and relocations predictably increases. It’s the international opportunity that’s so attractive. In total, though, the entire system is growing and maturing. The company paid its first dividend in 2010 and has ramped the payout to half of profits. Frankly, with the store base rocketing ahead in China and elsewhere, there probably isn’t much opportunity to grow any faster than they can manage.

With returns on invested capital across the enterprise in the mid-20% range, if you can't grow any faster, what arrows in the capital allocation quiver should CEO Kevin Johnson pull?

What Would KJ Do?

- Internal Spending in the Business – Capex, R&D, Advertising
- Pay / Increase Dividends or Reduce / Suspend Dividends
- Pay Down Debt or Take on New/Additional Debt, Including Shifting Terms
- Make Acquisitions Using Company Stock, with Cash, with Debt, or with a Combination
- Repurchase Shares in the Open Market and Via Tender Offer
- Issue Shares / New Capital
- Increase Wages
- Increase Executive Compensation (favored by many – though they don't highlight it)

Assume the company opens as many stores as it intelligently can and spends and makes appropriate investments in store maintenance, refurbishment, equipment replacement, advertising and R&D. Growth can be financed out of operating cash flows and so requires no new equity or debt capital. Capital spending always exceeds depreciation, with the difference financing unit growth. Wages are competitive and the company treats its employees well. We can't think of a complementary acquisition the company could make that would make sense. At times it made more sense to have company owned stores abroad and at others to have licensing agreements in place, in either case having more to do with partner relations and less so with a capital decision. We presume dividend policy reflected a diminishing opportunity set when introduced and the payout rate has since expanded.

Executive compensation has never gone lacking in Seattle. Despite Howard Schultz stepping aside as CEO (again) in 2017 and from the board, his compensation continues, totaling \$30 million in 2018 and mostly consisting of stock options and performance restricted share units. Mr. Johnson's pay consists of \$1.5 million base pay, plus up to 200% of that in bonus cash for hitting revenue and operating income targets. The majority comes from stock, \$11 million in 2018 split about 60/40 among PRSU's and option shares that do have a return on invested capital component as well as growth in earnings per share. We'd rather see more of a return on asset and return on equity or a net capital component as the hurdle for more of the compensation. An abusive shift to debt financing prodigious share repurchases can game achieving the hurdles for a time, but risk long-term harm to the shareholder. Again, eyes wide open on our front.

Starbucks is far from the best example of reasonable or proper alignment of executive compensation with shareholder interests. Berkshire Hathaway is an example that most are familiar with, but also one that so much favors the shareholders that it becomes impractical for any but an already seriously wealthy founder owner. The chairman and CEO at Berkshire as well as its vice chairman famously draw salaries of \$100,000 annually. Their "income" comes from ownership positions in the company. That's it. At a point, unless still committing material time to the business, an early owner like Howard Schultz perhaps ought not draw compensation or feel entitled to additional shares.

Cummins, another portfolio holding, is a better example of executive compensation done well. Chairman and CEO Tom Linebarger knocked down \$17 million in 2018. His base was \$1.4 million plus \$3.2 million in bonus cash that he earned based on a return on net asset measure with earnings defined as pre-interest and tax. It's a great measure, and the company recently shifted to a return on equity formula, which is fine unless rewarded for a tax code change that management had nothing to do with. Most of his compensation comes from performance-based cash, shares and options, all with return on invested capital hurdles. There also exists a deferred income plan, which allows for tax timing. In all, we have a CEO and management team with performance metrics that mesh with what's best for the shareholder.

We've talked about three companies in the Semper portfolio, so what would be an example of a business where a poor compensation can stop our process and get to "no"? More often than not, a bad compensation structure goes hand in hand with any combination of a bad business, bad governance and poor capital allocation. We get to "no" with myriad companies, and in myriad ways with General Mills. An examination of its proxy dots the exclamation point after "No!"

General Mills' Chairman and CEO, Jeff Harmening, was paid \$10 million in fiscal 2019, with a base salary of \$1.2 million. His compensation package included a cash bonus target of 160% of base, or \$1.9 million, of which 95% was paid. The hurdles to achieve the bonus blended operating profit growth of 14.5% versus 1.1% the prior year (reflects acquisitions), "adjusted" earnings per share growth of -0.3% versus positive 2.3%, and, wait for this, organic revenue growth of positive 1% versus -1.4%. That's a *minus* sign in front of the figures for earnings per share and organic growth. So, the goal was to apparently slowly shrink the company in 2018 and at the same time squeeze costs out of it as it dies. The company missed on the -1.4% and the 1.0% organic growth target this past year, with negative growth recorded in both years. I neglected to point out that in 2018 the compensation committee of the board *removed* an "improvement in return on average total capital metric" from the formula, a component in place for the prior decade. Further, the negative organic growth hurdle had been a positive figure in prior years.

If you find yourself on a board of directors and appointed to the compensation committee, chances are you are friendly with the CEO. Equally likely, you enjoy cashing your retainer and incentive checks, your board compensation is a meaningful portion of your income, and you like the prestige that comes with the position. Despite falling short on the organic sales growth (turned out negative again) and on segment operating profit growth, the company knocked the cover off the ball by reducing share count and growing earnings per share a whopping 3.9%, 169% of target, which allowed for 110% of target on all three combined. The Fab 5 this is not.

Harmening was more fortunate still, in that the company offers long-term incentive compensation which added \$4.7 million to 2018 and 2019 compensation, the majority of which came from stock options and RSU's, *neither* with a performance component, the only requisite being sticking around long enough to vest. The long-term comp also included performance share units that were subject to equal hurdles defined as three-year average organic sales growth of *zero* and cumulative free cash flow of \$6.5 billion. Think about these yardsticks. If you and your board know the business is in decline, or at best flatlining, as evidenced by the organic sales growth bonus target of 0%, how in the world do you get this piece? Further, how do you grow free cash flow in a declining business?

Our guess is the CEO lays there in bed, night after night, thinking about how to get the money. The solution should be obvious. On the free cash flow front, simply cut R&D, advertising spending and capital expenditures. In the short-term, cutting spending can improve the bottom line and free cash, generally defined as either operating cash flow minus cap ex or EBITDA minus cap ex. If the average tenure of a Fortune 500 CEO is four years, so what if shrinking R&D and advertising harm the brand portion of your branded consumer goods business. That's a long-term problem, a next CEO problem. You need to get paid. The solution to the organic sales growth formula is priceless – you crank up the acquisition machine. General Mills paid \$8 billion for Blue Buffalo's \$1.2 billion in revenues, maker of high-end pet food, and in return picked up the Buffalo's rapidly growing top line. A good deal matters not. While growth from acquisition can't be included in the year-one formula (that would look *too* obvious), but years two onward it can. Does it matter the price at which you bought the company? The compensation formula calls for organic growth in *sales*. Profitability is no longer a consideration, having even been removed from the cash bonus portion of setting hurdles to reach comp targets. Stunningly bad, and unfortunately far from an isolated example. When you remove incentives to earn profits on assets,

capital or equity you can get all kinds of unusual behavior, often behavior adverse to what is best for the company and its owners. A Buffalo grimaces.

General Mills provides a great example about how changing compensation yardsticks over time can signal changing underlying business fundamentals. No compensation committee wants to set performance hurdles so high they can't be met. That's not a great way to ensure getting asked back to the board or being invited to the next board position. Lousy yardsticks like negative or shrinking organic sales growth targets are easy to spot. The removal of profit goals tied to assets or capital can forecast trouble but require reading sequential proxy statements to notice. Look through Coca-Cola's proxies over the past decade. Using metrics like changes in free cash can be terrible as motivators, especially when cutting capital expenditures or other spending can make the numbers look so good for a period. If you have a business with the opportunity to spend lots of capital on growth initiatives, would a management forego project spending to make the free cash number look better? Exactly...

There really is no magic order on how to go about measuring business quality. Measuring accounting integrity is a continuous part of the process. Be on the lookout for aggressive accounting, or red flags meant to embellish or deceive. A huge portion of our time is spent reading financial statements. Perhaps the wiring required to be an investor involves an overarching skepticism. Whether nature or nurture we can't say. That said, three decades of reading financial statements, commentary letters and press releases, plus reading and listening to company presentations, earnings calls and visiting with company managements, one can only develop a radar for sooth saying, truth bending and outright lying. Throw in the occasional fraud. If you grew up a fan of Sir Arthur Conan Doyle, then a career spent sleuthing for the unsavory in business might be up your alley.

Below is an assembly of some of the accounting red flags we have come across over the years and are ever on the lookout for. The bad news is the entire letter this year and the next several could be dedicated exclusively to some of the abuses we've witnessed. Use the red flags as a doctor would an MRI. Attempt to establish the degree to which they serve to mask real trouble or are reasonable and simply the way things are done or reported. More often than not, many of these signal trouble, and almost never are in isolation. There's never just one cockroach. Even if everything is hunky dory, when you come across these, and the list is far from comprehensive, to move beyond "no" requires objective justification.

- Aggressive revenue recognition or reporting
- Ballooning or depleting working capital metrics
- Aggressive pension assumptions
- Large pension size, relative to firm assets
- Large, consistent writedowns and write-offs
- Large, consistent litigation charges
- Poor history of reserve development (insurance)
- Aggressive reserving / underreserving (banking)
- Material stock compensation
- "Adjusted EBITDA"
- Off-balance sheet liabilities, commitments
- Offshore accounts, SPEs
- Closet leverage, operating lease disclosure
- Insider ownership / leaseback of company assets
- Recurring "non-recurring" charges
- Abuse of discontinued operations
- Spin-offs to mask problems of spinner or spinee
- Mergers to mask problems at both companies
- Management loan guarantees
- Related party transactions
- CAPEX to maintain position at lower returns
- Asset/liability, revenue, expense
- Estimates or results don't match the industry
- Complex business arrangements
- Dividends in excess of profit, description
- CFO revolving door
- Pollyanna CEO: MD&A/CEO Letter
- Synergy
- Consistently close expected vs. actual results
- Late quarter shipping
- Accounting differences vs. industry
- Use quarterly measures to smooth earnings
- Weather/fewer days in quarter
- Board composition
- Changing accounting standards
- Changing auditors
- Changing R&D and CAPEX

Price Matters

Finally, we come to the final piece of the puzzle – the price. Our process tries to get to dual margins of safety in business quality and price. If you are Sherlocking around, a cheap price means nothing without an assessment of quality. That’s the purpose of working through understandability, durability, capital structure, profitability, accounting integrity and management quality. *It’s risk management.* Once an attractive business is identified, then the focus turns to valuation of the business. Once a valuation estimate can be made, the final step is measuring the price against the appraisal.

Once an attractive business is identified, only when the price makes sense should you invest. Years and even decades can pass before the twain shall meet. In the meantime, ongoing analysis serves to affirm business quality. A quality business one day can become a poor business the next. With the rate at which disruption is displacing entire businesses and industries, a “working list” of quality companies is ever evolving. Try to spend as much time removing businesses that no longer pass the quality test from a universe as you spend incremental time adding to the list. A working and evolving measure of value can easily be constantly measured against price. Getting the quality part is the first step and the hardest step. The valuation appraisal comes next and comparing to price is the last step. Rather, the last step is the purchase, and once in the portfolio the entire process remains ongoing, though with even greater vigor, because now real capital is employed.

THE RELUCTANT ACTIVIST



Back in the day, “activist” investors were corporate raiders, swashbucklers, mavericks like Boone Pickens (RIP) and Carl Icahn, who with large equity positions and influence would try to will companies to alter policy, fight for board seats, threaten takeover, often being paid large sums to go away. The definition and role have evolved. Now, activist investors, and there are a bunch, work to, among other things:

- Compel companies to cut fat and overhead and to improve processes.
- Utilize different capital allocation strategies, such as dividend policy, share repurchases and leverage in the capital structure.
- Sell or spin-off subsidiaries or units perceived to be underperforming or not core to the business.
- Merge with competitors, or to block a merger or alter its terms.
- Change management.
- Implement social or environmental policy, divest from business lines or from entire countries.
 - Increase board or management diversity or improve on governance issues.
 - Write down assets to force acknowledgment of things like climate change.

For the record, you could say that shareholder activism really isn’t our thing. We typically find ourselves as owners of businesses we *like*, where we *like* management and believe they are steering the ship on the proper course. When we’re not comfortable with the heading, we’ll typically sell the position and move on to more tranquil waters. We like to think our glasses aren’t rose colored, and the reality is we have to make concessions on various issues where most things are being done well yet must tolerate some folly. In fact, we’re yet to find the folly-free enterprise. On the flip side, we also recognize that while a better plan might exist, we know we aren’t all-knowing and wise. Some investors famously believe they are “masters of the universe”, and because they manage vast sums of client capital are the smartest guys in the room. Most aren’t. Offline, more than a handful of CEO’s and other executives have shared stories about some of the suggestions made by certain “activists,” who represent big money but who also lack genuine knowledge of how to run a business. There probably exists a happy medium.

There *are* terrific investors with gads of business experience and who also genuinely understand capital allocation, a skill lacking by far too many managements. Some managements are more willing to sit down with and to take advice from those proffering valuable advice and are wise to at least consider it. Conversely, there are indeed outstanding managers of businesses, who get capital allocation, who get operations, and who make intelligent long-term decisions for the good of the shareholder, the *long-term* shareholder. With too many investors and corporate executives solely focused on *short-term* outcomes, poor motivation and decision making abounds.

We like to think we fall in the camp of investors focused logically on long-term investment results, and our focus as investors is finding businesses where managements are likewise properly aligned, on long-term business results.

Occasionally, we have found ourselves in situations that were good, then became bad, a surreal sort of happening. You go to bed thinking you are in a good business, the price is low, the combination of which will yield stacks of capital. You sleep, dreamily counting the future stacks. Then you wake up to the news that what was idyllic is now upside down. In none of the cases below was simply selling and moving on an option. In each case we became reluctant activists. In all cases, so far at least, we have a perfect record, unblemished by success.

O'Sullivan Industries

Before Semper, your CIO was a fledgling portfolio manager and analyst in a bank trust company. I worked with some really great people, and banks being banks, was given as much responsibility as I wanted, which in retrospect isn't a very good model. But banks being banks, governors abounded. In fact, the bankers, who owned the bank, saw fit to have their hands in every operation. What's the old saw about there being more banks than bankers?

A concentrated portfolio had 100 positions. My boss was a very good small-cap value investor, despite the bank handcuffs, and we were rolling out an international equity fund. I was given the balanced fund to manage, run at a 50/50 mix between stocks and bonds, the allocation target alone big guardrails for a young buck wanting to run concentrated stock portfolios. In your twenties, you know everything, of course. The cool thing was, my boss liked me, and I was the only portfolio manager in the joint who could invest in all capitalizations and was also allowed to include what I thought were the best international names in my fund and client accounts. It truly was fun and was a great learning experience.

Part of my growing self-defined role was to find new companies for the working list. A name had to make the working list before it could be purchased, so when I found new interesting companies, I would write them up. The problem was the director of research, a polished, erudite banker type who didn't like the notion of a twenty-something punk working day and night, liked by the boss (his and mine) and pushed back on most of my ideas. One of my legendary write-ups was of a tiny-cap, Denver-based medical device company called Electromedics. The company had invented a centrifuge that would capture a patient's own blood during surgery, spin it around really fast, separating the white and red blood cells, and reintroduce the blood back into the patient, obviating the need for transfusions of donor blood and in some cases the patient's own blood often drawn in advance of scheduled surgery. It was a good business and concept, but my description of being "sanguine" about the company's prospects killed the deal. The DOA said the word didn't make sense in that context and sent me back for an edit. Sanguine, the perfect word, was replaced with "optimistic" and we ultimately did an end around and got the company approved. It was a great deal, but the business was bought shortly thereafter by Medtronic, who topped an offer by St. Jude. The reason for telling that story has nothing to do with the subject at hand, except that I was really proud of myself for the "sanguine" line. It was also one of the first businesses that I'd sourced that was subsequently acquired, which is more to the point.

After the success with Electromedics, which amounted to a rounding error against the scale of the \$13 or so billion we managed (we only had the stock in a few portfolios, my boss had something like 150 companies in his small-cap fund and I had a small fund and small roster of clients), I had the fortune of sourcing another idea. O'Sullivan Industries manufactured ready-to-assemble (RTA) particle board furniture, think bookcases and TV stands (look that up Millennials). Their products were sold into the new big boxes and also through Tandy, the parent of Radio Shack, who had bought the company in 1983. When Radio Shack began to suffer due to competition (not Amazon), it sold the company to the public in an IPO in 1994. I attended a roadshow presentation and learned a lot about IPO's in watching what I thought was a seriously overpriced deal crater immediately after the offering. I thought the stock was probably worth about \$15 a share at the time and it opened at \$25. Over the first few months as a public company the stock plunged to \$10, and over the next two years it dropped a full 80% from the IPO, to \$5 or so. Tandy got a bunch of the cash with the sale and subsequently sold its residual shares not sold on the IPO at incrementally lower prices. Tandy's sales pressured the stock but gave it much-needed cash proceeds for use in keeping Radio Shack alive for a few more puffs. Despite the declining stock price, O'Sullivan had a great, debt-free balance sheet and was on a roll businesswise. The business was an oligopoly, with three competitors, the big fish being Bush Industries in Jamestown, NY, and Sauder as the number two, not much larger than O'Sullivan. The company set out to add capacity, and thanks to the stock tanking, I wrote the business up in late 1994 when the stock traded below \$10. My write-up must

have been so convincing that we rushed the recommendation through the approval process and committees. I presented it to the investment policy committee, headed by the bankers, and got it approved lightning quick, only one short year later, in late 1995. Banks are like cheetahs! Once approved, the stock continued to crater, trading down to its lows around \$5. I was able to build a position at about \$6 per share, and backed the truck up for my family's accounts, making it more than a 50% position. Over the next year, the company was humming, pushed beyond its capacity, and the stock moved up to about \$15. By then fair value had grown to \$20 or so. A declining stock is a good thing if you have cash to spend. Fortune must have thus smiled on me, and on one of earth's precious and seemingly most endangered creatures.

O'Sullivan had been building a new manufacturing and distribution center in Cedar City, Utah, which was abruptly halted mid-construction in 1996, when friends of the *uncommon* "Utah" prairie dog, determined that a dog colony was located on what was to become the parking lot of the plant and made their opinion very vocal. It was a very complicated situation, for simply moving the little fella's a few miles west risked the chance of the Utah tribe being introduced to the very common "Nevada" set. Who knows what might have happened? You might have had prairie dog brothels, or family trees going all kinds of directions. But let's move on. [Sidebar advice: If you search the internet for famous Nevada brothels, forgetting the name Mustang Ranch and thinking you might incorporate something funny in some story about prairie dogs, don't, I repeat *don't* leave the screen up on the computer in your home office that your spouse passes through...]

Moving along, the Utah dogs ultimately found a new range to roam, and the plant and distribution facility were set to open by mid-1998. Fate continued to smile down, for it was becoming clear that not all retailers are great retailers, and two of O'Sullivan's largest customers filed for Chapter 11 bankruptcy at the same time. Best Products turned out not to be the best, and it went out in late 1996. Montgomery Ward, once the king of the hill in US retail, couldn't get the monkey off its back and filed in 1997, right at the time of the Utah prairie dog incident. With two big customers hitting the skids and with the distribution situation in the state of SNAFU, the stock took another header, trading back under \$10 in mid-1998, giving me a chance to get new clients invested and to add to my family's already sizable positions. I met with management at their headquarters in Lamar, Missouri, and suggested the company look at repurchasing shares, for now, thanks to continued growth in the business, fair value was approaching \$25 per share. I'm not going to take credit for putting the idea of purchasing shares in the heads of the folks running the company but buy the shares they did – only not on behalf of the shareholders, but *from* them. The weasels took advantage of a depressed stock price and offered to take the company private in 1999, for all of \$17.50 per share, \$350 million, plus a \$1.75 share of preferred stock, leaving at least \$5 per share in value on the table, in my opinion. The debt-free company had revenues pushing \$450 million and a classic manufacturer margin structure, with high-twenties gross, mid-teens EBITDA and 6-7% net margins. The man in charge was no longer a member of the family, Dan O'Sullivan had been kicked up to the Chairman's suite. The guy who engineered the "deal" was the new president and CEO, Richard "Dick" Davidson, an old Sunbeam guy, who brought his chainsaw to O'Sullivan with him, courtesy of his mentor, Al Dunlop.

The acquisition was my first experience with private equity. Bruckmann, Rosser, Sherrill & Co. led the go private deal with the complicit management. I'm convinced that some of the decline in the shares during 1998 was unwarranted, but that to make the price cheap enough to allow for a "control" premium higher than the recent trading price necessitated a big hit to earnings, and to effect the hit ran up administrative expenses during 1998 and early 1999. Gross margin was constant, but the ramp in overhead pushed the net line down by 1% of margin, shaving earnings per share by about 7%.

The company called for a special meeting of the shareholders prior to the acquisition, in 1998, but instead of holding it in Kansas City as originally scheduled, they moved it to the new plant in Cedar City, far

from the shareholder base and from civilization. I flew to Las Vegas and drove to the meeting, and at that point had a working relationship with management, who had asked me to tour the facility and have lunch with the board. Of course, when I asked a number of uncomfortable questions at the meeting about the illogical runup in overhead, suggesting impropriety, my tour and victuals were summarily cancelled, as something had “come up.” By that point the deal was done. All of the other shareholders at the meeting, all zero of them, agreed with me. Turns out the only others in the audience were manufacturing and distribution workers, who had been promised lunch to attend the meeting, my lunch it turns out. Prior to the takeover being completed, I later tried to drum up interest in the cause with some of the other shareholders around St. Louis and Kansas City, but my pleadings mostly fell on deaf ears. There was no approaching the directors as they were all on board with the deal. Management and the board wound up with 30% of the equity post buyout. We participated in a class action lawsuit, but because by then we were up to our eyeballs running Semper in its first year, limited our activism to these steps. The deal was a fait accompli from the start with not much to do about it.

Private equity doing what private equity does, the entire purchase was financed with debt that included the preferred shares. A business that was profitable when it was debt free found itself unable to survive the anchor of leverage, having replaced all of the equity in the capital structure. It didn't help that more than half of the company's business was into the big boxes, a third split between Office Depot and Office Max, who constantly pushed on price. Chainsaw Al's mentee, Dick, proved he was cut in the mold, and despite nice growth in the first couple years post the takeover, sawed through costs. That's what you do when the game is to flip the thing to the next greater fool. Alas, no fool surfaced, and the business predictably failed. Some of the assets in the liquidation were purchased by Sauder. My record as an activist: 0-1, but the season was young.

Mercury General

Round two as a pseudo activist came in the wake of the financial crisis.

California-based private passenger auto insurer Mercury General is a portfolio holding since 1999. Two years prior to our purchase, the business had knocked the cover off the ball in insurance terms, underwriting with a combined ratio of 88%, and for five years had averaged 90%. The combined ratio, a proxy for underwriting profit margin, adds the losses paid on claims and the expenses involved in running the business expressed as a percentage of premiums earned. Without getting into a deep dive, suffice it to say that combined ratios in *private passenger auto* at 90%, and certainly 88%, is really good in almost any interest rate environment. Being the late 1990's, Mr. Market was in his manic mode and capitalized Mercury's profits as though they would continue at that level. Read: The stock traded at a peak valuation on peak earnings. Shortly, meaning the next year, the combined ratio surged to the high 90's, a level at which it has averaged ever since. The company has a long-standing goal of underwriting at a 95% combined ratio (5% underwriting margin), so they have fallen short of goal for the better part of two decades. It's been ok, though. Mercury is a low-cost underwriter, and their conservative underwriting and management have outperformed the broad swath of auto insurers, and also homeowner insurers, which they also underwrite but on a smaller scale. Start to finish, had we bought the stock at the outset of Semper some 21 years ago, which we didn't, our basis in the stock would be about \$35 per share. Today, the stock trades in the low 50's per share, so the majority of return would have come from dividends, and a total return would have averaged roughly 5% per year, about 1.5% behind the S&P 500.

Thanks to a series of well-timed purchases and sells, the Semper experience has been considerably better. Our initial foray into the shares came throughout 1999 as the underwriting cycle shifted to hard and the combined ratio climbed. We started buying the stock in the low \$30's and continued to pick up shares down to the low \$20's, building a nice position. The stock had peaked at \$69 per share in mid-1998 (at the time Berkshire Hathaway used its shares trading at three times their book value as currency to

purchase General Reinsurance). Needless to say, anyone who bought the stock at \$69 with the current price about \$20 lower necessarily means you lost money on the share price decline of about 30%, offset by dividends earned.

No finance business was immune to the financial downturn in 2008 and 2009, Mercury included. Actually, underwriting wasn't bad, with combined ratios of 102% in 2008 and 96% the following year. Much of the ongoing earnings in the insurance industry come from the invested assets that support the claims cycle, most of which are held in conservative fixed-income securities to pay the losses that are incurred and develop from the underwriting side of the business.

The investing side of the business was a different story. In 2008, of course, it wasn't until the Federal Reserve, its central bank cousins abroad, and the Treasury, effectively backstopped the system with unlimited newly printed money that the system didn't fail entirely. The small portion of Mercury's investments in stocks bombed out, falling in line with the nearly 60% peak to trough decline in the broad stock market. Most investments were in fixed income securities, with many tanking as credit spreads blew out. Anything with credit risk just dropped in price, until the government suspended mark-to-market and put the financial sector on life-support.

One fun moment during the financial crisis rewarded Semper. Mercury and a few other portfolio holdings found themselves on a list of financial stocks that were banned from shorting. Yep, a short squeeze right in the teeth of an unfolding financial meltdown. Mercury "popped" from the low \$50's to \$62 pretty much overnight, and we sold the position way back at about \$59. Once the "Do Not Short" list was repealed, down went the stock, and we were buyers in the low \$40's and again in the mid \$20's.

I'd like to point out that the management team at Mercury is great. The company founder, George Joseph, remains Chairman at the spry age of 98 and remains involved in the business. The day-to-day reins are held by Gabe Tirador, Ted Stalick and Chris Graves, among a bunch of other terrific people. Top-down it's a very conservative place. Auto insurers underwrite on an admitted basis in the states where they do business. Admitted means insurance commissioners in each state must approve the rates that insurers charge policyholders. It's a very regulated system, and insurers are allowed to write three dollars in premiums for each dollar of statutory surplus (generally a bit more conservative definition of book value than defined under Generally Accepted Accounting Principles). Mercury customarily only writes at about two-to-one, which means lots of surplus capital lies around collecting interest. This is not the place to get rich as a shareholder, but it's likely a place where you won't get blown up. Our appraisal of intrinsic remains virtually unchanged over two decades, which is too long a story for this letter. We can libate sometime and I'll regale you with the riveting details.

Essentially, we had assumed the company would grow materially nationwide over the years. Fortunately for Mercury shareholders, through a series of starts and stops in trying to grow the business outside of California (which generally went badly), the company recognized its circle of competence as its own state line and has proportionally shifted the business back home over the past decade or so.

I think a number of management teams tolerate talking to us because we aren't in the least ever concerned with what the business is going to earn this quarter or year. We've spent two decades trying to simply understand Mercury and the competitive landscape. During late 2009 discussions, the subject of our having added to our position during the meltdown came up, and I innocently queried whether the company had bought back any stock when it was really cheap. I knew the answer, of course. The history of the company founded by Mr. Joseph in 1961 and public since 1985 is devoid of a single share repurchase. Now, if you have surplus capital collecting dust (true you never want too little capital as an insurer), you have demonstrated that flying too far from the nest has proven hazardous to health, you are averse to mergers for mergers' sake, you don't like using debt, why not buy some shares back when they

are cheap, *really* cheap? Question posited; we got the answer we expected. We asked if sending a letter to the board might shed some light on the utility of a repurchase under the right conditions? We got the answer we expected, that a letter would be presented to the board but likely wouldn't have much impact. Regardless, we drafted a letter outlining the logic of a \$200 million repurchase. The argument demonstrated the myriad benefits to the company and the shareholders, including the big one, who with his former bride owns 51.5% of the outstanding shares. It's not a small ownership position and makes the concept of leaning on a sleepy board like pushing on a string. With majority control, governance is pretty much a "My way or the highway" approach.

The letter dated December 2, 2009 to the board demonstrated that a reduced share count with shares acquired at an opportunistic price served to reduce the dividends paid in dollars despite maintaining the per share rate. It would also raise the return on a now slightly smaller equity base by perhaps a percentage point. Further, based on profitability, the capital spent for shares could be replenished in short order with retained earnings. Very straightforward. The letter, co-written with a great friend and fellow shareholder, also admonished a "cleaning up" so to speak of the bond portfolio. Recall the date on the letter. The letter applauded the company for having reduced the longest dated and lowest quality tax-exempt bonds and encouraged them to continue to do so. We suggested that if the state of municipal finance continued to erode, that the federal government would likely backstop most issuers, but likely at the sacrifice of elimination of the tax-free status enjoyed by investors.

Clearly, in a world still riddled by historically low interest rates, the advice to shorten the bond portfolio was terrible advice! Maximum maturity and duration would have reaped huge dividends for the decade that ensued and may for a significant time longer. Cleaning up suspect credits, think the Land of Lincoln, probably wasn't bad advice. On the bond front, the company did continue to reduce the lowest quality credits, but thankfully didn't willingly move the average maturity and duration of the bond portfolio lower at the time. It has drifted downward, but more so as a byproduct of a decade's worth of Quantitative Easing and persistently low interest rates, making it tough on the insurance world that invests mostly in fixed income securities.

We were pleased to see the company ultimately authorize a \$200 million share repurchase and waited with bated breath for each subsequent Q and K to see how many shares were retired. Would you be shocked to know the repurchase authorization expired a couple years ago, with exactly zero shares acquired?

Despite a failure to opportunistically repurchase shares for the benefit of the shareholders, all is not bad on the capital allocation front at Mercury. When the company realized how difficult it was to grow outside their home territory, there wasn't much need for ongoing retained earnings adding capital to an already overcapitalized business. As such, dividends paid ramped up and now approximate base earning power in a neutral to poor environment. You don't see bad acquisitions, you don't find egregious compensation, you don't worry about excessive leverage. In total, if a business passes on an intelligent share repurchase opportunity, often the next best thing to do with capital, and surplus capital for sure, is to dividend it out. That's what they do, although it doesn't help our oh-for-two record as reluctant activists.

AVX

Leap forward another decade. It seems every ten years we find ourselves in a situation warranting some level of involvement. The day before Thanksgiving is typically quiet on the home front; few if any emails or calls, it's always a great day at the office to just read. Instead, the eve of the most recent holiday found one of our portfolio holdings under surprise attack.

AVX is a global manufacturer of “active electronic components”, which is a broad description for tantalum and ceramic capacitors, connectors and other electronic components that are used in the automotive, industrial, military, consumer electronics, communications and transportation industries. If it’s electronic, there’s a good chance AVX’s component products are on board. We’ve owned shares in the business in increasing and decreasing size since 2001 and anticipate acceleration in the growth curve for their higher end, non-commoditized products within the auto industry as an example, where electronic and sensor-based content expands with every model year change.

We’ve visited with management in their Myrtle Beach and then Greenville headquarters a number of times over the years and think they have played the hand dealt them as well as can be expected. Hand? Kyocera had been a business partner throughout the 1980’s, and purchased all of AVX in January 1990, at the very peak of the Japanese economy and stock market (and at the same time other Japanese investors were buying trophy US real estate). Kyocera then sold a quarter of its position in AVX via an IPO on the New York Stock Exchange in 1995, which valued the company at twice its cost from five years prior (a far better outcome than those who had bought the Rock and Pebble).

On November 27, 2019 Kyocera offered to buy the 27.8% of the company that it doesn’t own for \$19.50 per share. By our appraisal, the price is entirely inadequate, far below intrinsic value, and amounts to an attempt to steal assets for a far too-low price. In its most recent fiscal year ended March 2019, the company earned \$272 million on \$1.8 billion in sales. With no debt, operating leases of only \$10 million, \$745 million in cash on the balance sheet, the business earned 16% on capital, net of the substantial cash pile that sits in the business. Net of the \$744 million in cash, the offer values AVX at 9 times what the business earned in its most recent fiscal year, and only 15.7 times its *average* earnings over the last ten years! Here’s a business that earned 13% on unleveraged capital for a decade, 16% in its last year, with prospects of the return on capital approaching 20% as recent investments in capacity and higher end R&D bear fruit.

At times over the course of our ownership, the net cash balance exceeded \$1 billion, just sitting there collecting cobwebs. We have purchased some shares at mid-single digit multiples to earnings. A thoughtful owner would look to repurchase shares at such a price. AVX? Nope. To the shareholder’s detriment, Kyocera’s Japan, Inc. worldview has been an anchor around the necks of the otherwise capable operators behind the wheel in South Carolina. We have seen awakenings of more rational capital allocation in a growing dividend payout ratio and a couple seemingly attractive recent acquisitions. That said, we’d have been *far* better off if the company had been up for large share repurchases at extremely low prices at times, and if not had paid the shareholders a large special dividend of the portion of cash not needed in the business.

The last couple quarters saw sales and profits slow. The auto industry represents about 45% of revenues and weakening auto unit sales will pressure AVX. Other end markets have slowed, and customer inventories are up, as was the case a number of times since owning the business. The trade war certainly negatively contributed, but all of these are short-term problems. The stock fell from over \$20 to as low as \$13 over the last year and closed at \$15.04 the night before the surprise, ahem, offer.

To our mind, the offer takes advantage of the recent weakness in the business and the stock. A fair and honest managing partner would take advantage of buying shares at a depressed price for the owners, all of them, and not from the minority ones, who have little say or representation. We applaud Kyocera perhaps breaking the shackles of horrific capital management, but sure as heck wish it wasn’t at our expense as co-owners. Strong-arming your minority shareholders at an unfair price is abusive and immoral. Don’t govern the place badly for a quarter century and then wake up and screw over those owners that you have done so little for.

As shareholders, we are tolerant of recent investments made for a better tomorrow. The investments sacrificed current cash flow and profit, and we applaud them. Don't take away the punch bowl at the start of the party.

Our first course of action in response to the Kyocera offer was to send a letter that day to the CEO but more importantly to the three "independent" directors on the board, stating our case about the inadequacy of the offer. One is the retired CFO, Donald Christiansen. The others are academicians, David DeCenzo is the President at Coastal Carolina University (located in Conway/Myrtle Beach, former company headquarters) and finally an engineering professor at Clemson, John Ballato.

Legally, as controlling shareholder, Kyocera owes a fiduciary duty to the minority shareholders under Delaware Law. We would be delighted to see an entire fairness opinion and scrutiny. It looks like that can be avoided if the independent committee:

- obtains "independent" advice;
- has access to financials;
- is empowered to negotiate with and to decline the Kyocera offer;
- can conduct its process in private, away from Kyocera and their majority representatives on the board;
- posts a public record of their meetings and negotiations

The "independent" directors will engage "independent" legal counsel and likely obtain an appraisal from an "independent" investment banking firm. Our observation of independent investment bankers is that they will give you a report with whatever number you want it to be, as long as they get paid properly. Satisfying these criteria are easy checkboxes.

In the case of a full merger or purchase, however, even if a full fairness process is sidestepped, a lighter "Business Judgment" process can be used if the above are satisfied and approval is given by *both* the independent special committee and by a majority of the minority shareholders. On that front, we have talked to a number of large institutional shareholders (not the passive ones, naturally) and the seeming consensus is the price is far too low. Some are frustrated at the poor capital allocation historically, given it was the large net cash position in an otherwise good business that attracted some investors.

We are pushing for a vote of the minority shareholders. The price needs to either be way higher or the offer should be rejected, which would be our preference. Finding businesses that earn high returns on capital, that can retain earnings and reinvest it at high rates, have pristine, even overcapitalized balance sheets, and whose shares are cheap are few and far between. These are the businesses we'd like to own forever and are willing to act to defend our rights when they are being stomped all over.

If our record as reluctant activist is any guide, we'll likely get taken out at the fire sale price, move the record to 0-3, and spend the next few years boycotting Kyocera's products, which are in pretty much everything electronic. And we'll boycott sushi.

I think our chances are reasonable here to get to the right outcome. Settling for the present bid or any nominally higher offer would be nothing short of a breach of fiduciary duty. As academics, two of the directors have reputational capital involved when it comes to good governance, fairness and business valuation. I suspect that anything short of a sale closer to our appraisal or a simple rejection may see them involved in a breach of duty lawsuit. In the meantime, like the Emperor, I'm back to abstaining from fugu.

Berkshire Hathaway

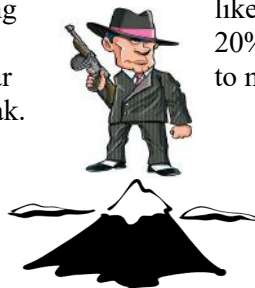
Berkshire Hathaway would and should be the last place on the planet that anyone would reason for a dose of activism. Yet how many armchair quarterbacks lament the lack of share repurchases, point out the clear, present and obvious entire companies that should be bought, knock the mistakes that nobody with a brain would make, the IBM's, Kraft Heinz's, blast the environmental policies so cruelly sideways with the spawning of the northwest salmon, the sinister motives behind a shareholder-directed charitable giving program, or that by trailing the S&P 500 for a decade, albeit for a nanosecond, is tantamount to cardinal sin and a sure indicator that change is necessary, from what to whatever being not to matter. When the critics are on full tilt, they typically fail to point out the alternative, that for 55 years no company had a more reasonable, silly really, executive compensation structure, or had fewer write-offs or writedowns, conducted its affairs in a way to truly maximize shareholder value, taken no unnecessary risks for short-term gain, or better understood the seminal moments when secular, not cyclical, change was upon it and acted so presciently accordingly.

All of that said, the section later in the letter devoted to Berkshire will discuss in part some perceived shortcomings in the published financial statements that we have put forth some effort to remedy. Specifically, from 2003 through 2016, supplemental group information was provided to shareholders that made easy and possible an assessment of the major groups inside the conglomerate. The information allowed the analyst to work through sources of earning power, and measure profitability against the equity capital of the businesses main moving parts. The absence of the supplemental information has made impossible a proper profitability analysis of at least one of the major groups. I have sent a letter to Nebraska identifying the information needed for analysis, none of which would in any way harm the competitive position due to its disclosure. Last year's letter also discussed some of the necessary information that has gone missing. With crickets as the response so far, we expect our record to add one more notch to the L column, and depending on how things go with AVX, look to be either 1-3 or 0-4 on the reluctant activist front.

BLINDERS AT A PEAK

The Two-Year Two-Step

2018's grisly fourth quarter has faded from the rearview mirror. Investors were licking wounds at this time last year, but with asset prices rising but a distant memory. The S&P 500 fell 2018, driving the total return for the year course and rocketed 31.5% to a new peak.



like the Phoenix in 2019, sightings of bears are 20% from its highs during the final quarter of to minus 4.4%. On a dime, the market reversed

Perhaps a logical way to view the two slow, slow. When profits surged year, despite profits stagnating and advanced. Combined, the two-year gain in operating earnings per-share was a not very dissimilar

disparate years is in concert. Quick, quick, 26.5% in 2018, stocks lost ground. Last even declining at yearend, stocks total return averaged 12.1%. The two-year 12.7%. Coincidence?

Using the logic that stock prices track earnings over time, investors should expect an 11.0% total return for the S&P in 2020. Using bottom-up Wall Street analyst expectations, operating earnings (before write-offs and writedowns) are projected to grow from \$158.13 here at year-end 2019 to \$175.52 in 2020. Followers of the sell-side follies know, however, that expected index earnings assumptions are universally rosy early and decline over time. The exception to this truth occurs at the end of economic washouts, when somber and minimalist expectations are easily trumped on the upside as the recovery takes hold. While the global economy seems somewhat soft, we wouldn't call current earnings depressed in any sense. Even though reported earnings look to come in well below expectations at the outset of 2019, they will still have grown by 4.3%, a rate matching top line growth in sales. Hmm...one could call that a year with no margin expansion or contraction. How novel.

In terms of prospective prosperity on the earnings front, there's an argument to be made that current levels of profit margins are unsustainable. The benefits from 2017's TCJA tax reform are likely fully baked in and now in the process of being competed away in numerous industries. Newfound profitability sans new capital can be deemed logically fleeting, with Schumpeterian forces always at work.

It sure looks like fundamental valuations are at levels conventionally associated with secular peaks. We'll go ahead and make the bubble case. Below is our updated table of yardsticks seen at the most extreme of market peaks and troughs over the past century, beginning with the peak seen in 1929, immediately before the stock market took an 89% header and the economy entered the Great Depression, which was so bad it gets capitalized.

Using price to sales, price to book value and market cap to GDP, the present market is the most overvalued of all time. Conversely, by price to operating earnings, price to trailing ten-year earnings (CAPE) and a historically low 1% dividend yield, 2000 takes the bubble cake. Either way, valuations are at levels proven historically to be poor times to own the broad stock market. Take note of disparities between the peaks, highlighted in red, and alternating lows, highlighted of course in green. The present market gets a red shading, because in no way, shape or form can valuations be considered anywhere near cheap or undervalued.

100 Years of Peaks and Troughs

	9/29 Peak	7/32 Low	3/37 Peak	4/42 Low	2/66 Peak	8/82 Low	3/00 Peak	10/02 Low	10/07 Peak	3/09 Low	12/19 Peak?
S&P 500	34	4	20	7	102	102*	1527	777	1565	666	3230
After-Tax Profit Margin	8.9%	-3.2%	6.4%	6.6%	6.7%	4.0%	7.4%	5.8%	9.4%	-0.1%	11.2%
Price to Op Earnings (TTM)	26	NMF	8	7	18	8	33	19	22	NMF	23
Price to Earnings (CAPE)	30	4	23	9	25	7	44	23	28	15	34
Price to Sales	2.31	0.48	0.51	0.46	1.20	0.32	2.13	1.11	1.57	0.666	2.32
Price to Book Value	3.0	0.3	2.2	0.8	2.4	0.9	7.7	2.3	6.0	1.5	3.6
Dividend Yield	3.0%	17.5%	3.7%	8.7%	2.9%	6.1%	1.0%	2.0%	1.7%	4.0%	1.8%
Market Cap All Stocks	93.3B	15.3B	66.2B	32.4B	624B	1.1T	14.0T	7.0T	15.9T	7.0T	33.8T
GDP	103.7B	58.8B	91.9B	162B	789B	3.3T	9.9T	11.0T	14.6T	14.4T	21.7T
Market Cap to GDP	90%	26%	72%	20%	79%	33%	141%	64%	109%	49%	156%
Total Credit Market Debt	175B	150B	159B	227B	1.12T	5.2T	26.7T	32.2T	51.2T	54.6T	75.9T
Total Credit Mkt Debt / GDP	169%	255%	173%	140%	142%	158%	264%	293%	352%	380%	350%
US Government Bond Yield	3.4%	3.5%	2.6%	1.9%	4.6%	14.6%	5.9%	4.7%	4.9%	3.5%	2.4%
US Discount Rate	6.0%	2.5%	1.5%	1.0%	4.5%	10.75%	5.5%	1.25%	5.0%	0.75%	2.25%
Inflation (CPI)	0.6%	-9.9%	3.6%	10.9%	3.7%	11.0%	3.4%	1.6%	2.9%	-0.4%	2.4%
Unemployment Rate	2.3%	24.9%	11.7%	4.9%	4.2%	10.8%	3.9%	6.0%	5.0%	9.9%	3.5%

*A peak price can equal the subsequent trough price following 17 years, especially when marked by high inflation

Source: Semper Augustus. Federal Reserve St. Louis, Bureau of Economic Analysis, Bureau of Labor Statistics, Standard & Poor's, US Treasury

The extremes presented in the table are most certainly nuanced from period to period, making comparison among each useful but imprecise. Let's attempt to draw out some highlights from the data.

The current price to sales figure of 2.32 times is a record. It perfectly matches 1929's level and is ahead of that seen in 2000. However, today's profit margin is higher than at any prior peak, necessarily making the multiple paid to earnings lower. P/E's were higher in 1929 and 2000, making those markets each more overvalued on the simple basis of capitalizing earnings.

The price to earnings multiple, as a stand-alone figure, requires context. When profits collapse to losses, as they did in the 1930's and again in late 2008 and early 2009, the multiple becomes naturally impossible. At very low or depressed margins or levels of profitability, the P/E multiple will appear absurdly high, as it did during the beginnings of recovery in 2009, for example. On the other hand, there are moments when margins are washed out and the multiple paid for those depressed profits are low as well. Those are the times that *if* you are invested you are going to get rich. Take note of the 1982 trough as an illustration of this. The profit margin had collapsed to 4.0% from 6.7% in 1966. Had the P/E multiple remained at 1966's 18 times, an investor would have lost 40% from just the fall in margins. As it was, the P/E multiple also collapsed, falling from 18 times in 1966 to 8 times in 1982, producing a 56% contraction in the multiple. Combined, the price to sales multiple fell from 120% to 32% (the price to sales is simply the profit margin multiplied by the P/E, for those that cotton to simple algebra), producing a wallet-impairing 73% decline. You can see in the table that the S&P 500 traded at the same price of \$102 at the market high in 1966 as it did at the market low in 1982. Painful? A 16 ½-year period where you earned only dividends can be said to hurt. When you further consider the sky-high burden of inflation

during that era, the 73% collapse in the price to sales destroyed a like 73% of purchasing power when netted against inflation. Of course, by then, the pain was so great that household and institutional allocations to stocks fell to record lows, or at least to levels seen during the Great Depression.

Market cap to GDP figures, when viewed from peak to ongoing peak or from trough to ongoing trough, can be seen to be upwardly progressing. This measure is a favorite of many great investors, including the Chairman and CEO of our largest (only really) Omaha headquartered company. Our work on the measure over the years concludes it to be flawed over time. It requires an upward adjustment reflecting the percentage of business conducted by publicly traded companies versus private businesses and also reflecting the amount of business conducted by publicly traded companies outside their home country, the US in this case. The exercise, conducted with proper data, will make for a great paper. The data sets are available, but we have never taken the time to crunch the numbers. Perhaps we can get a partner in academia to take on the study. The adjusted results will make for an extremely useful proxy for determining overall market valuation, in the US and for any country with a stock market, including for global market cap to global GDP. Regardless of its imperfections, we're willing to conclude that at a record market value at 156% of GDP, the stock market is extremely expensive.

The most compelling argument to be made for stocks *not* being overvalued is in the context of interest rates being so low. Yes, we understand things like equity risk premium and opportunity cost, and wholly endorse that asset prices should be inversely correlated to interest rates (or that earnings yields and interest rates should be positively correlated). Only to a point. Academic tools such as the Fed Model, which quantifies the tradeoff between asset prices and rates, breaks down at extremes in interest rates. We saw that in the early 1980's when both profit margins *and* P/E's were depressed (with the benefit of hindsight, of course). An 8 multiple to earnings is the same as a 12.5% earnings yield. When inflation was 11% and government bonds yielded 14.6% at the 1982 stock market low (the 1981 long treasury yield peaked at 15.7%), the nosebleed interest rates absolutely forced earnings yields upward as well. A 14.6% earnings yield equated to a 6.9 multiple to earnings, so not far off of where stocks traded. You got rich by projecting that interest rates would ultimately decline, and also that profit margins would expand. Expanding P/E's from 8 to 24 times was a triple as was the expansion in profit margins from 4% to 12%. Basketball has its triple double and with baseball you can hit for the cycle, but in investing a double triple is a nine-bagger, and that's without any growth in sales.

An investor expecting higher sustained levels of interest rates would naturally expect stock market valuations to commensurately decline (lower P/E's and higher earnings yields). But what if interest rates are destined to be forever low, or even lower than at present? Are today's multiples to earnings justified? At extremes, the tradeoff breaks down because the economy is broken at extremes. Had Paul Volcker not broken the back of inflation in the early 1980's and instead we experienced higher levels of inflation or even hyperinflation, money would have lost value and stocks would have likely proven a store of value, and as such, a resultant massive ballooning of P/E's would have been in order. Flip to today, at extremely low levels of interest rates, or even negative interest rates, what becomes the proper multiple? In a mathematically perfect Fed Model world, at 1% interest rates should the P/E be 100 times? At a 0.5% interest rate should the P/E rise to 200? What of a 0% rate of interest, or a negative rate? Should the multiple be infinite?

Investors in stocks must demand some absolute level of return, regardless of interest rates. To our way of thinking, low interest rates reflect low prospective growth. They reflect an inability to commit new capital to productive use. As the economy grew during the 20th century and into the first seven years of the 21st, an ever-expanding amount of credit was required to produce a dollar of economic output. By 2007, no fewer than six dollars of debt were needed to grow GDP by a dollar, and total credit market debt ballooned to 350% of GDP. Since 2007, credit remains at 350% of GDP, which means every dollar of growth in output since 2007 required an identical \$3.50 in debt. The problem is, growth in GDP adjusted

for inflation collapsed. Nominal GDP grew by only 3.3% per year for the past twelve years. If inflation averaged 2%, real growth shriveled to all of 1.3% per year, half of which is eroded when adjusting for growth in population. Here and abroad, central banks and governments are trying to push inflation higher. Japan for three decades comes to mind here. In reality, debts are incurred and must be serviced in *nominal* dollars, or yen, or euros. Throw a little inflation into the mix and servicing your debts becomes easier. Deflation, disinflation, lower sales, are all bad for servicing debt. So, what price do you pay for stocks? What's the proper P/E multiple? Coupled with record profit margins, high multiples suggest there exists far greater risk than most care to admit. How valuable is genuine organic growth? The market may have gotten much of valuation correct, but to expect further multiple expansion in a slow-growth environment seems delusional. Stick that in your DCF...

The case for higher interest rates is a hard case to make. It's surely not a fun one. Many suggest that rates should be higher simply because they are lower now than ever. Well, they are lower because governments set the price of money at the short end of the curve, and when they print money and purchase long-duration assets can impact the price of money at the long end of the curve as well. Until they can't. Interest rates can remain lower for longer than conventionally assumed. The globe is awash in debt. Industrial economies, emerging economies, backwater economies, companies, households, students. We are maxed out and to service debt at 3 ½ times the size of the economy, the interest rate paid on that debt is pushed lower – it has to be lower. When single borrowers gorge on leverage, to the point where they can't meet obligations, rational lenders determine, enough, and compel a restructuring. Lenders to governments raise the price of money to the overindebted and force a liquidation through inflation. But when everyone and every government has feasted too much, where is the creditor that can demand a higher price of money?

We're genuinely not smart enough to know how this plays out. We don't think it ends well. When? Don't know. How bad? Don't know. In the interim, we believe returns on equity and profit margins are too high and will be competed, regulated or taxed downward. We believe interest rates are likely to stay very low for much longer and hope we don't get to the point where the price of money must be set higher to prevent capital flight. Flight to where? Don't know. We believe governments will ultimately attempt to forgive unsustainably high debt balances. To whom? Where the government and its agencies are the debtor and the creditor alike. The Federal Reserve can erase its US Treasury debt holdings. The government can compel private owners of debt to take haircuts. We saw it in the General Motors restructuring, when senior creditors were forced to take losses despite seniority to more governmentally preferred junior creditors and entities (some not even creditors). Moments like that should instill wariness, if not fear, in investors in any asset. To think it was only a decade ago, yet complacency matches the highest levels we've ever seen. There is discussion of forgiving student debt, a terrible idea, but government agencies and pseudo agencies own much of it.

The most important question to ask is at what rate can companies grow sales and profits, and how much incremental capital will that growth require. At today's 23 times trailing earnings and 34 times trailing ten-year earnings (CAPE), stocks as defined by the S&P 500 and the broad market are expensive. If profit margins were depressed, as they were in 1982 or early 2009, then a case could be made to justify the high multiples to earnings. At an after-tax profit margin of 11.2%, a study of history will show margins are near all-time record highs. 2018's tax code enhanced third quarter saw a record profit margin at 12.2%. We wrote at the time that the record then may stand for a very long time. Indeed, margins have fallen by 8%, but we would shy from labeling that a collapse.

Last year's letter killed some trees discussing returns on equity over time and how they fluctuate somewhat around the 13% level. At 15.7%, we believe that returns on equity are aberrantly high and stand to correct downward. With that, returns on equity may be mean reverting, but at a higher mean than in years gone by. To that point, we argued in our 2015 letter that profit margins are meaningless in a

vacuum and suggested that they should be normally higher than the conventional 4% to 7% band between which they had seemed to oscillate for decades. The capital required to operate many of today's businesses and industries isn't the kind requiring conventional property plant and equipment but is more research and development and advertising oriented, and as such the return on a dollar of revenues is necessarily higher, back to algebra, naturally. Much of today's growth capital is expensed as incurred and doesn't come with ongoing depreciation charges. A number of businesses that proved able to grow in the absence of incremental capital, fashionably called capital-lite, have been rewarded with higher and higher multiples to earnings. It will be interesting to see whether the multiples being paid today for some of these businesses are merited and are sustained over time. Our guess would be no.

DON'T FEAR THE REPO



You have to keep this con even after you take his money. He can't know you took him. – Henry Gondorff (Paul Newman); The Sting (1973)

Blue Öyster Cult's classic had been the working title of the letter for the better part of the year. If you know Semper, you know our disaffection for egregious executive compensation in the form of share grants, and more so for the offsetting share repurchases made at high prices that serve to mask the dilution that comes from said grants but that harm the shareholder. What better than a share-repurchase take on BÖC's Don't Fear the Reaper. Fortunately for those that enjoy short-term market gains, though unfortunately for our theme, by fall, the Federal Reserve was back in the quantitative, or not, easing game with a not insignificant \$400 billion (and counting) support for the overnight repurchase market. With "repos" all over the financial news, we figured some jokester would come along and reap the knockoff before we could even set pen to paper. If nobody had beat us to the punch, what better for the Semper letter than BÖC headlining the dual edged sword of repos, both the share variety and the overnight lending variety! Sure enough, along comes friend Jim Grant, titling a late October podcast using *our* coveted title. Grant. Powell. Get the scythe...

Share repurchases, the subject at hand, can be one of the most valuable arrows in the quiver of capital allocation tools available to managements and boards of publicly traded companies. Repurchases are also among the most misunderstood and also the most abused aspects of modern capitalism. Used properly, they are not to be feared. Used badly, can lead to a trip across the river Styx.

Companies are motivated to repurchase shares in the open market for several reasons:

- They reduce shares outstanding, which necessarily increases *per share* earnings.
- The announcement of a repurchase and the subsequent action may telegraph to investors that the company's shares are cheap (but of course when incorrect about price relative to value, management can and should lose credibility that they are engaged for the shareholder).
- Fewer shares outstanding mean less cash needed to pay dividends per share at a constant dividend per share rate.
- They reduce equity, and at prices above book value, increase return on equity despite dollar earnings that need be no higher.
- They can mask or offset the dilution that comes with share grants to management and employees as stock options or in restricted share units.
- They add a net buyer of the company's shares to the market, generally pushing share prices upward.
- They can make managements and board members rich, particularly non-founder hired guns.

It's not the repurchase as much as the grant of the shares in the first place. Share repurchases are used to offset the dilution from executive compensation paid in shares. After dividends are paid, repurchases consume more than 100% of corporate profits. The transfer of wealth from shareholders is staggering, yet few understand the sting. **There's no such thing as money for nothing. Or stocks for free...**

History

Share repurchases have an interesting history and in scale are more of a recent or modern phenomenon. I don't like using "modern" here as it implies progressive or beneficial. During and following the stock market collapse from 1929 to 1932, which shaved a not insignificant 89% from the stock market, a number of managements, sensing the value in their companies' shares, snapped them up at what seemed bargain prices. During the depression, few companies earned profits so the public perception of using corporate capital to purchase shares was seen as benefiting managers who sold their shares. Few were the bids at the time. The Securities and Exchange Act of 1934 hinted that share repurchases amounted to manipulation, so the practice went into hibernation, despite abundant undervaluation relative to the replacement cost of assets and future earning power.

Fast forward to the 1960's. A number of companies began using their shares in making acquisitions. A good example, Georgia-Pacific issued warrants as acquisition currency in a number of deals, with a requirement that their shares traded above the strike price. Hence, they also bought a bunch of their shares in open market transactions, which were formally challenged by the SEC under the 1934 Act. Congress then passed a bill mandating that companies disclose their intentions in repurchasing their shares. It was nebulous legislation and open to interpretation, thus few companies availed themselves of the capital tool, despite a stock market that got progressively cheaper from 1966 to 1982. During that stretch, the Dow Jones Industrials first traded at 1,000 in 1966, which became a ceiling until finally breaking out in 1983. The S&P 500 likewise topped at 100 for 16 ½ years.

Teledyne

Henry Singleton proved willing to look beyond the lack of clarity in the uncertain SEC rule. Singleton founded Teledyne in 1960 and grew via acquisition into a large conglomerate with businesses in semiconductors, electronics, geophysics, specialty metals, and even insurance. During the bull market that ran to 1966, Teledyne's shares rose substantially. Beginning in 1966, at the stock market peak, Teledyne began using its overvalued shares as currency in acquiring over 100 companies. Most of the purchases were made with its shares trading between 50 and 75 times earnings. It was a brilliant use of capital. Ultimately, few companies were spared the bear market of 1973 to 1974, and Teledyne's shares plunged 75% from their late 1960's high. Singleton went on another acquisition binge, but this time of *his own company's shares* at bargain-basement prices. Through a series of tender offers and open market share repurchases, Teledyne bought back roughly 90% of its outstanding shares at prices averaging 10 times earnings over the next decade! Many of Singleton's repurchases were financed with debt, but the debt incurred was quickly paid down with cash flow.

The Go-Go 1960's and the carnage of the rolling bear markets from 1966 to 1982, overlaid with high inflation, combined to create the most extraordinary conditions for adept capital allocators. They were few and far between, and Singleton was the best. If you haven't read Singleton's biography, *Distant Force: A Memoir of the Teledyne Corporation and the Man Who Created It*, and you are in the game of allocating capital, either as an investor or a company executive or board member, then you aren't playing with a full deck.

The "Modern" Era

The stock market troughed in August of 1982, and with the regulatory climate easing quickly under the Reagan administration, the SEC passed rule 10b-18 in November of that year. The new rule provided a "safe harbor" from stock manipulation charges when it came to stock repurchases, and it became Katy bar the door both in terms of share repurchases but also of compensation paid in stock options. In the bull market that ensued, abuse was sure to follow.

The first ten years of the bull market launched in 1982 saw the average number of shares outstanding constant across the stock market. To the extent the modest option shares that were granted became in the money and exercised, companies tended to buy those new shares back. CEO's and their key executives began making money. But given the duration and depth of the 1966-1982 bear market, few believed the stock market was a great place to invest. Institutional and household allocations to stocks were low. As such, few company managers clamored for large share grants. Cash was coveted. Some companies required executives to own a percentage or multiple of their base compensation in stock, and those individuals often had to reach into their pockets and pay cash for shares. True ownership, a novel concept. Pfizer issued the first stock option grant to key employees in 1952, but the concept really didn't catch on until the late 1980's. As the market rose, the small handful of option shares that were outstanding began to increase in value. When the bull raged on, CEO's and their ilk caught on. Compensation contracts began including more and more option shares, and as stock prices continued their ascent, managers began to get rich.

By 1992, two years clear of the 1990-1991 mini-bear correction, stocks began a sprint, going full parabolic in 1996, particularly in technology. It became a virtuous cycle – the more the market and stock prices rose, the more companies issued increasing numbers of option shares as a percentage of shares outstanding. From December 31, 1990 through the stock market peak a decade later, companies were material net issuers of stock. The number of shares outstanding among S&P 500 companies increased by a third. When the market went into its 50% slide over the three years ended 2002 (the insanely overvalued NASDAQ declined 80%), the share count continued to rise because companies conserved cash, slowing the repurchases required to offset ongoing dilution that was taking place via option exercises. The share count peaked in 2004, a full 40% higher than in 1990.

A bit of regulatory and accounting history is in order here (what good story excludes it). Option compensation didn't really get rolling until the tech boom came along in the late 1980's. At that time, specifically in 1988, the Federal Reserve modified Regulation T, which had set margin requirements against brokerage house loans. With the 1988 change, brokers were now allowed to provide loans to company employees to exercise stock options, allowing an employee to exercise option shares on a "cashless" basis, making option compensation the equivalent of "Money for Nothing". When the tech boom went viral, Silicon Valley couldn't hire employees without including generous option packages. The Financial Accounting and Standards Board (FASB) had issued Statement 123 (FAS 123) in 1995, which contemplated that the growing wave of option compensation schemes were an economic cost to the issuing company and its equity owners, and gave companies the *option* to either disclose the "theoretical" expense as a footnote or to take a full on charge against earnings using a Black-Scholes fair value approach directly in the statement of income on the date of grant. Guess which method about 99.9% of companies chose?

Under FAS 123 and APB 25, companies avoided expensing option grants like the plague. A company would have to record the "intrinsic value" of an option grant as an expense, but the accounting profession deemed the value of a long-dated option where the strike price matched the market price to be zero, an insane conclusion. Topping the insanity, at exercise, now cashless to the employee, companies could claim a tax deduction representing the difference between the employee's strike price and the market price at exercise. In effect, taxpayers footed part of the bill to companies who were making CEO's and their posse rich beyond belief. Because of the lack of expense from an accounting perspective, the dilution that came from share issuance to employees was being done at less than zero on the income statement. Have I already used the word insane? My thesaurus, an actual book, suggests alternatives, but in today's progressive world, all of the fitting options appear now politically incorrect...

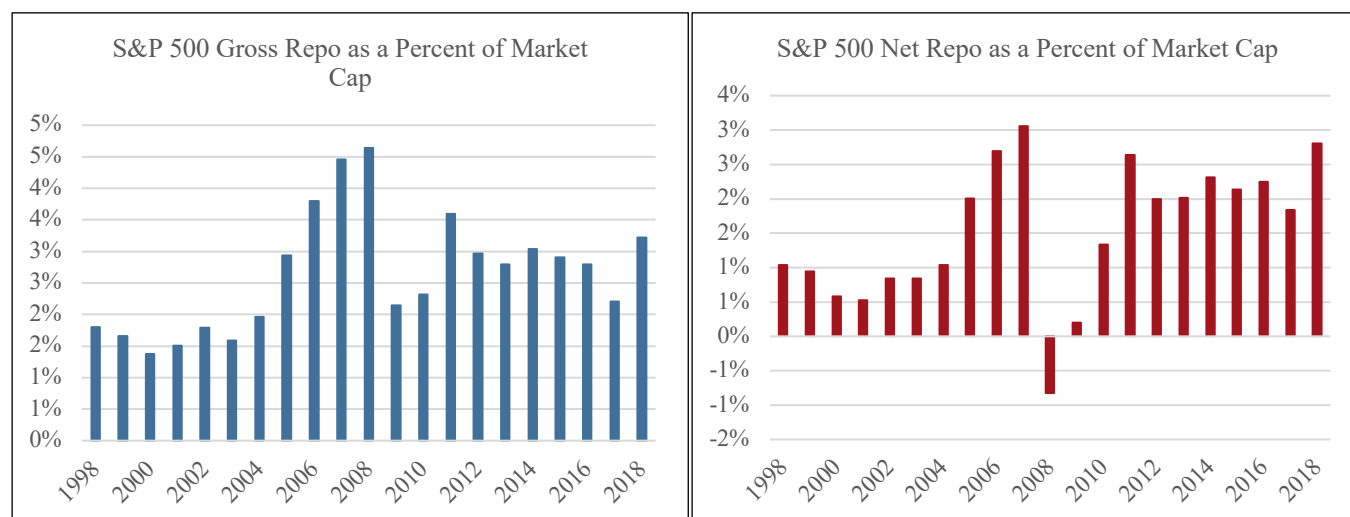
RSU's Crash the Option Party

Shareholders gradually began to sniff out the degree of dilution. See our letters from 2000 to 2004. In late 2004, despite wailing and histrionics emanating from Silicon Valley, FASB released an amendment, FAS 123(r), now called ASC 718, that finally required companies to run the expense of issuing stock options through the P&L, albeit over a phased in period. At this point, fresh off the memory of the nasty 2000 to 2002 bear that spared nary a tech investor, the clamor for option shares waned, for the bear demonstrated that, yes, Martha, stocks can go down. As such, CEO's, their executives, their boards and their good friends the compensation consultants, the junkies of the dilution trade, decided that to de-risk the chance of losing money, we ought transition from options to restricted share units (RSU's). If granting options was now an expense, better to eliminate the downside to the employee and just get shares outright, also an expense to the issuing company and only with the strings of a vesting schedule. The degree of dilution was now more transparent, and expensive to the issuing company. In the two years following the accounting change, the number of option shares granted fell by nearly half, but the number of RSU's granted grew by half (from a small base). It didn't take long, however, for the number of RSU shares granted to match the number of option shares that had been granted prior to 2004. Combined, the percentage of shares granted remained substantial, generally in the 3% of outstanding shares range. *The importance of this seeming subtle change can't be minimized. Options required a purchase by the employee. RSU's require no such thing. Once the number of RSU shares issues ballooned, the cost to the shareholder is so much more penal. Instead of being paid for option shares upon exercise, share issuance shifted to companies not getting paid.*

Restricted Share Units are different from employee stock options. RSU's are an outright grant of shares, which are treated as income to the employee upon a vesting schedule. Vesting is typically over time but can also be subject to performance hurdles. When performance thresholds are introduced the shares are often called Performance Restricted Share Units (PRSU's). Accounting treatment to the issuing company always required an expense of the entire face value of the RSU's granted, making them less favored when companies could simply ignore the very real cost of option grants. By contrast, employee stock options require the employee to pay the company for the options upon exercise, with payment calculated by the number of option shares exercised times the strike price. The strike price is typically set as the market price at the time of grant, so to make money, the stock needs to go up. A key difference between RSU's and employee stock options is that with RSU's, no payment is made to the issuing company by the employee. *There is no cash in.* In option land, the employee must pay for the options and is entitled to the appreciation above his or her cost, which is the strike price. There are two types of employee stock options, Incentive Stock Options and Non-Qualified Options. Non-qualified options are taxable to the employee upon exercise and are subject to Social Security, Medicare and withholding taxes. ISO's are not subject to withholding and are only taxable to the employee upon ultimate sale of the shares, so can qualify for long-term capital gains. For the issuing companies, post 2004, the option share grants are treated as an expense in the year of grant and over a period of years. With non-qualified options, the company can take a deduction for withholding taxes in the year the employee exercises their option shares. Another distinction between option shares and RSU's – option shares don't accrue dividends. Only some RSU's do, via dividend equivalents that can be funded in an escrow account. In cases when RSU's don't accrue dividends, do you suppose dividend payout policy can be impacted? Nah, we're probably too Machiavellian...

RSU's didn't pack the same leverage punch that came with option shares, and because they were an expense far fewer shares were granted pre-2004. To get filthy rich required substantial share price appreciation. Prior to 2004, companies would generally spend a like amount repurchasing their shares as they received from exercising employees (or their margin lending brokers). When share prices rose swiftly, repurchases in dollar terms began to far outpace the cash in component. Further, share

repurchases proved so effective in driving up share prices that companies began spending more and more money doing so, eventually net retiring their shares. The four years ended 2007 were straight from the Twilight Zone. Corporate America layered on debt; the financial industry went crazy with lending for subprime mortgages and retired a net 7% of their outstanding shares. *If companies spent roughly 1.5% of their market capitalization per year on average from 1998 to 2004 repurchasing shares, they had increased that number to a mindboggling 5% of market cap by mid 2007 on a rolling 4-quarterly rate.*



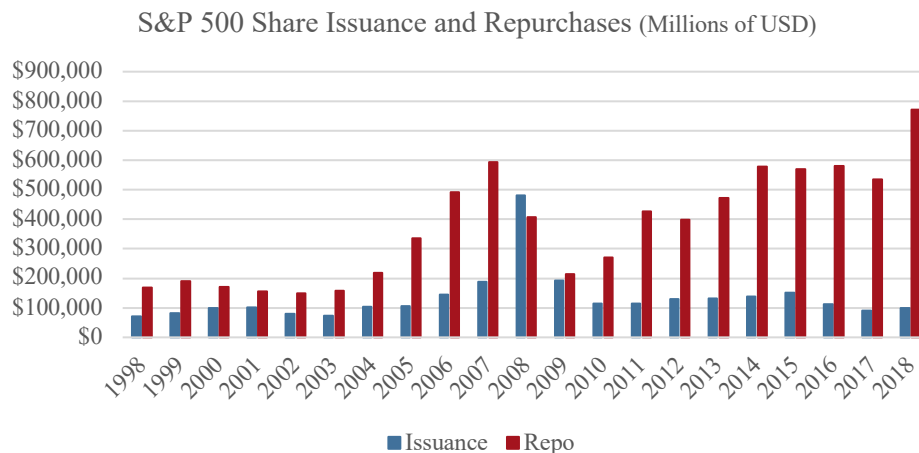
Source: Semper Augustus; Standard & Poor's

Of course, we all know what came along in 2008. The Great Recession, the first economic period since the 1930's to warrant capitalization, and just not just grammatically. The banking system imploded, and the financial industry required new capital to survive, the monetary variety. Businesses went from mega net purchasers of their companies' shares to net issuers, in a big way. When the stock market fell by more than half peak to trough, you'd think that now undervalued shares would command the attention of capital allocating CEO's, right? Instead, despite the fire sale on Wall Street, outright repurchases declined from an annual pace of \$700 billion (\$600 billion net of issuance) to less than \$100 billion on an annual basis. Companies hoarded what cash they had; and given the need for new capital in the financial world, net *issuance* totaled \$400 billion. That's *net* issuance. One of the singular best times to be a repurchaser is when your shares are cheap, a la Henry Singleton, yet the vast majority of businesses were either too scared to do the right thing or were too impaired to do so. Remember, on-balance sheet credit market debt levels had surged to 350% of GDP, removing more than a few arrows from the quiver of capital allocation.

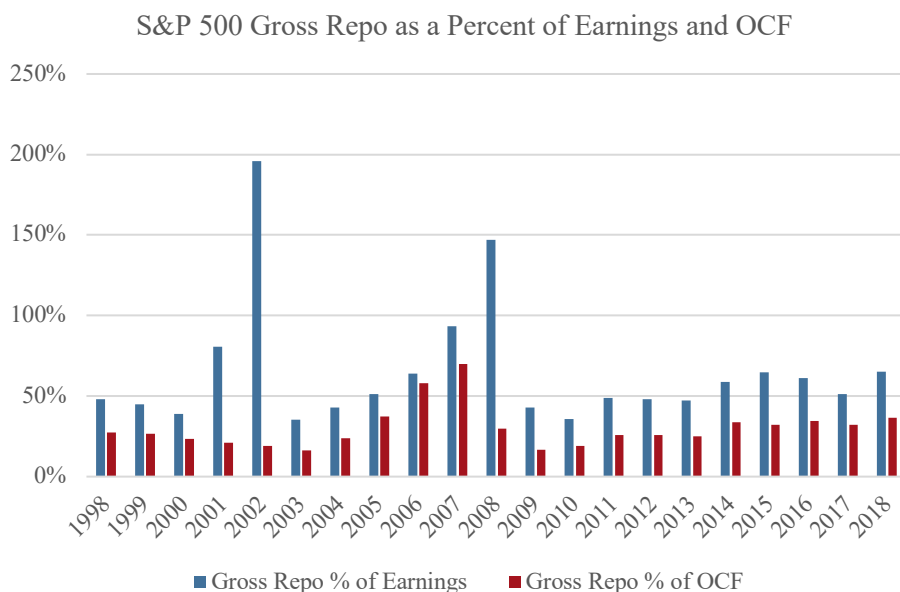
The Federal Reserve and their equally accommodative central banking peers from around the globe came riding to the rescue, implementing varying iterations of Quantitative Easing, ballooning their collective balance sheets, and lighting a fire under all assets. Since their 2008 and 2009 troughs, stocks grew nearly five-fold in price alone, and as you would suspect, share repurchases, both net and gross, have skyrocketed again. In the last decade, given the tilt to more prolific use of RSU's instead of stock options, which themselves have far from vanished, companies are now paid very little for their generous stock issuance to executives, employees and boards (of which the "independent" ones, naturally, make up the compensation committees). Thus, the majority of share repurchases are not financed with cash coming in from exercising employees and directors. Instead, they are funded with profits and also with debt.

Given the dearth of cash coming from option exercises from employees, the net outlays for repurchases are substantial. Share repurchases serve to not only drive stock prices up and the overall number of shares outstanding down, but by *far* less than would be expected. Despite the gargantuan sums spent

repurchasing shares, the share count has only fallen 9% since the third quarter of 2011, or by about 1% per year. By contrast, net expenditures for repurchases totaled roughly 2.5% of market *capitalization* on average *per year*. **The 1.5% difference between dollars spent on share repurchases and declining shares outstanding represents real dilution, my friends.** In the context of sales growing by 3% annually, financed not internally with retained earnings but with debt, what we have here is a swindle.

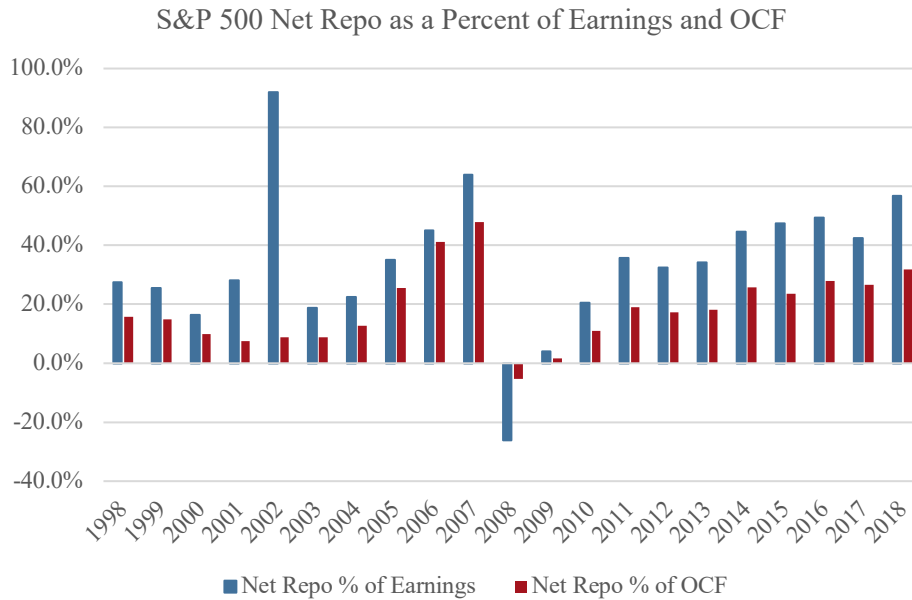


Please take note of the declining proportion shares issued and paid for in cash, the blue bars in the table, and the cash out the door spent on repurchases, the red bars. So many shares are issued that despite the mammoth sums spent on repurchases, the share count barely shrinks.



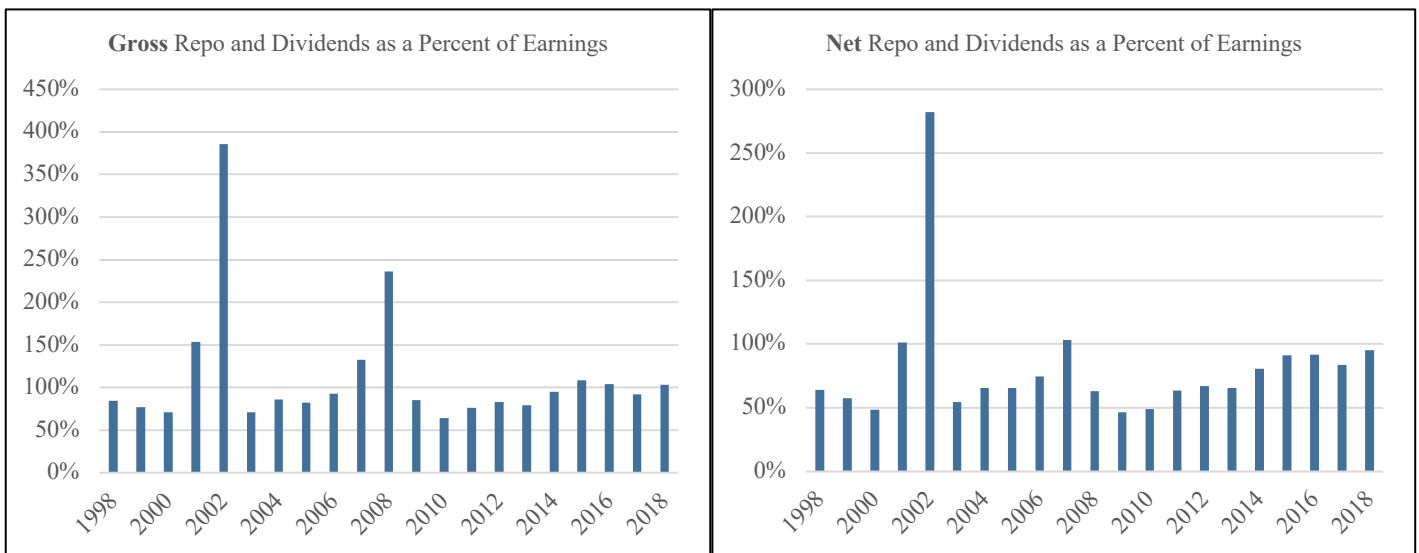
Source: *Semper Augustus*; Standard & Poor's

You can see here the growing proportion of earnings and operating cash spent repurchasing shares. Investors are told that profits spent dedicated to shrinking the share count is a return of capital to the shareholder. When the sums spent serve to minimize dilution from share grants to management and not to shrinking the number of shares outstanding, you are being hoodwinked. Lied to is more appropriate.



Source: Semper Augustus; Standard & Poor's

During the 1990's and through 2004, dividends combined with share repurchases consumed between half to three-quarters of net income before “extraordinary” charges. When profits collapsed to near zero and even to losses for a time in 2008, even though repurchases had dropped by 85% in dollar terms, as a percentage of depressed earnings they misleadingly skyrocketed. It didn't take long for profits and profit margins to recover, and with them the repurchase machine was cranked up in unprecedented fashion. By 2015, repurchases and dividends consumed *more than 100%* of profits, the balance financed by increasing debt balances, both absolutely and as a percentage of equity (masked by a deleveraging of the finance sector). Since 2015, combined repurchases and dividends exceeded corporate profits.



Source: Semper Augustus; Standard & Poor's

From 2011 through 2017, no less than 25% of share repurchases were financed with debt. 2018 was nutso on the repurchase front. The TCJA tax code change compelled and encouraged cash held in foreign

subsidiaries to return home, imposing a one-time tax of 15.5% on cash and 8% on illiquid assets, payable over eight years. \$1 trillion in cash (and another \$1.8 trillion in invested assets) had been held abroad. The Federal Reserve estimated that \$777 billion was repatriated in 2018. Repurchases reached a record \$800 billion in 2018, yet *debt still financed 14% of repurchases!*

The absolute amount of repurchases fell in 2019, to our estimate of \$750 billion. Why the decline? First, most of the cash that returned from abroad returned the prior year. Second, with earnings growth falling to 4% for the year, companies likely began worrying about a slowing economy and perhaps began hoarding cash as seen in every major downturn since the early 1980's. Regardless, 2019's repurchases are still at 3% of market cap, and were in part financed with an increase in net debt. We can't make a case that the stock market is cheap, so seeing repurchases totaling 3% of market cap is stunning.

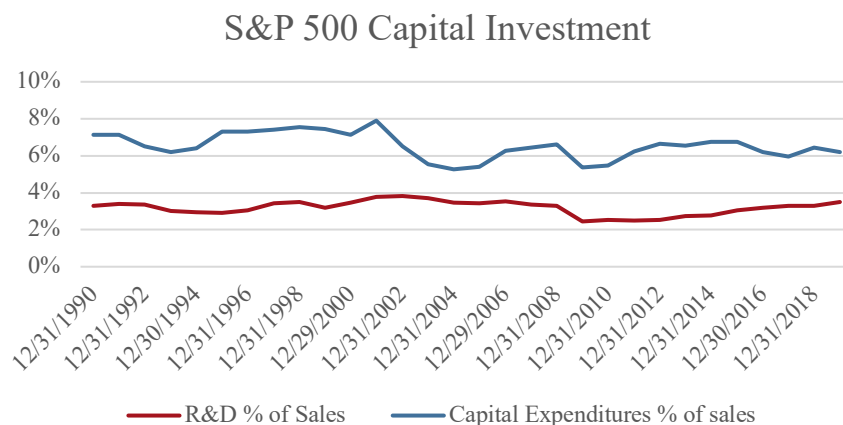
It would be one thing if the gargantuan repurchases were made in undervalued, or even fairly valued, shares. Yet, the purchases over the past decade have generally been made at prices north of 20 times earnings, or at earnings yields below 5%. Teledyne this is not.

Too often and almost universally, CEO's and CFO's describe share repurchases as on par with dividends. Returning capital to shareholders is the mantra, but dividends have nothing to do with the share price. They are simply a distribution of profit, or even of capital, but are in no way hitched to the price or to the value of a company's share price relative to its value. Calling a share repurchase a reward to shareholders is disingenuous. The price must be below value and the company must not be burdened by the disposition of the capital (same for a dividend in this latter case). Measuring shareholder yield is a ridiculous concept. The dividend yield is simply measured by dividends as a percent of market value, or dividends per share as a percent of price per share. Measuring a buyback yield as a percent of market value, however, and equating or adding that figure to the dividend yield to arrive at a shareholder yield, can be a good thing or a really bad thing. Again, suppose a company finances a share repurchase, either at a moment, or over a year, or over a series of years, not only with the balance of profit not paid as dividends but with all of the operating cash flow of the company. Throw in the proceeds of borrowings and repurchases can ultimately cripple the survivability of the enterprise. Yes, the buyback yield can be a nice number, as can the dividend inclusive shareholder yield, but at bottom both must be measured against what value the *remaining* shareholder is getting for the capital spent buying back shares. We cringe when we hear managements or investors talk about shareholder yield.

Continuing, there are times when shares should not be purchased, even if they are a screaming bargain. If the balance sheet is already encumbered with too much debt, the focus of capital allocation needs to be on solidifying the capital position. If the business needs all of its profits and capital to maintain its competitive position, then share repurchases at any price may be detrimental. We added a new business to our portfolio during 2019, and uncharacteristic for Semper, the business has a fair amount of leverage which is at the point of being uncomfortably high. The debt was taken on in a very intelligent acquisition that makes the company by far the best in its industry, a vertically integrated low-cost producer. We find the shares unbelievably cheap, and with a less encumbered balance sheet would love to see significant share repurchases. However, at present, most cash flow is required to operate the business and service the debt. If the business were to borrow a substantial sum of money and retire a large amount of its outstanding shares, we would benefit enormously if the immediate prospects of the business allow it to grow its way out of the leveraged balance sheet. If the addition of debt or the expenditure of current capital on a repurchase impairs the ability of our business to withstand the next recession or downturn in its industry, then any repurchase, no matter how attractive or accretive relative to value, cannot make sense.

Tangential to the discussion about share repurchases being funded by debt, some observers suggest new debt is going elsewhere. Two arrows in the capital allocation quiver are capital expenditures and research

and development used to finance growth, not to simply cover maintenance expenditures or to stand still. With the enormous increase in profitability fostered by the 2017 corporate tax cuts under TCJA, you would have expected to see a substantial increase in capex and R&D. We haven't seen it. You really would have expected it given the massive tax incentive of 100% accelerated depreciation and R&D credits. Take a look at the chart of three decades of investment as a percentage of sales for the companies making up the S&P 500. Where's the beef?



Source: Standard & Poor's; Semper Augustus

The last decade of share repurchases were a disaster. Many would say the results of the stock market's advance justify the end, with share repurchases as the means. Instead, consider:

- In aggregate, no new capital was deployed into growth initiatives or operations (in fairness, perhaps that's a byproduct of a capital system encumbered by an unserviceable amount of debt with no capacity to absorb new capital). Surely plenty of businesses are investing, Amazon for example. But the entirety of business is not. Where you have growth, others are dying. We have Amazon but the retail pie isn't growing. Sears. JC Penney. Macy's. Toys"R"Us. Payless Shoe. Gymboree. Forever 21. Barney's. The list goes on. We have Google and Facebook, but the advertising pie isn't growing. Newspapers. Advertising agencies. Broadcast TV. We have the cloud but what about IBM, Storage Tek, Nirvanix, Tintri? IBM tries to buy a seat at the table with Red Hat, but are they late?
- Either the repurchases or ongoing capex and R&D, or a combination of both, have required increasing and now dangerous amounts of leverage (again, in aggregate – there are plenty of businesses with active investment opportunities).
- Repurchases should only take place when the company's shares are undervalued, and the company has surplus cash and a balance sheet that is not already encumbered with excessive leverage.
- The argument that repurchases are healthy because they offset the issuance of shares to executives and employees is without merit. The two actions are mutually exclusive. The motivation to issue shares may make sense, but only when repurchases are made with price to value in mind should they be undertaken.
- Most insider sales have taken place in the days immediately following the announcement of a share repurchase – a conflict of interest or an abuse of the allowed system?

A useful capital allocation tool is used increasingly for financial engineering. The timing and magnitude of when the majority of shares are repurchased, and when they are not, confirms that either most companies are headed by people that don't understand good capital allocation or possess those skills, or in

concert are headed by people that don't care. Rather, they care, but only about their own net worth. The degree to which share repurchases have taken place at prices far in excess of value, has, to us at least, discredited the managements and boards of the offending companies. Here's an idea: Run the company and ignore the stock price. Do a good job and the stock will take care of itself.

If the average tenure of a S&P 500 CEO is four years, what drives their thinking? Are they stewards of shareholder capital, making decisions to benefit their companies for the coming decades? Or do they lay awake at night, counting their option and RSU shares, thinking about what needs to be done to maximize their personal fortune and what actions can they take to meet the performance hurdles tied to incentive compensation during their brief time at the helm? Unfortunately, the truth in too many cases is the latter.

Those paying attention to the Democratic Party's candidates' universal clenched fists of rage regarding share repurchases, know they are misinformed and misguided. Some have called repurchases un-American. It's the issuance of prodigious amounts of shares to executives in the first place that has created an incentive system that's broken. That's what they ought to be railing about. It's only the share repurchase tool as a byproduct that has served to create hired guns worth hundreds of millions and even billions. If you were granted boatloads of shares and were allowed to sell those shares at short intervals as they vest (and are in the money as with the case of options), most probably would as well. It's no wonder critics and the politicians are on their soapboxes, lamenting the disparity between the working class and the new moneyed nobility. But it's not the place of Congress or the White House to "fix" the extremes of the haves and the have-nots created from share repurchases, or even more properly the grants. It's up to the shareholders that are being diluted, robbed of 2% of their wealth on average, by the nobles running their companies, to fix the problem. The reality is, as long as the tide is rising, nobody in the investment arena gives a damn, save a handful of kooks, present company very much included. A message to regulators and politicians: Don't ban an otherwise invaluable tool, which, used properly, can be wonderfully accretive for shareholders and for society. Instead, encourage shareholders and proxy voters to wake up. Of course, the slumber only ends until the tide goes out.

Share issuance to executives and the resulting repurchases by the companies to offset the dilution is a massive theft of value from shareholders. The original premise of granting shares and options was to incentivize managements by ensuring they had skin in the game. The minimal number of employees that retain their shares as long-term investors is pitifully small. Only where share grants are issued to "key individuals" in elephantine scale do hired guns sometimes retain shares. In cases where the giveaways are so large that non-founders or those who never bought a share out of pocket become billionaires can you get a full sense of the cost to shareholders.

Don't Fear the Repo? No, fear it mightily.

[last lines]

Henry Gondorff: You not gonna stick around for your share?

Johnny Hooker: Nah. I'd only blow it.



DEFANGING THE FAB 5

What goes up must keep going up.

The combined market capitalization of the five largest cap stocks reached 20% of the S&P 500 today (February 10). Microsoft, Apple, Google, Amazon and Facebook have a combined \$5.6 trillion market capitalization.

The S&P 500 passed 3,333 today. At the demonic low in 2009, the S&P 500 traded at 666. Today's price is five times the low.

The five largest market caps are as large as the *entire* index at the 2009 low (3% shy actually but give it another day or two...).

The S&P 500 gained \$17.6 trillion in market cap over the last decade. 26.1% of that, \$4.6 trillion, came from the five companies alone.

By market return, revenues and profits, the five business are nothing short of extraordinary. For much of the past decade the shares weren't ahead of the businesses. That is no longer the case. Further, the businesses themselves proved so successful that there is no way to repeat what they have done, not even close. Applying simple math and logic, the decade forward will see the Fabulous Five fall flat of growth expectations, both in stock market return and in business performance. But first a little history regarding the importance of price.

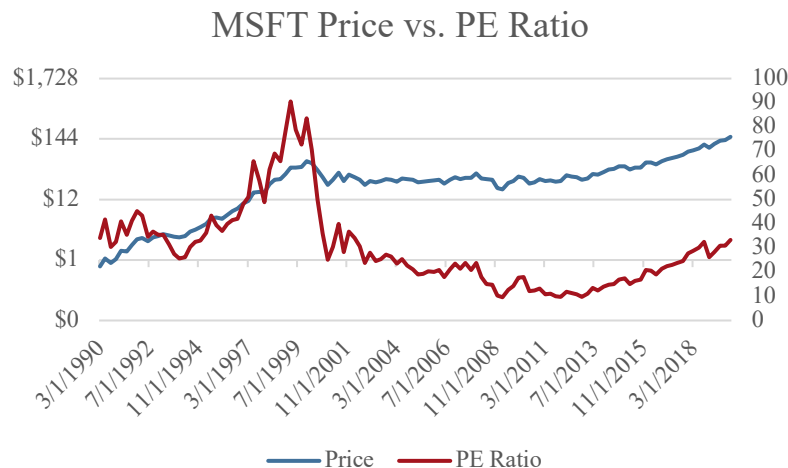
Microsoft

“Microsoft shareholders will lose money for the next fifteen years.” So began the January 1, 2000 Semper letter that dedicated six pages as to why. They did. Few believed it possible. Microsoft was the darling of the market, with market value of \$620 billion, 5.3% of the market cap of the S&P 500. For its first fourteen years as a public company, it had been a rocket, with sales, earnings and the market cap growing 43%, 51% and 68% respectively, *per year!* The problem stemmed not from the business, which would continue growing its top and bottom lines at rates well in excess of the economy and of the companies comprising the stock market. The problem was the *price*, which at 31 times sales and 80 times earnings, was *way, way* ahead of the business. How far ahead? Consider that in the ensuing 20 years through yearend 2019, revenues would grow 9.4% per year, six-fold, from \$21.8 billion to \$134 billion today and profits at 7.9%, almost five-fold, from \$8.7 billion to \$41.6 billion. Because the company repurchased a net 26% of its shares during that stretch, per share earnings grew by 9.9% per year. Yet the stock underperformed the growth in the business, working off the degree of overvaluation. The market cap is now only twice what it was twenty years ago, a 3.6% rate of annual growth, and with the net reduction in shares beginning in 2004 and the introduction of dividends in 2003, the total return on the stock is all of 5.9% with dividends paid and a hypothetical 7.7% per year if dividends were reinvested in the company's shares. I'd conjecture these results were not in the 20-year projections of those that owned Microsoft at the turn of the millennium.

It's interesting that since the Microsoft IPO, the share count is essentially back to where it was in 1986. Many know that the company acquired a material number of its shares in recent years. Microsoft has essentially grown without requiring new or incremental capital. However, if you examine the record for the first 18 years as a public company, the share count ballooned from 7.3 billion to 10.9 billion in 2004

(when option grant expensing kicked in). The share count expanded despite the company spending half of its profits repurchasing shares. Executives and employees were granted boatloads of shares and options, which made a whole bunch of people extremely rich as the stock raced to its high, pretty much at the date of our 2000 letter. With the share count having now roundtripped back to 1986 levels, one must wonder how much capital was burned in the late 1990's purchasing shares when they were so far ahead of the business. A lesson for today?

Microsoft was a case of the great business at the wrong price. When we penned the letter, despite being 5.3% of the S&P 500 and the largest market cap in the world, the same couldn't yet be said for the business. There was ample room to grow. Sales were then a slight 0.4% of the overall revenues of the companies making up the index. Thanks to a healthy profit margin, profits were higher, at 2.1% of the total, but with ample room to expand both. Today, thanks to its huge recent runup, the market cap is back to 5.2% of the index after dropping way lower after the tech bubble. Sales grew to today's 1.1% with profits expanding to 3.0% of the total (actually a profit margin decline since 2000). The trailing 12-month P/E multiple at 35 is less than half of the 80 it fetched in 1999, meaning an investor lost 56% to multiple contraction, and got to a mid-single digit total return thanks to the 6x gain in sales, 4.5x gain in net income and a 25% reduction in the share count. The two decades weren't kind to the shareholder when measured from the turn of the century, hammering home that price matters.



How about the last ten years? Because endpoints matter a whole lot, through the lens of the past decade the stock sparkled. Thanks to the market cap declining to \$212 billion, by roughly two-thirds from 1999 to 2009, the subsequent gain to over \$1.4 trillion represents a 21% advance per year. With a shrinking share count and dividends, the total return from year-end 2009 through today (2/10/2020) chalks in at 20.5% with dividends and 22.6% with dividends hypothetically reinvested in the stock when paid. Just as it had done in its first 14 years, the stock outpaced the business. Revenues just more than doubled, growing at 8.6% per year. With profit margins higher than they were ten year ago, profits grew by 9.2%. Thanks to a 13.3% reduction in the share count, earnings per share grew by an even faster 10.6% annually. It should be clear that the stock far outpaced profit growth, meaning expansion in the multiple, and boy did it expand, from 12.3 to 35. Much of the ballooning of the P/E multiple has come in the past six years, when revenue growth picked up thanks to the company's prescient transition to the cloud and the traction gained with Azure. Sales growth clipped along at 13% for the past four years, where it had been much more muted for the prior six.

Semper had a great experience as a Microsoft owner. We purchased the stock for the first time after it cratered almost 60% from the time of our letter. Our initial purchases on April 28, 2006 were made at \$24.26 per share. We successfully trimmed and added to the position over the next decade when the

shares were intermittently dear and cheap. The position was completely sold, too early it seems in retrospect, at \$56.46 on April 19, 2016. The stock closed today at \$188.70. Yep, safe to call the sale a bit early...

During our tenure as shareholders, we generally assumed that given competition in their non-core businesses, search for example, that profit margins would drift downward to 20% from the high 30's. They got as low as 21.5% in 2015 but since ramped back up to 31%. Steve Ballmer doesn't get enough credit for the early shift to the cloud. Satya Nadella knocked the cover off the ball on that front, and the growth of Azure is remarkable inside an already large business. That said, paying today a 35 multiple for a business whose sales and profits command 1.1% and 3.0% of index revenues and profits respectively seems a stretch. The shareholder must ask if the business is worth 5.2% of the index. Recent gains in the top line and an even faster dash in earnings per share suggest so. But for how long? Asking a similar question at the outset of 2000 led to our conclusion about a prospective loss for the shareholder for a decade and a half.

The Fab 5

The fabulous five businesses simply dominated the stock market and the economy for the past decade. Collectively, those banking on a repeat are faced with mathematical and logical improbability. As a group, Microsoft, Apple, Google, Amazon and Facebook are faced with the high-class problem of having been richly rewarded for their terrific successes but are now priced into what likely stands to be diminishing returns.

A decade-long analysis requires caution. The beginning and ending brackets in a compounding series can have a dramatic impact on the numbers. The endpoint is often the present, so it's hard to be selective with that one. I wanted to stretch this analysis to a decade. Given how washed out and depressed year-end 2008 was, growth rates from a low base can be made to look unusually high. Much headway to recovery was made by the end of 2009, both in the stock market and economy. The S&P was up 26.5% in 2009, recovering about half of 2008's 37% decline. GDP and industrial output also had made substantial recoveries. Plus, Facebook wasn't quite public, being founded in 2004 and making its public debut in 2012. The other two newbies were already public, Google in 2004 and Amazon in 1997, in the heyday of the internet boom. Shares of the four companies that were public had recovered most of the declines they had incurred during the rout, making the end of 2009 a reasonable or non-distortive beginning bracket.

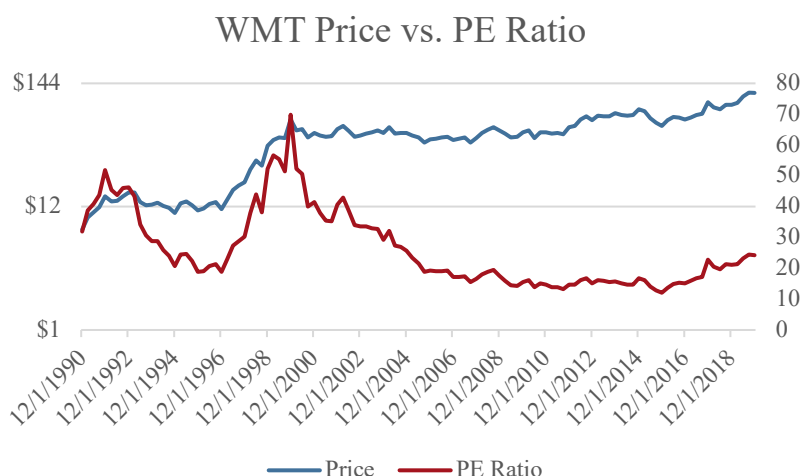
Ten years ago, those that could envision the market share grabbing business success of the Fab 5 and who were prescient enough to own their shares were richly rewarded. In retrospect, our failure to not own any besides Microsoft was a big mistake, particularly in the case of Google, which we came to understand after being an early skeptic. We have our reasons for having held off. Regardless, those that have not owned the penultimate collection missed out. Ten years ago, the group (four at the time) had a combined market cap totaling 6.4% of the S&P 500's. Sales were only 1.9% and profits a higher 6.5% of the total. The matching share of market cap and of profit naturally meant a like P/E multiple, at 19.2 times earnings for the group and 19.6 for the index. Coming out of the economic collapse, the profit margin of the index was somewhat depressed, at 6.5%, and has since grown to a near-peak 11.4%. The Fab 5's combined profit margin is 19.2%.

Ten years later, the market cap of the Fab 5 has grown to a surreal 20% of the index, while sales climbed from 1.9% to 7.9% of the total and profits from 6.5% to 14.1% of the total. When five businesses and their stock market valuations begin to command such a large proportion of the index and even the economic whole, investors need to start asking, "On all fronts, how much more?"

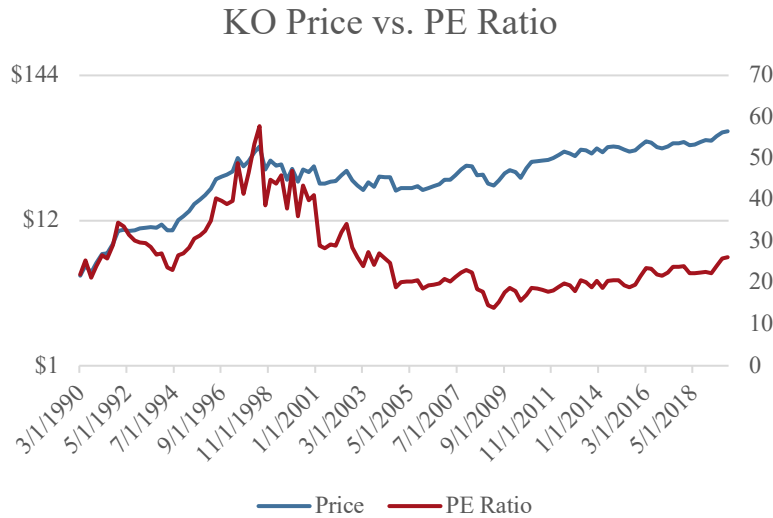
I can't tell you how many times I've heard, "Just look at the growth rates, who cares if I'm paying 30 or 40 times earnings, even if I don't make money for a while, in two or three years they will be at a market multiple." That was the exact same thing Microsoft shareholders said in 1999.

When Perfection Meets Reality

We've seen this picture show before. The price bubble in late 1990's wasn't exclusive to tech. Take Wal-Mart as a great example of a company priced for perfection that meets imperfection. For decades, the discount retailer had displaced countless competitors, grabbing ever higher market share. By 1999, with its 3% profit margin, the stock was valued at 165% of sales and 50 times earnings. Fifteen years later, with the profit margin still at 3% the stock traded for one-third of sales, 11 times earnings and below its 1999 high. An investor had earned less than the dividend yield for 15 years, despite sales and earnings per share more than tripling. Since 2015 the stock more than doubled, despite contracting margins as the company transitions to compete online with its own disruptor, Amazon. With sales just under twice as great as Amazon, Wal-Mart grows the top line at 3% versus Amazon's 20%.



How about Coca-Cola? During 1998 the stock's market cap hit \$200 billion, more than 20 times sales and 60 times earnings. The stock then declined more than 50% over the next decade. It took 18 years to get back to the 1998 high. It's an example of the price having reflected past growth, colliding with a slowdown in its core product, requiring myriad acquisitions of non-soda healthier brands. For the 20 years to 1998, sales quadrupled, and profit margins tripled. What a ride. In the subsequent two decades, sales only doubled, and the P/E contracted from 60 to a still high 25. A business that operated with \$1.5 billion in net debt to generate \$18 billion in revenue is now run with \$33 billion in net debt on \$37 billion in revenue. The company added more net debt than revenues and has only repurchased a net 14% of its outstanding shares. Dividends are three-quarters of profits. What happened? A compounder stopped compounding and shareholders reaped less growth than expected and saw the multiple they were willing to pay or to own the shares retrenched. The company resorted to squeezing its bottlers, then acquiring and rehabilitating some, and then selling them. Prior to the recent pyrotechnics in the market the stock traded at a multiple in the high teens. Pain from the 1998 extreme.



The Nifty Fifty

Valuations on “growth” stocks in the late 1990’s can be compared to the “Nifty 50” in the early 1970’s, when the darlings of the day commanded valuations that were multiples of the broad market. “One-decision stocks,” as they were called, could be purchased and held forever, regardless of price. Boundless growth would bail out a too high price. Today these are fashionably called “compounders” and seem to be the rage among “value” investors. By the end of 1972 the Nifty 50 traded for a median P/E of 34, while the median P/E of the market was about 12. The S&P 500 was valued at 19 times.

We find it interesting only 48 years removed to revisit the Nifties and their valuations just prior to the 1973-1974 bear market. In all cases P/E’s subsequently collapsed, dragging future total returns below business growth. Considering that the Nifty 50 were considered the best businesses of the day, it’s revealing to see how many of the companies either outright failed, required so much recapitalization to have effectively done so, were sold in liquidation or as a smaller subsidiary, or continue flirting with death. A list of the failures (or near failures) and their P/E’s in 1972:

Polaroid	90x	Schlitz Brewing (1 st beer 1974)	39
Avon Products (TBD)	65	J.C. Penney (TBD)	34
Emery Air Freight	62	Sears Roebuck	31
Digital Equipment	60	General Electric (TBD)	26
Kresge (Kmart)	54	First National City	23
Eastman Kodak	48		

If you add up the names, you get to 11. That’s a remarkable 22% of the most highly regarded businesses in 1972 that effectively either went to zero or saw most of their enterprise value destroyed. Naturally, if a business fails, the starting multiple or price means nothing. To wit, if you wait for a \$100 asset to decline 99% in price before buying for \$1, when it goes to zero then your 100% loss is the same.

Beyond the 11 that blew up, most of the list comprised great businesses that continued to thrive, but regardless saw incredible multiples to non-depressed earnings ratcheted downward, chewing into return. Again – the multiples to earnings at 1972:

McDonald's	86x	Schering	50
Walt Disney	82	American Hospital Supply	50
Baxter	78	Schlumberger	50
Int'l Flavors & Fragrances	76	Burroughs	49
Johnson and Johnson	62	Xerox	49
AMP	52	Coca-Cola	48
Black & Decker	51	Texas Instruments	46

The 1973-1974 bear pulled the market down by half, followed by raging inflation through 1981 that kept stocks further in check. Most of the Nifty 50 produced a negative total return over the ten years post 1972 and in many cases didn't get back to even until the late 1980's. The stocks with the lowest P/E's at the height of the Nifty 50 generally performed better over the next decade, and as time passed, underlying business fundamentals eventually drove returns for all. It would be great to calculate total returns from the 1972 peaks onward but that will be an exercise for another day. There's way too much noise given spin-offs, sales of subsidiaries, acquisitions, splits, stock dividends and mergers. Know that if you pay some multiple, your returns as a shareholder will equal the growth in the per share earnings plus or minus any change in the subsequent multiple. It's margins and multiples that combine to create return.

Lower the Bar

Using any barometer, growth over the past decade at Microsoft, Apple, Google, Amazon and Facebook has been just awesome. For ten years the Fab Five's collective sales and profits compounded at 19.5% and 18.4% per year respectively. The stocks averaged total returns of 24.8% per year, with little sign of slowing down. The five stocks now have a combined market capitalization of almost \$5.6 trillion. To put that figure in perspective, at the market lows in 2008 and 2009, the entire S&P 500 was valued at \$5.78 trillion. Another 3% higher for the Fab 5 and they will be as large as the market was at its lows just over a decade ago. No doubt the valuation of the market at the time was likewise irrationally depressed.

A Decade of Growth Rates from December 2009

	Total Return	Total Return*	Market Cap	Enterprise Value	Revenues	EBITDA	Net Income	Earnings Per Share
Microsoft	20.5	22.6	21.1	19.3	8.6	9.3	9.2	10.6
Apple	27.0	28.2	22.4	24.5	19.1	18.7	19.9	24.1
Google	16.9	16.9	18.1	18.4	21.2	17.6	17.8	16.7
Amazon	31.4	31.4	33.4	35.1	27.6	38.0	40.5	38.9
Facebook#	25.0	25.0	38.8	39.9	45.5	57.9	59.5	42.1
Fab 5	24.2^	24.8^	23.8	24.1	19.5	18.0	18.4	nmf
S&P 500	13.6	13.6	10.0	9.7	3.7	6.0	9.6	9.8

*Total return with dividends assumed reinvested in shares

#Facebook IPO May 2012; Data 7 years from 12/31/12

^Simple average

Total returns and market cap from 12/31/2009 to 02/10/2020; Fundamentals to 12/31/19

The \$5.6 trillion question must be: At what rate and for how long can these businesses and their stocks grow at rates matching those of the past ten years? If they slow, when will that take place, at what rate, and when (or if) it does, at what fundamental valuations will the businesses trade? Our thought? Sooner, deeper and lower.

For perspective, let's look out using 10-year and 20-year hypotheticals. For each projected time interval, we assume the S&P 500 grows its revenues, profits and market cap by 4% annually. Too low? The index revenues grew by a whopping 3.7% per year for the past decade, and that's from year-end 2009, when the economy hadn't fully recovered from the crisis. If we look at a 12-year progression beginning at the end

of 2007, before the crisis, sales growth drops to 3.1% annually. These figures are in nominal dollar terms, not adjusted for inflation. Real growth barely exceeds 1% per year. The second assumption in projecting 4% for market cap holds that P/E's today are stretched and not likely to move higher. Add in roughly 2% from dividends and you can get to a 6% total return. If companies shrink their shares outstanding, perhaps add another 1% to revenues and earnings per share. We'd more likely assume contraction over time from today's levels, and yes, we understand that low interest rates suggest prices should be higher than in the past. The counter suggests high prices don't go with low growth, just look to the collapse in multiples in no-growth Japan for three decades. Finally, we'd suggest that profit margins are extremely high at 11.4% for the index, not far from the record 12.3% seen in third quarter 2018.

The Fab 5 earn a collective profit margin of 19.2%, surprisingly lower than the 22.2% level in 2009. The decline is entirely attributable declining margins at Google. Apple and Microsoft's margins are flattish when measured against 2009's, while Amazon and Facebook's are much higher. Amazon in particular stands to see enormous margin expansion as it scales from big expenditures in capacity – both in retail and in the cloud business.

Thanks to a booming 19.3% top line advance for the group, the five contributed an amazing \$151 billion, or 19% of the S&P's incremental \$784 billion gain in profits. The five contributed \$761 billion of the index's \$3.48 trillion gain in incremental revenues.

Let's project out a decade beginning with expected growth in market capitalization.

	CAGR	Market Cap in 2029 (Billions of USD)	Percent of S&P 500 Market Cap	Market Cap in 2039 (Billions of USD)	Percent of S&P 500 Market Cap
S&P 500	4%	\$41,000	100%	\$60,690	100%
Fab 5	4%	\$8,269	20%	\$12,240	20%
	10%	\$14,489	35%	\$37,580	62%
	15%	\$22,598	55%	\$91,423	151%
	20%	\$34,587	84%	\$214,154	353%
	25%	\$52,024	127%	\$484,508	798%

For ten years the Fab 5's average total return compounded at 24.8% and they grew their aggregate market capitalization from 6.4% of the total market cap to 20.0%! Slowing to a 20% annual total return for the next 10 years, the five will comprise 84% of the market value of the S&P 500. Ain't gonna' happen. At 20% for 20 years the five become 353% of the index – impossible of course.

How about at 15% for 10 years? The market cap of the Fab 5 grows from 18.7% today to 55% of the index. Likewise, nope. For fun, 15% over 20 years becomes 151% of the index. Bad math.

What about a 10% growth rate for the Fabs, less than half of the rate for the past decade? Who doesn't think the five will grow 10%? Show of hands. The five stocks grow to 35% of the S&P 500. That's in the realm of possibility, but highly improbable. It's hard to get my mind around it as a possibility. Running another decade, 20 years at 10% sees the market cap grow to 62%. No.

Let's now look at revenues as a percentage of the index for the Fab 5, again estimating sales growth of 4% annually for the index.

	CAGR	Sales in 2029 (Billions of USD)	Percent of S&P 500 Sales	Sales in 2039 (Billions of USD)	Percent of S&P 500 Sales
S&P 500	4%	\$17,042	100%	\$25,226	100%
Fab 5	4%	\$1,355	8%	\$2,005	8%
	10%	\$2,374	14%	\$6,156	24%
	15%	\$3,702	22%	\$14,977	59%
	20%	\$5,666	33%	\$35,083	139%
	25%	\$8,523	50%	\$79,372	315%

For the past decade revenues for the five companies grew 19.5% per year and from 1.9% of total sales to 7.9%. Revenues for the companies comprising the index advanced by a whopping 3.7% annually. The group absolutely gobbled up an enormous share of the economy from lots of others. In some cases, gains came at the expense of competitors, while in others the five benefitted from outsourcing through provision of solutions to businesses (think companies moving storage and processing as internal functions to the cloud, with AWS and Azure, for example). That is a massive increase as a share of top-line revenues for a mere five businesses. At 20% top line growth for a decade, market share of revenues balloons to 33%. That won't happen. For 20 years it becomes another impossibility at 139%.

How about 15% revenue growth for 10 years? Sales grow from a combined \$915 billion to \$3.7 trillion. That would see share of sales surge from 7.9% to 22% of S&P 500 revenues. 20 years at 15% growth in sales gets you to 59%, which can't happen. Regarding ten-year growth in revenues at 15%, I have a hard time believing the five companies will command 22% of revenues.

So, what about a 10% top line growth rate? An annual gain of 10% per year would be half of the growth rate over the past decade. This seems doable. Sales would grow to \$2.4 trillion and represent 14% of the revenues of the 500 companies comprising the index. If we expect continued growth of revenues outside of the US, a 10% gain in revenues is plausible.

Let's finally look at net income as a percentage of index profits.

	CAGR	Net Income in 2029 (Billions of USD)	Percent of S&P 500 Net Income	Net Income in 2039 (Billions of USD)	Percent of S&P 500 Net Income
S&P 500	4%	\$1,938	100%	\$2,868	100%
Fab 5	4%	\$274	14%	\$406	14%
	10%	\$480	25%	\$1,246	43%
	15%	\$749	39%	\$3,031	106%
	20%	\$1,147	59%	\$7,100	248%
	25%	\$1,725	89%	\$16,064	560%

In the last ten years the proportion already expanded from 6.5% to 14.1%, growing by 18.4% per year. Extending to a hypothetical 20% advance, the Fab 5 would earn 59% of index profits. Without intending to sound repetitive, it won't happen. At 15% the share grows to 39% and at 10% expands to 25% of the total. At the lower projection, it's unfathomable that five companies will earn a quarter of all of the profits earned by the members of the S&P 500, an index whose revenues today are half of US GDP (with half of those produced abroad).

The math and illustrations above assume no spin-offs or sales of subsidiaries, neglects changes in share counts, either up or down, neglects the payment of large one-time dividends or as a materially high payout rate of profits earned.

To our thinking, the best-case growth in annual revenues for the Fab 5 over the next decade is 10%, growing from \$904 billion to \$2.3 trillion. Combined, their sales would total 13.7% of index revenues. When the growth rate of revenues slows, it likely will impact profits even more. With profit margins for the Fab 5 already at 19.2% versus 11.4% for the index, we'd expect some margin contraction, through competition with each other or via regulation, and likewise don't believe five companies will earn 23% of all index profits, which would hold margins constant and growing in line with sales (it's an even more difficult case to expect margin expansion, though Amazon will likely do so for a while). Now, if revenue growth skids to not much more than half of its present rate of growth, what ought to happen to valuations? We'd wager a fair sum the group won't trade at today's collective 30.2 multiple to earnings. We'd double down on the wager by suggesting that when the market comes to the realization that the Fab 5's impressive historical rates of growth in revenues and profit that the market multiple itself will no longer be at 23. The reasoning implies a serious amount of pain for a whole bunch of investors.

There can be no doubt that Microsoft, Apple, Google, Amazon and Facebook have been monsters. Their growth in such a short period of time is nothing short of extraordinary. More remarkable is how little capital their growth required. The group operates with net cash and even negative incremental working capital, a la Costco.

The five can move forward by paying dividends and repurchasing shares with all of their profits, or more of their profits to the extent they choose to leverage their balance sheets. Only Microsoft and Apple pay a dividend and only those two have repurchased material amounts of their shares. Google looks to perhaps be starting a repurchase machine. To the extent the Fab 5's shares are overvalued, they can likewise take a page from the Berkshire or Teledyne playbooks and find companies willing to sell themselves and accept inflated currency in return. It's entirely conceivable each business carves itself up, if for no other reason but to deflect regulatory attention. Regulators are already exacting a toll, much like they had with Microsoft the monopolist in the late 1990's. Not many remember that Microsoft needed a competitor to its operating system and desktop applications businesses and threw a lifeline to Apple in 1997. Apple was set to file for bankruptcy, and out of self-preservation (from regulators) Microsoft invested \$150 million to keep their only "competitor" afloat. Microsoft also needed to deflect attention away from its integration of Internet Explorer as the default browser in personal computers at the expense of Netscape.

"Bill, thank you. The world's a better place." Steve Jobs to Bill Gates – August 6, 1997

The overarching question, which we haven't addressed beyond logic and mathematical improbability, is *why* the Fab 5 can't continue to grow at present rates, or at slower but still extremely premium rates. Why did Chris Weber call a timeout when the Wolverines had none? The answer is we genuinely don't know what will come along to inflict the damage – but come it will. It will most likely be size and decline curves. It could be new disruptive technologies. Before the iPhone there was Blackberry. Before Amazon there was Wal-Mart (before Wal-Mart there was Sears and before Sears was Montgomery Ward). Before Google there were newspapers, Yellow Pages, advertising agencies – J. Walter Thompson, Ogilvy &

Mather, Leo Burnett (remember them, all rolled up with dying market shares). Before Excel there was Lotus 1-2-3. Before Facebook there were human friends, and the telephone. It could be competition among each other, fighting for market share in the cloud for example. Before Azure and AWS there was IBM and Storage Tek. Will regulators push back on royalties at the App Store? Will Google be fined for preferential ad placement? Will other major brands follow Nike and choose to not sell on Amazon? Will Facebook take on un-needed overhead to appear less profitable? Will Google sell G Suite at a margin eroding loss to CTO's who would never abandon Office to win cloud storage and analytics business versus Azure? Will successful pieces be broken up and spun-off, or will regulators swing the machete? What's to say that first mover advantage comes with permanence? These are questions we can't answer but know in some combination will come to pass. The law of large numbers is on the side of the under bet going forward.

Regulation is front and center in our reticence to invest in any of the five except Microsoft. We've always struggled with the degree to which these companies pay their executives and employees with shares. The dilution is extremely expensive, but when the shares are roaring ahead at 25% a year for a decade who cares or even chooses to notice.

Large conglomerates often die. Teledyne effectively died. AT&T was broken up by regulators, who hadn't looked ahead at the coming competition and disruption on the near horizon. Standard Oil was broken up. Berkshire Hathaway itself became a victim of its own success, being massively overvalued in 1998. It took the masterstroke of pivoting when it had to pivot by buying General Reinsurance and then diversifying away from its core insurance operation.

The law of large numbers will absolutely exert its mathematical and logical certitude on the Fab 5, and the change will happen in the next decade. These are big, big businesses, by market cap, by revenues and by net profit. They have enormous cash piles. Berkshire gets knocked for a seeming inability to invest its \$100 billion plus cash hoard. Collectively the Fab 5 have almost \$600 billion in cash between them, \$265 billion net of debt. Google is ramping up capital expenditures to compete with Amazon and Microsoft in the cloud, but at what returns. Ditto for capacity and distribution investments at Amazon. These investments are likely to yield good returns but add to the size problem. Good returns lead to yet more cash to invest. What acquisitions can these businesses make with their cash that is 4 ½ times Berkshire's and growing faster than Omaha's?

It's almost unfathomable that these businesses already grew so large to inhibit a continued sprint. The pace at which they commandeered such awesome shares of market cap, revenues and profits is breathtaking. They will likewise be victims of their own success. December's quarterly results are in for all five companies, and in *all* cases revenue growth is *slower* than in recent years and even quarters. Profit growth is stronger, but for how much longer? In the face of slowing top lines the stocks shot straight skyward, like Roman candles. The question is when does the investment world catch on that the trains are slowing, and how much short-term pain is to be exacted? *Game of Thrones* entertained with "Winter is Coming." The arctic blast that's coming with the rerating of the Fab 5 promises to not be very entertaining to a massive army of investors, passive and active alike. At 20% of the S&P 500, itself overvalued, all better figure out how to defend their wall.

When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance." – Chuck Prince, Citigroup, July 2007

ACTIVE V. PASSIVE UPDATE – Just Set the Table Please

Our last two letters exhausted any worthwhile insight on the topic that's taken many active investors to the woodshed. Suffice it to say we think that despite the advantages to the lay investor, the institutional imperative toward passive investing has committed far too much capital invested to a place with no price discovery. Flows continue tilting toward the heavies. Pulling capital from more concentrated active investors is forcing selling pressure on smaller index components and non-components. The table below is back by popular demand. It's appeared in the last two letters and corrected last year. The update is below, without commentary. Let the reader decide how heavy is fat.

2019 Index Returns Distributed by Largest Members and Quintiles

	Index Total Return	Largest 5	Largest 10	Largest 25	Largest Quintile	2 nd Quintile	Middle Quintile	4 th Quintile	Smallest Quintile
MSCI Emerging Market	19.2	39.9	33.9	28.5	25.8	10.2	14.7	13.5	25.9
Russell 1000 Growth	36.3	52.3	47.0	40.8	37.7	35.9	31.0	27.2	28.9
MSCI EAFE	22.7	22.3	19.7	24.0	23.6	21.6	22.0	16.8	17.8
MSCI ACWI	27.5	48.0	42.7	35.1	29.9	25.8	25.8	20.4	13.3
Russell 2000 Growth	28.8	20.9	23.5	25.3	27.7	30.9	25.4	9.5	22.6
S&P 500	31.5	46.2	39.5	35.1	31.8	30.9	33.2	27.8	24.8
Russell 1000	31.4	46.7	39.8	35.3	31.9	31.4	30.7	25.9	24.5
Russell Midcap	30.5	27.0	32.5	28.2	31.5	29.8	31.4	24.6	24.7
Russell 2000	25.9	20.3	22.8	21.0	26.1	26.4	19.9	21.2	13.0
Russell 1000 Value	26.6	16.1	24.1	25.1	25.5	26.2	27.1	25.8	22.4
Russell 2000 Value	22.6	19.7	10.6	18.5	20.7	20.5	23.7	22.2	8.8

Source: Bloomberg Raw Data; SAI Calculations; Index components derived from ETF Index Holdings; Component weights using year-end 2018 weights.

The Russell index quintile returns use beginning weights and don't readjust the quintiles for component rebalancing.

Returns for the two international indices, MSCI EM and MSCI EAFE are in US Dollars. The global index, MSCI ACWI, is just under half international, and is also in US Dollars. The dollar gained against most currencies during 2019, negatively affecting international investments when translated to dollars. The returns for each index in local currency terms would have been higher by the amount of the decline in the US Dollar.

Ok, I lied. After keying in the numbers, I couldn't help myself. The heavy end of the S&P 500 continues to attract capital, screaming bubble in progress. When capital flows from one equity investor (or product in the jargon of the "business") to the index, the flows to the index should have proportional impact on the index components. That's a fine theory in isolation, but as discussed last year, what's going in is coming out of everything else. The "outs" are almost always more concentrated in proportions not matching the index. The selling pressure hence is disproportionately creating skew, making the heavyweights at the top richer.

READ AND LISTEN

The crown of best letter by a CEO has passed to Weston Hicks at Alleghany. Funny, erudite, but most importantly useful and transparent, Mr. Hicks walks through Alleghany's insurance operations and investments in securities and in private companies. In any event, Weston Hicks' letter is a great read every year. Mr. Hicks and team, including Joe Brandon, run an outstanding insurance operation that flies under the radar of others more attention seeking.

The history of Alleghany is fascinating, from its incorporation in 1929 as a holding company for ownership of five major railroads and 200 subsidiary companies, bankruptcy during the Great Depression, emergence and subsequent investment in the New York Central to its merger with the Pennsylvania Railroad (rebranded as the Penn Central in 1968). The company bought Investors Diversified Services (IDS) in the early 1950's, at that time the world's largest mutual fund group. The Penn Central failed in 1970 after being forced to acquire the troubled New Haven Railroad. Most of the rail assets were sold to Conrail. IDS was sold to American Express in 1984 and Alleghany began a transition to insurance through ownership of Chicago Title. A subsequent large investment was made in the Santa Fe Pacific, which ultimately merged with the Burlington Northern and was obviously lost to Berkshire Hathaway in 2009. I've suggested in past letters that Michael Larson at Bill Gates' Cascade had first figured out the changing economics of railroads. Turns out it was probably John Burns at Alleghany. Burns recruited Mr. Hicks, CFO at Chubb, to Alleghany in 2002. Hicks further transitioned the business to property casualty insurance following his appointment as CEO in 2003, making a number of terrific acquisitions. The company is chaired by Jefferson Kirby, whose grandfather Allan acquired the company with Robert Young from the founding Van Sweringen brothers following the 1930's bankruptcy. Allan Kirby's father co-founded the F.W. Woolworth Company.

I owe thanks to David Salem for passing along my favorite book of the year. I'd only been vaguely familiar with the history of duty free and mostly unfamiliar with Chuck Feeney, the co-founder of Duty Free Shoppers, the world's largest duty-free retail chain. I was completely unfamiliar with his extraordinary private philanthropy. *The Billionaire Who Wasn't: How Chuck Feeney Made and Gave Away a Fortune Without Anyone Knowing* is a wonderful story of the wild west of commerce in post-World War II Europe and Asia, the making of one of the best businesses extant, capitalizing on the Japanese growth miracle, and the secretive giving away of a vast fortune. I missed the book when it came out in 2007. If you missed it as well, get a copy and enjoy.

If you couldn't tell from the theme of most year's letters, music is a staple around here (The Shakespeare theme a couple years ago was mostly a flop. Outside of Liz Claman and Kate Welling, I'm not sure many even recognized the Shakespeare – Better a witty fool, than a foolish wit). Every night during the first five or six weeks of the year writing and music go hand in hand. Over the past few years I've "discovered" Nathaniel Rateliff and the Night Sweats, Lord Huron and Houndmouth, all terrific. Having grown up with Elvis, the Stones and classic country, somehow I mostly missed Guy Clark. Steve Earle produced a tribute album and aired a special on *Austin City Limits* featuring the music of recently deceased Guy Clark. Clark's music was a joy to listen to this year. Another thing I do when working on the letter is dig into the archive of musicians or groups I've always liked (where have the music streamers been all my life). Willie Nelson, still performing for as long as the Stones, continues to write and produce new music prolifically. The new stuff, as well as the old that I'd never heard, is just great.

A life highlight – A 1990 mountain road trip with 1,200 pounds of the boys loaded in the Chevy Chevette for a night at the Little Bear in Evergreen, CO for some local music and a Coors Light, or two, saw none other than Willie Nelson sit in with the local band for an entire evening. Rumor has it he had done that frequently and it was a true thrill to be on hand. Then the IRS took Willie's CO home for forgetting to pay taxes, for a bunch of years, and so ended Willie at the Little Bear.

BERKSHIRE HATHAWAY: THE SKY IS FALLING



Berkshire Hathaway saw its shares advance 11% in 2019, nearly perfectly matching the company's underlying gain in intrinsic value, at least as we measure it at Semper Augustus. Of course, a single-year stock market return rarely matches underlying business performance, but as years march on the twain shall generally meet. Under the hood, we estimate the Berkshire stock portfolio gained 47% for the year (40% including the slow-motion Kraft Heinz trainwreck, whose shares trade publicly but which is accounted for using the equity method). Either way, on the back of an 89% gain in Apple and 46% in Bank of America, the overall portfolio handily outperformed the S&P 500's 31.5% total return. Short intervals come with volatility, friend to the active investor, and fluctuate around business value. Berkshire's shares gained 2.8% in 2018 and 21.9% during 2017, by example.

If you followed the financial media throughout 2019, you would never have known the year would be as normal as could be dialed up in terms of Berkshire's share price gain and certainly wouldn't know the stock portfolio murdered the S&P 500:

What's Wrong, Warren?

After more than 30 years of unrivaled investment success, Warren Buffett may be losing his magic touch. Shares in Buffett's Berkshire Hathaway are set to experience their first annual decline since 1990 and their second-worst year of performance, relative to the Standard & Poor's 500 Index, since Buffett took control of what had been a struggling New England textile maker in 1965. Wsj.com

What's Wrong with Warren Buffett's Berkshire Hathaway? A Failed Buyout Tells the Story

Why is Berkshire Hathaway stock nearly 20 percentage points behind the S&P 500 index this year? The company's recent unsuccessful attempt to buy Tech Data (TECD), a distributor of technology products, offers a partial explanation, as it illustrates Berkshire's current challenges and CEO Warren Buffett's stubborn approach to capital allocation. Buffett, who turned 89 in August, continues to search in vain for what he has called "an elephant-sized acquisition" that could total \$50 billion or more. Barrons.com

Warren Buffett Doesn't Seem to Think Berkshire Hathaway Stock is Cheap

Either Warren Buffett isn't crazy about stock buybacks or he thinks Berkshire Hathaway stock isn't cheap. That's the conclusion to be drawn from Berkshire's modest stock buybacks of about \$440 million in the second quarter. It's clear that the repurchases haven't cheered Berkshire bulls, given that the stock has badly lagged behind the S&P 500. Barrons.com

Kraft Heinz Stock Blows Up on Warren Buffett

Kraft Heinz is shaping up as a reputational and financial black eye for Berkshire Hathaway CEO Warren Buffett. Kraft Heinz shares (ticker: KHC) continued their slide this past week, falling \$3.75, or 12%, to \$27.36, after hitting their lowest level since the merger of Kraft Foods and H.J. Heinz in 2015. Barrons.com

The following headline and story from Barron's, run the weekend prior to Berkshire's annual meeting, stood out in particular. While it seems an eternity ago, some may still recall the carnage in 2018's fourth quarter. For 2018, as mentioned, Berkshire's shares had advanced 2.8%, outpacing the S&P 500's 4.4% loss. By late April, the bear was long gone from the scene, and the market had advanced 17.5% while Berkshire "languished" with a mere 4.1% start to the year. The crickets, er, critics, had come out from the woodwork, as they always do. You gotta' love journalists and the academicians who incessantly knock Berkshire.

Warren Buffett Is About to Face Some Tough Questions About Lagging Berkshire Hathaway Stock – Barron’s April 29, 2019

More than 30,000 shareholders of Berkshire Hathaway are expected to descend on Omaha, Neb., for its annual meeting on May 4. There, they will celebrate the company and savor insights from its leadership at what could be one of the last meetings when CEO Warren Buffett and Vice Chairman Charlie Munger share the stage. Buffett is 88, and Munger, 95.

Berkshire (ticker: BRK.B) holders, however, haven’t had a lot to cheer about lately as the stock has trailed the market this year amid frustration among some investors that Buffett continues to sit on more than \$110 billion of cash in what may be a fruitless quest for what he has called an “elephant-sized” acquisition.

Investors are still waiting for Warren Buffett to name a successor and find a way to boost Berkshire’s lagging stock. The underperformance probably reflects other factors, including Buffett’s age and succession concerns, the lackluster performance of Berkshire’s \$200 billion equity portfolio, and the current disfavor of value-oriented stocks.

Many investors may not realize that the stock—despite Buffett’s reputation as a market beater—is behind the S&P 500 index over the past five, 10, and 15 years, although it has crushed the index since Buffett took the reins in 1965.

Berkshire Hathaway Versus S&P 500 Index (Barron’s April 29, 2019)

	<i>YTD</i>	<i>1-Yr</i>	<i>5-Yr</i>	<i>10-Yr</i>	<i>15-Yr</i>	<i>20-Yr</i>
<i>Berkshire Hathaway</i>	4.1%	7.9%	10.8%	13.7%	8.5%	7.4%
<i>S&P 500</i>	17.5	13.1	11.7	15.3	8.7	5.9

All returns except YTD are annualized.

Source: Bloomberg

Original published in Barron’s; April 29, 2019

Interval Training

We’ve come to expect perpetual criticism of Berkshire. Criticism, not praise, sells in the media world, so we take negative articles and headlines in particular with a grain of salt. However, the publication of the table highlighting Berkshire’s trailing the index for not only the year to date but for the magical one, five, ten and fifteen-year periods caused a spike in this writer and shareholder’s blood pressure.

Think about what kind of impact a 4.1% return over not quite four months can do to short-interval relative returns when measured against 17.5% for an index. We’ve always believed that measurement over the classic 1-3-5-7-10’s is ridiculous in that the beginning and endpoints can severely sway the results. A mere four months of material deviant return, either way, can dramatically skew the comparison. If your reaction is that deviant returns over four months should either be attributed to “skill” or be a cause for alarm, then (insert something pithy but to the salient point here...).

We introduced a reproduction of Berkshire’s famous first-page performance record from the Chairman’s letter in our letter last year, modified with forward and backward compound growth series for all three metrics – change in book value per share, change in market value per share and the total return of the S&P 500. The table will be updated shortly in a discussion about book value but take note of a cutout from last year’s showcasing the twenty intervals through 2018. For the purpose of this discussion, I knew,

having only recently created our table, that for *all but two* of the yearly intervals back to 1965 Berkshire had outperformed the index.

At the end of 2018, Berkshire's shares outperformed the S&P 500 in all but two compound annual intervals. The 1-year return was ahead, as was the 2,3,4 and so on. Only the 10-year and 11-year returns lagged. Beyond the 20 years shown, Berkshire remained ridiculously ahead. The time series were helped by the most recent 1-year outperformance. The 10-year return of 12.2% was behind the index's 13.1% and the 11-year return was essentially tied at 7.3%. Then, along comes 2019, and naturally a 13.4% lag for the first four months of 2019 would impact the yearly intervals. Most people would call the record exceptional, particularly the longer intervals. 20.5% for 54 years versus 9.7% merits an *atta boy*. With these numbers fresh in mind, seeing Barron's tainted piece that Berkshire was trailing in April seemed a bit out of context.

**20-year Intervals from
2018 BRK Per Share
Market Value vs. S&P 500**

	BRK	S&P 500
54 year	20.5%	9.7%
20 year	7.6%	5.6%
19 year	9.3%	4.9%
18 year	8.4%	5.7%
17 year	8.6%	6.8%
16 year	9.4%	9.0%
15 year	9.0%	7.8%
14 year	9.3%	7.6%
13 year	10.0%	7.8%
12 year	8.9%	7.1%
11 year	7.2%	7.3%
10 year	12.2%	13.1%
9 year	13.3%	11.7%
8 year	12.3%	11.3%
7 year	15.0%	12.7%
6 year	14.7%	12.2%
5 year	11.4%	8.5%
4 year	7.9%	7.2%
3 year	15.6%	9.3%
2 year	11.9%	7.9%
1 year	2.8%	-4.4%

**21-year Intervals from
2019 BRK Per Share
Market Value vs. S&P 500**

	BRK	S&P 500
55 year	20.4%	10.1%
21 year	7.8%	6.7%
20 year	9.4%	6.1%
19 year	8.6%	6.9%
18 year	8.7%	8.1%
17 year	9.5%	10.2%
16 year	9.1%	9.1%
15 year	9.4%	9.0%
14 year	10.1%	9.3%
13 year	9.0%	8.8%
12 year	7.6%	9.1%
11 year	12.1%	14.7%
10 year	13.1%	13.6%
9 year	12.2%	13.4%
8 year	14.5%	14.9%
7 year	14.2%	14.7%
6 year	11.4%	12.0%
5 year	8.5%	11.7%
4 year	14.5%	14.4%
3 year	11.6%	15.3%
2 year	6.8%	12.1%
1 year	11.0%	31.5%

By the end of 2019, Berkshire's 1-year return of 11.0% trailed the index by an even bigger margin than it had in April. One year ago, Berkshire was ahead in 52 out of 54 yearly intervals, lagging only at 10 and 11 years. Now they are "only" ahead in 44 out of 55 years. In the shorter term, Berkshire is lagging in 9 of the last 10 yearly intervals and in 11 of the intervals to the 20-year return. The journalist that penned the ridiculous headlines above will have a field day with this, thanks to a 1-year return that's 20.5%

behind the index. You could have done this flimsy analysis following any short period when the stock trailed the index. Of course, if you pick the years when Berkshire's stock is way ahead of the index, all of the short yearly intervals will look superior. When you get to the 55-year full performance table, have a gander at the number of years when Berkshire trailed the index. There are a bunch. Find the ones when the company trailed by a bunch (1999 for example) and think about what the trailing 2, 3, 4, 5-year and so forth returns looked like at those moments. Then ask if it would have been a good time to buy the stock by reviewing the subsequent years' performance. The guy that invented the phrase, "Buy low" didn't just make it up. Right, Yogi?

To the observer a year ago, one might conclude genius for beating the index not only for 18 out of 20 intervals but for 52 out of 54, with Berkshire's returns since inception of 20.5% fairly described as crushing the 9.7% posted by the mighty S&P 500. Even for the twenty years after the General Re acquisition, Berkshire had beat the index 7.6% to 5.6%. Using the 2018 return table as a proxy for success, investment genius may be a fitting description. Can one go from genius to goat (not G.O.A.T.) in less than four months?

It should be obvious how the dramatic deviation between 11.0% and 31.5% for one year can impact the 2-year, 3-year and so forth returns. Berkshire remains ahead at 4 years but doesn't get back ahead until the 13-year mark. A year ago, brilliant. Today, stupid. You guys did a really good job over the last four years, but boy were you dumbasses for three and five. It's a wackadoo way to think.

We have had similar frustrations with the classic consultant's 1-3-5-7-10-inception measurement tool, despite our shorter 21-year history. At the end of 2011, our intervals were off the charts for all intervals, thanks to being ahead for 1-year but also for declining far less than the market in 2008 and with 2000 to 2002 having been way up when the market tanked. The returns of our stocks since inception, with no cash assigned, was 11.7%. The S&P 500 had averaged 1.9%. Rockstar.

Semper Augustus Equities; Forward and Backward CAGR's Versus the S&P 500 Intervals to and from Year-end 2011

Date	SAI Equities Only	CAGR to 2011	CAGR from 1999	S&P 500	CAGR to 2011	CAGR from 1999
12/31/1999	29.1%	11.8%	29.1%	19.9%	2.0%	19.9%
12/31/2000	30.7%	10.3%	33.0%	-9.1%	0.6%	4.8%
12/31/2001	23.1%	8.6%	29.4%	-11.9%	1.5%	-1.4%
12/31/2002	-22.0%	7.3%	13.4%	-22.1%	2.9%	-7.3%
12/31/2003	38.2%	11.1%	18.1%	28.7%	6.2%	-0.8%
12/31/2004	16.3%	8.2%	17.8%	10.9%	3.6%	1.1%
12/31/2005	7.4%	7.0%	16.2%	4.9%	2.6%	1.7%
12/31/2006	18.4%	7.0%	16.5%	15.8%	2.3%	3.4%
12/31/2007	3.1%	4.8%	14.9%	5.5%	-0.2%	3.6%
12/31/2008	-21.6%	5.3%	10.5%	-37.0%	-1.6%	-1.5%
12/31/2009	27.9%	16.2%	12.0%	26.5%	14.1%	0.8%
12/31/2010	14.4%	10.7%	12.2%	15.1%	8.4%	1.9%
12/31/2011	7.1%	7.1%	11.8%	2.1%	2.1%	2.0%

**All returns for 1999 are as of 2/28/1999, which is the composite inception.
See performance information and disclosures at end of letter.
Periods less than one year are not annualized.*

Of course, we would have looked like idiots four years later, having lagged in each of those years by a ton, and with the 1-year down 10.3% versus a gain of 1.4%, the 11.7% differential that year, combined with the three prior years lagging by a bunch, the intervals were a mess. Then of course, salvation. We were ahead of the market by a bunch over the next three years, and at year-end 2018, just as with Berkshire, order was restored to most of the intervals (except for the shorter ones impacted by the four-year lag from 2012 to 2015). Then comes 2019, and with our 1-year for the stocks at 23.6 versus the index's 31.5, we are back to looking like fools. But the 4-year return, like Berkshire's, is ahead. So I got that goin' for me, which is nice.

Here are our intervals through 2018, where we looked pretty smart thanks to the 1-year being ahead of the index. 2019 immediately follows, where we lag for the 1-year, and again look like we have no idea what's going on.

Semper Augustus Equities; Forward and Backward CAGR's Versus the S&P 500
Intervals to and from Year-end 2018

Date	SAI Equities Only	CAGR to 2018	CAGR from 1999	S&P 500	CAGR to 2018	CAGR from 1999
12/31/1999	29.1%	10.6%	29.1%	19.9%	5.6%	19.9%
12/31/2000	30.7%	9.6%	33.0%	-9.1%	4.9%	4.8%
12/31/2001	23.1%	8.5%	29.4%	-11.9%	5.7%	-1.4%
12/31/2002	-22.0%	7.7%	13.4%	-22.1%	6.8%	-7.3%
12/31/2003	38.2%	9.9%	18.1%	28.7%	9.0%	-0.8%
12/31/2004	16.3%	8.3%	17.8%	10.9%	7.8%	1.1%
12/31/2005	7.4%	7.7%	16.2%	4.9%	7.6%	1.7%
12/31/2006	18.4%	7.7%	16.5%	15.8%	7.8%	3.4%
12/31/2007	3.1%	6.9%	14.9%	5.5%	7.1%	3.6%
12/31/2008	-21.6%	7.2%	10.5%	-37.0%	7.3%	-1.5%
12/31/2009	27.9%	10.7%	12.0%	26.5%	13.1%	0.8%
12/31/2010	14.4%	8.9%	12.2%	15.1%	11.7%	1.9%
12/31/2011	7.1%	8.2%	11.8%	2.1%	11.3%	2.0%
12/31/2012	6.8%	8.4%	11.4%	16.0%	12.7%	2.9%
12/31/2013	17.3%	8.6%	11.8%	32.4%	12.2%	4.7%
12/31/2014	5.2%	7.0%	11.4%	13.7%	8.5%	5.2%
12/31/2015	-10.3%	7.4%	10.0%	1.4%	7.2%	5.0%
12/31/2016	27.7%	14.1%	10.9%	12.0%	9.3%	5.4%
12/31/2017	18.0%	7.9%	11.3%	21.8%	7.9%	6.2%
12/31/2018	-1.4%	-1.4%	10.6%	-4.4%	-4.4%	5.6%

Semper Augustus Equities; Forward and Backward CAGR's Versus the S&P 500
Intervals to and from Year-end 2019

Date	SAI Equities Only	CAGR to 2019	CAGR from 1999	S&P 500	CAGR to 2019	CAGR from 1999
12/31/1999	29.1%	11.2%	29.1%	19.9%	6.7%	19.9%
12/31/2000	30.7%	10.3%	33.0%	-9.1%	6.1%	4.8%
12/31/2001	23.1%	9.3%	29.4%	-11.9%	6.9%	-1.4%
12/31/2002	-22.0%	8.6%	13.4%	-22.1%	8.1%	-7.3%
12/31/2003	38.2%	10.7%	18.1%	28.7%	10.2%	-0.8%
12/31/2004	16.3%	9.2%	17.8%	10.9%	9.1%	1.1%
12/31/2005	7.4%	8.7%	16.2%	4.9%	9.0%	1.7%
12/31/2006	18.4%	8.8%	16.5%	15.8%	9.3%	3.4%
12/31/2007	3.1%	8.1%	14.9%	5.5%	8.8%	3.6%
12/31/2008	-21.6%	8.5%	10.5%	-37.0%	9.1%	-1.5%
12/31/2009	27.9%	11.8%	12.0%	26.5%	14.7%	0.8%
12/31/2010	14.4%	10.3%	12.2%	15.1%	13.6%	1.9%
12/31/2011	7.1%	9.8%	11.8%	2.1%	13.4%	2.0%
12/31/2012	6.8%	10.2%	11.4%	16.0%	14.9%	2.9%
12/31/2013	17.3%	10.7%	11.8%	32.4%	14.7%	4.7%
12/31/2014	5.2%	9.6%	11.4%	13.7%	12.0%	5.2%
12/31/2015	-10.3%	10.5%	10.0%	1.4%	11.7%	5.0%
12/31/2016	27.7%	16.4%	10.9%	12.0%	14.4%	5.4%
12/31/2017	18.0%	12.9%	11.3%	21.8%	15.3%	6.2%
12/31/2018	-1.4%	10.4%	10.6%	-4.4%	12.1%	5.6%
12/31/2019	23.6%	23.6%	11.2%	31.5%	31.5%	6.7%

**All returns for 1999 are as of 2/28/1999, which is the composite inception.
See performance information and disclosures at end of letter.
Periods less than one year are not annualized.*

Our takeaway from the changing yearly intervals, ours and Berkshire's, is that you don't go from GOAT to goat. Rather, a good investor not charged with closely hugging some benchmark will zig and zag at different times. The logical response, to us at least, is that opportunity may present itself when short-term returns are out of step. If an investment process or business has a realistic expected return of, say 10% per year, then when absolute returns fall short of the number, one may expect superior prospective results as the shortfall accretes upward. Similarly, when measuring an opportunity set, say an investor against an index or another investor with a like long-term expected return, lagging relative results may favor the prospective results of the sinner, the one lagging in the short-term, not the saint. In the case of Berkshire, where we expect a sustainable 10% return on equity, when the stock lags the long-term expectation, our radar detects opportunity. No doubt the opposite occurs when returns outpace the underlying fundamentals and expected return. The S&P 500 falls into the latter camp thanks to last year's 31.5% romp.

Above the Fold

“If you don’t read the newspaper, you’re uninformed. If you read the newspaper, you’re mis-informed.” – Mark Twain

The January 29 morning read included the news of Berkshire’s “sale” of its ownership in its newspaper business to Lee Enterprises, long-time owner of our local Post-Dispatch, for \$140 million, plus some terms summarized shortly. Given the inconsequential size of the business to Berkshire, the story warranted only a quick skim as the larger news was Apple’s earnings release adding \$2.5 *billion* to Berkshire’s stake on the open, except for what the newspaper transaction with Lee may portend.

The sale of the media business to Lee is a reasonably good deal for Berkshire and a good deal for Lee as well. The more important sub-headline: If the sale signals Berkshire’s willingness to sell or creatively restructure certain underperforming subsidiaries within its Manufacturing, Service and Retail group, that’s a positive sign in that it isn’t necessarily a small number of businesses. The word underperforming may be harsh, maybe not. It’s likely there are a number of businesses that would be better off as part of a larger entity within its own industry. BH Media Group fits the bill on both fronts.

The terms of the deal have Berkshire selling its *equity* stake to Lee for \$140 million and investing \$576 million in 25-year *debt* in the combined enterprise as sole creditor. Berkshire retains the *real estate* assets of BH Media with Lee making an annual lease payment of 8% to Berkshire. The announcement made no mention of the value of the real estate retained, but at \$100 million, a cap rate of 8% is implied. We more likely think the real estate to be valued at “about” \$136 million, which gets to a more modern market competitive 5.9% cap rate. Why \$136 and not \$130 or \$135 or \$140? Over the years of observing Berkshire, the CEO likes to work in round figures. If you back off the \$140 million Berkshire is being paid for the equity and the \$136 million in real estate retained, Berkshire is thus investing an even \$300 million in *net new capital* in the combined BH Media / Lee deal, and on that is to be paid \$51.8 million in interest and \$8 million rent, for a cool \$60 million per year.

We presume BH Media carried no term debt (it may have had an internal capital charge to Berkshire as the parent, though unlikely) while Lee is drowning in debt. If you can’t swim and are standing in the shallow end of a pool with the water at your neckline you are fine. If the water level recedes, you are better off yet. However, one too many steps toward the deep end and you drown. In this case you are a business and the water is the debt. A highly leveraged enterprise can die when the top line shrinks. Lee’s top line and the newspaper industry in general have recessed for years. Google and Facebook just crushed print advertising and classified ads, with readership diverting for years to myriad alternative channels.

Why swap an equity stake in an unleveraged newspaper business making a profit for a creditor and real estate lessor position in an uncontrolled competitor (though Lee has managed the BH Media business on a contract basis since 2018)? Despite the predictable lamentation by journalists working at BH Media-owned papers for having had their cocoon sold out from under them, the business grew to be terrible from an equity investment standpoint. The news of the sale was too small to warrant a Berkshire press release, but Lee did, and it’s always enlightening to the analyst to get granular data on subsidiaries long since disappeared into the black hole of conglomerate reporting. BH Media had 2019 revenues of \$373.4 million and disclosed the following income statement figures:

Revenues	\$373,400	
“Adjusted” EBITDA	47,368	12.7% margin
Depreciation and Amortization	24,761	
Assets loss on sales, impairments and other	1,981	
Restructuring costs and other	<u>1,422</u>	
Earnings before tax	19,205	5.1% margin
Income tax expense	<u>4,320</u>	
Net Income	14,885	4.0% margin

(Figures in thousands).

The sight of “Adjusted” EBITDA immediately leaps off the page, as the exclusion of costs aren’t typically seen at Berkshire.

The real question is how profitable, or not, is the newspaper business? Using solely the combined proceeds of \$140 million and our assumed real estate value of \$136 million as the entire amount of Berkshire’s equity capital, the business was earning 5.4% on \$276 million in unleveraged equity. Even if the extraordinary losses on sales and impairments and restructuring costs were added back into firm profit, using the implied 22.5% tax rate brings the unleveraged return on equity up to only 6.35%. Unless the profit figure is depressed, the returns are unacceptable. The real problem is that Berkshire *paid more* than the current sales proceeds and presumed real estate value for the media properties being sold. Berkshire paid \$344 million for a series of newspapers earlier in the past decade and had paid \$36 million for the Buffalo News in 1977, also included in the sale to Lee. The Omaha World-Herald was purchased for \$200 million alone in 2011 in cash and assumed debt. If *all* profits were paid to Omaha and if no additional capital were invested in the business, then in the best case of \$17.5 million in profit on the \$380 million actually invested, Berkshire’s return is only 4.6% on equity. That figure excludes inflated replacement cost or opportunity cost. Lots of assumptions here but, at bottom, let’s agree the business is a dud.

Reverting back to Peter’s Principles, Berkshire had and has done everything it can do to take care of the agencies involved in owning and running a collection of newspaper businesses, on the premise that a local press is good for local communities. Given the magnitude of industry decline, the newspapers owned by Berkshire existed in a protective shell of sorts, but duty to shareholders cannot be entirely sacrificed in the interest of the other agencies. Berkshire’s shareholders are clearly losing with the media businesses, with whatever profit earned being far below any reasonable cost of capital.

Berkshire went above and beyond to sustain dying businesses, and for that employees and communities benefited with the continuation of a local press. Regulatory concern was way more of an issue in the days when the single local paper in a town really was as a monopolist. Had Berkshire’s papers been owned in other hands for the past decade, with leveraged capital structures, many of the individual entities would have already been shuttered and more journalists let go. At the point when a for-profit enterprise is doomed, it’s natural to expect action. The operating agreement between Berkshire and Lee two years ago was put in place to find shared costs, be it regional copy editing or consolidating printing facilities. Despite the effort, when profits are diminished and incapable of rising to the level of bare adequacy, the manager must act, and we applaud Berkshire for having done so here. Collectively, more journalists will have their jobs five and ten years from now in the BHMG / Lee combination than would otherwise be the case.

Berkshire moves to the position of sole creditor and allows Lee to refinance its 10.7% long and short-term debt, eliminating its revolver and securing needed cash reserves. Berkshire earns 9% on its debt and a lower return on its leased real estate. Lee’s owners, the shareholders, effectively own a call option with a zero-strike price. Manage the business to service a 9% debt burden and if the cost structure allows for

profit then they win. Without what effectively amounted to debtor-in-possession financing by Berkshire, the Lee business was doomed, and far more people would have lost their jobs and more and more towns their local rags. Berkshire invests a new incremental \$300 million into the new entity, earns \$60 million a year in pre-tax cash flow (\$43 million more than at present), and the papers live to fight another day. If it goes badly for Lee's equity owners, Berkshire gets its cash out of the business in just under ten years and the journalists so upset with Berkshire for mercilessly abandoning them may find themselves someday working again for the Omaha-based employer, writing behind a digital paywall. The deal is what Peter Kaufman would refer to as win-win, albeit a game rigged against all of the players.

Bye-Bye Book Value

I'm a rolling thunder, a pouring rain. I'm comin' on like a hurricane. – Brian Johnson, Angus and Malcolm Young

Book value as a proxy of value in Omaha is going the way of the dodo.

The Chairman's letter circa 2018:



Long-time readers of our annual reports will have spotted the different way in which I opened this letter. For nearly three decades, the initial paragraph featured the percentage change in Berkshire's per-share book value. It's now time to abandon that practice.

The fact is that the annual change in Berkshire's book value – which makes its farewell appearance on page 2 – is a metric that has lost the relevance it once had. Three circumstances have made that so. First, Berkshire has gradually morphed from a company whose assets are concentrated in marketable stocks into one whose major value resides in operating businesses. Charlie and I expect that reshaping to continue in an irregular manner. Second, while our equity holdings are valued at market prices, accounting rules require our collection of operating companies to be included in book value at an amount far below their current value, a mismatch that has grown in recent years. Third, it is likely that – over time – Berkshire will be a significant repurchaser of its shares, transactions that will take place at prices above book value but below our estimate of intrinsic value. The math of such purchases is simple: Each transaction makes per-share intrinsic value go up, while per-share book value goes down. That combination causes the book-value scorecard to become increasingly out of touch with economic reality.

In future tabulations of our financial results, we expect to focus on Berkshire's market price. Markets can be extremely capricious: Just look at the 54-year history laid out on page 2. Over time, however, Berkshire's stock price will provide the best measure of business performance.

Hell's bells! All these long years – a quarter century following the company and two decades as shareholders, jumping through countless hoops to decipher Berkshire's profitability as a proportion of equity capital in the business – to be confronted with the cold truth behind the utility of book value. Reported earnings are already meaningless. Now shareholders' equity. What next, cash???

Three points are made. Let's examine each:

Point One – *Berkshire has morphed from a business concentrated in stocks to one more concentrated in operating businesses, and the future mix will grow irregularly.* No doubt this is fact. Prior to Berkshire's acquisition of General Re, stocks were 115% of Berkshire's entire book value and fully 65% of total assets. With the addition of General Re's enormous bond portfolio, the proportion of stocks to book value dropped immediately to 65% and to only 30% of assets. Over the next two decades, the mix stayed fairly

constant, finishing 2019 with stocks at 59% of equity and 30% of total firm assets. Perhaps what should have been said was the proportion of business earned outside of property casualty insurance and reinsurance declined and stands to do so going forward.

Two decades ago, more than 85% of Berkshire's business value was derived from its insurance companies, whose assets are concentrated in stocks. Today, roughly 45% of Berkshire's value as we measure it comes from its insurers. In the insurance world, book value is a critical and tangible thing. The value of assets on hand are required to pay underwriting losses as they develop. If anything, when insurers fool themselves and inadequately reserve for future losses, liabilities are more likely *understated*, which serves to *overstate* book value. When insurers write on an admitted basis, regulators require varying amounts of book value, conservatively measured as statutory surplus, to write policies. Those writing in unregulated competitive markets must still satisfy customers and ratings agencies with adequate capital strength. Book value at the nearly half of Berkshire comprising insurance is very real very necessary.

Point Two – *Accounting rules require Berkshire's operating companies to be carried in book value at amounts below current value, with a disparity that will only grow.* Outside of the insurance operation, Berkshire's next largest subsidiaries are its railroad first and collection of utility and energy businesses second. In both cases, each has older fixed assets that are carried at depreciated, historical cost that can understate replacement cost by a wide margin. To this point Berkshire is correct. However, as depreciated, fixed assets are replaced at today's cost, the new asset values are carried at new cost. In the case of regulated utilities, the new investment, even for replacement assets, is included in the ratemaking process. It's therefore in the best interest of a utility to have a full book value, against which rates can be set. At the railroad, huge investments have been made in equipment and fixed assets over Berkshire's decade of ownership. Further, when the acquisition of the railroad was made, Berkshire paid a large premium over BNSF's then carrying value of its net assets. The premium that Berkshire paid is carried as goodwill and other intangibles. As such, during the decade under Berkshire's care, not enough inflationary years have passed to suggest the railroad's book value is materially understated. Unlike BNSF's publicly traded competitors that are net repurchasers of their shares in the open market at vast premiums to book value, thereby reducing book value and book value per share, no such transactions have taken place at BNSF. Book value in both the rail and the utilities are solidly stated and reliable measures of net asset value. These two businesses represent more than 20% of the entire value of Berkshire, so combined with the roughly 45% harbored in insurance, fully two-thirds of value comes from subsidiaries with book value that has genuine meaning as a proxy of value.

Next to insurance, the railroad and the utility and energy businesses, consider the cash within Berkshire held outside of the insurance operation, which we figure at \$71 billion at yearend sans any material share repurchases or stock market buys. I won't say much here. Cash can't be described as anything beyond an asset and equity. The cash outside of the insurers represents nearly 10% of Berkshire's combined value. Now we're at 75% of the value of the business.

Finally, let's move to Berkshire's manufacturing, retail and service businesses, which now include the leasing operations previously categorized separately under Finance and Financial Products. In the 16 years since breaking the group out separately, the combined subsidiaries within this segment grew revenues from \$32 billion to an estimated \$142 billion. The stated equity capital of the business was \$15 billion then and we estimate at \$122 billion now. A sizable majority of the growth in the group came via acquisition, where the goodwill and other intangible balance grew from \$8 billion to \$72 billion. If you are doing the math, \$64 billion of the \$107 billion increase in book value, 60%, comes from premiums paid in acquisitions alone (which are partially written down through amortization of the intangibles balance). If this group is a source of loads of hidden value, with businesses carried "below their value," then that's a **problem**, because the stated profitability of the group measured against our estimate of book

value is already insufficiently low. To suggest the stated book value of this group is materially understated is either deluded or proves a poor outcome of capital allocation over the past decade and a half.

Point Three – *Berkshire will be a significant acquirer of its shares at prices above book value but below intrinsic value, which will increase intrinsic value per share but shrink book value per share.* The proof is in the pudding here. Berkshire proved a lack of thirst for share repurchases in the last few years, and for much of the last two decades the shares traded below our estimate, and we presume management's calculation, of intrinsic value. The presumption is that repurchases will take place below intrinsic value. Harry Singleton bought back shares at significant discounts to tangible book value, and also knew when to spend them, as we believe Berkshire's management proved willing to do successfully, despite commentary to the contrary. During 2019, Berkshire's shares traded between 123% and 144% of average trailing annual book value, a veritable bargain for a business that we think earns 10% on book value (yes, book value). Berkshire spent \$2.8 billion repurchasing 9,211 'A' share equivalents during the first nine months of 2019 at an average price share of \$304,744, roughly a 28% premium to average book value per share during the year. We estimate shareholders' equity (book value) rose 23.3% during the year, and with the decline in shares outstanding grew book value per share by 24.0%.

While Berkshire repurchased just over 0.5% of its outstanding shares over nine months, there *are* businesses with assets carried at extremely low valuations and many who repurchase significant shares at big discounts to book value. We discussed Starbucks, a great company that spent such enormous sums over the last few years that their book value is now negative. Any good analyst will look at a reported return on equity and determine the cause of any apparent over or understatement. At a point, valuation centers on assessing earning power in absence of calculating the worth of a stated equity number.

A problem with assessing simple earning power in a company like Berkshire is two-thirds of its value comes from its insurance operation and regulated businesses, where book value is meaningful. Berkshire also pays no dividend, so what it does with retained earnings is critical. Retained earnings are effectively new capital invested in the business. If Berkshire earns 10% on equity, as we calculate it did for the last 20 years and believe can for the next 10 to 20, then more than 60% of Berkshire's book value in 10 years will come from what it earned on retained earnings (new equity). These are not historic assets we're talking about but prospectively invested assets. If Berkshire really does start hoovering up its shares in the open market at big discounts to value, then the investment community will make the adjustment required in assessing Berkshire's worth.

I'm baffled by the comment, "In future tabulations of our financial results, we expect to focus on Berkshire's market price. Markets can be extremely capricious: Just look at the 54-year history laid out on page 2. Over time, however, Berkshire's stock price will provide the best measure of business performance." O.K., so, look at page 2 from last year's performance page in the annual, always the first page of the Chairman's letter. When I look at the page, I see a stock that *very closely tracked the change in book value per share over time*. Perhaps that the stock was ahead of the book value by 20.5% to 18.7% for 54 years the thinking is that the stock is the better gauge? I don't know. For the past 20 years, book value proved the victor.

It will be interesting to see if the book value column truly disappears this year and what the explanation will be for the stock gaining "only" 11.0% while book value per share raced ahead by 24%! The deemphasis of book value with this business is a mystery to me. Berkshire has a half century plus a half decade not paying a dividend and seeing its book value compound by the underlying business' return on equity, and whose stock price marches lock step forward over time. I totally understand there truly are businesses like See's inside Berkshire, where capital really hasn't been reinvested and where asset values

are carried at historic cost and are dwarfed by current earnings. Those businesses are very much in the minority at Berkshire, however.

In the meantime, even though the change in book value per share column looks to be going bye-bye, having been the key performance metric for 55 years, know that you will continue to find it here, along with our ongoing assessment of its relevance and importance or of its eventual diminished utility. Book value matters at Berkshire Hathaway. A lot. And be careful what you wish for. If you convince the world your intrinsic value is much higher, but you don't bring commensurate earning power to the party, then the party becomes a dud. We work a full gymnastic routine in demonstrating the earning power of Berkshire and its equation to a 10% return on equity. In our mind the 10% level is a ceiling and doesn't stand to be better. Ever. Perhaps that's the problem. If you prove equity is understated, that suggests the return on Berkshire's capital employed is inferior to 10%, which would not be a happy thing.

It appears this has become the bone-picking portion of the letter, so let's continue and then get it out of the way.

If a Tree Falls in the Forest

"But, say you, surely there is nothing easier than for me to imagine trees, for instance, in a park, and nobody by to perceive them." – George Berkeley; A Treatise Concerning the Principles of Human Knowledge (1710)

Timber...

We utilize a number of methods in assessing a valuation of Berkshire, all of which essentially try to get to an estimate of the durable economic earning power of the business measured against the capital required to conservatively run the operation. It's the same thing with any business under review. The most useful tool with Berkshire is a sum of the parts analysis. For years, management presented supplemental data for what became four distinct groups within the company. The data helped make sense of the major clusters of businesses, intelligently grouped within the conglomerate. When rolled up in the parent's consolidated financial statements the segments simply become lost to analysis. Separately understanding the railroad and the energy businesses, the finance and leasing businesses, the diversified group of manufacturing, service and retail businesses and finally the combined insurance operations is extremely useful. Not only could the earning power of each group be assessed but it could generally be measured against the equity and any debt capital employed in each group. We know of no better way to analyze a business. Even in the absence of realistic book value, per the prior section, as long as you know the degree to which capital is retained from profit or introduced as new into the capital structure, the incremental return on that capital can be approximated.

For two decades, the last Saturday morning in February begins in the footnotes of Berkshire's annual report to gauge how the business fared during the fourth quarter and the year. Last year, we were surprised to see the revenue of the MSR group come in nearly \$10 billion higher than expected and the group's profit proportionally higher still. It didn't take long to realize that the smaller Finance and Financial Products segment had been summarily rolled up into the larger MSR group. The finance businesses had been separately accounted for, even in the consolidated financial statements, for years up to September 30, then poof, gone to the black hole with nary a word. The reflexive reaction here was two-handed. On one hand, the leasing group had gotten so immaterially small relative to the whole then what better time than the present to roll it up. The other hand, as is typical to the analyst, was more sinister in assignment of causality. Gosh, we had just written a section in our letter about the declining fortune of this large MSR group (large enough to alone merit top 14 status in the Fortune 500 by revenue size had it

been a separate company, snuggling between General Motors and Costco). You don't suppose the finance group, which is killing it, would be used to mask ongoing deterioration in the larger group?

Only once the cursory reconciliation and read through the MD&A is complete is it on to the Chairman's letter. Well lo and behold, immediately after learning of the surprising lack of utility in book value at Berkshire, we were admonished, reprimanded really,

"Investors who evaluate Berkshire sometimes obsess on the details of our many and diverse businesses – our economic "trees," so to speak. Analysis of that type can be mind-numbing, given that we own a vast array of specimens, ranging from twigs to redwoods."

Those words kicked off a section titled, "Focus on the Forest – Forget the Trees." After recognizing that some of the trees were diseased and dying (see the Newspaper section above), others were destined to grow in size and beauty.

The second paragraph continued,

Fortunately, it's not necessary to evaluate each tree individually to make a rough estimate of Berkshire's intrinsic business value. That's because our forest contains five "groves" of major importance, each of which can be appraised, with reasonable accuracy, in its entirety. Four of those groves are differentiated clusters of businesses and financial assets that are easy to understand. The fifth – our huge and diverse insurance operation – delivers great value to Berkshire in a less obvious manner, one I will explain later in this letter.

What a relief. We must have been doing it all wrong around here, obsessing over mind-numbing tedium. But suppose the few diseased trees aren't in isolation, quarantined so to speak, but are spread and spreading among the entire forest. Disease, like wildfire, is wont to spread.

Moving from the Chairman's letter to the first Saturday in May, we were again admonished, reprimanded really. When asked about the disappearance of the finance and financial products segment, and the disappearance of the balance sheet for the MSR group, and a breakdown of float among the insurers, we learned from the dais,

Well, I don't think we actually provide less information. We may present it in a somewhat different form from year to year, just — and then this year, for example, you know, I started my letter, as usual, in my mind as saying, "Dear Doris and Bertie," my sisters, to tell them what I would tell anybody that had a very significant proportion of their net worth in Berkshire, who is intelligent, did not know all the lingo of our various businesses, that would read a lot of words, because they did have a large investment. So, if I explained anything, and did a decent job, that they would understand what I was talking about. And I tell them that in the language that I think will be understandable to a significant percentage of a million-plus people who have all kinds of different understanding of accounting and all that sort of thing. I tell them the information I would want to hear on the other side.

Now, if I was a competitor, and I wanted to know what one of our furniture stores was earning or something of the sort, you know, I might love it, but it doesn't really make any difference. If you're talking about a \$500 billion organization, if you understand our insurance business, in terms of giving you the picture, I think, in three or four or five pages — you know, actually we've got a whole bunch of stuff required by the SEC about loss reserve development. I think you can write a 300-page report that gives a whole lot less information than a 50-page report. And you lose people. So, I try to tell them — like I say, in my mind, it's my sisters — I try to tell them what I would tell them if we had a private business and they owned a third of it each, and I owned a third, and once a year, they like to get filled in. And they don't know what a combined ratio means

because it's a dumb term that everybody uses. And the important thing is to call it a profit margin. They don't know what the operating ratio is in the railroad business, and it's an obsolete term. It'd be better to call that a profit margin.

But the lingo — we're not writing it for analysts. We're writing it for shareholders, and we're trying to tell them something so they can make a — they can not only get the picture as to what we own now, but how we think about the operation, what we're trying to do over time. And we try to do the best job we can every year. And I don't think it — I think if somebody is terribly interested in the details, they really are missing the whole picture. Because you could have known every detail of our textile business in 1965, and we could give you the information as to how much we made from linings and how much we made from handkerchiefs, and you'd be in a different world. I mean, the important thing was how we looked at running money and what we would do about things over time. And it just — you could have gotten very misled — if you'd read it in 1980 or '85 and you looked for great detail on how See's candy was doing because they moved eastward, you know, we'll tell you that overall that failed, in terms of moving out the territory.

But going into a whole lot of detail that might be very interesting to an analyst, but really for the shareholder, they've got to make a decision as to who's running their money, and how they're running it, and what they've done over time, and what they hope to do in the future, and how to measure that. And again, we're writing it for the individual.

In essence, trust me. Whenever those word are uttered or suggested, we instantly go to the archive and memories of our 40th president, who borrowed the Russian proverb *doverýáy*, no *proveryáy*, trust but verify, in nuclear disarmament negotiations with Mikhail Gorbachev and the Soviets.

B.S. (and not balance sheet). Measuring earning power in isolation is meaningless without knowing how much capital is employed in its production. We discussed last year the quaint notion of whether reporting on what's now a more than \$800 billion in assets conglomerate should be geared to a pair of financially unsophisticated sisters of the Chairman or to professional investors with substantial amounts of their capital and their client's capital invested in the business and the fiduciary duty that goes with it.

On the notion of not supplying summary balance sheet information for the MSR group for “competitive reasons,” as had been deemed important enough to do so from 2003 to 2016, I repeat B.S., and that's again not balance sheet. The group is wildly diversified. No single competitor could glean a single shred of competitive advantage from seeing the consolidated MSR assets, liabilities *and* equity balance, other than to know that Berkshire runs its operations with little or no financial leverage.

A deteriorating return on equity capital within the MSR group is of progressive concern. The oft-repeated observation that the group is a collection of wonderful businesses that earn north of 20% returns on net *tangible* equity capital always bothered us. A pair of intelligent but not financially sophisticated sisters might find it interesting that tangible equity *excludes* goodwill and other intangibles, which reflect the premium paid in an acquisition above the acquiree's net asset value, or book value. Noting how terrific and profitable a business was *before* you bought it is worth knowing, especially if the business can maintain or grow that level of profitability, and *particularly* if profit can be retained and/or if additional capital can be invested at those returns. The Chairman has often taught that a great business bought at the wrong price can be a terrible investment. Let's take a look at the progression of the MSR group as reported in the Chairman's letter from 2003 to 2016, with our estimates for the subsequent three years.

Manufacturing, Service and Retail Summary Figures - 2003 to 2019 (*Dollars in billions*)

Assets	2019E	2018E	2017E	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Cash and Equivalents	\$20,000	\$13,519	\$13,519	\$8,073	\$6,807	\$5,765	\$6,625	\$5,338	\$4,241	\$2,673	\$3,018	\$2,497	\$2,080	\$1,543	\$1,004	\$899	\$1,250
Accounts and Notes Receivable	17,135	13,197	11,756	11,183	8,886	8,264	7,749	7,382	6,584	5,396	5,066	5,047	4,488	3,793	3,287	3,074	2,796
Inventory	19,951	16,793	16,187	15,727	11,916	10,236	9,945	9,675	8,975	7,101	6,147	7,500	5,793	5,257	4,143	3,842	3,656
Other current assets	?	1,039	1,039	1,039	970	1,117	716	734	631	550	625	752	470	363	342	254	262
Total current assets	?	44,548	42,501	36,022	28,579	25,382	25,035	23,129	20,431	15,720	14,856	15,796	12,831	10,956	8,776	8,069	7,964
Goodwill and other intangibles	\$72,000	\$70,611	\$71,503	\$71,473	\$30,289	\$28,107	\$25,617	\$26,017	\$24,755	\$16,976	\$16,499	\$16,515	\$14,201	\$13,314	\$9,260	\$8,362	\$8,351
Fixed assets	?	23,947	19,694	18,915	15,161	13,806	19,389	18,871	17,866	15,421	15,374	16,338	9,605	8,934	7,148	6,161	5,898
Other assets	?	3,183	3,183	3,183	4,445	3,793	4,274	3,416	3,661	3,029	2,070	1,248	1,685	1,168	1,021	1,044	1,054
Total assets	202,897	142,289	136,881	129,593	78,474	71,088	74,315	71,433	66,713	51,146	48,799	49,897	38,322	34,372	26,205	23,636	23,267
Liabilities and Equity																	
Notes payable	\$25,880	\$2,054	\$2,054	\$2,054	\$2,135	\$965	\$1,615	\$1,454	\$1,611	\$1,805	\$1,842	\$2,212	\$1,278	\$1,468	\$1,469	\$1,143	\$1,593
Other current liabilities	5,106	12,464	12,464	12,464	10,565	9,734	8,965	8,527	15,124	8,169	7,414	8,087	7,652	6,635	5,371	4,685	4,300
Total current liabilities	30,986	14,518	14,518	14,518	12,700	10,699	10,580	9,981	16,735	9,974	9,256	10,299	8,930	8,103	6,840	5,828	5,893
Deferred taxes	\$5,400	\$10,100	\$10,100	\$12,044	\$3,649	\$3,801	\$5,184	\$4,907	\$4,661	\$3,001	\$2,834	\$2,786	\$828	\$540	\$338	\$248	\$105
Term debt and other liabilities	43,380	10,943	10,943	10,943	4,767	4,269	4,405	5,826	6,214	6,621	6,240	6,033	3,079	3,014	2,188	1,965	1,890
Total liabilities	79,766	35,561	35,561	37,505	21,116	18,769	20,169	20,714	27,610	19,596	18,330	19,118	12,837	11,657	9,366	8,041	7,888
Non-controlling interests	\$579	\$579	\$579	\$579	\$521	\$492	\$456	\$2,062	\$2,410	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Berkshire equity	122,552	106,149	100,741	91,509	56,837	51,827	53,690	48,657	36,693	31,550	30,469	30,779	25,485	22,715	16,839	15,595	15,379
Income Statement																	
Revenues	\$142,200	\$131,000	\$126,533	\$120,059	\$107,825	\$97,689	\$95,291	\$83,255	\$72,406	\$66,610	\$61,665	\$66,099	\$59,100	\$52,660	\$46,896	\$44,142	\$32,106
Operating expenses*	129,332	120,335	117,026	111,383	100,607	90,788	88,414	76,978	67,239	62,225	59,509	61,937	55,026	49,002	44,190	41,604	29,885
Net interest expense	400	265	264	214	103	109	135	146	130	111	98	139	127	132	83	57	64
Pre-tax income	12,468	10,500	9,243	8,462	7,115	6,792	6,742	6,131	5,037	4,274	2,058	4,023	3,947	3,526	2,623	2,481	2,157
Income taxes	2,868	2,540	3,035	2,831	2,432	2,324	2,512	2,432	1,998	1,812	945	1,740	1,594	1,395	977	941	813
Net income	9,600	7,960	6,208	5,631	4,683	4,468	4,230	3,699	3,039	2,462	1,113	2,283	2,353	2,131	1,646	1,540	1,344
Profit Margin	6.8%	6.1%	4.9%	4.7%	4.3%	4.6%	4.4%	4.4%	4.2%	3.7%	1.8%	3.5%	4.0%	4.0%	3.5%	3.5%	4.2%
Return on Equity																	
Return on Tangible Equity	19.0%	22.4%	21.2%	28.1%	17.6%	18.8%	15.1%	16.3%	25.5%	16.9%	8.0%	16.0%	20.9%	22.7%	21.7%	21.3%	19.1%
Return on Capital	6.9%	7.9%	6.6%	6.2%	8.7%	9.1%	8.5%	7.8%	8.2%	7.2%	3.6%	7.1%	9.4%	9.4%	9.6%	9.6%	8.8%
Return on Net Tangible Equity	9.6%	22.7%	21.6%	22.6%	17.6%	19.3%	15.4%	15.0%	19.6%	12.1%	5.8%	11.4%	17.4%	17.3%	16.1%	16.3%	14.5%

*including depreciation of \$605 in 2003

Source: Semper Augustus; Berkshire Hathaway

Includes Finance and Financial Products Beginning 2018

2016 to 2019 contain numerous estimates. Some information from segment data footnote of the 2017 and 2018 10-K

Artists from Taylor Swift to Ray LaMontagne to Whitesnake crooned about it. Elvis Presley and later Travis Tritt spelled it out. T-R-O-U-B-L-E. Find a magnifying glass and follow the return on equity line over time and compare it with return on tangible equity. The analyst “terribly interested in the details” and “really missing the whole picture” might want to see how much a business earns on the amount of money invested in it *after* it is acquired. Including a control premium, money actually paid, seems relevant when judging skill in capital allocation.

A decline in return on equity from nearly 10% in the mid-2000’s to 8.25% in 2015 requires explanation. Holding out 2009, impacted severely by the financial crisis, there were non-recessionary years when returns dropped into the 7’s. Then came 2016 and the acquisition of Precision Castparts, a business we owned prior to its purchase by Berkshire at what we thought was a too-high control premium. You can see the huge increase in total assets and the surge in goodwill and other intangibles from \$30 billion to \$71 billion during the year. Return on equity tanked to 6.16% from 8.24% in the year prior to the deal. Return on tangible equity actually increased, thanks to *not considering* the price paid for acquired businesses above their carrying values prior to being bought.

I can tell you that we are definitively not interested in businesses earning 6% returns on invested equity capital, unless the return is depressed or stands to materially improve and regardless of the capital structure. I prefer to believe that the disappearance of the MSR and other groups from the Chairman’s letter and annual report the following year had nothing to do with the apparent diminution in reported returns.

Berkshire's footnotes continue to report on the following line items for the Manufacturing and the Service and Retail groups:

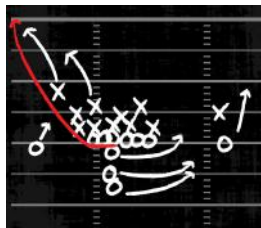
- Revenues
- Earnings before income tax
- Interest expense
- Income tax expense
- Capital expenditures
- Depreciation of tangible assets
- Goodwill at yearend
- Identifiable assets at yearend

Missing from segment presentation is any liability information. Some can be inferred by piecing together figures for the insurance group and supplemental financial statements for the holding company found at the back of the 10-K. I'd challenge anybody to come up with a solid number for equity in the MSR group. We even struggled to determine the equity invested in the Finance and Financial Products segment over the years despite stand-alone presentation in the consolidated balance sheet. Why? The entire net deferred tax liability is listed in the balance sheet as single, separate line item and not allocated to the groups or segments. Some of the deferred tax assets and liabilities can be roughly allocated because they are identified in the income tax footnote, but again, good luck trying to identify to which group they properly belong.

Our best guess for equity at the MSR group can be seen for the three most recent years, 2017-2019. To get to a number we tried backing into it. For 2019 we made our best estimate of GAAP book value at the insurance operation (only statutory surplus is identified once a year, so most recently for 2018). From the estimate for insurance GAAP book value we assumed that all assets and liabilities at the holding company offset. These include the equity method investment in Kraft Heinz and notes payable that are not specifically liabilities of the railroad or energy businesses, who file their own financial statements with the SEC.

Thanks to profits reported at the segment level, applying our best efforts guess at equity in the MSR group, you can see the immediate jump in return on equity to 7.5% in 2018 from 6.2% estimated the prior year. Sounds great, except for two considerations. One, much of the 21.5% year-over-year improvement is thanks to the change in the corporate tax rate from 35% to 21%. The vast majority of profits in the group are derived domestically, and the maximum tax rate benefit coincidentally works out to 21.5% (35/21). Second, remember the finance businesses happened to roll into the MSR group during the 4th quarter of 2018 to zero fanfare. I'd mentioned that Clayton Homes, the lynchpin of the finance group, was en fuego. Even without its stellar performance, our analysis concludes the Finance and Financial Products group was generally more profitable on a return on equity basis. Our sum of the parts breakout each year calculated the group's return and assigned *no* portion of the net deferred tax liability, which can't be the true case. With some assignment, the actual return of the group is higher than presented in our ongoing work, but we accounted for the understatement in our appraisal of the group. Then we get the assumed bump in 2019 to 7.8% which we presume can be attributed at the margin to continued rockstar performance at Clayton, now conveniently grouped in the formerly 6.2% earning MSR group.

The Fumblerooskie



Berkshire Hathaway is a very large holding at Semper. We've been shareholders since February 2000 and expect to own the stock for many years to come. As our largest holding, it's best described as the opportunity cost anchor in the portfolio. We jump through numerous hoops to determine a sustained return on equity of 10% for the consolidated business over the entirety of our ownership. We believe returns at the 10% level are sustainable. Because Berkshire essentially operates on a net debt-free basis, it earns the same return on capital as it does on equity.

We've just walked through the timing and unfortunate disappearance of important MSR information previously likewise deemed important by the company. As the business grows, yes, much of what was material to the whole becomes insignificant. The analyst need not know the details of Dairy Queen, and the fact that they are not reported by the parent company is perfectly understandable (thanks, though, to the chap who did pass along the DQ numbers this year – it is fun to see the grains). But knowing where the invested capital is allocated is critically important to an understanding of not just what's working but is the best way to evaluate how well or poorly the task of capital allocation is conducted. For most of the past 55 years, the result is unbelievably stellar. If the world champion football team receives the Lombardi Trophy, there is only one name that could ever be placed on a trophy awarded for a lifetime of skilled investing and capital allocation. Wide latitude should be granted to the management overseeing an organization devoid of poor accounting, of write-offs and writedowns, of aggressive pension assumptions, of convincing investors to ignore real expenses, of one-sided compensation schemes. Here is a management and a business that treats its shareholders, and its five other agencies under Peter's Principles, better than any over more than five decades.

That said, there are moments like Dean Steinkuehler running left with the ball in the 1984 Orange Bowl. For the record, Dean Steinkuehler was a stud, and I'm thankful is a few years older than me. At bottom, the growth of the whole and of changing dynamics will naturally make what was once significant less so. A review of the tectonic shifting is interesting. Who can fault the actor for wanting to be cast in the best light?

The expected removal of change in book value per share from the performance page of the annual report was discussed. In a year when book value per share probably rose by 24%, trumping the 11% gain in Berkshire's shares, it will be an unusual time to make the switch. It wouldn't be shocking to see the number reported at least once more, thanks to the year just ended. At a minimum, the gain in book value will be mentioned early in the Chairman's letter, even if it's yanked from the performance table. Why would a performance metric change when it appears unfavorable? It's seemingly happened before.

The Dual Yardsticks of Intrinsic Value

A favored benchmark helpful in assessing intrinsic value at Berkshire for many years were dual yardsticks presented in the Chairman's letter beginning in 1995. Here's the original presentation from the 1995 annual report:

Year	Marketable Securities Per Share	Pre-tax Earnings Per Share Excluding All Income from Investments
----	-----	-----
1965	\$ 4	\$ 4.08
1975	159	(6.48)
1985	2,443	18.86
1995	22,088	258.20
Yearly Growth Rate: 1965-95....	33.4%	14.7%

Berkshire never told investors precisely how it views intrinsic value and with the two yardsticks provided a simple back of the envelope tool for valuing the business. The yardsticks also highlighted the degree to which investments in marketable securities (the insurance operations, really) had contributed to value creation over time. The two data points for investments and pre-tax earnings were subsequently included in the four following years 1996-1999, were then omitted in the following five from 2000-2004, and found their way back for a decade beginning with the 2005 Chairman's letter. They permanently disappeared sans explanation following their final appearance in the 2015 annual.

The dual yardstick method, while simple, proved extremely logical and reliable. Determine the correct multiple to pay for the pre-tax earnings on all operating businesses and add to that figure the value of all investments. To get to what we thought was the right number required several additional adjustments, naturally, but these two easy to understand steps proved reasonably accurate.

To the point of this section, the character of the two numbers changed periodically, as well as their inclusion and exclusion. During the first five years, 1995 to 1999, profits for the operating businesses *included* pre-tax underwriting earnings, despite their year-to-year volatility. When 1998 and 1999 produced large underwriting losses, enough to make the entirety of the operating earnings negative, the dual yardsticks vanished for five years.

They reappeared in 2005, and this time the figure for operating earnings *excluded* underwriting results. This had essentially been our original adjustment, including a normalized 5% pre-tax underwriting profit when the earnings number excluded it. The method persisted for a decade, excluding underwriting profits, but who would have known that Berkshire's combined insurers would underwrite profitably for an entire decade (the uninterrupted profit streak ran 14 years). Lo, feeling that underwriting profitably had become predictably positive, Berkshire's 2015 Chairman's letter included the following language:

Here is an update of the two quantitative factors: In 2015 our per-share cash and investments increased 8.3% to \$159,794 (with our Kraft Heinz shares stated at market value), and earnings from our many businesses – including insurance underwriting income – increased 2.1% to \$12,304 per share. We exclude in the second factor the dividends and interest from the investments we hold because including them would produce a double-counting of value. In arriving at our earnings figure, we deduct all corporate overhead, interest, depreciation, amortization and minority interests. Income taxes, though, are not deducted. That is, the earnings are pre-tax.

I used the italics in the paragraph above because we are for the first time including insurance underwriting income in business earnings. We did not do that when we initially introduced Berkshire's two quantitative pillars of valuation because our insurance results were then heavily influenced by catastrophe coverages.

The language seemed straightforward, except it was flawed. The growth rates of 8.3% and 2.1% used to arrive at the earnings and market value figures did not reconcile with the numbers as presented in the prior year's 2014 letter and came with inadequate disclosure in one case and with no disclosure in the other. The language stated that, "for the first time," underwriting profits were included, which was incorrect. Recall the yardsticks from 1995 to 1999 *did include* underwriting profit and loss, prior to the numbers disappearing for five years. Further, the marketable securities figure apparently began picking up operating cash held in subsidiaries that hadn't been previously included, and also picked up holdings in stocks held in some of the subsidiaries that had been expressly stated in previous letters to be excluded. That the change came with no explanation and was masked through an irreconcilable growth rate seemed unusual.

There is much more to the dual yardsticks' presentation changing and then disappearing. We wrote about it extensively in the appendix to our 2016 year-end letter, *Sympathy for the Dog* and won't rehash it here. The subject was also covered in an interview with Kate Welling in her unparalleled, *Welling on Wall Street*. Both our 2016 letter and the interview can be found on our website. In summation, we sent a letter to Berkshire questioning the changes and the lack of disclosure. Instead of receiving a reply, the methods just disappeared altogether in the 2016 annual report. We continue to use the method in our process and include the results in the appendix to this year's letter again.

Book Value Receives a Complement

Yardsticks seldom are discarded while yielding favorable readings. But when results deteriorate, most managers favor disposition of the yardstick rather than disposition of the manager. To managers faced with such deterioration, a more flexible measurement system often suggests itself: just shoot the arrow of business performance into a blank canvas and then carefully draw the bullseye around the implanted arrow. We generally believe in pre-set, long-lived and small bullseyes. – 1982 Berkshire Hathaway Chairman's Letter

Investors familiar with the Berkshire annual report know it begins every year with a performance page. The page contains a column of Berkshire's performance versus the S&P 500 by year and on a compound annual and cumulative basis. For many years the presentation included only three columns and data sets – Berkshire's change in book value per share, the total return of the index, and a column simply subtracting the index return from Berkshire's to show the annual and cumulative difference.

Following Berkshire's first foray into insurance with its 1967 acquisition of National Indemnity, insurers were required to carry investments in stocks at the *lower* of cost or market value on the balance sheet. Book value never rose in line with rising stock prices, which was silly. Accounting rules changed in 1979, requiring equity securities to be carried at market value, offset by a deferred tax liability representing capital gains taxes that would be paid at prevailing tax rates if the entire portfolio were liquidated. Upon the 1979 change, Berkshire properly restated the presentation from 1965 to 1978, which affected the years 1967 forward, as mentioned.

From the mid-1970's through the acquisition of General Reinsurance in 1998, Berkshire's investments in common stocks drove the bus, offset by the liability for deferred taxes. In rising years, the liability would mute the upside in book value change per share by the amount of the tax liability. Conversely, during years when stocks declined in price, to the extent unrealized gains existed, declines in stock prices were

offset and muted by the tax liability. In the years 1973 and 1974, which saw the unwinding of the “Nifty Fifty”, the bear market that shaved nearly 50% from the S&P did not spare Berkshire’s stocks, but thanks to previous unrealized gains, the drop was partially offset by the shrinking deferred tax liability. The same thing happened from 2000-2002 and during the 56% 2008 bear that lasted through 2009’s March low, with the deferred liability shrinking and offsetting Berkshire’s book value decline by the proportion of the tax rate. Remarkably, by the late 2008 and March 2009 lows, all of Berkshire’s unrealized gains were gone, and any subsequent decline would have pulled Berkshire’s book value downward dollar for dollar.

But back on point. Berkshire’s performance presentation page format remained unchanged through 2013. The 2014 annual came with the familiar three column presentation, but the relative results column was dropped and instead a new middle column was inserted which showed the annual percentage change in the stock price. The explanation of why the stock market return was now of importance paralleled last year’s explanation as to why the book value per share change column is set to disappear. The 2014 letter stated:

Today, our emphasis has shifted in a major way to owning and operating large businesses. Many of these are worth far more than their cost-based carrying value. But that amount is never revalued upward no matter how much the value of these companies has increased. Consequently, the gap between Berkshire’s intrinsic value and its book value has materially widened.

With that in mind, we have added a new set of data – the historical record of Berkshire’s stock price – to the performance table on the facing page. Market prices, let me stress, have their limitations in the short term. Monthly or yearly movements of stocks are often erratic and not indicative of changes in intrinsic value. Over time, however, stock prices and intrinsic value almost invariably converge.

The logic behind the addition of adding the stock market return in addition to the change in book value per share cannot be disputed. When searching for motive, though, could it be that *for three years straight Berkshire’s stock outpaced book value by a wide margin, and had done so for four of the prior five years, including against the S&P 500?*

Annual Percentage Change

	Book Value Per Share	Market Value Per Share	S&P 500 with Dividends
2010	13.0	21.4	15.1
2011	4.6	(4.7)	2.1
2012	14.4	16.8	16.0
2013	18.2	32.7	32.4
2014	8.3	27.0	13.7
Compound Annual 1965-2014	19.4%	21.6%	9.9%

We aren’t in a position to determine motive, but it’s ironic that in the following year, 2015, book value rose 6.4% while the stock tanked by 12.5%. So much for timing. It’s even more ironic to note that despite the call for the stock being more likely to track intrinsic value going forward that Berkshire’s book value continued to outpace the shares. For the five years 2015 to 2019, Berkshire’s book value per share advanced by 80.4% while the stock only managed a 33.0% gain.

During this five-year “rout” of stock price by the change in book value per share that followed the addition of the gain in stock price column, 2018 saw the stock rise 2.8%, beating the 0.4% gain in book value per share. 2018 was an interesting year. Berkshire’s stock portfolio declined 13.6%, which offset

what we calculate as a roughly 10% increase in intrinsic value. With the stock portfolio decline (albeit offset by a shrinking deferred tax liability for unrealized gains) largely masking gains in business operations and intrinsic value, I'm sure the manager desiring investors to understand what's going on under the hood to be frustrated by both a 0.4% gain in book value and a better 2.8% gain in the stock price. Perhaps because book value lagged the gain in intrinsic value for the year, management decided to punt book value prospectively. Again, the timing couldn't be more ironic, given that in the year most recent, 2019, the stock not only lagged the market badly, 11.0% to 31.5% but also fell far short of our projection for a 24% gain in book value per share.

Annual Percentage Change

	Book Value Per Share	Market Value Per Share	S&P 500 with Dividends
2015	6.4	(12.5)	1.4
2016	10.7	23.4	12.0
2017	23.0	21.9	21.8
2018	0.4	2.8	(4.4)
2019	24.0	11.0	31.5
Compound Annual 1965-2019	18.9%	20.4%	10.1%

How to Beat the Market Yet See Your Relative Compound Annual Gain Advantage Shrink

Let's examine the changes in book value per share and in the stock price through a longer lens. Berkshire's book value compounded at 19.4% per year from 1965 to 2014, while the stock gained 21.6% per year, a 2.2% difference. Despite the new focus on the stock as the better proxy for value, here at year-end 2019 Berkshire's book value annualized at 18.9% versus 20.4% for the stock since 1965. The differential thus shrunk to 1.5% per year from 2.2% at 2014. Book value per share outpaced the stock by 70 basis points per year *cumulatively from 1965* since the stock performance column was added to the table. Be careful what you wish for. If Berkshire's timing for shuffling disclosures is any good, then perhaps we should expect another year in 2020 with book value outpacing the stock again. A big ole' market decline just might do the trick.

One interesting observation. In terms of differential, Berkshire's annual gain in book value per share versus the S&P 500 peaked in 1982 at 15.2% (to the good, of course). The stock achieved max relative outperformance in 1985 at 19.9% better than the index. Berkshire's price to book value multiple peaked during 1998 at three times book when it used its shares to purchase General Re. At the end of 1998, book value per share had beaten the index by 12.8% while the stock was ahead of the index by 16.8%. Even though Berkshire continued outperforming the index on both fronts, its *relative* advantage measured on a compound annual basis shrunk. Huh?

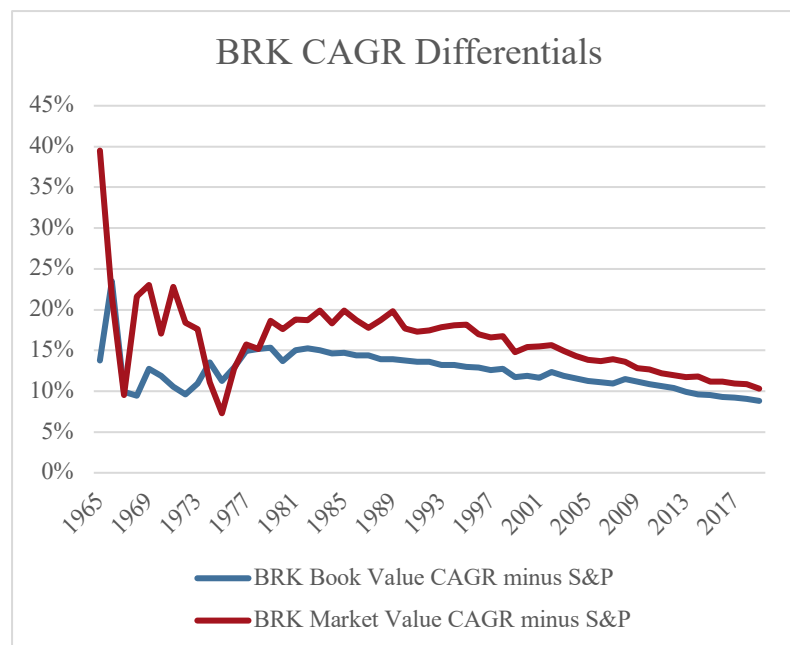
To illustrate, even over the next two decades, the relative outperformance gap has continued to close considerably, with book value now ahead by 8.8% and the stock by 10.3% since 1965. These used to be 15.2% and 19.9% better. Would you infer, then, that Berkshire has underperformed since the gap was widest in the 1980's or even since the 1998 General Re acquisition? Quite the contrary. Berkshire beat the index for the last 20 years by a wide margin, but its annual gain in book value per share has averaged way below the 24.9% gain from 1965 to 1998, pulling the long-term return down to "only" 18.9%.

[Berkshire's compound annual gain in book value per share peaked at year-end 1998, right after closing the General Re acquisition at 24.9% per year.] The index, by contrast, which averaged a gain of 6.7% since 1998, saw its long-term average fall by less, from 12.2% to 10.1%. Said better, despite beating the index 10.2% versus 6.1% per year for the last two decades, Berkshire's annual relative gain from 1965

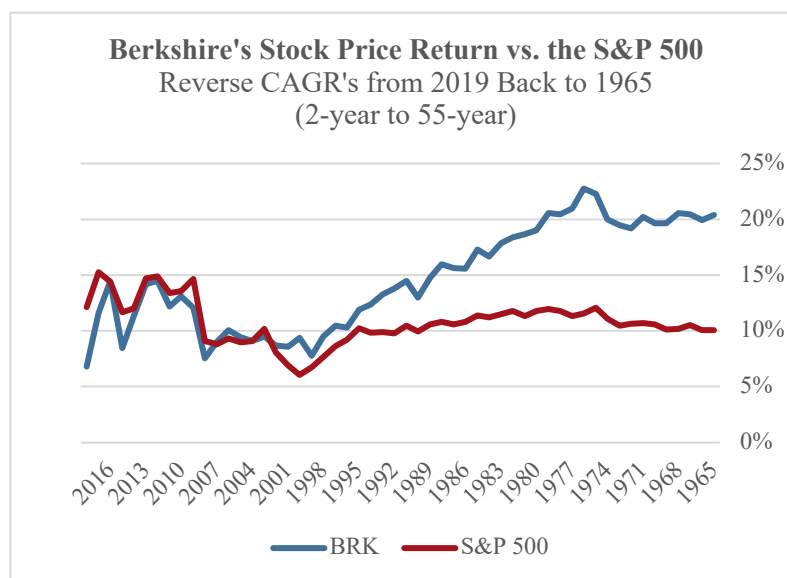
eroded because Berkshire's 20-year return is so much less than its own return from the beginning than is the index's 6.1% return versus its own long-term average. Most people would assume that if your relative gain versus a benchmark eroded then you underperformed. You could have, and many have. That you actually beat the index by 4.1% and saw your relative advantage per year erode by a couple percent is counterintuitive. The chart immediately below demonstrates.

Years ago, I sent a fun note to Omaha lauding the long-term record and suggested that the stock could fall more than 99% and would still have outperformed the S&P 500 over time. The reply came, "Ben would be proud, but best to not put the math to the test..."

Which of the following charts better tell how well or poorly Berkshire is faring? The first measures the relative outperformance versus the S&P 500 for both book value per share and for the stock. You would think that Berkshire has underperformed over the past couple decades, but per the box above, Berkshire's returns are competing against Berkshire's historical returns in this illustration, not against the index. The lines descend due to returns averaging 10% against more than 20% historically. The 10% still beat the index by 4% per year for the last two decades.



Or



Source: Semper Augustus; Berkshire Hathaway

Oh, What a Night

Prior to the introduction of the stock return column to the annual report's performance page, shareholders wouldn't have had much reason to know that Berkshire's stock was up 49.5% in fiscal-year 1965. For years shareholders did know that current management won control of the business in a proxy contest and manned the helm beginning in 1965. The change in book value per share in 1965 was 23.8%, which far outpaced the S&P 500's 10.0% gain.

The dramatic jump in Berkshire's shares in 1965 leapt off the page. The company was selling unprofitable textile mills during the late 1950's and early 1960's and was in general struggling. Many shareholders further know that the Chairman gained control of the company when offered 1/8th per share lower than previously promised in a tender offer. We dug up the old annual reports and into the history of the business. Some of the history through the lens of changes in book value and use of the stock was included in our 2015 letter to clients, *Party Like its Nineteen Ninety-Nine*. The letter touched on, but danced around, an aspect of the record we found interesting.

The Berkshire performance table notes each year that the company's fiscal year during 1965 and 1966 ended in September and that 1967 is presented for the 15 months ended December, with all successive years reported on a calendar year basis. It was eye-opening to learn *when precisely* current management gained control of the business during 1965. First, a brief history.

An owner of several New England textile mills, Oliver Chace, acquired and reorganized the Valley Falls Company in 1839. Valley Falls merged with the Berkshire Cotton Manufacturing Company in 1929 and renamed the combined entity Berkshire Fine Spinning Associates. Berkshire Fine Spinning merged with the Hathaway Manufacturing Company in 1955, creating Berkshire Hathaway. At the 1955 merger, the company had 2,294,564 shares outstanding and book value per share of \$22.40. The company was exclusively always a New England textile operation. Warren Buffett began buying shares in Berkshire Hathaway in 1962 for the investment partnerships he managed. The purchases were at steep discounts to both book value and working capital and made generally at times when the company would close an unprofitable mill and subsequently repurchase shares. When current management gained control, Seabury

Stanton, the CEO who had tried to extract the additional 1/8th per share, was immediately fired. No surprise there. The textile operation failed to generate adequate returns despite great effort to make it work and was ultimately closed in 1985. For Berkshire history buffs, Oliver Chace's great-great-grandson, Malcolm Chace, Jr. was the Chairman of Berkshire when the current Chairman gained control of the company in May 1965. Malcolm refused to sell his shares and remained Chairman. Malcolm Chace Jr.'s son, Malcolm Greene Chace III (Oliver Chace's great-great-great-grandson), was a director of Berkshire from 1992 through 2007.

Book value per share was \$19.46 at fiscal year-end 1964. Mr. Buffett's cost was about \$8 1/8th per share, with some shares acquired as low as \$7.50. The company closed two mills in early 1964, and with the proceeds issued a written tender offer to purchase 225,000 shares from shareholders at \$11 3/8 per share. A verbal offer had been made and agreed to at \$11 1/2 per share, so Mr. Buffett instead sought control of the company. During the 1964 fiscal year, Stanton wound up purchasing way more shares than originally tendered for, buying 469,602 shares for an average \$11.32 per share during the year (some prior to the tender at even lower prices), shrinking the outstanding share count from 1,607,380 to 1,137,778 (a reduction of half from the 1955 merger with all shares repurchased at an average price of \$11.31 per share). It was the ongoing closure of mills and repurchases below book value that interested the current Chairman, as it was a repeated pattern for a decade. Stanton continued to purchase shares from shareholders, buying an additional 120,231 shares of stock for the company at \$13.63 per share in the early months of 1965. The share purchase took place *before* current management won control of the firm in May 1965.

The share repurchases below book value, coupled with a 10.3% return on beginning equity from modest operating net income, pushed book value up 23.8% to \$24.10 per share. Most of the gain was thanks to the share repurchases at a discount to book value.

The question before the jury is such: If current management assumed control of the business in May 1965, thanks to share repurchases made prior to its takeover by *former* management at 63% of average book value during the year, how much of the 1965 gain in book value per share and the stock price is attributable to the current management that ran the business for not much more than four months of the fiscal year ended in September? With book value up 23.8%, with much of the gain attributed to the repurchases below book value, and the stock up 49.5% against only 10% for the S&P 500 for the full 12 months, it's an interesting question.

On the Share Count

When management took control of Berkshire during 1965, there were 1,017,547 shares outstanding. The company had repurchased 566,133 shares over the prior two years via the tender offer. At September 30, 2019, shares outstanding totaled 1,631,718, an increase of 60% over 55 years, but nearly identical to the share count in early 1964 when the company began a tender for its shares. Over the years, Berkshire repurchased shares in nine years and has issued shares fifteen times – once in 1996 to issue the B shares, once in 1992 as convertible debentures, and to finance all or portions of 13 acquisitions. None of Berkshire's share issuance was for executive compensation paid in stock.

Dropping Dimes – Can a Dividend be a Mistake?

Berkshire paid a \$0.10 per share dividend to shareholders on January 3, 1967. What's a dime of Berkshire worth today? The lone dime dividend was a mere 0.54% yield on the \$17.87 stock price. Had Berkshire not paid the \$101,755 dividend, the retained dividend would be worth \$3.1 billion today.

The \$0.10 dividend was the only dividend ever paid by current management. We know Berkshire can't compound at anywhere near its rate since 1967, but at 10% the same 54 basis point dividend grows to \$484 billion in another 53 years. Next time someone clamors for a dividend from Omaha, tell them to drop a dime in a payphone and call 911.

Berkshire earns the benefit of the doubt when it comes to assessing the performance record. It was created absent the abusive behavior, malice, trickery, flattery and outright dishonesty so common in business and accounting. In the 1970's and early 1980's, the preferred metric was operating earnings as a percent of equity at the beginning of the year. At the point that undistributed retained earnings by businesses, uncounted in annual profit, began to dwarf operating earnings, the measure was deemphasized. It remains our preferred measure, making the adjustment to include retained earnings ourselves. We further appreciate that book value can understate a current replacement value of assets and thus equity due to inflation and can also be eroded by share repurchases made at premiums to book value. As conditions change, what had been a useful performance tool may be intelligently augmented with another or replaced altogether. We just find it interesting that changes in metrics occur when the now outdated yardstick seems to be less flattering than the new. Do we believe the calculation of book value at Berkshire provides utility? Most definitely. Do we believe book value will have ongoing utility and worth as a barometer against which to measure profitability going forward? I hope through our work we establish that to be the case. Are we wrong or unfair in pointing out the circumstances when the measuring sticks changed? I hope not. Our 20-year investment in Berkshire Hathaway represents a substantial proportion of our invested capital. We are obliged to request and even demand enough information to perform an intelligent appraisal of the company and its prospects, particularly when required in evaluating its success or lack thereof in the realm of capital allocation. We will use the pen when necessary to make our case. When the results or the transparency are insufficient to justify ownership, we will use our feet.

If you are managing money not for your biological millionaire sisters but for the Little Sisters of the Poor and dependent on every ounce of capital, then every investment decision is a fiduciary one. No sterling history or reputation can be an excuse to not provide adequate information to your investors. The line between too much and too little is a fine one and is tilting to the too little at Berkshire. You can't say just measure the earning power. You must measure earning power relative to capital. Both cases may require accounting gymnastics and an understanding of how the business works, but when a reasonable assessment of either becomes impossible, and when a major portion of the business appears to be in decline, the decision to abstain becomes the only one.

Berkshire Hathaway: Ten-Year Expected Return

Berkshire is set to report a massive headline \$85 billion profit for 2019. If our estimate earnings is correct, it will be the largest reported profit *ever* by a US company, and second globally only to Saudi Aramco, which can report however many drops in the bucket they like. Using our method for estimating normalized profitability, our economic earnings figure comes in at about half of what the headline stands to be.

Likewise, where 2018's GAAP reported profit of \$4 billion understated our estimate of economic earnings by \$32 billion, this year requires a downward adjustment of \$43 billion. We estimate economic earnings of \$42 billion at year-end 2019.

Berkshire's stock price rose 11.0% in 2019, very much in line with our approximation of its underlying growth in intrinsic value, a byproduct of mere coincidence given how much stock prices fluctuate in the short term. The 11% return of the shares will "only slightly" lag what will be reported as a 2,125% year-over-year gain in reported earnings. The dollar gain in reported earnings from \$4 billion to \$85 billion stands to be a record unmatched for generations, or until inflation kicks into high gear. Perhaps less pronounced, book value per share looks to have grown by 24.0% during the year, reflective of the ongoing progression of operating profitability in its owned businesses but more so by the huge gain in the common stock portfolio.

The stock portfolio drove the bus during the year, way more than recovering from last year's 13% veer into the ditch. The preponderance of the stock portfolio is held by Berkshire's insurance businesses and rose 47% in 2019. The now mammoth position in Apple led the charge with an 89% gain, followed by Bank of America, the number two holding, which gained 46%. The two positions now make up more than 42% of the entire stock portfolio. For balance sheet purposes, all gains and losses are muted by a 21% tax rate, with the net unrealized gain carried as a deferred tax liability.

With Berkshire's 11% advance in the stock price closely matching our estimate of normalized return on equity, progression in annual earning power and gain in intrinsic value, our ten-year expected return is mostly unchanged from where it stood a year ago. That a 13% stock market decline can be followed by a 47% advance and the long-term expectation moves little is testament to the normalization factors embedded in our ongoing analysis and appraisal of Berkshire. But before we get to the expectation for the next ten years, it's always healthy to review where our projection stood a year ago. We have no idea how any stock or the stock market will fare over such a short period. When you start thinking in terms of decades, however, projections have more utility. A year ago, we normalized intrinsic value one year ahead at \$734 billion, which valued the business at 18 times our normalized 2019 earnings estimate of \$40.8 billion. At Semper we haven't fallen into the trap of suggesting a present value based on earnings a year ahead. Rather, we apply what we think to be the proper multiple based on current earning power. Look throughout history at valuations on market indices like the Dow or the S&P. Valuations are calculated against earnings that existed at the moment. For example, a P/E at year-end 1957 would be based on earnings for the prior twelve months, including December 1957. Market gurus today look forward and apply historic multiples to earning expectations one year forward. The 1957 P/E is not based on index earnings at the end of 1958. It's either a Wall Street gimmick or a delusion.

Below are the figures from last year. The left box projected normalized earnings at year-end 2019 and at our current valuation of 18 times you can see a 46% implied gain to intrinsic value of \$734 billion. In no way is the one-year gain to intrinsic value estimate a forecast but represents each year what we expect fair value a year out growing at 10% per year to look like. It's also purely coincidental that Berkshire's stock portfolio return of 47% nearly matched the upside implied in the intrinsic value number.

Ten-Year Expected Return at Year-End 2018 With ROE at 8% and 10%

	2014	2015	2016	Final 2017	Final 2017	2018 (e)	2019 (e)	10- Year: 2028 8% ROE and growth				10- Year: 2028 10% ROE and growth			
		-12.50%	23.4%	21.9%	21.9%	2.8%	At Int Val	13x	15x	18x	20x	13x	15x	18x	20x
					@new tax										
Market Cap	\$371 B	\$325 B	\$401.2 B	\$489.4 B	489.4 B	\$502.5 B	\$734 B	\$ 1,041	\$ 1,202	\$ 1,442	\$ 1,602	\$ 1,251	\$ 1,443	\$ 1,732	\$ 1,924
Net Income	\$23 B	\$25 B	\$27.5 B	\$29.1 B	\$31.8B (H)	\$37.1 B (e)	40.8 B	\$ 80.1	\$ 80.1	\$ 80.1	\$ 80.1	\$ 96.2	\$ 96.2	\$ 96.2	\$ 96.2
P/E	16.1x	13.0x	14.6x	16.8x	15.4	13.5	18x	13	15	18	20	13	15	18	20
Earnings Yield	6.2%	7.7%	6.9%	6.2%	6.5%	7.4%	5.6%	7.7%	6.7%	5.60%	5.0%	7.7%	6.7%	5.60%	5.0%
Price Change								106%	139%	187%	218%	149%	187%	245%	283%
Annual Gain Per Year		-12.5%	23.4%	21.9%	21.9%	2.8%	46.1%	7.5%	9.1%	11.2%	12.3%	9.6%	11.1%	13.2%	14.4%

Source: Berkshire Hathaway; Semper Augustus

Next, we update the projection for the next ten years from year-end 2019. The peach (had to get my Crayola's out) column below shows our estimate of normalized 2020 intrinsic value calculated at the same 18 multiple to earnings. Again, we are not projecting a 49.8% gain in Berkshire's shares for 2020. We would expect to earn the accretion to intrinsic value over time coupled with the return on equity of the business over time. Two cases are illustrated at an 8% and a 10% average return on equity. The base case of an expected 10% persisted throughout our ownership, which is spot on to Berkshire's realized return on equity and progression in book value per share. The 8% case is conservative, and perhaps become the reality, particularly if a portion of the tax benefit currently enjoyed is competed away or changed. A portion is scheduled to phase out over time. Permanently low interest rates may also pull the long-run return downward as well, and it could also be adversely impacted by poor capital allocation (see our discussion of the MSR group). For now, 10% continues as our base assumption for return on equity and growth in intrinsic value. In the present climate, we don't see long-term results exceeding that.

Ten-Year Expected Return at Year-End 2019 With ROE at 8% and 10%

	2014	2015	2016	Final 2017	Final 2017	2018	2019 (e)	2020 (e)	10- Year: 2029 8% ROE and growth				10- Year: 2029 10% ROE and growth			
		-12.50%	23.4%	21.9%	21.9%	2.8%	11.0%	At Int Val	13x	15x	18x	20x	13x	15x	18x	20x
					@new tax											
Market Cap	\$371 B	\$325 B	\$401.2 B	\$489.4 B	489.4 B	\$501.5 B	\$554.1 B	\$829.8 B	\$ 1,176	\$ 1,357	\$ 1,628	\$ 1,809	\$ 1,413	\$ 1,630	\$ 1,956	\$ 2,173
Net Income	\$23 B	\$25 B	\$27.5 B	\$29.1 B	\$31.8B (H)	\$36.4 B	\$41.9B	\$46.10	\$ 90.5	\$ 90.5	\$ 90.5	\$ 90.5	\$ 108.7	\$ 108.7	\$ 108.7	\$ 108.7
P/E	16.1x	13.0x	14.6x	16.8x	15.4	13.8	13.2x	18x	13	15	18	20	13	15	18	20
Earnings Yield	6.2%	7.7%	6.9%	6.2%	6.5%	7.3%	7.6%	5.60%	7.7%	6.7%	5.6%	5.0%	7.7%	6.7%	5.6%	5.0%
Price Change									106%	145%	194%	226%	155%	194%	253%	292%
Annual Gain Per Year		-12.5%	23.4%	21.9%	21.9%	2.8%	11.0%	49.8%	7.8%	9.4%	11.4%	12.5%	9.8%	11.4%	13.4%	14.6%

Source: Berkshire Hathaway; Semper Augustus

Normalized earnings of \$46 billion for 2020 at an 18 multiple suggests \$830 billion in intrinsic value a year from now. Again, this is not a one-year forecast for the stock, but the valuation using various methods employed to arrive at fair value. The rightmost table projects a 13.4% annual return for a decade for the stock if the return on equity averages 10% (or the earning power simply compounds at 10% regardless of the utility of book value). This column, shaded green, is our present expectation.

What about the bear case, or a more conservative case? Berkshire's shares closed at 13.2 times our normalized earnings number which is a 7.6% earnings yield. If a decade from now the return on equity averages 8%, or if earnings compound at 8%, we'd peg fair value at about today's multiple. In other words, if Berkshire is going to earn 2% per year less than our base case, then today's price represents fair value. In past letters we'd shaded green both 10-year projections, one at 10% and the lesser at 8% at 18 times earnings. The bear case suggests the present valuation is correct at roughly 13 times earnings. The shading in the 8% return on equity over 10-year box more properly moves to 13 times and is shaded red.

If we are wrong on the return on equity and the ability to compound earning power at 10%, then investors stand to make the current earnings yield and shouldn't expect any accretion upward for multiple expansion. We conversely wouldn't expect to see the multiple contract. In fact, if you think about what the market would pay for an unleveraged and durable 8% return on equity today, I bet you would come up with a higher multiple than 13.

The table presents a range from 13 times earnings out to 20 times. Our update to intrinsic value section will summarize how we arrive at our estimate. You can plug in any assumption you like. Given Berkshire's size, we don't see earnings growth above 10%. The history of the company prior to 1998 is far higher, of course. One way to goose the return would certainly be to introduce net financial leverage into the business. You don't find many large businesses like Berkshire that operate net debt free, particularly in the finance arena. It's only for their financial conservatism that the investment is as large as it is in our portfolios.

Estimating Fourth Quarter and Full-Year GAAP Net Income and Change in Book Value

Expected 2019 Fourth Quarter and Full Year Results

(In billions of USD)	First 9 months	SAI Q4 Est.	SAI 2019 Est.
Change in Investment Portfolio (Ex KHC) *	\$40.1	\$31.8	\$71.9
Derivative Contract gains (losses)	\$1.2	\$0.8	\$2.0
Operating Earnings	\$24.6	\$8.2	\$32.8
Earnings Before Tax	\$65.9	\$40.8	\$106.7
GAAP Income Tax	\$13.3	\$8.2	\$21.5
Effective Tax Rate	20.2%	19.6%	20.0%
Net Income	\$52.6	\$32.8	\$85.4
Earnings Attributable to Noncontrolling Interests	\$0.3	\$0.2	\$0.5
Net Income Attributable to BRK Shareholders	\$52.3	\$32.6	\$84.9

*Includes gain/loss on fixed income

When Ric Flair lays eyes on these numbers no doubt the reaction will be, "Woooo!" In all my years of writing I've never typed the words, "over \$100 billion in pre-tax profit or \$85 billion in net income." Considering the 100th largest company in the world generated \$85 billion in *revenues*, these are impressive numbers. As mentioned, we expect Berkshire to tell us that changes in stock prices are meaningless in the short-term, and we agree. You will see shortly that by removing the changes in the investment portfolio and the derivative contract gains and replacing those with the retained earnings of stock market investees, normalized earnings are well below what will be reported at the end of the month by Berkshire. Our process also assumed the stock portfolio was undervalued at the end of 2018 and is now a bit overvalued. Therefore, 2019 robbed a bit from the future with respect to the stock portfolio.

Just how good has the stock picking been at Berkshire? Last year we reported that since the General Re acquisition Berkshire's stocks matched the return of the S&P 500 for the ensuing 20 years. With last year's blistering gain of 40%, including the Kraft Heinz flop, the stock portfolio moved back comfortably ahead. The remarkable thing is how overvalued the stock portfolio was in 1998. Time was required to work off the overvaluation. The Coca-Cola position, then wildly overvalued, was passed in stature by new acquisitions and higher growth in other portfolio holdings. Thank the stock portfolio for 2019's gain in book value.

Berkshire Hathaway Stock Portfolio						
Year	Berkshire Portfolio Total Return	CAGR to 12/31/2019	CAGR from 12/31/1998	S&P 500 Total Return	CAGR to 12/31/2019	CAGR from 12/31/1998
1999*	2.0%	7.0%	2.0%	21.0%	6.7%	21.0%
2000	8.6%	7.3%	5.2%	-9.1%	6.1%	4.9%
2001	-17.4%	7.2%	-2.9%	-11.9%	6.9%	-1.0%
2002	0.2%	8.8%	-2.1%	-22.1%	8.1%	-6.8%
2003	27.5%	9.3%	3.2%	28.7%	10.2%	-0.6%
2004	5.6%	8.3%	3.6%	10.9%	9.1%	1.3%
2005	6.0%	8.4%	3.9%	4.9%	9.0%	1.8%
2006	18.5%	8.6%	5.6%	15.8%	9.3%	3.4%
2007	1.3%	7.9%	5.1%	5.5%	8.8%	3.6%
2008	-24.4%	8.5%	1.7%	-37.0%	9.1%	-1.4%
2009	19.6%	12.1%	3.2%	26.5%	14.7%	0.9%
2010	15.0%	11.3%	4.2%	15.1%	13.6%	2.0%
2011	6.5%	10.9%	4.3%	2.1%	13.4%	2.0%
2012	14.7%	11.5%	5.1%	16.0%	14.9%	2.9%
2013	28.8%	11.1%	6.5%	32.4%	14.7%	4.7%
2014	7.7%	8.4%	6.6%	13.7%	12.0%	5.2%
2015	-4.5%	8.5%	5.9%	1.4%	11.7%	5.0%
2016	13.1%	12.0%	6.3%	12.0%	14.4%	5.4%
2017	15.2%	11.6%	6.7%	21.8%	15.3%	6.2%
2018	-13.6%	9.9%	5.6%	-4.4%	12.1%	5.6%
2019**	39.8%	39.8%	7.0%	31.5%	31.5%	6.7%

*Semper Augustus estimated BRK portfolio return

**Holdings as 9/30/19; return to yearend

Source: Berkshire Hathaway; Semper Augustus Calculations; Bloomberg Data

The media is likely to fixate on the headline earnings number as being a global record for profits in a year. They also fixated last year on the depressed \$4 billion profit number, with some ridiculously commenting that the stock was therefore expensive relative to earnings. What is clear to the initiated observer of Berkshire is that its published GAAP earnings figures are meaningless and require myriad adjustments to arrive at true economic earnings.

The Stock Portfolio, Kraft Heinz and the Equity Method of Accounting

Our calculation of Berkshire's stock portfolio return excludes Kraft Heinz and any results from any fourth quarter portfolio activity. If Kraft Heinz were included in the return calculation, its loss of 21% for the year pulls the portfolio return from 47% to 40%. Kraft Heinz is publicly traded, but because Berkshire owns more than 20% of the shares it is carried under the equity method in the company's financial statements. Each quarter (when KHC *actually* reports earnings), Berkshire's proportionate share of Kraft Heinz's earnings are included as income and added to carrying value. Dividends, the portion received as

cash, serve to reduce carrying value. Berkshire's original \$9.8 billion investment in the position was made in Heinz in partnership with 3G. Heinz subsequently acquired Kraft and Berkshire recorded a non-cash gain that increased the carrying value, which increased over time with the recording of Berkshire's share of earnings, decreased by dividends received, and was written down when Kraft Heinz wrote down a portion of their other intangibles.

At September 30 Berkshire owned 325,634,818 shares, with a market value of \$10.5 billion at yearend. The carrying value at September 30 was \$13.8 billion. During the year Kraft Heinz shares declined in price by \$10.91 per share, costing Berkshire \$3.6 billion. None of that decline shows up in the income statement or on the balance sheet. What will show up will be Berkshire's share of Kraft Heinz's earnings, expected at \$930 million for the year, which increases the carrying value and is booked as profit. Dividends received of \$1.60 per share, or \$520 million, are received as cash and reduce the carrying value of the position on the balance sheet.

What gets lost in the quirky accounting using the equity method is that despite the bad publicity, Berkshire has a gain in their original investment. What also gets lost is that at its high in 2017, the Kraft position had a market value of \$32 billion versus \$10.5 billion today. Had the business been sold to Unilever, as appeared in the works, or to whomever, Berkshire would have another \$15 or \$20 billion in capital laying around (which would probably equally make the natives even more restless given the already large cash hoard). Regardless how it gets sliced, the investment was a capital allocation mistake. The Kraft piece of Kraft Heinz in particular is in decline with crappy processed brands that have gone unsupported by the Brazilians who sought to reap by cutting costs at a time that the lousy brands were under assault by private label and by the trend to healthier alternatives.

Berkshire's other investments in businesses requiring equity method treatment are all privately held. They don't have shares trading on a stock market. Here, with Berkadia, Pilot Flying J and ETT, the equity method can be less confusing. With publicly traded shares, many would say you live by the sword and die by it, meaning you are worth what the market says you are worth on any given day. Under the equity method, capturing a pro-rata share of profit booked as income (with taxes deferred) and at the same time increasing carrying value, offset by booking dividends as reduced carrying value and paying cash taxes at a "dividend received deduction" rate is immensely logical. Prior to the recent requirement beginning in 2018 that both realized and unrealized gains on investments be included in the income statement, the equity method would have had a common sense utility versus the prior treatment, where realized gains only plus dividends were booked as income and unrealized gains and losses were carried on the balance sheet, offset by a deferred tax liability for unrealized gains. In an economic sense, the booking of proportionate share of profit on the income statement and deferring the tax liability is akin to what we do by picking up the retained earnings of common stock investees as economic income.

The table on the next page recreates Berkshire's traditional performance page. We expect Berkshire to discontinue the column for change in book value per share. We will update it yearly. Our table also runs compound growth series forward and backward, from 1965 forward and from 2019 backward. The backward series become the 1-year, 2-year, 3-year returns and so forth, back to the 55-year.

Berkshire Performance vs. the S&P 500: Annual Returns + Growth Rates Forward and Backward

Year	Book Value per Share Growth	CAGR to 2019	CAGR from 1965	Market Value per Share Growth	CAGR to 2019	CAGR from 1965	S&P 500 Market Value per Share Growth	CAGR to 2019	CAGR from 1965
1965	23.8%	18.9%	23.8%	49.5%	20.4%	49.5%	10.0%	10.1%	10.0%
1966	20.3%	18.8%	22.0%	-3.4%	19.9%	20.2%	-11.7%	10.1%	-1.4%
1967	11.0%	18.8%	18.2%	13.3%	20.4%	17.8%	30.9%	10.5%	8.3%
1968	19.0%	18.9%	18.4%	77.8%	20.6%	30.6%	11.0%	10.2%	9.0%
1969	16.2%	18.9%	18.0%	19.4%	19.6%	28.3%	-8.4%	10.2%	5.3%
1970	12.0%	19.0%	17.0%	-4.6%	19.7%	22.1%	3.9%	10.6%	5.0%
1971	16.4%	19.1%	16.9%	80.5%	20.2%	29.1%	14.6%	10.7%	6.4%
1972	21.7%	19.2%	17.5%	8.1%	19.2%	26.3%	18.9%	10.6%	7.8%
1973	4.7%	19.1%	16.0%	-2.5%	19.4%	22.7%	-14.8%	10.5%	5.1%
1974	5.5%	19.5%	14.9%	-48.7%	20.0%	12.5%	-26.4%	11.1%	1.4%
1975	21.9%	19.8%	15.5%	2.5%	22.3%	11.5%	37.2%	12.1%	4.2%
1976	59.3%	19.7%	18.6%	129.3%	22.7%	18.4%	23.6%	11.6%	5.7%
1977	31.9%	19.0%	19.6%	46.8%	21.0%	20.4%	-7.4%	11.3%	4.6%
1978	24.0%	18.7%	19.9%	14.5%	20.4%	20.0%	6.4%	11.8%	4.8%
1979	35.7%	18.5%	20.9%	102.5%	20.6%	24.2%	18.2%	11.9%	5.6%
1980	19.3%	18.1%	20.8%	32.8%	19.0%	24.7%	32.3%	11.8%	7.1%
1981	31.4%	18.1%	21.4%	31.8%	18.7%	25.1%	-5.0%	11.3%	6.4%
1982	40.0%	17.8%	22.4%	38.4%	18.4%	25.8%	21.4%	11.8%	7.1%
1983	32.3%	17.2%	22.9%	69.0%	17.9%	27.8%	22.4%	11.5%	7.9%
1984	13.6%	16.8%	22.4%	-2.7%	16.7%	26.1%	6.1%	11.2%	7.8%
1985	48.2%	16.9%	23.5%	93.7%	17.3%	28.7%	31.6%	11.4%	8.8%
1986	26.1%	16.1%	23.6%	14.2%	15.6%	28.0%	18.6%	10.8%	9.3%
1987	19.5%	15.8%	23.5%	4.6%	15.6%	26.9%	5.1%	10.6%	9.1%
1988	20.1%	15.7%	23.3%	59.3%	16.0%	28.1%	16.6%	10.8%	9.4%
1989	44.4%	15.6%	24.1%	84.6%	14.8%	30.0%	31.7%	10.6%	10.2%
1990	7.4%	14.7%	23.4%	-23.1%	13.0%	27.4%	-3.1%	10.0%	9.6%
1991	39.6%	15.0%	24.0%	35.6%	14.5%	27.7%	30.5%	10.4%	10.4%
1992	20.3%	14.2%	23.8%	29.8%	13.8%	27.7%	7.6%	9.8%	10.3%
1993	14.3%	14.0%	23.5%	38.9%	13.3%	28.1%	10.1%	9.9%	10.3%
1994	13.9%	14.0%	23.2%	25.0%	12.4%	28.0%	1.3%	9.9%	9.9%
1995	43.1%	14.0%	23.8%	57.4%	11.9%	28.9%	37.6%	10.2%	10.7%
1996	31.8%	12.9%	24.0%	6.2%	10.3%	28.1%	23.0%	9.2%	11.1%
1997	34.1%	12.1%	24.3%	34.9%	10.5%	28.3%	33.4%	8.6%	11.7%
1998	48.3%	11.2%	24.9%	52.2%	9.5%	28.9%	28.6%	7.6%	12.2%
1999	0.5%	9.7%	24.2%	-19.9%	7.8%	27.2%	21.0%	6.7%	12.4%
2000	6.5%	10.2%	23.6%	26.6%	9.4%	27.2%	-9.1%	6.1%	11.8%
2001	-6.2%	10.4%	22.7%	6.5%	8.6%	26.6%	-11.9%	6.9%	11.0%
2002	10.0%	11.4%	22.4%	-3.8%	8.7%	25.7%	-22.1%	8.1%	10.0%
2003	21.0%	11.5%	22.3%	15.8%	9.5%	25.4%	28.7%	10.2%	10.5%
2004	10.5%	10.9%	22.0%	4.3%	9.1%	24.8%	10.9%	9.1%	10.5%
2005	6.4%	10.9%	21.6%	0.8%	9.4%	24.2%	4.9%	9.0%	10.3%
2006	18.4%	11.2%	21.5%	24.1%	10.1%	24.2%	15.8%	9.3%	10.5%
2007	11.0%	10.7%	21.3%	28.7%	9.0%	24.3%	5.5%	8.8%	10.3%
2008	-9.6%	10.7%	20.5%	-31.8%	7.6%	22.6%	-37.0%	9.1%	8.9%
2009	19.8%	12.7%	20.5%	2.7%	12.1%	22.1%	26.5%	14.7%	9.3%
2010	13.0%	12.1%	20.3%	21.4%	13.1%	22.1%	15.1%	13.6%	9.4%
2011	4.6%	12.0%	19.9%	-4.7%	12.2%	21.4%	2.1%	13.4%	9.3%
2012	14.4%	12.9%	19.8%	16.8%	14.5%	21.4%	16.0%	14.9%	9.4%
2013	18.2%	12.7%	19.8%	32.7%	14.2%	21.6%	32.4%	14.7%	9.8%
2014	8.3%	11.8%	19.5%	27.0%	11.4%	21.7%	13.7%	12.0%	9.9%
2015	6.4%	12.5%	19.3%	-12.5%	8.5%	20.9%	1.4%	11.7%	9.7%
2016	10.7%	14.1%	19.1%	23.4%	14.5%	20.9%	12.0%	14.4%	9.8%
2017	23.0%	15.3%	19.2%	21.9%	11.6%	21.0%	21.8%	15.3%	10.0%
2018	0.4%	11.6%	18.8%	2.8%	6.8%	20.6%	-4.4%	12.1%	9.7%
2019*	24.0%	24.0%	18.9%	11.0%	11.0%	20.4%	31.5%	31.5%	10.1%

*2019 SAI estimated change in BVPS; CAGR calculations are SAI internal

Below is an update for Berkshire's performance since year-end 1998, immediately following the merger with General Re. Berkshire's stock was expensive, their stock portfolio was expensive, and the S&P 500 was expensive. On all counts, Berkshire has been a better business and investment. Of course, through a one-year lens Berkshire's stock lagged last year, 11% to 31.5%. The gain in book value per share lagged as well. The stock portfolio at 40% with Kraft Heinz and 46% with, trounced the market. Berkshire pivoted from stocks and insurance in 1998, and given the hand they held then have done an extraordinary job when viewed immediately pre and post Gen Re.

21 Years at BRK – Returns From 12/31/1998 to 12/31/2019

Gain in Book Value Per Share	9.7%
Gain in Berkshire Hathaway Stock	7.8%
Gain in Berkshire Hathaway Portfolio of Stocks*	7.0%
S&P 500 Total Return	6.7%

* Total return estimated using only disclosed positions in Berkshire's 13-F filings
Bloomberg and Semper Augustus Calculations

A progression of the stock portfolio can be seen here. Net purchases totaled almost \$8 billion through September 30, following 2018's net buys of \$24.4 billion. In addition to purchasing equities, share repurchases totaled \$2.8 billion through September. Capital expenditures of \$11.1 billion exceeded its \$7.4 billion depreciation expense of \$7.4 billion. We project capital expenditures of almost \$15 billion for the full year.

Progression of Berkshire Stock Portfolio as a Percent of Book Value and Assets

Year	Stocks	Cost Basis	UnGain/Loss	Realized Gain	Net Purchases	Net as % of Avg	Equity	Stocks as % of Equity	Total Assets	Stocks as % of Assets
1997	\$36,248	\$7,207	\$29,041	\$1,106	-\$1,302	-3.6%	\$31,455	115%	\$56,110	65%
1998	37,265	7,044	30,221	2,415	-2,823	-7.7%	57,403	65%	122,237	30%
1999	37,008	8,203	28,805	1,247	-691	-1.9%	57,761	64%	131,416	28%
2000	37,619	10,402	27,217	4,499	-2,725	-7.3%	61,742	61%	135,792	28%
2001	28,675	8,543	20,132	1,488	-2,806	-8.5%	57,950	49%	162,752	18%
2002	28,363	9,164	19,199	918	416	1.5%	64,037	44%	169,544	17%
2003	35,287	8,515	26,772	4,129	6,765	21.3%	77,596	45%	180,559	20%
2004	37,717	9,056	28,661	3,471	-578	-1.6%	85,900	44%	188,874	20%
2005	46,721	15,947	30,774	5,408	6,392	15.1%	91,484	51%	198,325	24%
2006	61,533	22,995	38,538	2,635	5,395	10.0%	108,419	57%	248,437	25%
2007	74,999	39,252	35,747	5,509	11,057	16.2%	120,733	62%	273,160	27%
2008	49,073	37,135	11,938	-7,461	3,300	5.3%	109,267	45%	267,399	18%
2009	59,034	34,646	24,388	787	-1,056	-2.0%	131,102	45%	297,119	20%
2010	61,513	33,733	27,780	2,346	-1,621	-2.7%	157,318	39%	372,229	17%
2011	76,991	48,209	28,782	-830	1,497	2.2%	164,850	47%	392,647	20%
2012	87,662	49,796	37,866	3,425	-712	-0.9%	187,647	47%	427,452	21%
2013	117,505	56,581	60,924	6,673	4,689	4.6%	220,959	53%	484,624	24%
2014	117,470	55,056	62,414	4,081	1,118	1.0%	239,239	49%	525,867	22%
2015	136,017	68,412	67,605	10,347	1,473	1.2%	254,619	53%	552,257	25%
2016	150,432	75,628	74,804	8,304	-11,596	-8.1%	282,070	53%	620,854	24%
2017	195,840	84,476	111,364	2,128	814	0.5%	348,296	56%	702,095	28%
2018	186,764	112,667	74,097	291	24,427	12.8%	348,703	54%	707,794	26%
2019 (e)	251,867	112,007	139,860	464	7,963	3.6%	429,228	59%	828,017	30%

Source: Berkshire Hathaway; Semper Augustus Calculations
Net purchases and realized gain for 2019 through September 30. All others through yearend.

Berkshire Hathaway Intrinsic Value Update

Berkshire increased intrinsic value during 2019 by an estimated 14% to \$763 billion, an increase of \$95 billion over our assessment of \$668 billion last year. Some of our methods for determining intrinsic value yielded a larger gain and larger estimate. In a typical year we'd expect the gain in intrinsic value to match the gain in economic earning power of the business, which we think compounds at roughly 10% last year. Our 14% estimated gain in intrinsic value will be dwarfed by the enormous gains in reported profit, in the stock portfolio and even in the deemphasized book value per share.

The gain in intrinsic value during the prior year 2018 was 12.4%. We've thus had a couple years where intrinsic value grew faster than our long-term estimate. Our core methods for estimating value remove much of the annual volatility that comes with year-to-year changes in things like stock prices and insurance underwriting. We suspect most of the outsized advance in the last couple years have come thanks to the changes in the corporate tax code under TCJA that began at year-end 2017. We expect most of the changes to prove ephemeral and either removed by subsequent tax code changes or more likely through competition. Newfound profit in the absence of new capital should prove fleeting. Some industries will compete away the increased profitability faster than others for sure. It's been remarkable watching investor behavior and sentiment over the past couple years. Little mention is made about the aspects of the tax code change that were front end loaded and will phase out. A huge chunk, probably 11% of 2018's 26% gain in earnings for the S&P 500 was due to changes in the tax rate to 21% from 35%, to accelerated use of accelerated depreciation (yes) and a number of other benefits. We went into some depth regarding the breadth of the changes in our last two letters so won't again here. Know that tax changes are a huge help at Berkshire, but that at a point the incremental benefit recedes.

[Sidebar advice: When writing in Word, if you don't have AutoSave activated, even if you find yourself *finally* in rhythm, don't let 90 minutes pass before you save your document. Sometimes the power just goes off.]

We mentioned that some methods used in determining intrinsic value produced gains exceeding 14%. Some, like simple price to book value or the dual yardstick method, make use of market values for investment securities. In a year where Berkshire's stock portfolio zoomed ahead by 47%, book value will naturally outpace underlying business growth. Without the normalizing factors we employ in our more rigorous methods, short swings in stock prices will move value up and down more severely than it genuinely advances. We expect intrinsic value growth to moderate downward closer to our 10% estimate probably sooner rather than later. Huge drivers to gains in value were the \$24.4 billion net commitment to stocks in 2008 and the net \$7.9 billion acquired this year through September. The purchases were made in shares at what seem reasonable or even cheap prices. The unseen surge in value is the degree to which Berkshire's investees have advanced their dividend payouts. Retained earnings of investees ballooned by \$4 billion in 2018 thanks to net purchases in high earnings yield businesses and growth in earnings. Little headway was made on the earnings front this year, but dividends marched ahead by about \$700 million on an annualized basis. Payout ratios moved up and we expect them to continue to do so.

Our analysis of Berkshire involves several methods, as is the case with any business we own or research. Many Berkshire followers conflate earnings power and balance sheet nuances, often double counting or under counting in places. Our measures all are used to reconcile to each other. We prefer measurement of earning power, primarily our GAAP adjusted financial approach and our sum of the parts approach. Both require an estimate of the capital required in each of the major segments of the business, and our lamentation regarding the growing difficulty in ascertaining this has already been covered. Both of our favored methods are joined at the hip and require adjustments to the published financial statements. The others are used as reconciling tools against each other and are more impacted in the short term by swings in the publicly traded stock portfolio, 97% of which is held within Berkshire's insurance group.

GAAP Adjusted Financials Approach

GAAP or IFRS financial statements can only be a starting point for the investor seeking to assess economic profitability and that profit relative to the capital required to produce it. To our way of thinking economic earning power is far from a measurement of current and past reported earnings. We are trying to figure out not only how much cash a business or asset can produce but how durable and predictable is the profit. The degree to which assets are underemployed or overextended must be contemplated. If the “market” values stocks at 40 times earnings, what is the likelihood that the multiple will change. If a company is sitting on a mountain of cash, what is the likelihood they will invest it in higher yielding instruments? If they will, then when? If you own an asset, is the earning power of the asset just the income it produces for you? What if earnings are retained by the asset and never paid out? These are but some of the considerations that go into assessing economic earnings.

So many adjustments are required in analyzing Berkshire that it proves a wonderful case study in how useless financial statements can be without diving deep into the footnotes and into the moving parts of the business. Many of the adjustments made when analyzing any business are used in our analysis of the conglomerate.

The primary adjustments we make each year with Berkshire are:

- Remove realized (and now unrealized) gains and losses on the investment portfolio of the insurance companies and other groups.
- Remove derivative contract gains and losses.
- Add retained earnings of equity investees in the investment portfolio (this is the offset to the removal of realized and unrealized gains and losses). It is a normalizing factor that assumes retained earnings will translate into at least an equal dollar of market value.
- Remove underwriting gains and losses.
- Add normalized underwriting profit at 5% pre-tax underwriting margin.
- Add income for deferred tax liabilities that are created with property, plant and equipment capital expenditures, reflecting the degree to which cash taxes paid are less than GAAP taxes as reported.
- Add a portion of the amortization charge against intangible assets created in acquisitions that do not reflect economic decay.
- Add an optionality premium to the portion of cash balances likely to be invested at higher yields in the near to intermediate horizon.
- Reduce net income to reflect a higher normalized pension expense.
- Other adjustments that are one-off are made as needed (the above are more recurring in nature).
 - 2017 required a \$28.2 billion non-taxable downward adjustment to reflect the impact of restating downward net deferred tax liabilities, which increased taxable income by the same non-taxable amount.
 - The equity method treatment of Kraft Heinz also required a one-time 2017 adjustment of \$2.9 billion pre-tax, \$1.2 billion after-tax, to reflect downward revision of Kraft Heinz’s similar non-cash gain in net income to reflect revalued deferred net tax liabilities. Kraft Heinz is held by the holding company.

Remove Realized and Unrealized Investment Gains and Losses

Beginning in 2018, FASB rule ASU 2016-1 required the income statement under GAAP accounting to include unrealized gains and losses each quarter in the income statement. Previously only realized gains and losses were included. Unrealized gains and losses were recognized on the balance sheet, with unrealized gains offset by a deferred tax liability for taxes to be paid if, or when, holdings are sold. Those

unrealized gains and losses will still be a balance sheet item. In periods of price declines, as in 2018, declines are offset by a correspondent offset of the portion of tax that will no longer be required to be paid. These unrealized gains and losses are taxed as deferred at 21%, where prior to the 2017 TCJA tax change were taxed at 35%. In other words, investment securities move up and down in price, and the movement in either direction is offset by a 21% tax now, with the net amount moving shareholder's equity up or down by the net amount. Deferred taxes mute the impact of stock volatility on the balance sheet.

We remove \$72 billion in pre-tax gains and \$57 billion after-tax from the projected 2019 income statement, which included both realized and unrealized gains. At September 30, Berkshire had sold \$7.1 billion of common stocks but only realized modest gains of \$464 million. We make no assumptions about realized gains during the fourth quarter, so the entire portfolio gain as estimated is assumed unrealized.

Our treatment always removed realized gains and losses from the income statement. Their timing can be arbitrary and controlled by management. It's uncommon to see a management book gains to help overall reported profit if another subsidiary was falling short. Jack Welch mastered this trick at GE. Even in a falling market like we had in 2018, companies maintain latitude to realize gains at their discretion. Realized gains will always help the reported result, regardless of asset price movement. A portfolio can decline in value and a management can realize gains large enough to offset or more than offset any unrealized loss now flowing through the income statement. Perhaps some do so to inflate reported income? Shock of shocks but it's been done before. Despite the accounting change there remains room for hijinks. Berkshire, rather, has historically gone out of its way to avoid paying cash taxes.

If you think about it, including both realized and unrealized gains and losses in the income statement *is* more economically correct than excluding them as irregular. It's just that inclusion is correct but more wildly so. If stock prices reflect the earning power of the business over time, then inclusion of gains and losses, whether realized or unrealized, will be correct – over time. It's "over time" that's the problem. To satisfy the logic for removal, eliminating short-term price volatility, we must offset the removal with a better proxy for tracking economic gains and losses. To serve that purpose, we add the retained earnings not paid as dividends by Berkshire's investees in common stocks.

Add Retained Earnings of Holdings

Offsetting the removal of realized and unrealized gains, add back the portion of profits earned by Berkshire's publicly traded investees not paid as dividends. For 2019 we added back \$10 billion, which is net of assumed taxes paid at 3%. The de minimis 3% rate is used in recognition that the taxes owed on realized gains will be paid over time and probably many years in the future, if ever (it's a discounting estimate of the 21% rate). The deferred tax liability assumes a complete liquidation of the portfolio now taxed at 21%. Berkshire has proven to minimize realized gains paid as cash, and the present value aspect accounts for the difference in our assumption.

The removal of realized and unrealized gains and losses as irregular and unpredictable requires an offset when assessing earnings power. The offset is the addition to reported earnings of the retained earnings of equity investees in the investment portfolio. Profits retained by a business should (and need to) inure for the ultimate benefit of the shareholder. It is simply a reinvestment of shareholder profits, a choice made by others if you happen to not be in control, but it's an investment regardless. This is a normalizing factor that assumes retained earnings are invested appropriately and will ultimately translate into at least an equal dollar of market value.

2019 was a perplexing year. Earnings for the market were flat, and Berkshire saw an advance of 6.0% in net income to \$14.8 billion by its publicly traded equities. The retained earnings portion of total company

profits only grew by 1.5% to \$10.2 billion, both adjusted for net stock market purchases of \$7.9 billion, a 3.6% addition to the portfolio. Offsetting the flatness in retained earnings undistributed to Berkshire was a big increase in dividends. Many companies increased their dividend rate and some also increased the proportion of earnings paid (the payout ratio). On an annualized basis measured at each of the two most recent yearends, Berkshire will receive an additional \$800 million per year, an increase of almost 18% year-over-year adjusted for net purchases.

Berkshire's Stock Market Investments, Dividends and Retained Earnings

	12/31/17	12/31/18	12/31/19
Market Value **	\$170 B	\$168 B *	\$241 B ^
Earnings	\$9.5 B	\$13.5 B	\$14.8 B
Dividends	\$3.7 B	\$3.7 B	\$4.5 B
Retained Earnings of Investees	\$5.8 B	\$9.8 B	\$10.3 B
Earnings Yield (E/P)	5.6% (P/E 17.8x)	8.0% (P/E 12.4x)	6.1% (P/E 16.3x)
Dividend Yield	2.2%	2.2%	1.9%
Retained Earnings Yield	3.4%	5.8%	4.2%
Dividend Payout Ratio	39%	27%	30%

* Berkshire paid \$24.4 billion for net additions to the stock portfolio in 2018; \$8.0 B 1st 3Q's of 2019

** Market Value here includes stocks in insurance group plus \$5.1 billion at 12/31/18 in rail and finance groups, \$6.2 billion at 2017. MV excludes market value KHC at \$10.4 billion in 2019, \$14.0 billion at 2018 and \$17.9 billion at 2017. KHC earnings are picked up as equity method. KHC economic cost basis is \$9.8 billion. Balance sheet cost is \$17.4 billion now \$13 billion.

** Market Value estimated for 12/31/18 and assumes no net 4Q purchases

^ Excludes Occidental preferreds and warrants \$10.8 B as well as KHC

Source: Semper Augustus

The huge gain in earnings by Berkshire's stock market portfolio companies during 2018 was driven by organic growth, a huge benefit from the changes to the tax code and \$24.5 billion in net stock market purchases. Earnings growth stalled in 2019 and companies increased the proportion of their profits paid as dividends. We'd expect this to continue.

Berkshire's more recent stock market investments are concentrated in money center banks, airlines and in Apple. Berkshire did not pay high multiples for its large purchases over the past two years. Its banks opened 2019 trading at 10 times earnings with Apple at 13 times. The stock portfolio earned 47% (40% without Kraft Heinz). Given the minimal gain in earnings, two-thirds of the gain for the year came via expansion in the P/E multiple from 12.4 to 16.3 times.

Instead of trading at a discount to our simple estimate of fair value, Berkshire's stock portfolio now appears overvalued. That's what a gain of over 40% will get you. If you recall, we had considered Berkshire's stock portfolio undervalued by \$34 billion last year. Now we find the portfolio \$19 billion overvalued. This adjustment is picked up in our sum of the parts method and does not impact the profitability analysis. Mr. Toad's Wild Ride describes the past three years in the stock portfolio. Our method for determining the value of the stock portfolio required a \$50 billion swing at the end of 2018 and another \$53 billion swing this year. Overvalued to undervalued back to overvalued.

Removing realized and unrealized gains and losses and replacing those with the retained earnings of Berkshire's investees smooths or normalizes the earning power coming from the stock portfolio. Over time stock prices reflect earning power but this method removes the volatility and properly looks through to a determination of all of the underlying earnings of the investees. The second method delved into is asset based, the generic marking up and marking down of the stock portfolio when it deviates materially enough from a normal level. We began making the adjustment, a huge downward one, in the late 1990's

when the stock portfolio traded north of 30 times earnings, peaking at over 40 times in 1998 when Berkshire acquired General Reinsurance, *dead horse...*

Remove Derivative Contract Gains and Losses

Realized and unrealized gains and losses on derivative contracts are removed from GAAP earnings along with those on investment securities.

Berkshire wrote a series of put option contracts just prior to the financial crisis with several life insurance companies as counterparties. The life insurers write a type of annuity that guarantee a smaller percentage of the gain on named stock market indices accompanied by a base minimum annual return and a guarantee of either no loss or a loss capped at a certain percentage. Naturally the insurers lose big if the stock indices decline, and so look to hedge their downside exposure. For a price, Berkshire provided the protection. The options written were European style, meaning they are payable only at the expiration of the option, which in the case of those Berkshire wrote were all well over ten years. Berkshire received \$4.9 billion upfront as a premium between 2004 and 2008 and unwound 8 of the original contracts in 2010 at a gain of \$222 million. A number of the contracts subsequently expired worthless, which means Berkshire keeps the entire premium, plus the gains and income on invested float, and pays no losses. The contracts remaining on its books expire between this year and 2026, carrying a liability of \$1.2 billion on its books at September 30, 2019 reflecting the undiscounted value of the amount they would have to pay out today calculated using the Black-Scholes option pricing formula to determine fair value. 40% of the contracts expired during the fourth quarter. The contracts contain no collateral posting requirements. The liability was \$2.5 billion at the outset of 2019. Thanks to the continued rally in stocks in the fourth quarter, the liability will be even lower at yearend, even beyond considering the contracts that just expired.

Each quarter, Berkshire includes an unrealized gain or loss in the income statement to reflect any increase or decrease in the liability amount as the indices move up and down. When markets rise, Berkshire records a profit, as was the case during 2019. When they decline, as they did in 2018, they show a loss. The gains and losses are non-cash and taxes on gains are carried as deferred, because as mentioned, Berkshire only pays at expiration.

We think it is extremely unlikely that Berkshire would incur a loss on these remaining contracts. The options were written “at the money,” meaning the strike price was set at the market price of the indices at the time the contracts were written. The strike for all four (three were European indices) were written at a time when the S&P traded for no higher than 1,400. Of course, the derivative contracts didn’t look so good at the depths of the crisis – at year-end 2008, the liability on the contracts outstanding at the time was \$10 billion with a notional value of \$37 billion. The notional value would be the amount owed to the insurance companies if each stock market index was at *zero* at expiration.

We’ve always believed writing the contracts was brilliant, a great risk assumed. The length of the contracts and the fact that retained earnings over a long enough period invariably push share prices upward provided margins of safety. With the options being European style, the indices would have to be *below* the strike price on the *exact day* of exercise. These contracts were originally written with 12 to 19 years to maturity. Sure, markets were negative in price for more than 12 years before, and in fairness the options were written close to a cyclical/secular peak, but they would have to be negative on the specific day, *and* the contracts have staggered maturities.

From a cash standpoint, Berkshire received a \$3.6 billion premium from the remaining options (at September 30) upfront. The proceeds, a portion considered as float, are invested and produce income and

gains. If the contracts expire worthless, Berkshire keeps the entire \$3.6 billion. If the indices are all at zero, the maximum payout is \$23 billion.

The actual probability that Berkshire pays at expiration on any of the remaining index put contracts is much higher than the number we stated earlier. Sure, stock markets were negative for periods of 12 years or more. Japan remains materially underwater since 1989, which is extraordinary. Our markets were negative from 2000 to 2012, traded consistently below 1966's high until 1982, and took 25 years to regain 1929's peak. With the strikes written at the money, to lose would require declines of 50% to 70% from now to the precise day of expiration. We believe writing the index puts were great wagers by Berkshire – a permanent collection of \$4.9 billion in put option premium, the use of the entire \$4.9 billion for 12 to 17 years and losses risked that would never be paid. It was like writing a life insurance policy on Sir Galahad *after* finding the Holy Grail.

Adjust Earnings to Reflect Accelerated Depreciation Tax Treatment for Capital Expenditures

Berkshire spends enormous sums on capital expenditures, much of which takes place in its energy and railroad businesses. Deferred tax liabilities are created on qualifying investments in property, plant and equipment. Companies like railroads and utilities are incentivized to make infrastructure investments for the public good. The use of accelerated depreciation in the tax books arises from higher depreciation of fixed assets allowed for tax purposes in the early years of amortizing an asset's life, made up for with lower tax-deductible depreciation expense in later years. The higher early depreciation results in lower taxes paid in the early years and consequently higher taxes in later years. The future higher taxes are carried on the balance sheet as a deferred liability. It's a present value benefit, and we adjust net income upward reflecting the benefit.

The 2017 TCJA tax code change more broadly expanded the allowed use of accelerated depreciation to most industries, instead of limited to those such as rails and regulated utilities. The code change allows for depreciable assets (excluding structures) to be expensed in one year instead of being amortized over many years, effectively accelerated depreciation on steroids for many businesses. Equipment must have been purchased after September 27, 2017 and by December 31, 2022 (with an additional year for longer production property and certain aircraft). The immediate 100% expensing is reduced by 20% annually beginning in 2023 and is to be phased out entirely after 2026. Regulated *public* utilities were largely excluded from the new benefit – having already applied the tax treatment, albeit over more years. With the change in the tax rate to 21% from 35%, regulators logically made downward adjustments to customer electricity rates or to the rate base to maintain allowed returns on equity. Said differently, the tail of lower future depreciation expense had been determined using a 35% rate. The new lower rate would have unfairly benefited a utility at the expense of the customer.

For 2019 we increased after-tax net income by \$1.7 billion, projecting the deferred tax liability for property, plant and equipment grew to \$30 billion, larger than the deferred tax liability for unrealized gains on the stock portfolio.

Over the last two years, the use of accelerated depreciation benefitted not only the railroad, but also Berkshire's other non-regulated businesses that in many cases are also now enjoying the tax benefit of accelerated depreciation where previously they weren't. Berkshire's non rail and energy businesses will have spent about \$9 billion on capital expenditures, with much of that qualifying for one-year expensing. As assets depreciate over their actual useful lives, approximated by depreciation charges in the GAAP income statement, the beneficial tax benefit eventually runs its course, and in the later years of an asset's useful life, an even higher effective tax rate than the marginal rate will be applied for the tax books. Total capital expenditures will be \$15 billion in 2019 against GAAP depreciation expense of \$8.3 billion. BH Energy and the rail will spend \$7.5 billion and \$3.7 billion respectively, \$7 billion above depreciation.

Some of the capex is genuinely spent on maintenance, but in the case of the energy businesses largely sets the rate base higher, against which regulated utilities are allowed to earn an established profit.

Berkshire will continue spending vast sums on capital, much of which drives down the cash tax bill. We would expect the appetite for capital expenditures above maintenance outside of the rail and energy businesses to wane over the course of the phaseout beginning in 2023. For the next three years we should see large expenditures.

Remove Underwriting Gains and Losses; Add a Normalized 5% Underwriting Profit

Underwriting profits, like stock prices, can be extremely volatile from year-to-year. Our method for valuing Berkshire's insurance operations begins with removing reported underwriting profits and replacing them with a normalized 5% pre-tax underwriting profit on premiums earned. It's a similar approach to removing investment gains and losses and replacing them with the retained earnings of the stock market holdings. We strip the volatility from the underwriting cycle in favor of estimating what we think is a sustainable profit earned *over time*. We arrive at our 5% pre-tax underwriting estimate as a blended rate across all of Berkshire's insurers and types of business written. The low interest rate environment makes underwriting at a profit imperative. Berkshire enjoys unusual advantages thanks to surplus capital built over the years. It can retain more business than its competitors and maintain larger allocations to common stocks. Surplus capital derived from best-in-class underwriting and higher returns from longer duration investment assets allowed dividend and capital distributions to the holding company and into its non-insurance businesses. We'll closely watch developments like GEICO's growing market share and the progress of the new specialty business. We may well alter our profit assumption. A more conservative approach would assume breakeven underwriting over time, which strips \$36 billion from the capitalized value of underwriting profit that gets included in our appraisal of Berkshire's intrinsic value.

We already discussed Berkshire's history of including, then excluding, then including then dropping altogether underwriting profit in their dual yardstick method of calculating intrinsic value from 1995 to 2015. Our method of removing volatility and replacing it with what we think Berkshire will earn on underwriting allows us to determine the worth of the insurers, and the business at large, without having to think about the degree to which insurance profits are in the tank or the stratosphere.

When we analyze property casualty insurers and reinsurers, we spend a lot of effort trying to determine sustainable underwriting margins, which can be positive or negative depending on the type of insurance written and the economic climate, particularly with interest rates, inflation, capital required and competitive capacity.

Berkshire's collection of insurers will likely earn less than our normalized 5% pre-tax underwriting profit at year-end 2019 unless the fourth quarter produces a very large underwriting profit, either due to lower than expected losses reported in the calendar quarter or due to positive reserve loss development from prior period's insurance written. Through September 30, the insurers earned a collective underwriting profit of about 2.4%, half of our long-term target. 2018 produced a 3.5% profit while 2017 showed losses of 6.5%. 2016's margin was 4.6%, close to target. 2017 and 2018 were marked by higher than average catastrophe losses, largely from hurricanes and California wildfires in both years plus a Mexican earthquake in 2017.

For 2019, the first step of removing actual underwriting profit eliminates an estimated after-tax \$1.8 billion from GAAP earnings. The next step of adding our 5% normalized pre-tax underwriting profit adds \$3.0 billion pre-tax and \$2.4 billion after-tax underwriting profit on \$61.2 billion in anticipated premiums earned. The quarter just ended lacked major catastrophes, so reported underwriting profit may come in higher than projected.

Add a Portion of Intangibles Amortization Expense to Income

Economic earnings are increased by almost \$900 million to reflect the amortization of intangibles created in acquisitions that do not economically decay. Berkshire recognizes this reality each year, formerly in a supplemental presentation in the Chairman's letter and beginning last year in the MD&A segment presentation of the Manufacturing, Service and Retail group in the 10-K. Unlike many public companies, Berkshire does not present a pro-forma or supplemental set of financials excluding various expenses. The goodwill and intangibles footnote make clear the types and amounts of intangibles being amortized. The balance of intangibles being amortized with no economic decay is now much larger and growing. We had been adding back 80% of the amortization charge for intangibles, which resulted in economic earnings being roughly \$600 million higher after-tax than GAAP profits for 2010 to 2015. We are now adding back 90% of the intangibles charge thanks to ongoing amortization and a lack of recent acquisition activity. Gross intangibles were \$41.6 billion at September 30, 2019. Accumulated amortization is only \$10.2 billion. In addition to trademarks, intangible assets such as trade names and customer relationships generally lose little, if any, economic value over time.

When Berkshire's management presented its summary income statement and balance sheet figures for the MSR group in the Chairman's letter, they noted the degree to which a portion of intangible amortization didn't reflect economic decay. With intangibles such as patents still representing a portion of total intangible assets, we were surprised to read in the 2018 Chairman's letter that management now considers *all* intangible amortization to be non-economic. If the removal of the summary balance sheet figures and the roll-up of the Finance and Financial Products group serve to mask what appears to be deterioration in the MSR group, then this statement and treatment in the segment footnote is interesting.

Charlie and I do contend that our acquisition-related amortization expenses of \$1.4 billion (detailed on page K-84) are not a true economic cost. We add back such amortization "costs" to GAAP earnings when we are evaluating both private businesses and marketable stocks.

This paragraph is from last year's 2018 Semper letter:

We don't want to keep going down the path of knocking the brass at some companies, but there are those that instruct analysts to add back all amortization, which is usually aggressive. Bearing in mind the motivation of some managements is to report profits as high as possible, the good analyst needs to determine which intangibles truly decay and which do not. There are businesses where 100% of the amortization charge is economic, yet management pro-formas their results and adds back amortization expense to profits. It's not an easy analysis for many firms, but Berkshire makes it easy and trusting their judgment is safer than any other if you aren't doing the research work yourself. Berkshire's GAAP pre-tax and net income are net of all intangible amortization, which is where we make our adjustment. Berkshire makes the requisite adjustment only in the footnotes. Our MSR analysis excludes from profit the portion of amortization expense that management deems not economic, and our process agrees with their presentation.

Put us down as bewildered. It's no more than a \$100 million or so change to reported profit so less than 10 basis points of what we believe equity in the MSR group to be, so mostly immaterial, but interesting.

Add an Optionality Premium to a Portion of Cash Balances

We make a material upward adjustment to Berkshire's reported profits that assumes much of Berkshire's cash will be put to good use, and reasonably soon. Here at year-end 2019, our adjustment adds \$3.8

billion to GAAP earnings, a not insignificant 9% of \$42 billion in normalized earnings. The upward adjustment is earnings based only. It does not double count marketable securities or firm assets. The base assumption is that a portion of invested assets are earnings less than they will over time. Depending on whether higher-yielding investments are made and at what yields makes the adjustment worthy of critique, in whole or in part.

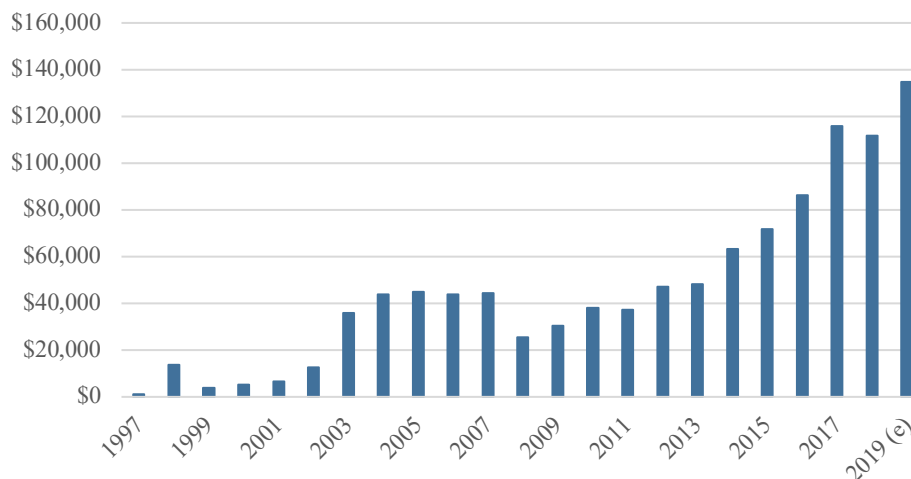
Berkshire watchers are acutely aware of the company's burgeoning cash hoard – cash earning only pedestrian yields in pedestrian US Treasury bills. The cash balance will total roughly \$134 billion at yearend, barring a spending spree in stocks or in Berkshire's own shares yet unreported. Don't hold your breath, particularly with stocks, Berkshire's and the market's, making ongoing new highs during the year's final quarter.

At US T-bill rates of 1.5%, pre-tax interest of \$2 billion is earned now. We rather believe Berkshire would prefer a higher earning opportunity set but has proven willing to spend less than the cash coming into the business over the past three years, hence the growing cash balance.

The question at hand is will they, or won't they? On one hand Berkshire insists it will happily spend all but \$20 billion, a permanent reserve necessary for the Zombie Apocalypse. That leaves \$114 billion and counting for elephant hunting in the jungle of publics and privates. Equity, preferred or debt matters not. Improving on the 1.5% risk free, which may descend to nothing or less, is the motive.

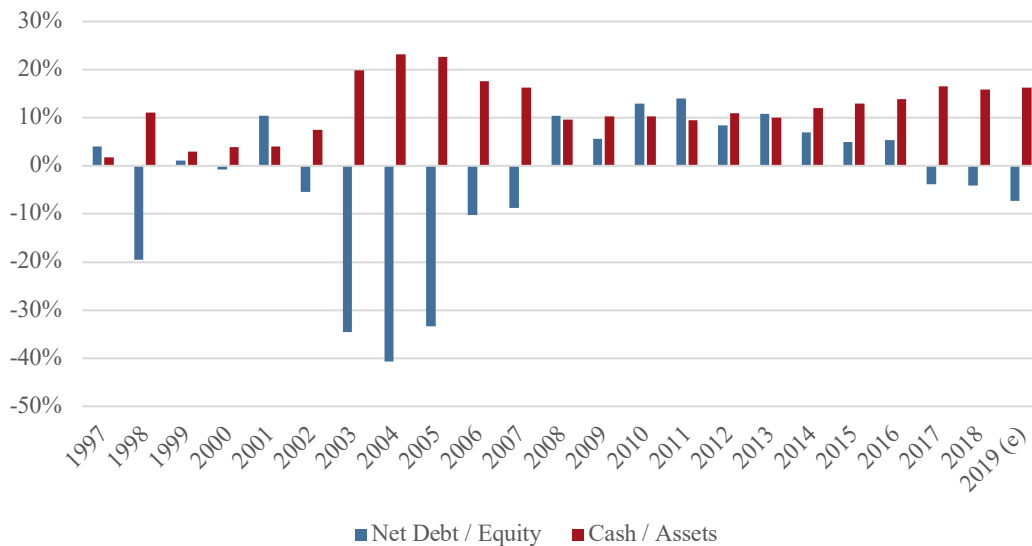
On the other hand, the question is, won't they? A quick view of the ballooning of the out of control cash balance suggests they must, right?

Berkshire's Cash Balance



This chart looks like Tesla here on February 4. To the moon, Alice. Instead of racing to the conclusion that the cash must be put to work and soon, let's put it in the context of history since the General Re acquisition (of, course). The General Re deal closed in late 1998 and brought mucho fixed-income securities, cash and float to the Berkshire party. Stocks as a percent of book value deemphasized from 115% of book value to 65%. But let's see how the otherwise parabolic growth in cash relates to the rest of the balance sheet. Take a look at the chart below that includes net debt to equity and cash as a percent of total firm assets.

Berkshire Cash Balances: Too High or Just Right?



Perhaps the current cash balance, as enormous as \$134 billion sounds, is at a level consistent with how Berkshire prefers to run its balance sheet and operations? Cash today is 16% of total firm assets, having averaged 12% since 1997. How about firm leverage? Does Berkshire like to run its affairs unleveraged but also not net cash heavy? Net debt to equity is -7% today, which means only modestly more cash on hand than balance sheet debt.

It's this historical perspective that allows doubt to creep into the method for assuming a higher return on much of the cash balance. The contra-point to this doubt is that most of the debt on the consolidated balance sheet is held in the railroad and the energy businesses. The debt in these businesses is not an obligation of Berkshire – it's standalone to the subsidiary and not hypothecated to the parent. It's also geared at a proper level for those business. If you hold those two subsidiaries aside from consideration, then the rest of Berkshire – the MSR&F, insurance and holding company operations are swimming in net cash.

For now, we expect a large portion of not only today's cash, but ongoing free cash flows generated by operations, to be invested at higher yields (including via share repurchases) over the near to intermediate term. We are trying to measure not only today's profits but also those to be earned prospectively, discounting the entire stream back to a present value at some sensible rate of interest. Remember, our methods for valuing Berkshire are done first with a determination of earning power, now and as far down the road as we can reasonably guess, and separately based on the net assets owned by the business, their individual earning power, the cost of financing their existence to the extent leverage is incorporated in the capital structure, and the differential in earning power likely to transpire when one asset is swapped for another. It's this last variable, the likelihood that a current asset, a T-bill in this case, will be exchanged for an asset earning higher yields, be it partial ownership of a publicly traded company, a control or shared equity interest in a privately held business, or some type of higher yielding fixed-income or equity hybrid security that we are thinking about. It's the expectation that a lower yielding asset will be converted to a higher yielding one, a guess as to when the conversion will transpire, the yield differential between the assets exchanged, their respective tax treatments, and the opportunity cost of investing in assets of differing riskiness and growth prospects.

The method begins with Berkshire's \$134 billion total cash on hand and assumes any portion held by the operating subsidiaries is integral to their operations and will persist as working capital. We estimate cash

held at BNSF, BHE and the MSR&F group total \$24 billion. The rail and energy cash balances were known at September 30. The MSR&F cash is a wild-ass guess, assumed to offset total debt held in the group of \$17.5 billion, itself a more educated wild-ass guess (the holding company reported a cash balance at year-end 2018, but who knows how or if it gets distributed internally or spent). We know the Finance and Financial Products group, largely leasing businesses, use a leverage factor that requires debt, but with this group gone to the black hole of “Insurance and Other,” we get to employ the sophisticated high-finance term, “wild-ass.” ...

Our method for setting aside a permanent cash reserve makes a more conservative assumption than does Berkshire. Where Berkshire stresses \$20 billion as effectively “escrowed,” we assume the business will always maintain a cash reserve equal to one-years’ worth of insurance losses actually payable as cash, \$37 billion in 2019. If we were running Berkshire that’s what we would do. So, from \$134 billion we subtract the \$37 billion and also the assumed \$24 billion at the subs. The remaining \$73 billion thus in our mind is cash that can be invested when the elephant crosses Omaha’s path. Our long-running assumption is the hurdle at Berkshire is 10%. Because we don’t expect the \$73 billion to be put to work at 8:30 Monday morning but over some period of time, we assign a time factor, or a present value factor, to the investment. We use a 7% pre-tax return assumption for the \$73 billion and subtract the current T-bill rate of 1.5%. Thus, that portion of the cash has economic earning power of an additional 5.5%, or \$4 billion pre-tax.

Then the question now becomes how to hypothetically tax a hypothetical additional return? Even Omaha doesn’t know the proportion of future investments between public stocks and entire businesses, where the investments will be held and how they will be taxed. If in common stocks the logical place is in the insurance companies, where dividends are taxed at half of the 21% federal rate. If investments are made in 100% control positions in private businesses, then they will be taxed at that new subsidiary’s own tax rate. Investments in 20%+ control businesses using the equity method, the tax rate is 7.35%. Our method previously taxed the optionality premium at the full federal rate based on the likelihood of purchasing whole operating businesses. With private equity drowning in capital and control premiums at Everest elevations, stocks seem cheaper and more attractive, at least some stocks...In any event, we’re assuming taxes at the dividends received deduction rate of 10.5%. The hypothetical 5.5% improvement over bills nets to a 4.9% after-tax yield pickup.

Is it aggressive assuming a return that’s not being earned currently? We don’t think so. When Berkshire invests in Occidental preferreds at 8%, callable later at a premium and warrants, there is very little net yield pickup versus our 5.5% optionality premium to bills. Purchase bank stocks at a 10% earnings yield? Ditto. Apple at 13 times, or a 7.7% earnings yield? Ditto. Where we are wrong is if the cash lingers permanently, and that’s a real risk if historical levels of cash to assets or net debt to equity are any guide.

Corrections Corrections

We had a couple questions last year about how we arrived at 8.4% and 6.3% tax rates on dividends paid to corporations with less than and more than 20% ownership. When 2017’s TCJA rolled around and we worked through each of our portfolio holdings at Semper to determine impact, we’d read nothing about the dividends received deduction (DRD) that had been in place changing. It did and I missed it. Because dividends paid by corporations are already taxed, corporations investing in corporations (Berkshire’s investments in common stocks and partially owned businesses) get relief from what would otherwise be double taxation. When the corporate tax rate was 35%, an ownership position less than 20% qualified for a 70% deduction, meaning Berkshire, for example, was taxed at 70% of the 35% rate, or 10.5%. When TCJA changed the corporate tax rate to 21% from 35%, we assumed the DRD stayed at 70%, which would have lowered the tax rate on dividends for corporations to 6.3%. At a 40% deduction, the rate would be 8.4%. As it turned out, despite loads of other benefits with the tax code change, the DRD moved

the other direction, so instead of a 70% deduction the new rules only allowed for a 50% deduction, thereby maintaining the original 10.5% rate.

The same went for ownership positions between 20% and 80% of a company. Where the DRD previously was 80%, it dropped to 65%. Thus, for equity method investments, the old rate was 20% of 35%, or 7%, the new rate at 35% of 21% becomes 7.35%, which is a small tax *increase*.

As for how I got to a new 8.4% tax rate, which would imply a 60% dividends received deduction against the new 21% federal rate, who knows? It looked good though and in retrospect made sense. Sometimes things happen...

Reduce Net Income to Reflect Higher Normalized Pension Expense

The pension adjustment methodology we've used for two decades was covered in past letters. Here we'll just overview the update for Berkshire. In a nutshell, we generally apply a 4% assumed rate of return on the fair value of pension assets versus Berkshire's 6.4%, and run the difference as an annual expense through the income statement. We do the same by amortizing the collective pension underfunded status of \$2.0 billion over ten years, assuming a full funding over a decade. The combination suggests Berkshire will commit an additional \$555 million pre-tax and \$439 million after-tax to its pension funds annually. These figures are using 2018's published financials. This adjustment is immaterial enough that we don't try to figure out what 2019's plan will look like until the 10-K is released at month's end. Given the combined plans' more than 50% allocation to stocks and with the strong stock market, the underfunded status ought to drop to perhaps \$1.5 billion or lower.

Our method is *far* from actuarially correct but has proven reliable. What the method has done is kept us out of old businesses where the pension plan rivals the business in size and importance. It captures the huge one-off funding that takes place periodically, with the CFO suggesting analysts *ignore* the \$2 billion we just borrowed and "invested" in the pension. No, no, no. Rather, \$200 million ought to have been contributed annually for a decade. With nearly all plans failing to achieve their return assumptions for the past twenty years, needless to say it's been a useful tool for us. Overall, the pension situation has improved for investors. The number of companies with defined benefit plans is lower and return assumptions have come down from approximately 9% to 6.5%. With some companies it's a big deal. When interest rates require a microscope to identify and stock markets are at levels consistent with historical secular peaks, the issue is worth considering for the investor in companies with pension fund obligations.

Other Non-Recurring Adjustments

From time to time additional adjustments are necessary. Non-tax adjustments at year-end 2017 for the TCJA can be seen in the three-year summary table. One adjustment irregularly occurs if the stock portfolio trades at a level we find dramatically overvalued or undervalued, where the market value is adjusted with a discount or premium. This adjustment would not impact our earnings-based approach.

The final periodic adjustments made, and here they do reflect earning power, are if a business or group is under earning or over earning relative to normalized potential. For several years, Burlington Northern and a handful of the manufacturing and industrial businesses were adjusted upward because current profitability was depressed. These subsidiaries improved back to a normalized steady state as of a year ago. Many are now in the throes of an industrial downturn, in some cases trade war related, and we'll assess the degree to which business activity weakens. In the case of the railroad, some business stands to

weaken in perpetuity, coal being an obvious example. To the extent sustainable alternatives and natural gas replaces coal, other areas of Berkshire stand to benefit.

The final adjustment under consideration to Berkshire's GAAP financials (and beyond) is the degree to which the improved profitability thanks to the TCJA tax changes will phase out, expire and be competed away. We attempt to capture the decline in the benefit in our sum of the parts method for calculating Berkshire's intrinsic value.

Summary of GAAP Adjustments to Economic Earnings

After-Tax GAAP Adjustments to Economic Earnings: 2019 Expected; in billions			
	2017	2018	2019 (e)
Normalized Recurring GAAP Adjustment to Economic Earnings			
Add retained earnings of equity investees, taxed at 3% (1/7th of new 21% federal rate)	5.3	10.0	10.0
Add income for DTL's created with PP&E capex to reflect cash tax<GAAP tax	1.4	1.4	1.7
Add 90% of amortization charge for intangibles (was 80%)	0.9	0.9	0.9
Add optionality premium for near/intermediate investments with cash>(1-year insurance losses + cash at subs)	2.7	2.3	3.8
Reduce net income to reflect higher normalized pension expense	-0.5	-0.5	-0.4
Normalized Recurring GAAP Adjustment to Economic Earnings (before removing realized g/l)	\$ 9.9	\$ 14.1	\$ 16.0
Periodic or Irregular in Amount or One-Time Adjustments to GAAP Net Income			
Remove realized and unrealized gains/losses, including from derivative liabilities	-1.4	17.7	-59.5
Remove reported underwriting gain/loss **	2.2	-1.6	-1.8
Add normalized 5% underwriting profit **	2.1	2.2	2.4
Berkshire TCJA Adjustment one-time non-cash	-28.2		
Kraft Heinz TCJA Adjustment one-time non-cash	-1.7		
Total Periodic or Irregular in Amount or One-Time Adjustments to GAAP Net Income	\$ (27.0)	\$ 18.3	\$ (58.9)
GAAP Net Earnings (From Income Statement)	\$ 44.9	\$ 4.0	\$ 84.9
Total Adjustment (assumes no 4Q18 gain/loss on investments or irregular underwriting gain/loss)	\$ (17.2)	\$ 32.4	\$ (42.9)
Semper Adjusted Net Income; Economic Earnings ^	\$ 27.8	\$ 36.4	\$ 42.0

2017 subsidiary profit and income stated using tax code in existence at time, not restated for TCJA; The TCJA shown are yearend non-cash only

^ May not sum due to rounding

Source: Semper Augustus

The third row from the bottom, GAAP Net Earnings, are the net income figures found in Berkshire's consolidated financial statements. To the uninitiated or casual observer, they are genuinely meaningless. The media never fails to lament or laud them with quarterly regularity. Which of the three earnings numbers is more correct, \$45 billion in 2017, \$4 billion the following year or last year's \$85 billion? Volatile for sure, how about a simple arithmetic average of \$45 billion? In their entirety or individually, the numbers are useless.

Our methods serve to eliminate the reported volatility that comes with owning a large portfolio of common stocks as well as the period to period swings in underwriting profitability among a diverse group of insurers. Our thinking involves the degree to which intangibles decay in value, or not; whether or when Berkshire will invest its cash reserves and into how much incremental earning power; the proper economic versus accounting treatment of insurance "float"; the difference between reported and cash taxes actually paid, now and prospectively. The process gets us to a durable appraisal of earning power.

The top section of the table shows the modifications made each year that are essentially "hidden earnings." For 2019, the adjustments total \$16 billion, and once capitalized reveal \$288 billion in hidden value. Berkshire watchers generally understand the logic behind why realized and now unrealized investment gains should be ignored. Many also understand the reciprocal importance of measuring the full profitability of investments in partial ownership holdings in publicly traded companies. While dividends properly are included in reported profit, the majority of earnings are retained by the publicly traded companies. At \$10 billion, these undistributed profits combine to total just under a quarter of total economic profitability. If gains are ignored but retained earnings not included in determining earning

power, then a large chunk of how Berkshire benefits goes missing from analysis. Other methods capture an additional \$6 billion otherwise out of sight. The investor who gets the replacement of gains with retained earnings but doesn't consider the additional adjustments is still missing \$6 billion in hidden earning power, masking a still large \$108 billion in capitalized value, shy of the eye-popping \$288 billion from the paragraph's beginning but still enormous.

The middle section strips out realized gains and losses in 2017 and both realized gains and losses in 2018 and 2019, thus ignoring the portfolio decline in 2018 and enormous gain this past year. The section also normalizes insurance underwriting, removing annual results and replacing them with our long-term expected underwriting margin. Investors who don't believe Berkshire's insurers will underwrite at 5% pretax can insert their own number or simply ignore any add-back if underwriting is assumed breakeven going forward. If you think Berkshire will instead underwrite over time at underwriting losses in a world of low interest rates, you probably shouldn't own the stock. The investor who properly removes investment gains and understands the importance of retained earnings by investees but who doesn't consider the degree to which Berkshire's diverse insurers are temporarily over or underearning can miss on their appraisals.

The methods and granular estimates we use in our process are open to debate. Berkshire attracts some wickedly smart investors, and we are fortunate to have so many ongoing discussions about the proper valuation approach. To have so many friends, colleagues, peers and clients so open to sharing their thoughts on these subjects, and on valuation and durability is enormously helpful and gratifying.

The approach with our GAAP adjustments can be called top down in nature. Berkshire is so diverse that the number of adjustments required to arrive at an understanding of durable earning power makes for quite an exercise. An equally important method for valuing Berkshire is through an analysis of its individual parts, or at least large clusters of its parts. Perhaps it's because so much time is spent thinking about the drivers of value that our sum of the parts analysis reconciles so closely with the GAAP adjustments made to the rolled up consolidated financial statements. The accounting adjustments applied to the whole also apply individually to its segments.

Net Income Basis

Net Income Basis – 2019 Year-End Estimated *(dollars in billions)*

	Pre-Tax Income	After-Tax Net Income
Operating Groups		
Berkshire Hathaway Energy	\$2.4	\$3.8
BNSF	7.1	6.2
Manufacturing, Service and Retail	12.5	9.6
Finance and Financial Products	<u>To MSR</u>	<u>To MSR</u>
Operating Group Subtotal	22.0	19.6
Insurance Underwriting Normalized Gain	3.0	2.4
SAI Pension Expense	-0.6	-0.4
Operating Group Plus Insurance Underwriting	24.4	21.6
Investments		
Investment Income (Insurance and HoldCo)	<u>22.2</u>	<u>20.3</u>
Totals	\$46.6	\$41.9
Cash Tax Rate		10.1%

Source: Semper Augustus

Berkshire Hathaway Energy should stick out like a sore thumb. Take a look at the pre-tax and after-tax income figures for the group. Pre-tax earnings are \$1.4 billion *lower* than after-tax profit! There are several things going on here. First, rates charged to customers were cut, lowering revenues and pre-tax profit, but not affecting after-tax earnings. Why? Recall our discussion about regulators not allowing utilities to keep the benefit of the tax cuts. Many are passing along the found profit through rate cuts by enough to maintain allowed returns on equity. Further, Berkshire specifically is receiving large tax credits for its investments in alternative wind (mostly) and solar energy. We further lower the tax bill for the ongoing use of accelerated depreciation on qualifying capital expenditures. You won't see that portion of tax savings in the 10-K subsidiary presentation. An updated reconciliation between cash taxes and GAAP taxes is again included in the appendix.

The other page jumper here is the rolling of the Finance and Financial Products group into the Manufacturing, Service and Retail group, specifically into the Service and Retail segment. The logic for the change and motivation, whether due to materiality or to mask ongoing declining profitability in the MSR group is discussed earlier in the letter.

Other Methods for Valuing Berkshire

Each of our methods for valuing Berkshire are used to reconcile to each other. Below is a summary table for each. More detailed data can be found in the Appendix.

2017 Intrinsic Value by Market Cap and Per Share

	Market Capitalization	Price Per A Share	Price Per B Share
Sum of the Parts Basis	\$630 billion	\$383,049	\$255
GAAP Adjusted Financials	595 billion	361,768	241
Simple Price to GAAP Book Value	609 billion	370,247	247
Two-Pronged Approach (Ours)	610 billion	370,895	247
Simple Average	611 billion	371,463	248

2018 Intrinsic Value by Market Cap and Per Share

	Market Capitalization	Price Per A Share	Price Per B Share
Sum of the Parts Basis	\$659 billion	\$401,274	\$268
GAAP Adjusted Financials	668 billion	406,754	271
Simple Price to GAAP Book Value	611 billion	372,046	248
Two-Pronged Approach (Ours)	672 billion	409,190	273
Simple Average	653 billion	397,316	265

2019 Intrinsic Value by Market Cap and Per Share

	Market Capitalization	Price Per A Share	Price Per B Share
Sum of the Parts Basis	\$715 billion	\$438,188	\$292
GAAP Adjusted Financials	754 billion	462,090	308
Simple Price to GAAP Book Value	764 billion	468,218	312
Two-Pronged Approach (Ours)	807 billion	494,751	330
Simple Average	760 billion	465,767	311

Source: Semper Augustus

A simple average pegs intrinsic value at \$760 billion, up 16.4% for the year. On a per share basis, intrinsic value grew a higher 17.2% thanks to a reduction in the share count.

The fastest growth on a year-over-year basis was seen in the simple price to book value and the two-pronged approach, with 25% and 20% growth by market capitalization, more per share. We discount these two measures in years when the yearly change in the stock portfolio deviates materially from fair value of the underlying portfolio. A 13% decline during 2018 and last year's 47% gain would be considered plenty deviant from trend and impacted both methodologies materially.

The first two methods, detailed in the prior section, incorporate more of our normalization techniques and hence will advance more in line with growth in economic earning power. On a per share basis, sum of the parts advanced 9.2% and using GAAP adjusted financials, the gain over 2018 was 13.6%. We assign more utility to these methods and use the latter two as reconciling tools. We understand why they are more volatile and incorporate this into the overall valuation.

By all counts value is materially higher than the price at which Berkshire's shares can be acquired today. We'll always have dividends, proceeds from sales, client deposits and new clients requiring ongoing investment and reinvestment. We prefer the discount. Buying assets and earning power for less than value is the fun of capital allocation.

Sum of the Parts Basis

Sum of the Parts Valuation *(dollars in billions)*

Operating Groups	December 2018	December 2019
Berkshire Hathaway Energy	\$50 - 57	\$50 - 58
BNSF	95 - 105	100 - 110
Manufacturing, Service and Retail <i>and now Finance</i>	140 - 150	170 - 180
Finance and Financial Products	30 - 33	To Black Hole
Operating Group Subtotal	\$315 - 345	\$320 - 348
Insurance Underwriting Norm Capitalized Value	33	36
Operating Group Plus Insurance Underwriting	\$348 - 378	\$356 - 384
Investments		
Insurance Investments	241	330
Insurance Investments Valuation Premium/Discount	34	-19
Holding Company Investments (Net of debt)	21	34
Investments (Insurance and HoldCo) Total *	\$296	\$345
TOTAL VALUATION	\$644 - 674	\$701 - 729

*Excludes Investments and Cash in Operating Groups

Source: Semper Augustus

We analyze Berkshire much like a doctor would perform an executive physical on a patient. No doctor would ask a patient to breathe on a mirror to determine life and, once established, check a heart rate versus its number of beats per minute the prior year and sign off on a clean bill of improved health. Business analysis, likewise, can't be so simple. Being told to simply measure earnings without understanding the capital involved in its production, and incrementally in particular, is akin to a drive-by doctor's visit. A year shy of finally playing with a full deck, age-wise at least, your author knows that he's overdue for a first executive physical and the battery of tests that goes with it. Excitement about the colon test perhaps explains the reticence. I've told myself as soon as the letter is written I'll schedule the appointment, which helps explain why you are reading page 116...

If Berkshire is going to decline, it's not likely to happen overnight, though one horrible brontosaurus sized acquisition could speed things up. Rather, decline will come slowly, and the best way to spot it will be under the hood. Cancer begins locally. It seemed appropriate to present our sum of the parts summary side by side with last year's estimates. We know Berkshire is a very slow growing dinosaur, highly dependent on successful investment of retained earnings, which with no dividends paid is all of them. Take note of how little each of Berkshire's core groups advanced this year, at least by the valuations we assign to each group. The operating groups are growing by only about 2% year-over-year. Most subsidiaries upstream capital to Omaha so they are unique by comparison to publicly traded companies, who retain earnings and borrow to finance growth.

Perhaps we are on the front end of an economic downturn, even already in one. You wouldn't know it from stock prices and employment levels, but trade and industrial production have slowed. Let's take a brief minute for an update on each of Berkshire's big moving parts.

Berkshire Hathaway Energy

Sales and pre-tax earnings look to have declined this year. We mentioned that regulators are passing along the tax benefits from 2017's TCJA to customers. They are doing so via lower rates charged, lower rate bases and through higher depreciation. It's the net income line that matters, and it advanced 5% for the year for the group. All the gain, however, is thanks to not only lower taxes paid but more taxes being paid *to* Berkshire. What was a negative tax rate is now more negative. From a cash standpoint it's a wonderful thing. Berkshire's utilities spend big bucks on renewables, wind and solar that enjoy social mandates and hence help on the tax front. It's not unlike incentivizing investment in capital with use of accelerated depreciation. In this case, Berkshire literally gets credits and cash *from* the government.

The US utility businesses and energy assets are predominantly in the western part of the country that enjoys more growth. But with national net population growth now running well below 1% annually, it's hard to make a case for Berkshire's collection of utilities growing much faster than GDP and perhaps not much faster than inflation. Yes, these businesses are hugely advantaged housed inside of Berkshire. They don't have dividend requirements to retail shareholders. They are also well ahead of the curve on deemphasizing coal and nuclear. It's a great collection of businesses that enjoy good relationships with regulators and customers and that can absorb large investments in capital that increases rate bases. Just don't expect them to be Berkshire's growth engine under the hood.

BNSF

Growth at the railroad likewise stalled this year. The rail was able to raise prices, always a good thing, but suffered declining volumes shipped per car unit. Overall revenues were flat through September and with weakening trade we wouldn't be surprised to see a lower top line for the year. Improvement in profit helped the picture, with operating expenses falling in line with volumes and for additional cost cutting initiatives. The company benefited from a change in pension requirements, but this was one-off.

The rail is a terrific business, earning upwards of 12% to 14% returns on equity capital. Modernization in network and assets continue, and like the energy businesses, the rail benefits from its location in the faster growing west. Trade with Asia, depressed for the moment, stands to grow over time. The industry is a *huge* beneficiary of the TCJA tax code change on myriad fronts. We'd expect some or much of the benefit to be eventually competed away, particularly when their large customers push back on the obvious (disclosed) improvement.

BNSF is naturally hostage to economic growth but has also been late to adopt logistical efficiencies that its peers already implemented or are in the process of doing so. Specifically, all the major Class 1 rails

except BNSF have adopted “Precision Scheduled Railroading” which in a nutshell runs trains on a fixed schedule between points on the network, regardless of number of cars, or units. It essentially replaces a hub and spoke method of delivering freight. Observing operating ratio improvement at the competition will likely compel BNSF to adopt PSR despite the growing pains that would come with any major logistical change. Incidentally, a great read is the new biography of the late Hunter Harrison, *Railroader – The Unfiltered Genius and Controversy of Four-Time CEO Hunter Harrison*.

MSR&F

Enough was covered earlier in the letter. In the immemorial words of the Vice-Chairman, I have nothing to add.

Insurance

Berkshire’s diverse property casualty insurance and reinsurance businesses derive their value from consistently better than average underwriting results across lines written over lots and lots of years. The businesses enjoy deserved good relations with regulators and ratings agencies. The insurers write less premium volume than their capital would allow, and in doing so reserves are primarily invested in common stocks. Over the years, reserves became so redundant to allow sizable distributions to the holding company in Omaha. The insurers generally do not use financial leverage in their operations. Most insurance companies lack the degree of surplus capital that the Berkshire insurers amassed over the decades. Berkshire followers know that investment float, the investment use of premium dollars prior to losses being paid, was the key of Berkshire’s success since 1967. Conventional wisdom suggests leveraging investment capital with low-cost, no-cost or even negative cost capital provided from float, the perceived Berkshire model, is the key to riches. Emulators have come and gone. What imposters fail to grasp isn’t the beauty of low-cost float, but that low-cost float that becomes enough surplus capital to allow for investment in long-duration assets and even distribution as dividends. It rarely does. It worked for Berkshire thanks to combined good underwriting with a hugely accommodative stock market from the bear market low in 1974 to the 1998 high (for Berkshire’s stocks).

You couldn’t give us enough money today to want to start a de novo insurance underwriter from scratch. The stock market is expensive and interest rates barely exist. More importantly, insurance commissioners would never let a new admitted underwriter invest reserves mostly in stocks and other long-duration investments. It takes enormous surplus capital to do so. So, what do those that think writing insurance and investing float is the ticket to riches do? Write in the unregulated insurance and reinsurance markets, price business competitively and invest like Berkshire thinking float is permanent. It never is. Berkshire is the only insurer we have known so overcapitalized to operate in such a manner. In our opinion Berkshire perceived the investment markets as generally hostile and unfavorable for the last two decades. Surplus and retained capital was diverted away from growing the insurance top line at all costs and into controlled businesses. Yet fools rushed in.

At the company level, GEICO continues to take share from State Farm and from smaller players. Progressive matched GEICO in capturing share in recent years and grew faster in the last two. GEICO’s share is pushing 14% of the US market in private passenger auto, closing in on State Farm, set to fall below 17% this year. GEICO will likely pass State Farm within five years and it will be interesting to see how they react to owning a large enough share of the market to make continued growth difficult to come by. For now, they don’t directly write homeowners insurance. When you see GEICO advertising home insurance it’s really underwritten by Travelers. It will be interesting to see if GEICO at a point begins to write homeowners business, which is generally an inferior line.

Berkshire's reinsurance businesses are in a sweet spot. Enough dumb money that tried to play in reinsurance has been burned badly, and the catastrophes seen in 2017 and 2018, while not crippling, finally forced some weak capital to the sidelines. We didn't think enough capacity left the market, but treaty negotiations last year saw sizable rate increases which will translate into better returns over the near and intermediate term.

Berkshire has a very fast-growing business in its commercial specialty operation started in 2013 with a management team poached from AIG, specifically Lexington Insurance, AIG's excess and surplus division. The head had moved up to run all of AIG's property casualty business prior to jumping to Berkshire. It will be interesting to see how the business develops. Savvy insurance people will tell you there's no way to grow so quickly without speed bumps. Inside AIG the team that jumped to Berkshire had run the business hammer down.

The BH Specialty business is housed among a subgroup called BH Primary. It quickly became the largest company in the Primary group of commercial insurers writing lines such as healthcare malpractice, workers' comp, commercial auto, general liability, property and various specialty coverages for small, medium and large clients. The group writes about 15% of Berkshire's overall premium volume and is consistently very profitable, though underwriting results have weakened over the past two years. It's a group worth watching.

Given Berkshire's enormous surplus capital, we value the insurance operation by combining the value of its aggregate investment assets plus a capitalized value on a 5% pre-tax underwriting margin. At times when the stock portfolio is materially under or overvalued, we adjust the value accordingly. In base terms, the earning power of Berkshire's collection of insurers is derived from underwriting results and from income and earnings from its investments. We don't envision a scenario that the company would materially liquidate investment assets to cover losses.

Premiums earned look to be roughly \$61 billion in 2019 against statutory surplus we estimate at \$213 billion. The combined insurers write just over \$1 in premium per \$3.50 of statutory surplus. GEICO can write \$3 for each dollar of surplus in private passenger auto but tends to write well short of that allowed level we believe. GEICO's premiums earned will total about \$36 billion, almost 60% of all of Berkshire's insurance group premiums. If it writes at 2:1, which would be our bet, surplus at the auto insurer is about \$18 billion, which leaves the balance of \$195 billion for the rest of the group. If you are doing the math, the insurers outside of GEICO will earn premium volume of \$25 billion written against \$195 billion of statutory surplus. Find the other insurer that writes 13 cents of premiums per dollar of capital. That's why Berkshire can invest the way it does.

Catastrophe insurers and reinsurers must write sparingly relative to capital and in most years appear extremely profitable (hence the appeal to the uninitiated). Berkshire is the only insurance company we've followed that we value this way. With all others, you know that some invested assets will wind up exiting the door to cover unexpected and unreserved for losses. Float is very much a net liability. We simply view it more as equity in the case of Berkshire because we don't see it ever declining, or in a worst case shrinking very slowly.

Equity Method Investments

Kraft Heinz – A piece of Kraft. But really, can it get any worse?

Berkshire owns 325.4 million shares of Kraft Heinz, 26.6% of the outstanding shares. The cash cost basis is \$9.8 billion. Carrying value under the equity method reflects a tax value markup (non-cash) when

Heinz bought Kraft, with ongoing additions to book carrying value for proportionate share of earnings minus dividends received. Kraft Heinz has also taken writedowns, which Berkshire proportionally reflected. At September 30, equity method carrying value was \$13.8 billion and the market value of the position was \$10.5 billion. The stock plummeted 70% from its 2017 high. The deep-value devil perched on my right shoulder whispers, “Just look at the value.” The angel on my left screaming, “Idiot” is louder. Value or value trap? I’m going to refrain from making any Cheez Whiz or Brazilian bikini wax comments this year. Miss you, Johnny Miller...

Pilot Flying J

Pilot Flying J is a great evolving acquisition. While small inside the whole of Berkshire, Berkshire’s ownership will increase from its original 38.6% investment for \$2.786 billion in 2017 to 80% in 2023. The 2017 price paid valued the entire business at \$7.15 billion. With 750 locations across the US and Canada, the business generates \$30 billion in revenues. Pilot Flying J regularly opens new travel centers which we would guess are financed internally with cash flow. The website details new location information. Several appear to be smaller format centers located away from the interstate highway system.

Berkadia

Berkshire owns a 50% interest in a commercial real estate loan servicer with Jefferies as the partner and operator. Our long-standing clients will remember we had owned Leucadia, run by two outstanding investors, Ian Cumming and Joe Steinberg. The duo had no succession plan, so they bought Jefferies and with the deal made Jefferies’ CEO Dick Handler the succession plan. Berkadia purchased Capmark Financial Group’s mortgage loan and servicing business for roughly \$437 million in 2009. Over the years, Berkshire provided a secured credit facility of \$1 billion, later increased to \$1.5 billion, to fund mortgage loans, servicer advances, purchase servicing rights and to fund working capital. We tried to put together summary figures from Leucadia and then Jefferies for their share of carrying values and earnings can be found in the appendix, inferring Berkshire’s equity share to be identical. With the Leucadia name now retired to the archives, we presume the Berkadia name lives on. Berkeffries? Berkjeff? Jeffberk? Jeffshire? Let’s quit and get this letter finished...

Electric Transmission Texas (ETT)

ETT is a joint venture with American Electric Power created in 2007 to construct and manage transmission assets in AEP’s territory in Texas. The venture operates as a regulated transmission-only utility. Total investments between the partners were announced to total approximately \$7 billion over many years. In 2007 the utility was granted an allowed return of 9.96% by the Public Utility Commission of Texas. It looks like combined investment capital totals \$3 billion. A brief summary of AEP’s carrying value and income can be found in the appendix, and we’d infer that Berkshire’s position would look the same.

The collection of three equity method investments (excluding Kraft Heinz) has an equity method basis of \$3.7 billion at September 30. Equity method earnings for the group were \$563 million, \$76 million and \$186 million for the three years ended 2018. For the first nine months of 2019 the three earned \$491 million. Without more detail it’s hard to get a sense of how profitable these three businesses are but it looks like they are great investments. If equity method carrying value has any utility, then the group is earning mid-to-high teens returns on equity invested and retained.

Our subsidiary appraisals are conservative, and we have not fully moved multiples upward to capture the full effect of the tax code change. Even without the tax changes, our valuations are very conservative. If the subsidiaries were publicly traded, they would command much higher valuations.

The valuations for each operating group are derived from the Net Income Basis table seen earlier. You can find more granular data for each reporting group in the appendix.

Simple Price to GAAP Book Value Basis

Simple Per-Share Price to Book Value Basis- "A" Share Data										
	BVPS	Avg BVPS	1x BVPS	1.2x BVPS *	1.75x BVPS	2x BVPS	High	Low	Range vs. Avg. BVPS	
1994	10,083	9,469	10,083	12,100	17,645	20,166	20,800	15,150		
1995	14,426	12,255	14,426	17,311	25,246	28,852	30,600	20,250	250%	165%
1996	19,011	16,719	19,011	22,813	33,269	38,022	38,000	31,000	227%	185%
1997	25,488	22,250	25,488	30,586	44,604	50,976	48,600	33,000	218%	148%
1998	37,801	31,645	37,801	45,361	66,152	75,602	84,000	45,700	265%	144%
1999	37,987	37,894	37,987	45,584	66,477	75,974	81,100	52,000	214%	137%
2000	40,442	39,215	40,442	48,530	70,774	80,884	71,300	40,800	182%	104%
2001	37,920	39,181	37,920	45,504	66,360	75,840	75,600	59,000	193%	151%
2002	41,727	39,824	41,727	50,072	73,022	83,454	78,500	59,600	197%	150%
2003	50,498	46,113	50,498	60,598	88,372	100,996	84,700	60,600	184%	131%
2004	55,824	53,161	55,824	66,989	97,692	111,648	95,700	81,150	180%	153%
2005	59,337	57,581	59,337	71,204	103,840	118,674	92,000	78,800	160%	137%
2006	70,281	64,809	70,281	84,337	122,992	140,562	114,500	85,400	177%	132%
2007	78,008	74,145	78,008	93,610	136,514	156,016	151,650	103,800	205%	140%
2008	70,530	74,269	70,530	84,636	123,428	141,060	147,000	74,100	198%	100%
2009	84,487	77,509	84,487	101,384	147,852	168,974	108,450	70,050	140%	90%
2010	95,453	89,970	95,453	114,544	167,043	190,906	128,730	97,205	143%	108%
2011	99,860	97,657	99,860	119,832	174,755	199,720	131,463	98,952	135%	101%
2012	114,214	107,037	114,214	137,057	199,875	228,428	136,345	113,855	127%	106%
2013	134,407	124,311	134,407	161,288	235,212	268,814	178,900	136,850	144%	110%
2014	145,619	140,013	145,619	174,743	254,833	291,238	229,374	163,039	164%	116%
2015	154,935	150,277	154,935	185,922	271,136	309,870	227,500	190,007	151%	126%
2016	171,542	163,239	171,542	205,850	300,199	343,084	249,711	187,001	153%	115%
2017**	211,750	191,646	211,750	254,100	370,563	423,500	299,360	238,100	156%	124%
2018	212,503	212,127	212,503	255,004	371,880	425,006	335,900	279,410	158%	132%
2019(e)	263,537	238,020	263,537	316,244	461,190	527,074	341,785	291,650	144%	123%

* Berkshire waived restriction on authorized share repurchases below 1.2 times BVPS in 2017

** 27.2% increase in book value for 2017 includes a \$28.2 billion non-cash increase from 2017 TCJA tax code change
1,640,929 A shares outstanding at 2018; \$372,257 per share equals market cap of \$611 billion at 1.75x BVPS at 2018

1,640,929 at 12/31/18; price per share \$306,000; MV \$502 B; BV \$348.7B

1,631,718 at 9/30/19; price per share \$339,590; MV \$554B; BV \$430B; 1.29x BV; INTRINSIC VALUE 2019: \$807 BILLION

Source: Semper Augustus

A 1.75 multiple to book value approximates fair value. In any given year, book value can get ahead of itself or behind, largely due to period volatility in the stock portfolio. It can also get distorted at times such as year-end 2017 when the new marginal tax rate saw deferred tax liabilities rerated downward and deferred tax assets revalued upward. Berkshire properly points out that if it is going to become a large repurchaser of its shares at premiums to book value, then book value and book value per share will decline. Progressively, subsequent repurchases at increasing premiums will further and more quickly erode book value.

All of these nuances must be taken into account over time. At bottom, we view Berkshire in a normalized steady state as earning a 10% return on unleveraged equity, and thanks to the durability and knowability of the business are comfortable in a 75% premium to book as reasonable value today. If the sustainable return on equity as projected changes, upward or downward, we would alter the valuation. Likewise, if book value becomes so diminished, we will eliminate it as a tool and look to measure ongoing

profitability relative to the earnings that are retained in the business next to current and past levels of profitability.

Two-Pronged Approach

Two-Pronged Basis # (dollars in millions)															
	Per-Share Pre-Tax Earnings					Per-Share Investments	Per-Share Investments + Capitalized Pre-Tax Earnings				Market Cap Intrinsic Value				
		10x	12x	13.5x	15.4x ^		plus 10x	plus 12x	plus 13.5x	plus 15.4x^		at 10x	at 12x	at 13.5x	at 15.4x^
2005	2,441	24,410	29,292	32,954	37,591	74,129	98,539	103,421	107,083	111,720	1.541	151,849	159,372	165,014	172,161
2006	3,625	36,250	43,500	48,938	55,825	80,636	116,886	124,136	129,574	136,461	1.543	180,355	191,542	199,932	210,559
2007	8	80	96	108	123	90,343	90,423	90,439	90,451	90,466	1.548	139,975	140,000	140,018	140,042
2008	3,921	39,210	47,052	52,934	60,383	77,793	117,003	124,845	130,727	138,176	1.549	181,238	193,385	202,495	214,035
2009	2,250	22,500	27,000	30,375	34,650	90,885	113,385	117,885	121,260	125,535	1.552	175,974	182,958	188,196	194,830
2010	5,926	59,260	71,112	80,002	91,261	94,730	153,990	165,842	174,732	185,991	1.648	253,776	273,308	287,958	306,513
2011	6,990	69,900	83,880	94,365	107,646	98,366	168,266	182,246	192,731	206,012	1.651	277,807	300,888	318,199	340,126
2012	8,085	80,850	97,020	109,148	124,509	113,786	194,636	210,806	222,934	238,295	1.643	319,787	346,354	366,280	391,519
2013	9,116	91,160	109,392	123,066	140,386	129,253	220,413	238,645	252,319	269,639	1.644	362,359	392,332	414,812	443,287
2014	10,847	108,470	130,164	146,435	167,044	140,123	248,593	270,287	286,558	307,167	1.643	408,438	444,082	470,814	504,675
2015(S)	11,562	115,620	138,744	156,087	178,055	148,675	264,295	287,419	304,762	326,730	1.643	434,237	472,229	500,724	536,817
2015(B)	11,186	111,860	134,232	151,011	172,264	159,237	271,097	293,469	310,248	331,501	1.643	445,412	482,170	509,737	544,657
2016(S)	12,532	125,320	150,384	169,182	192,993	168,902	294,222	319,286	338,084	361,895	1.643	483,407	524,587	555,472	594,593
2016(B)	11,984	119,840	143,808	161,784	184,554	186,520	306,360	330,328	348,304	371,074	1.643	503,349	542,729	572,263	609,674
2017(S)	12,289	122,890	147,468	165,902	189,251	190,161	313,051	337,629	356,063	379,412	1.644	514,593	554,995	585,296	623,677
2017 (B)	10,320	103,200	123,840	139,320	158,928	202,322	305,522	326,162	341,642	361,250	1.645	502,492	536,439	561,899	594,148
2018(S)	13,982	139,820	167,784	188,757	215,323	174,846	314,666	342,630	363,603	390,169	1.641	516,345	562,232	596,647	640,239
2018(B)	14,414	144,140	172,968	194,589	221,976	188,626	332,766	361,594	383,215	410,602	1.641	546,045	593,350	628,829	673,768
2019(Se)	13,483	134,830	161,796	182,021	207,638	238,614	373,444	400,410	420,635	446,252	1.632	609,355	653,356	686,357	728,158
2019(Be)	13,652	136,520	163,824	184,302	210,241	253,323	389,843	417,147	437,625	463,564	1.632	636,114	680,666	714,081	756,405

Two-Pronged basis intrinsic value excludes capitalized value for ongoing insurance underwriting profitability, \$2.6 billion currently valued at \$30 billion, or \$18,240 per-share

**Berkshire changed the methodology for calculating both earnings and investments per-share. See "Moving the Goalposts". Semper estimates use our traditional methods.

(S) is our SAI method which excludes underwriting profit and loss from earnings. We exclude cash inn MSR, Finance and Energy/Rail groups and include equities and other investments in non-insurance

(S) Our earnings exclude underwriting profit or loss. Instead we capitalize at 11.5 pretax (was 10x pretax pre 2017 TCJA tax reform) Excluded from table.

(S) As of 2015, we now include, as does Berkshire, warrants, preferreds, equities and fixed from finance group

(S) Underwriting profit at 5% capitalized at 11.5x beginning 2018 and 10x 2017 and prior adds to IV: 2013 18.38; '14 \$20.6 B; '15 20.7B; '16 22.9B; '17 25.2B; '18(e) 33.0B (\$1,804 per A share '18)

(B) is the new Berkshire methodology beginning 2015 which includes underwriting profit or loss in earnings and now includes cash from MSR, Rail and Energy, and Finance businesses

^ New 15.4 multiple in 2017 applied to earnings reflects 12.4% increase in after-tax earning power from a lower tax rate, requiring a like 12.4% increase in the multiple to pre-tax earnings

(S&B) Excludes KHC and Other Equity Method Investments, Includes OXY preferred and warrant PV begin 2019

Source: Semper Augustus; Berkshire Hathaway

This method was covered earlier in the letter, as well as in our 2016 letter and in the appendix to the 2017 letter. Know that our method differs from the one used by Berkshire and altered over the years. We add a capitalized value to a normalized underwriting profit margin and would also look to the stock portfolio to determine any degree of material under or overvaluation. It's a nice reconciling tool but required alteration to its original presentation by Berkshire beginning in 1995.

SUMMARY

An architect's most useful tools are an eraser at the drafting board, and a wrecking bar at the site. – Frank Lloyd Wright

Some persons make promises for the pleasure of breaking them. – William Hazlitt

You can see the problem right here in black and white. Two quotes to explain failure to produce a shorter letter where one would suffice. Believe it or not a wrecking ball, the delete key, was taken to several sections in the draft. That said, I swore on a stack of bibles that this year would come in lower than 112 pages and failed. The sinner channels Broadway Joe for the 2020 iteration and guarantees a win.

The real problem is that writing the letter is a labor of love. The year is spent building an outline of themes. Dread sets in come December, knowing every evening from January 2 to mid-February is accounted for. Once underway, however, it becomes my favorite time of the year. Committing beliefs held sacred to paper forces introspection. Writing for a concentrated period is cathartic and allows thought about issues broader in scope than the daily routine of researching businesses. For example, we know share issuance and repurchases rob profit from shareholders and are massively dilutive. Only for pulling gads of historical data and piecing together the important points was a true quantification of the cost possible. The process of carving out a portion of the year and thinking outside the box makes us better investors. That said, the theme of brevity heads the outline for 2020. Next year's headline: Jets Win!

Berkshire saw its share price grow in line with intrinsic value in 2019. Given the 47% (or 40% with Kraft Heinz) gain in the stock portfolio and 24% advance in book value per share, you'd think based on the media's take that the sky finally fell. Chicken Little will miss out on the shares being nearly as undervalued as at any time, not only during our 20-year tenure as shareholders but over the entire 55-year history with current management behind the wheel.

I owe more gratitude to the two gentlemen running Berkshire as mentors than to any others by a country mile. You can look, but will not find, the business run with more integrity, conservative accounting, or more favorable (to the shareholder) executive compensation. Look for the ongoing write-offs and writedowns, for enormous grants of shares to management, for decisions made to favor insiders over shareholders, for any of the general chicanery seen in most public companies. You won't find 'em at Berkshire. I'm sure we'll take some flak for criticism of decisions made to withhold information previously not only helpful but essential to proper analysis. In any organization, mistakes in capital allocation are unavoidable. For a company as large as Berkshire they are guaranteed. We'll continue to dig for answers and to ask for information when it's needed. I genuinely don't believe we are too deep in the weeds of unessential data. To the extent any of Berkshire's large groups of businesses are in decline, the shareholders deserve the opportunity to know it. Measuring profitability without knowing the amount of capital required to produce it makes proper analysis impossible.

If listening to Dire Straits over the years hasn't taught you there's no such thing as money for nothing, then hopefully the letter made clear you can't get stocks for free either. The amount of shareholder capital spent buying back shares serves to mask the extraordinary number of shares given to public company executives. If the plan is to pay the company brass tens of millions of dollars in company shares every year, and to spend two-thirds of company profits repurchasing shares to hide the dilution, then we're on the right track. If the fact that retained earnings are not spent on incremental R&D, building capacity or accretive acquisitions but instead are used to effectively purchase shares from executives at any price, then we are off the rails. The transfer of wealth from shareholders is mind blowing. Next time you run into a CEO at your corner bar, ask why the purchase of 3% of their company's outstanding shares only

reduced shares outstanding by 1%. After being educated as to why compensation paid in shares really isn't an expense, you'll probably wind up buying the drinks.

We hope a tour of reasons to say no to an investment and suspend the research process was useful. So few great investment ideas come along. When they do, the investor must be opportunistic. A framework that limits capital allocation to the understandable, the honest and at the right price can't be discounted. It's imperative to getting to yes.

Overall market valuations rival levels seen only at historic secular peaks. The examination of the Fab 5 tech companies epitomizes the current froth. Just like the late 1990's and early 2000, those that put a ruler on past trends are destined to part with some of their capital. Expectations are too high, but that's always the case when the tide is high.

We owe sincere thanks to all of the friends, colleagues and peers that make doing what we do every day so enjoyable. The team here at Semper is exceptional and a joy to work with. We owe even greater thanks to our clients. Shepherding your capital comes with enormous responsibility and we will never approach our role as stewards with anything but our undivided care, attention and respect. We are humbled by your continued confidence.

Huge thanks the time you willingly devote to our thoughts in the annual letter. Your comments and feedback are always welcome. We look forward to catching up over the year.

Now, How about a Fresca...

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APPENDIX

Appendix A

Key Business Segment Information – Berkshire Hathaway 2019 Expected

Berkshire Hathaway Energy (90.9% owned)		BNSF	
Revenues	\$20.0 B	Revenues	\$23.5 B
EBIT	\$4.3 B	EBIT	\$8.2 B
Pre-tax Income	\$2.4 B	Pre-tax Income	\$7.1 B
Net Income (GAAP, net of non-controlled interest)*	\$2.9 B	Net Income (norm tax rate now 24%)	\$5.4 B
Net Income (adjusted for cash taxes)	\$3.8 B	Net Income (cash tax adjusted)	\$6.2B
Reported Tax Rate (derived MD&A-not cash adjusted)	-20.6%	Goodwill (BNSF SEC and STB filings)	\$14.9 B
Cash Tax Rate (deferred taxes exceed reported tax)	negative%	Equity (estimated from STB and GAAP filings)	\$43.5 B
Goodwill (from BHE 10-Q and K's)	\$9.6 B	Debt	\$24.0B
Deferred Tax Liability	\$9.2B	Cash	\$2.6B
Depreciation and Amortization	\$3.1B	Interest	\$1.07
Capital Expenditures (Mgt. Estimate)	\$6.5B	After-Tax Interest	\$0.85B
Equity (estimated)	\$32.0 B	Deferred Tax Liability	\$14.4B
Debt	\$42.4B	Equities as an Investment	\$1.6 B
Cash	\$1.4B	Depreciation and Amortization	\$2.4B
Interest	\$1.9B	Capital Expenditures	\$3.2B
After-Tax Interest	\$1.5B	ROE GAAP Net Income	12.4%
ROE GAAP w/ 35% DTL (includes \$9.7 billion goodwill)	9.1%	ROE Adjusted for Cash Taxes	14.3%
ROE (adjusted for cash taxes)	10.7%	ROC Net of Cash	10.9%
ROC Net of Cash	6.7%	Estimated Value	\$100-110 B
Estimated Value	\$50-58 B	Implied P/E (on net adjusted for cash taxes)	17
Implied P/E	15-16		
MSR Businesses + Finance & Financial Products as of 12/31/18		HoldCo	
Revenues	\$142 B	KHC 26.7% (bs cost \$17.4 w/d to \$13.8B; cash cost \$9.8 B)	\$10.500
Pre-tax Income	\$12.5 B	Additional KHC Deferred Tax Liability/Asset not on BS	\$0.100
Net Income at 23% assumed tax rate	\$9.6 B	Equity Method other (earnings at subs) 3.7B at 9/30/19	\$3.7 B
Profit margin	6.8%	Cash and Equiv: 61.2 B including MSRF	\$41.200
Goodwill and Intangibles	\$72.0 B	Fixed Income Securities 0.890	at subs
Equity	\$127 B	Notes Payable (BS - HoldCo y/e = balance to MSR)	\$19.700
DTL (Unallocated estimate)	\$7 B	Deferred Tax Liability Unassigned to Groups	\$2.104
Equities not held by insurance or BYD (was BNSF?)	\$7.6 B	Equity Method Earnings KHC (increase cost basis)	\$0.928
Equity Method: PFJ, Berkadia, ETT (carry value)	\$3.7 B	Dividends KHC (reduce cost basis of investment)	\$0.521
Depreciation of Tangible Assets	\$3.4 B	Dividends of equities (recorded as income at subs)	\$0.000
Capital Expenditures	\$5.0 B	Interest Income	\$0.354
Total Debt (assume BS - HC y/e debt)	\$17.5 B	Retained E of 7.580B rr, energy and fnce equities	\$0.326
Cash (est; balance to HoldCo, HCO only report prior YE)	\$20 B	Optionality of holdco cash + MSRF cash 62B est	\$3.410
Interest	\$0.6 B	Interest Expense (not allocated to subs)	-\$0.591
After-Tax Interest	\$0.4 B	Net Investment Income Pre-Tax	\$3.499
ROE	7.6%	Net Investment Income After-Tax	\$3.177
ROTE (excluding goodwill & other intangibles)	17.6%	General and Administrative Expense (net)	\$0.200
ROC Net of Cash	8.1%	Normalizing Net Pension Expense for GAAP Adjustment	-\$0.439
Estimated Value	\$170-180 B	Estimated Value (Investments - HoldCo Debt)	33.5 B or 43.5
Implied P/E	18		
Net income and ROE's new shown at max tax benefit. Some will be competed awa			
ROC probably too high: Cash > Debt would go to HoldCo			
DTL is balance w HoldCo carried at y/e value			

Source: Semper Augustus

Insurance Operations		Insurance Investments (December 31, 2018 estimated)	
Premiums Earned ('17 incl 10.2 AIG)	\$61.2 B *	Equity Securities (ex KHZ)	\$234.9 B
Statutory Surplus (Equity) 129 B '14, 124 B '15, 136 B '16)	\$213 B	Fixed Income Securities. (23.4 B 2016)	\$19.0 B
Book Value GAAP at December 31, 2017	\$227 B	Pfds, Warrants (14.3 B '16; 3.3 B RBI 9% pfd call 12/17; OXY)	\$10.8 B
		Investment in Kraft Heinz	At HoldCo
Float (84 2014, 88 B 15, 91 B 16, 114.5 B 2017, 123 18)	\$129 B	Cash (62.8 '16, 73.3 '17)	\$62.3 B
Losses Paid (2014 22.7 B; 2015 24.5 B, 2016 27 B, 30 B 2017)	\$37 B	Other (BYD from rail?)	\$2.5 B
Normalized Underwriting Margin: 5% Pre-tax	\$3.0 B	Total Investment Assets (205.8 '16 ex KHZ, 261.7 '17)	\$329.5 B
Normalized Underwriting Net Profit	\$2.4 B	<u>Investment Income and Earnings (to reconcile)</u>	
Capitalized Value from Underwriting ***	\$36 B	Dividends (annualized at 12/31 estimated)	\$4.4 B (1.87% div yield)
		Retained Earnings of Common Stocks	\$10.0 B (4.3% REY)
DTL (Unassigned on group BS, DTL \$22.2B 9/30 incl. non-ins)	\$29.2 B	Total Earnings of Common Stocks	\$14.4 B (16.3 p/e; 6.1% EV)
Insurance Estimated Value		Interest and Divs on Preferreds - gone	\$0.8
Total Investment Assets	330 B	Interest on Fixed Income and Cash	\$2.2 B
Equity securities valuation premium/discount	- 19 B		
Capitalized Value from Underwriting	\$36 B	Total Pre-Tax Earnings of Investments	\$17.3 B
Estimated Value	\$347 B	Optionality of Cash > One-Year Losses Paid #	\$1.4 B
		Pre-tax Earnings with Optionality of Surplus Cash **	\$18.7 B
ROE (Investment net income + net underwriting/BV. Was 9.9%)	8.6%	Paid and Hypothetical Taxes (11.0% blended; RE of stocks 3%)	\$1.386 B
		Investment Net Income	\$17.1 B

Source: Semper Augustus

Appendix B – Capital Expenditures and Depreciation; Deferred Tax Liabilities

CAPITAL EXPENDITURES AND DEPRECIATION; DEFERRED TAX LIABILITIES																	
(Dollars in millions)																	
Berkshire Total (All Operating Businesses)																	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 (E)	Total
Capital Expenditures	1,278	2,195	4,571	5,373	6,138	4,937	5,980	8,191	9,775	11,087	15,185	16,082	12,954	11,708	14,537	15,000	144,991
Depreciation	941	982	2,066	2,407	2,810	3,127	4,279	4,683	5,146	5,418	6,215	6,673	7,411	7,719	8,386	8,386	76,649
Difference	337	1,213	2,505	2,966	3,328	1,810	1,701	3,508	4,629	5,669	8,970	9,409	5,543	3,989	6,151	6,614	68,342
BHE																	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018(e)	2019 (E)	Total
Capital Expenditures			2,423	3,513	3,936	3,413	2,593	2,684	3,380	4,307	6,555	5,876	5,090	4,571	6,241	7,530	62,112
Depreciation			949	1,157	1,128	1,246	1,262	1,333	1,440	1,577	2,177	2,451	2,560	2,548	2,830	3,073	25,731
Difference	-	-	1,474	2,356	2,808	2,167	1,331	1,351	1,940	2,730	4,378	3,425	2,530	2,023	3,411	4,457	36,381
BNSF																	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018(e)	2019 (E)	Total
Capital Expenditures							1,829	3,325	3,548	3,918	5,243	5,651	3,819	3,256	3,116	3,700	37,405
Depreciation							1,221	1,480	1,573	1,655	1,804	1,932	2,079	2,304	1,890	2,384	18,322
Difference	-	-	-	-	-	-	608	1,845	1,975	2,263	3,439	3,719	1,740	952	1,226	1,316	19,083
BHE + BNSF																	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018(e)	2019 (E)	Total
Capital Expenditures			2,423	3,513	3,936	3,413	4,422	6,009	6,928	8,225	11,798	11,527	8,909	7,827	9,357	11,230	99,517
Depreciation			949	1,157	1,128	1,246	2,483	2,813	3,013	3,232	3,981	4,383	4,639	4,852	4,720	5,457	44,053
Difference	-	-	1,474	2,356	2,808	2,167	1,939	3,196	3,915	4,993	7,817	7,144	4,270	2,975	4,637	5,773	55,464
DEFERRED TAX LIABILITIES *																	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 **	2018	2019 (E)	
Investments	11,020	11,882	14,520	13,501	4,805	11,880	13,376	11,404	16,075	25,660	26,633	36,770	27,669	24,251	17,765	29,200	
Def Ch Reinsurance Assumed	955	828	687	1,395	1,373	1,385	1,334	1,449	1,392	1,526	2,721	2,798	2,876	3,226	2,970	3,200	
PP&E	1,201	1,202	4,775	4,890	7,004	8,135	24,746	28,414	29,715	32,409	34,618	36,770	39,345	26,671	28,279	30,000	
Goodwill and Intang													2,770	11,344	7,204	7,199	7,200
Other	1,174	1,165	2,591	2,743	4,024	4,236	5,108	6,378	6,485	6,278	6,396	4,555	5,550	3,216	3,187	3,100	
Total	14,350	15,077	22,573	22,529	17,206	25,636	44,564	47,645	53,667	65,873	70,368	83,663	86,784	64,568	59,400	Annual Update	
* Only deferred tax liabilities. Deferred tax assets not presented (\$10.327 billion at year-end 2016; \$8,386 at y/e 2017)																	
** Revalued downward for the new federal maximum tax rate by \$28,200 to reflect 21% Federal tax rate vs. 35% under the TCJA																	

Source: Semper Augustus

Appendix C – Cash and GAAP Tax Reconciliation

CASH TAXES AND GAAP TAXES																		
	Cumulative	2019 (9 mos)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Earnings Before Tax	366,725	64,959	4,001	23,838	33,667	34,946	28,105	28,796	22,236	15,314	19,051	11,552	7,574	20,161	16,778	12,791	10,936	12,020
GAAP Taxes **	102,602	13,333	321	6,685	9,240	10,532	7,935	8,951	6,924	4,568	5,607	3,538	1,978	6,594	5,505	4,159	3,569	3,805
Net Income *	264,123	29,713	4,322	17,153	24,427	24,412	20,170	19,845	15,312	10,746	13,494	8,441	4,994	13,213	11,015	8,528	7,308	8,151
Tax Rate	28.0%	20.5%	-8.0%	28.0%	27.4%	30.1%	28.2%	31.1%	31.1%	29.8%	29.4%	30.6%	26.1%	32.7%	32.8%	32.5%	32.6%	31.7%
Current Taxes	69,924	4,395	5,176	3,299	6,565	5,426	3,302	5,168	4,711	2,897	3,668	1,619	3,811	5,708	5,030	2,057	3,746	3,346
Deferred Taxes	32,466	8,726	5,497	3,386	2,675	5,106	4,633	3,783	2,213	1,671	1,939	1,919	1,833	886	475	2,102	177	459
Total Tax	102,390	13,121	321	6,685	9,240	10,532	7,935	8,951	6,924	4,568	5,607	3,538	1,978	6,594	5,505	4,159	3,569	3,805
Current as Percent of Total Tax	68.3%	33.5%	-1612.5%	49.3%	71.0%	51.5%	41.6%	57.7%	68.0%	63.4%	65.4%	45.8%	192.7%	86.6%	91.4%	49.5%	105.0%	87.9%
Deferred as Percent of Total Tax	31.7%	66.5%	1712.5%	50.7%	29.0%	48.5%	58.4%	42.3%	32.0%	36.6%	34.6%	54.2%	-92.7%	13.4%	8.6%	50.5%	-5.0%	12.1%
Current Tax Rate	19.1%	6.8%	129.4%	13.8%	19.5%	15.5%	11.7%	17.9%	21.2%	18.9%	19.3%	14.0%	50.3%	28.3%	30.0%	16.1%	34.3%	27.8%
Deferred Tax Rate	8.9%	13.4%	-137.4%	14.2%	7.9%	14.6%	16.5%	13.1%	10.0%	10.9%	10.2%	16.6%	-24.2%	4.4%	2.8%	16.4%	-1.6%	3.8%
Total Tax Rate	27.9%	20.2%	-8.0%	28.0%	27.4%	30.1%	28.2%	31.1%	31.1%	29.8%	29.4%	30.6%	26.1%	32.7%	32.8%	32.5%	32.6%	31.7%

* Before earnings attributable to noncontrolling interests

** GAAP Taxes for 2017 exclude one-time nontaxable gain of \$28,200 for TCJA; Offset is deferred taxes as reported were (24,814) adjusted to \$3,386; the \$24,814 is a reduction of net DTL's

Source: Semper Augustus

Appendix D -- Reported Segment Profit by Berkshire's JV Partners

Year	Berkadia Net Income	Berkadia Distributions	Carrying amount of Equity and Loans
2009	\$20.8	\$0.0	\$240.0
2010	\$16.2	\$29.0	\$475.1
2011	\$29.0	\$23.6	\$193.5
2012	\$38.0	\$37.6	\$172.9
2013	\$84.7	\$69.0	\$182.6
2014	\$101.2	\$72.9	\$208.5
2015	\$78.1	\$89.6	\$191.0
2016	\$94.2	\$100.8	\$184.4
2017	\$93.8	\$67.4	\$210.6
2018	\$80.1	\$41.0	?

Year	ETT Net Income	Carrying amount of ETT Investment
2007		
2008		
2009		\$53.5
2010		\$110.3
2011		\$223.5
2012	\$41.0	\$353.7
2013	\$53.0	\$455.0
2014	\$84.7	\$527.0
2015	\$86.4	\$609.8
2016	\$97.4	\$725.5
2017	\$82.0	\$664.0
2018	\$62.0	\$666.0

Project Completion date 2017. Estimated cost, \$3.1 billion (9.96%)

Project Completion date 2022. Estimated cost, \$3.05 billion (9.96%)

Appendix E – Semper Augustus Investments Group Historical Returns



Year End	Gross of Fees	Net of Fees	Gross of Fees Equities Only*	MSCI All Country World Index	S&P 500
1999**	29.9%	29.5%	29.1%	27.5%	19.9%
2000	26.8%	26.4%	30.7%	-14.0%	-9.1%
2001	20.8%	20.1%	23.1%	-15.9%	-11.9%
2002	-15.5%	-16.0%	-22.0%	-19.0%	-22.1%
2003	21.8%	20.7%	38.2%	34.6%	28.7%
2004	9.2%	8.2%	16.3%	15.8%	10.9%
2005	6.2%	5.6%	7.4%	11.4%	4.9%
2006	14.2%	13.4%	18.4%	21.5%	15.8%
2007	3.8%	3.1%	3.1%	12.2%	5.5%
2008	-20.3%	-21.3%	-21.6%	-41.9%	-37.0%
2009	22.0%	21.0%	27.9%	35.4%	26.5%
2010	12.8%	11.8%	14.4%	13.2%	15.1%
2011	6.9%	6.2%	7.1%	-6.9%	2.1%
2012	6.5%	5.7%	6.8%	16.8%	16.0%
2013	15.5%	14.7%	17.3%	23.4%	32.4%
2014	4.6%	3.9%	5.2%	4.7%	13.7%
2015	-8.7%	-9.3%	-10.3%	-1.8%	1.4%
2016	22.1%	21.3%	27.7%	8.5%	12.0%
2017	13.5%	12.7%	18.0%	24.6%	21.8%
2018	-1.3%	-2.0%	-1.4%	-8.9%	-4.4%
2019	20.4%	19.6%	23.6%	27.3%	31.5%

	Gross of Fees	Net of Fees	Gross of Fees Equities Only*	MSCI All Country World Index	S&P 500
Cumulative Since Inception**	538.0%	450.0%	812.0%	241.1%	288.8%
Annualized Since Inception**	9.3%	8.5%	11.2%	6.1%	6.7%

* This is supplemental information

** Inception Date February 28th, 1999



Firm Overview:

Semper Augustus Investments Group, LLC claims compliance with the Global Investment Performance Standards (GIPS®). For the purpose of complying with GIPS, SAI defines itself as Semper Augustus Investments Group, LLC, an independently registered investment adviser. For purposes of determining firm assets under management, SAI includes all discretionary and non-discretionary assets as well as all fee paying and non-fee paying.

Composite Description:

The Semper Augustus Fundamental Intrinsic Value Equity consists of portfolios managed for Semper Augustus' clients according to the firm's published investment philosophy. Semper Augustus employs a fundamental value investment strategy, identifying companies earning free cash returns in excess of a realistic estimate of the firm's cost of capital. Our firm defines risk as a permanent loss of capital, not as volatility around some mean. Portfolios have generally contained fewer than 30 holdings and are often concentrated in a small handful of businesses with high business quality and share prices at a significant discount to conservative appraisals of intrinsic business value. These dual margins of safety are crucial to the investment process and lend themselves to generally long holding periods and low portfolio turnover. During periods of high volatility, turnover can be opportunistically higher. Investments are made across all market capitalizations, in both domestic and globally headquartered businesses. Our firm makes international investments in businesses domiciled in industrialized countries where the rule of law is strong and accounting standards are high. We are benchmark agnostic. Industry weightings are not a consideration. The composite includes the income and performance derived from various option-writing strategies in some client accounts. Allocations to cash are a byproduct of the investment process and not a permanent allocation. To be included in the composite, accounts must meet certain thresholds of equity securities purchased by SAI. This method generally excludes accounts that are managed as "balanced" accounts and client accounts that have not met the required threshold for inclusion. Cash and equivalents have been significant holdings at times.

Index Return Information:

The MSCI ACWI returns are gross of any fees required to replicate the index and are also pre-tax. The index is theoretically passive (unmanaged) but in reality, replication requires trading costs and some management fees. Fundamental Intrinsic Value Equity may differ materially from the index as the Fundamental Intrinsic Value Equity owns concentrated positions and the MSCI ACWI has a bias towards large cap stocks. Fundamental Intrinsic Value Equity has included varying investments in small, mid and large cap stocks in addition to investments in cash and short-duration fixed income securities. The MSCI ACWI is broadly used as an investment benchmark. The MSCI ACWI index is the benchmark for Fundamental Intrinsic Value Equity.

The S&P 500 returns are gross of any fees required to replicate the index and are also pre-tax. The index is theoretically passive (unmanaged) but in reality, replication requires trading costs and some management fees. The Fundamental Intrinsic Value Equity may differ materially from the index as the Fundamental Intrinsic Value Equity owns concentrated positions and the S&P 500 has a bias towards large cap stocks and holds only U.S. domiciled companies. Fundamental Intrinsic Value Equity has included varying investments in small, mid and large cap stocks, both foreign and domestic, in addition to investments in cash and fixed income securities. The S&P 500 is broadly used as an investment benchmark and is presented in this document to provide a clear measure of how the strategy did against the general stock market.

Composite Return Details:

Supervised assets are defined as assets acquired by SAI in client accounts based on the discretion granted in client agreements. This process involves the establishment of a model security and the dates whereby the security is held. For securities received into an account prior to or after the model period; directed purchases by a client; or corporate actions arising from non-model securities; these securities have been excluded from the supervised assets. SAI must have initiated the trade or the security was a model security when transferred into an account for its performance to be included in the composite.

Returns are presented both gross of management fee and net of management fees and performance fees and include the reinvestment of all income. The composite was created on March 1, 2018. The U.S. Dollar is the currency used to express performance.

Returns are presented net of all commissions and any margin interest expense incurred in the management of portfolio accounts. Actual returns will be reduced by investment advisory fees and any other expenses that may be incurred in the management of the portfolio accounts. The collection of fees produces a compounding effect on the total rate of return net of management fees.

Gross of Fees Equities Only: Represents the actual performance of all equity securities included in the composite, including reinvested dividends. It is a pure equity only return and does not have any cash equivalents or fixed income securities included.

Actual returns will be reduced by investment advisory fees and other expenses that may be incurred in the management of the account. The collection of fees produces a compounding effect on the total rate of return net of management fees. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) quarterly fee assessment, (b) \$1,000,000 investment, (c) portfolio return of 8% a year, and (d) 1.00% annual investment advisory fee would be \$10,416 in the first year, and cumulative effects of \$59,816 over five years and \$143,430 over ten years. The annual composite dispersion presented is an asset-weighted standard deviation. To obtain a compliant presentation and/or the firm's list of composite descriptions, please contact Chad Christensen at csc@semperaugustus.com

Past performance is not indicative of future results.