

Vision Equity Research investment results

Retrospect, methods & measurement

Thomas Lyck, 2008 – rev. 2

© Vision Equity Research, a Vison Images company, Haderslev, Denmark

[Editors note: Later research & development of the improved equiBOT system technically supersedes this paper in 2010 therefore, statistics and results in this paper from 2008, are substantially different from improved 2010 levels.]

Abstract

In the following we will outline our research results based on a novel investment system, had it been applied over a period of the last 44 years.

We wish to present a set of results, which are orders of a magnitude better than the best investment results achieved in the period, by any investor or fund known to us.

The primary method(s) themselves will not be revealed in minute detail in this paper, as they are considered proprietary, and of significance to the commercial endeavors of Vision Equity Research.

Instead we will make an effort to detail the results of these method(s), which can be thought of as a business based method, for achieving higher than average investment results. We will also attempt to provide details on the research methods applied in the process of measuring these results, and present a study of 3 methods, spanning a 45 year long time period, in order to observe the methods under all market conditions.

Subsequently, we will investigate whether or not these results can be repeated in the future.

Background

We have invented a set of 3 distinctly different investment methods – they differ significantly from any method known to us from literature using for instance artificial intelligence (AI), and much novel technology, yet they also share some businesslevel commonalities with known methods.

Many attempts have been made at differentiating between higher level methods of investment, speculation, or trading, we shall here deal with the definitions set forth by Benjamin Graham in his most famous work, *Security Analysis* [1]. In the eyes of Benjamin Graham, our method would be classified as sound investment, neither trading

nor speculation.

Benjamin Graham is well known as the father of security analysis as a profession [1] [2].

His most famous pupil, among many notable, is Warren Buffett who is widely considered to be the world's best contemporary investor. Given the fact that he is also the world's currently 2nd. highest net worth individual according to Forbes 500, and more importantly the only in his class to have achieved his resources by means of investing, there is some evidence to support this notion.

Warren Buffett's results, and indeed those of several of Mr. Graham's other pupils, are best detailed in the essay known as "The superinvestors of Graham-and-Doddsville" [3]. In this essay he effectively drives a stake through popular notions such as the efficient market theory in its strong form, and proves that intelligent investing and outperformance is possible without speculation and with very limited risk taking.

We can state that our method of investment is partially a business based method, based on common sense, business acumen, and experience, and although quite different from that employed by Warren Buffett, it also shares a basic common intellectual framework with Warren's work and indeed Graham's, as well as others, such as John Burr Williams who wrote his hallmark PhD thesis, "*The theory of investment value*". [5]

Warren in fact reveals a lot, when he aptly states, "I am a better investor, because I am a businessman, and a better businessman, because I am an investor".

Incidentally, our method produces results superior to those of Mr. Buffett, although it would be fair to state that Mr. Buffett does have to deal with a problem which we do not, the law of large numbers, which makes a direct comparison slightly unfair by nature. Still, each of the methods presented here, and most significantly our final combined method, outperforms the cumulative returns of Berkshire Hathaway quite significantly, over the same time period.

Let us have a brief look at these results, as listed in figure 1 on the following page.

Results for our methods A, B, and C: - Results are here measured over 5 year periods, the number in % indicates the AVERAGE YEARLY RETURN for every single year, within every 5 year period.

That is, for an investment in the timeframe 1978-1983 for instance, an investor would have had a return of 17.52% each year in this 5 year period – his total return in that particular period would thus have been 124,28%.

Period	Method C	Method B	Method A	RANDOM
1965-1970	5.26%	5.26%	22.50%	6.20%
1966-1971	12.65%	12.66%	30.47%	6.87%
1967-1972	15.18%	14.87%	19.85%	6.76%
1968-1973	12.10%	11.47%	7.78%	6.46%
1969-1974	7.25%	7.75%	12.71%	6.50%
1970-1975	6.53%	6.95%	25.88%	6.49%
1971-1976	6.80%	5.89%	3.59%	7.50%
1972-1977	16.59%	15.97%	18.76%	8.40%
1973-1978	11.99%	16.70%	18.32%	8.72%
1974-1979	24.42%	21.36%	26.69%	9.56%
1975-1980	29.06%	46.86%	29.61%	9.98%
1976-1981	25.80%	44.62%	24.18%	10.18%
1977-1982	9.61%	29.74%	23.66%	11.16%
1978-1983	17.52%	27.09%	48.22%	12.35%
1979-1984	20.48%	43.85%	64.02%	12.78%
1980-1985	37.89%	30.30%	91.01%	13.16%
1981-1986	35.79%	17.93%	61.06%	12.85%
1982-1987	18.17%	15.67%	56.01%	11.48%
1983-1988	15.64%	16.29%	43.13%	10.53%
1984-1989	21.96%	28.81%	44.84%	10.06%
1985-1990	13.08%	34.87%	32.33%	9.19%
1986-1991	13.79%	36.17%	18.75%	8.75%
1987-1992	22.58%	56.93%	27.34%	8.83%
1988-1993	13.86%	22.41%	9.56%	8.64%
1989-1994	30.09%	43.55%	13.13%	8.16%
1990-1995	15.18%	36.99%	29.23%	7.89%
1991-1996	36.80%	30.44%	34.18%	7.63%
1992-1997	27.20%	16.96%	35.92%	7.35%
1993-1998	7.25%	12.50%	10.26%	7.09%
1994-1999	36.90%	31.81%	13.49%	6.86%
1995-2000	50.81%	22.83%	34.92%	6.55%
1996-2001	38.09%	6.82%	55.37%	6.35%
1997-2002	42.70%	7.34%	43.93%	6.07%
1998-2003	47.09%	47.98%	40.09%	5.81%
1999-2004	30.58%	60.93%	48.09%	5.69%
2000-2005	65.29%	79.21%	8.81%	5.52%
2001-2006	62.74%	78.20%	14.56%	5.25%
2002-2007	51.12%	60.33%	15.83%	5.13%
2003-2008	51.99%	83.19%	40.74%	5.00%
2004-2009	32.56%	29.17%	30.93%	4.85%
Period	Method C	Method B	Method A	RANDOM
Simple average:	26.01%	30.47%	30.74%	8.11%

A first impression

The results outlined here are superior to any results previously known to us.

Observing the numbers a few things stand out, each method has its own characteristics for one, which is fully logical, as each method is quite different from the others.

Exactly zero periods in 120 different (albeit partially overlapping) 5 year periods produces a negative result.

This is in itself quite extraordinary given that the results in general are very much ahead of the general market. It would seem that this method of investing takes a good amount of the "risk" out of investing, without degradation of performance, when the investment period is 5 years long as a minimum and either method is employed. We will examine this later, noting here that, naturally, everything does have some inherent risk and "Black swan" events can never be discounted fully. Risk can, however, be effectively mitigated to a reasonably large extent.

Some similarities between the results can also be observed over several time periods despite different approaches; this is also logical, as, for instance, the years overlapping the 1973/74 stock crash, which in itself followed a period of exuberance in the markets, would have been a very difficult time to get a good investment return for any business oriented investment method. Even getting a positive result in this period would be regarded as an extraordinary accomplishment, and it makes sense that all 3 methods struggle to make 2 digit returns in this environment.

Another thing which stands out is the stellar performance of method C in the years including and following the dot-com bubble, a period otherwise characterized as a mild recession. Similarly, it is interesting to note for all methods, that even though the periods measured end on 1st of January 2009, in the midst of the what could conceivably later be labeled as "the great financial panic of 2008-2009", currently known as the financial crisis, it produces positive results. This is a period otherwise characterized by 30-50% negative developments of most portfolios and at the end of a decade which has given a very low overall market stock return.

This resilience of our method, to extreme crisis environments such as 1973/1974, the black monday of 1987, 9/11 and 2000/2001, and 2008/2009 as evidenced by the results, is quite extraordinary.

The geometric average is a simple average of the returns over all periods, which may indicate which method is best, although this is but one of the parameters relevant for optimal investing.

Pseudorandom results

For comparison purposes we have included a set of pseudorandom investment results, marked as "RANDOM" in figure 1, based on the same database and measuring process. The results are pseudorandom since the database is pre-screened, in a manner that automatically eliminates equities with missing, incomplete or abnormal data, and

these may affect results slightly compared to the general market.

It would be expected that random (broad index) equity investments over very long time periods (~100 years) would produce results approximating the growth in GDP + the inflation rate. In approximate terms, if we for instance assume for a moment that the longterm GDP growth would be around 3.5%, and we assume the long term inflation rate would be around 3.43%, we would expect long term equity growth of the entire market to approximate 6.93%. (these approximations are merely that, long term real equity growth according to various sources vary, either 7.4%, or 9.3%, depending on method of measurement).

Observing the numbers above, it would seem that the random 8.11% results overall are as expected, on an approximate basis.

This does not mean that it is not possible to get very high, and very stable, long term results as we give in evidence- it only means that such results would be impossible to achieve with a full diversification resembling that of the entire market.

The randomly selected results (technically investments in 500 different pseudorandom stocks each month, held for one year each) produces the expected results, and validate our primary methods of measurement. The fact that the numbers appear to be very smooth, stems from the fact that they are indeed derived from investments in over 500 companies on a monthly basis, and hence diversification is in the absolute extreme, and 5 year periods are employed.

Continuous periods

We have briefly examined 40 5 year periods; now, let's have a look at continuous results throughout the entire period from 1/1 1965 to 1/1 2009, that is, results measured over the full period of this study, starting out with an investment of 100.000 USD, and measuring its development within the time span.

Period	Method C	Method B	Method A	Random
1965-2009	26.62% yearly IRR	30.47% yearly IRR	29.35% yearly IRR	9.84%
Method C:	100.000,00 USD invested taxfree in 1965 becomes		3.238.808.066,00 USD on 1/1 2009	
Method B:	100.000,00 USD invested taxfree in 1965 becomes		10.729.147.040,00 USD on 1/1 2009	
Method A:	100.000,00 USD invested taxfree in 1965 becomes		8.281.716.587,00 USD on 1/1 2009	
Random:	100.000,00 USD invested taxfree in 1965 becomes		6.219.423,00 USD on 1/1 2009	

Figure 2

The results above indicate that in the full period from 1965 to 2009, you would, on average, have had a return on your investment every year (unevenly distributed/ geometric average) of 26.62% had you been investing with method C. Similarly 30.47% and 29.35% for methods B and A respectively.

It is also listed to which amount an investment would have grown into, which, with either method, measure in the billions; and this from a 100.000 USD outset.

Notice the extreme difference as compared to a pseudorandom (broad index based) investment: This will grow to only 6 millions versus 10 billions in the case of method B.

It will be immediately obvious that these methods present an unusual potential for long term investment. At least to the extent that these results are repeatable in the future, which we shall take a closer look at below.

It is with cumulative returns such as these, that Benjamin Franklin's words truly come alive:

Remember, that money is of the prolific, generating nature. Money can beget money, and its offspring can beget more, and so on. Five shillings turned is six, turned again it is seven and threepence, and so on, till it becomes a hundred pounds. The more there is of it, the more it produces every turning, so that the profits rise quicker and quicker. He that kills a breeding sow, destroys all her offspring to the thousandth generation. He that murders a crown, destroys all that it might have produced, even scores of pounds.
(Benjamin Franklin, 1748 [6])

Comparisons of results

Now that we have ascertained that we have significant outperformance, relative to most methods of investment and most certainly the general market at large, it would be interesting to compare the results directly to the best investors of recent times.

Where we have chosen 5 year periods for measurement, the generally available results tend to be measured in yearly relative performance, and hence we have computed yearly results for our methods.

This allows us to compare them directly to the public records given in the landmark essay, "The superinvestors of Graham-and-Doddsville", that is, to the results of some of the worlds best investors, or rather "superinvestors". These results are listed below in figure 3.

We choose a period that overlaps the periods given in the essay as well as in the Berkshire Hathaway annual reports, 1966- 1997. [4]

It should be stated, that on a single year basis our methods will fluctuate, as do the markets. However, we do not mind some volatility in terms of market values; our focus is on business values, and these are by definition at lot less volatile, once observed and understood correctly.

Year	Method. C (1)	Method B (1)	Method A	Munger	Buffett	Walther	Sequoia	Tweedy	S&P(2)
1966	4.86%	4.86%	14.57%	12.40%	20.30%	0.50%			-11.70%
1967	5.10%	5.10%	58.88%	56.20%	11.00%	25.80%			30.90%
1968	5.56%	5.56%	56.98%	40.40%	19.00%	26.60%			11.00%
1969	6.48%	6.48%	1.48%	28.30%	16.20%	-9.00%		12.7%	-8.40%
1970	16.50%	16.80%	1.45%	-0.1%	12.00%	-8.20%		- 1.3%	3.90%
1971	31.67%	30.70%	35.94%	25.40%	16.40%	25.50%	13.5%	20.9%	14.60%
1972	3.72%	-0.33%	16.08%	8.30%	21.70%	11.60%	3.7%	14.6%	18.90%
1973	-10.18%	-4.16%	-31.91%	-31.9%	4.70%	-8.00%	-24.0%	8.3%	-14.80%
1974	-11.58%	-11.56%	-35.92%	-31.5%	5.50%	-6.20%	-15.7%	1.5%	-26.40%
1975	29.16%	31.89%	57.00%	73.20%	21.90%	42.70%	60.5%	28.8%	37.20%
1976	84.75%	151.69%	-0.43%		59.30%	29.40%	72.3%	40.2%	23.60%
1977	-11.79%	23.66%	73.07%		31.90%	25.80%	19.9%	23.4%	-7.40%
1978	4.81%	32.97%	39.35%		24.00%	36.60%	23.9%	41.0%	6.40%
1979	91.93%	80.35%	4.93%		35.70%	29.80%	12.1%	25.5%	18.20%
1980	55.05%	124.39%	59.65%		19.30%	23.30%	12.6%	21.4%	32.30%
1981	26.18%	-24.83%	-9.89%		31.40%	18.40%	21.5%	14.4%	-5.00%
1982	14.40%	52.04%	55.44%		40.00%	24.10%	31.2%	10.2%	21.40%
1983	58.60%	24.85%	253.24%		32.30%	38.40%	27.3%	35.0%	22.40%
1984	14.40%	2.20%	103.79%		13.60%				6.10%
1985	32.93%	29.65%	100.64%		48.20%				31.60%
1986	7.67%	13.14%	-0.58%		26.10%				18.60%
1987	33.21%	2.44%	3.15%		19.50%				5.10%
1988	4.46%	103.68%	20.32%		20.10%				16.60%
1989	0.19%	80.13%	43.37%		44.40%				31.70%
1990	14.37%	16.57%	7.12%		7.4%				-3.10%
1991	53.93%	52.46%	84.93%		39.60%				30.50%
1992	-6.84%	50.81%	-4.97%		20.30%				7.60%
1993	112.15%	73.46%	31.69%		14.30%				10.10%
1994	-29.72%	-5.84%	47.04%		13.90%				1.30%
1995	138.24%	-8.60%	28.20%		43.10%				37.60%
1996	47.93%	20.38%	-12.08%		31.80%				23.00%
1997	55.35%	23.75%	5.68%		34.10%				33.40%
32 y.avg..	25.33%	31.92%	34.63%	18.14%	24.21%	18.17%	19.91%	19.77%	11.76%

- (1) When observing the results, please note that for our method B & C, they are inactive in terms of equity investing, in the years 1966-1969 inclusive, thus the low returns are in fact only returns from US Treasuries. It is therefore difficult to compare these years 1:1, but we have included them nonetheless. The average for the years where equity investing is active, is thus 28.95% for C, and 36.48% for B.
- (2) S&P 500 results are depicted with dividends reinvested.
- (3) Munger refers to Charles Munger, Vice chairman of Berkshire Hathaway – Buffett refers to growth in book value at Berkshire Hathaway, Walter refers to Walter Schloss, Sequoia to the Sequoia fund Inc., and Tweedy to Tweedy, Browne, Inc.

Figure 3

When the geometric averages highlighted in figure 3 are compared to one another, it becomes clear that our methods produces significantly better results than those of the before mentioned superinvestors Warren Buffett,

Walther Schloss, Charles Munger, and the funds of Tweedy, Browne & co., and the Sequoia fund.

The divergence relative to the S&P 500 results, is so large, that it cannot be purely due to statistical inaccuracies, luck, or any string of random events.

Although our results are simulated, they are simulated with the greatest of care, and several years have been spent in preparation for completing these calculations, which we believe mirrors exact historical conditions with exact precision as point-in-time data.

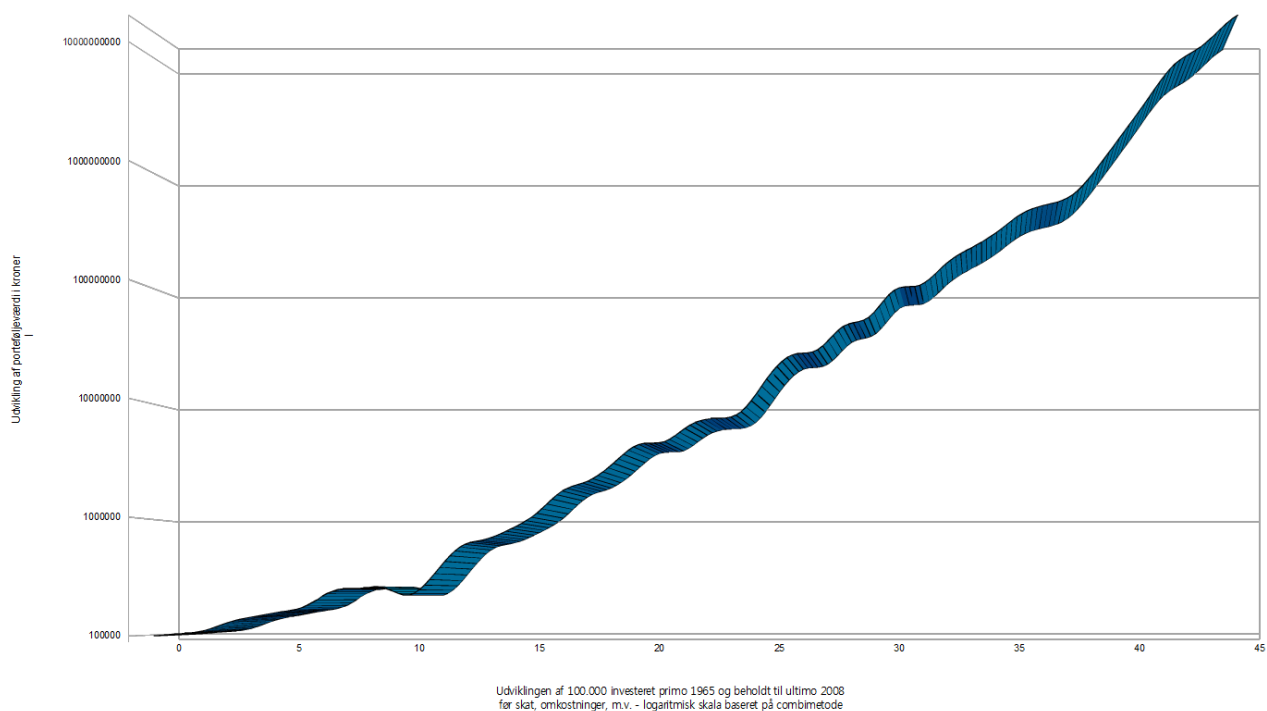
Volatility

On a year-to-year basis, it can be observed that our results are more volatile than those of say, Mr. Buffett; however, as indicated earlier, this ceases to be an issue once viewed over a 5 year period, which we in any case believe must be a minimum time frame for any equity investment.

Also, it must be remarked for the sake of clarity, that Mr. Buffett's, "slow-and-steady-as-she-goes" results are the net results of not just equity investing. These results come from opportunistic investing in equities, insurance, arbitrage, preferreds, junk bonds, and long term ownership of a series of businesses all at once, some of it additionally fueled by inexpensive insurance based "float" (which has an effect similar to gearing, although with a better contained risk profile).

As such, Mr. Buffett's results would be expected to be exactly as they appear, less volatile than ours, because his investment universe is wider (he can switch the active asset class he invests via, at any desired moment if he deems class B more attractive than class A, thus smoothing out the bumps so to speak, whereas our study is restricted to common stocks and treasuries for the purposes of this paper).

To reduce volatility, however, we also have a combinatorial approach as outlined next, which smoothens out the results in order to reduce the volatility in practical application.



It works by applying the various methods in combination with one another- as well as including several other methods (D-J), which are as of yet undocumented in a standalone form, and outside the scope of this paper.

The figure above displays a logarithmic scale og the portfolio development with this method over the entire timeframe.

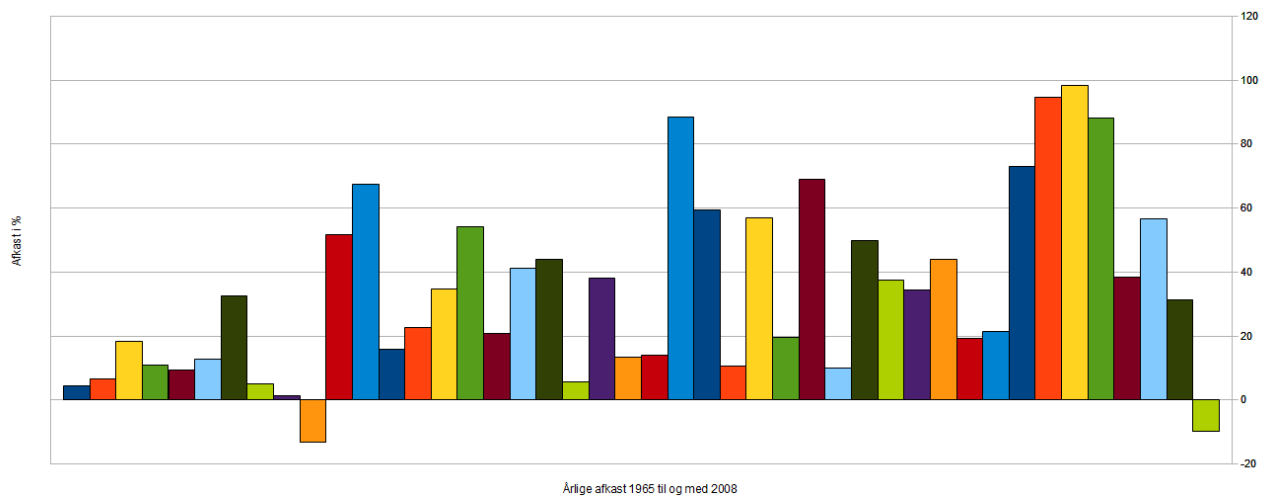
Thus we can present a new method, and a set of numbers, which are essentially less volatile, in terms of negative swings, than the previous single methods A,B,C on their own.

See figure 4 on the following page for the numbers, and details.

Year	Vision Equity research, ABC+ combined.	Munger	Buffett	Walther	Sequoia	Tweedy	S&P(1)
1966	6.74%	12.40%	20.30%	0.50%			-11.70%
1967	18.32%	56.20%	11.00%	25.80%			30.90%
1968	10.97%	40.40%	19.00%	26.60%			11.00%
1969	9.31%	28.30%	16.20%	-9.00%		12.70%	-8.40%
1970	12.64%	-0.10%	12.00%	-8.20%		- 1.30%	3.90%
1971	32.66%	25.40%	16.40%	25.50%	13.50%	20.90%	14.60%
1972	5.20%	8.30%	21.70%	11.60%	3.70%	14.60%	18.90%
1973	1.29%	-31.90%	4.70%	-8.00%	-24.00%	8.30%	-14.80%
1974	-13.08%	-31.50%	5.50%	-6.20%	-15.70%	1.50%	-26.40%
1975	51.70%	73.20%	21.90%	42.70%	60.50%	28.80%	37.20%
1976	67.37%	59.30%	29.40%	72.30%	40.20%	23.60%	
1977	15.98%	31.90%	25.80%	19.90%	23.40%	-7.40%	
1978	22.78%	24.00%	36.60%	23.90%	41.00%	6.40%	
1979	34.78%	35.70%	29.80%	12.10%	25.50%	18.20%	
1980	54.08%	19.30%	23.30%	12.60%	21.40%	32.30%	
1981	20.95%	31.40%	18.40%	21.50%	14.40%	-5.00%	
1982	41.12%	40.00%	24.10%	31.20%	10.20%	21.40%	
1983	43.96%	32.30%	38.40%	27.30%	35.00%	22.40%	
1984	5.57%	13.60%				6.10%	
1985	38.11%	48.20%				31.60%	
1986	13.43%	26.10%				18.60%	
1987	13.91%	19.50%				5.10%	
1988	88.48%	20.10%				16.60%	
1989	59.35%	44.40%				31.70%	
1990	10.76%	7.4%				-3.10%	
1991	56.84%	39.60%				30.50%	
1992	19.49%	20.30%				7.60%	
1993	68.87%	14.30%				10.10%	
1994	10.03%	13.90%				1.30%	
1995	49.87%	43.10%				37.60%	
1996	37.64%	31.80%				23.00%	
1997	34.52%	34.10%				33.40%	
1998	44.13%	48.30%					
1999	19.36%	0.50%					
2000	21.40%	6.50%					
2001	73.04%	-6.20%					
2002	94.61%	10.00%					
2003	98.49%	21.00%					
2004	88.06%	10.50%					
2005	38.43%	6.40%					
2006	56.79%	18.40%					
2007	31.32%	11.00%					
2008	-9.64%	-9.60%					
43 Y. Avg.	34.88%	18.14%	21.80%	18.17%	19.91%	19.77%	11.76%

Figure 4

Once again an extremely strong out-performance is clearly visible, with somewhat different dispersion of the numbers. The variation continues to be significant, but largely takes place in positive territory.



In this time frame, our method(s) delivers a much better return than that of the superinvestors. The numbers are significantly more stable.

The data in figure 4, continues to be listed in 1 year periods. When measured over a multiple of years, such as a 5 year period, the volatility is reduced even further.

When measured in 5 year periods, no single 5 year period produces a negative result.

It may well be a new record for an investment based method for such a long consecutive period of time, although this cannot be ascertained.

Method of measurement

Vision Equity Analyzer(tm)

In order to perform the research indicated above, with this novel method of investing, an entirely new way of thinking about, and dealing with, equities had to be conceived. In order to do this, we have developed a new software package, from the bottom up, which deals with all parts of the equity analysis process, unconstrained by

The software is currently known as the Vision Equity Analyzer, and a screenshot is available in figure 5.

Vision Portfolio Simulator^(tm)

The process is as such able to recreate "the now" of any period in time between 1965 and 2009; and based on information available up until that "now", it can make dispositions (buying and selling) without knowing the outcome, or anything for that matter that occurs at a later date.

12

A virtual bank account performs the trades as a counter-party

The Portfolio Simulator operates a virtual bank account, with which all interactions are accurately logged, so bank statements can be reproduced from 1965 to 2009 in every scenario.

In figure 6 is a simplified output version, with dividends and the first 3-4 years removed for clarity.

The random period from 1/12 1984 – 1/1 1986 is shown below using method A, as a subset of the 1981-1986 5 year period detailed in the initial listed results. Equity prices are backwards adjusted for splits. Sales transactions are forced on 1/1 1986 of the entire portfolio, which delimits the end of the 5 year period, so the active period displayed is approximately 1 year only.

1/12 1984:	Bond interest	@ 12%	140			
31/12 1984:	S11 4436 LOEWS CORP.	@ 2.92 for	12940	Account:	18615	IRR 36.32
31/ 1 1985:	S11 164 SCOTT & FETZER CO.	@ 58.75 for	9635	Account:	28250	IRR 29.09
31/ 1 1985:	S11 133 DRESSER IND.	@ 10.38 for	1380	Account:	29630	IRR 14.88
28/ 2 1985:	S11 256 MCA INC.	@ 32.92 for	8427	Account:	38057	IRR 22.74
1/ 3 1985:	Bond interest	@ 11%	776			
31/ 3 1985:	Buy 4844 HUNT CORP.	@ 7.63 for	36960	Account:	4113	pts 0
30/ 4 1985:	Buy 76 TELEDYNE, INC.	@ 48.70 for	3701	Account:	412	pts 0
31/ 5 1985:	S11 1105 HOUGHTON MIFFLIN	@ 9.50 for	10498	Account:	10909	IRR 28.29
1/ 6 1985:	Bond interest	@ 11%	139			
30/ 6 1985:	S11 139434 IDEON GROUP	@ 6.43 for	897258	Account:	910659	IRR 290.11
31/ 8 1985:	Buy 89514 SCHLUMBERGER LTD.	@ 9.16 for	819590	Account:	91068	pts 0
1/ 9 1985:	Bond interest	@ 11%	17195			
30/11 1985:	S11 1196 FAB INDUSTRIES	@ 11.19 for	13381	Account:	129316	IRR 30.99
1/12 1985:	Bond interest	@ 11%	3247			
1/ 1 1986:	S11 3928 BLOCK (H&R)	@ 2.44 for	9576	Account:	149738	IRR 23.11
1/ 1 1986:	S11 400 CBS INC.	@ 22.85 for	9140	Account:	158878	IRR 21.76
1/ 1 1986:	S11 4490 INTERPUBLIC GROUP	@ 2.57 for	11535	Account:	170412	IRR 26.60
1/ 1 1986:	S11 195 NCH CORP.	@ 26.88 for	5241	Account:	175653	IRR 8.94
1/ 1 1986:	S11 442 PETRIE STORES	@ 24.25 for	10719	Account:	186372	IRR 26.21
1/ 1 1986:	S11 888 PITTMAN CORP. 'A'	@ 8.75 for	7770	Account:	194142	IRR 17.43
1/ 1 1986:	S11 231 SWANK INC.	@ 15.50 for	3581	Account:	197722	IRR 3.46
1/ 1 1986:	S11 520 TRUE NORTH	@ 12.31 for	6403	Account:	204125	IRR 15.13
1/ 1 1986:	S11 47 UNITED DOMINION IND.	@ 58.23 for	2737	Account:	206862	IRR -1.40
1/ 1 1986:	S11 1642 APPLICA INC.	@ 3.83 for	6294	Account:	213155	IRR 7.85
1/ 1 1986:	S11 8109 TYCO INT'L LTD.	@ 1.68 for	13656	Account:	226811	IRR 31.59
1/ 1 1986:	S11 70035 MEDTRONIC, INC.	@ 0.73 for	51056	Account:	277866	IRR 53.68
1/ 1 1986:	S11 4844 HUNT CORP.	@ 11.39 for	55168	Account:	333035	IRR 72.13
1/ 1 1986:	S11 76 TELEDYNE, INC.	@ 64.40 for	4894	Account:	337929	IRR 51.42
1/ 1 1986:	S11 89514 SCHLUMBERGER LTD.	@ 8.34 for	746905	Account:	1084834	IRR -19.98

34 sales transactions, with average IRR of 37.26 % on invested capital, while invested.

From 100000, to 1084834, in 5.00: A TOTAL RETURN of 61.10 % per year

Figure 6

Excess funds placed in US long term treasuries

Whenever there is a surplus of funds, these are invested in long term treasuries, which for the sake of simplicity alone in this calculation is viewed as a risk-free investment.

Dividends as reported

The simulator pays dividends, based on the historically recorded dividends at quarterly intervals.

Trading periods

Trades occur at known closing prices, at a maximum once a month, in order to reduce friction costs, and in general to avoid excessive trading due to market fluctuations.

Taxes

No taxes are calculated, for a number of reasons, the most important being that tax rates vary, and investment results are usually compared on a pre-tax basis (after full taxation has occurred in the equity owned, but before capital gains taxes, etc.).

Data quality

Vision Equity Database^(tm)

The Equity Analyzer and Portfolio Simulator, works in tandem with a high quality database.

The database is based on a high quality commercial database, which has in-house been pruned of data which is defective, wrongly entered, inconsistent, missing, etc. An enormous amount of work has been placed in the preparation of the database, naturally with no human selection of which companies are included or not. It represents the entire U.S. Market as recorded by history.

Essentially all US companies with a market capitalization of above 25 million USD are included, with the exception noted above, that we employ a very strict data validity regime.

Bias discussion

Whenever one judges the research results of a method such as this, it would be natural to ask a few questions regarding the basis for the study.

In the following section we will attempt to shed some light on the normal problems that can occur when doing historical research, and how we have prevented such problems from occurring.

Look ahead bias

Look ahead bias, is the process, where one is calculating a result biased by the fact that one already has some degree of knowledge of events that shall later come to pass, whether miniscule or significant. This is a common problem in historical studies, rendering some of these more or less useless.

We have done everything humanly possible to avoid such bias in our work. Most significantly, we have chosen to eliminate one part of our investment process entirely from our historical portfolio analysis (which takes place in our present investment analysis going forward), and that is the qualitative part. All decisions taken in the Vision Portfolio Analyzer, are taken without human interaction, *even* without what is generally available knowledge to a human being at the historical moment of decision.

This entails that our system is at a information disadvantage relative to any human being making decisions at the same time.

More significantly, we have engineered our Portfolio Analyzer, so that it can only know what was publically disclosed knowledge at the date of the decision. In this, we observe the US S.E.C. laws and regulations, and base any decisions only upon data actually filed with the S.E.C. at the data decision point.

Therefore, it is absolutely impossible for the Portfolio Analyzer to know of events that had not yet come to pass at the time of any decision (the data is simply not there, and human error is impossible, due to a strict set of rules, that prevent human decision interaction in the analysis). Consequently, no look ahead bias takes place.

Data release timing bias

In addition to safeguard against look-ahead bias, we have conducted tests, which effectively delays information available at the time further than was the case in history, by arbitrary amounts (days, months, quarters), and these confirm, that the overall performance is not even particularly sensitive to data which was very recent at the time of any decision.

In other words, the performance is impacted, but stays ahead of the curve, even with "not-exactly-fresh" data.

Survivorship bias

It is conceivable, that a study could be constructed, so that it involves only companies which survive over time, and hence report above average results. Our study explicitly includes all companies in the period, that are later liquidated, sold, merged goes into chapter 11, becomes micro cap, etc. No data survivorship bias in any form takes place.

Data mining bias

When developing a system such as the one described here, it is possible that one could mould or sculpt a method to "fit" the actual occurrences of financial history as we know it.

We believe we avoid this form of bias in several ways. One way is that we did not initially work with our entire time frame of data when we developed our initial methods. We developed first, in theory, a sound method, and then only

later tested it in the real world on a shorter time frame, than our full study. Only once the method was finished, would it be tested over the entire period.

Secondly, our methods are based on sound business acumen and 20 years experience from the business world, they are not based on arbitrary data; they work not only in practice, but also in theory, and they are derived from business practices, not investment or trading practices as is usually the case.

And lastly, we have tested the methods of others (Warren Buffett, most notably) and achieved results that are reasonably in line with Warren Buffett's actual real world results with our system, which underpins that the method is not sculpted on the basis of the data, and that our method of measurement is in line with historical evidence.

Random occurrences

Is it possible that the results achieved, are the results of formidable luck, and not of our method?

The best answer to this is given in Warren Buffett's excellent essay, "The superinvestors of Graham-and-Doddsville"; the short version is no, our results would be impossible to explain as an endless series of "lucky" events.

Also, we have gone to great lengths to be able to test our method over a long time span. For luck to prevail in 120 out of 120 5 year periods, the term luck would have to be redefined.

Also, the fact that we use 3 distinctly different methods, and all of these independent of one another, produce the desired results, indicates that not luck, but rather human skill, is involved in crafting the results.

Issues with market capitalization / liquidity / moving the market

Any investment method has to contend with the fact, that market participants move the markets.

Simply put, each company has a finite amount of shares, and sufficiently large investments would transform the prices at which these trade, and hence invalidate historical data. (History would appear different, if more participants performed certain actions, contrary to what they did in actual history).

The argument is well known, and valid. Hence, we have strived to avoid it by numerous methods.

One of these is to ensure that we only use candidates with a reasonable liquidity, that is, trading volume in the period in question. This is because thinly traded issues tend to be more easily influenced by market demand.

Another of these methods is to restrict the market capitalization, thus removing micro cap shares from consideration, based on the fact, that larger capitalization stocks are influenced less by increased demand.

These methods notwithstanding, there is a possibility that our investment strategy can affect the market itself when applied in scale, thus reducing actual performance; this is when very large amounts of money are invested with

them. Hence, this is one thing we intend to avoid in our practical application.

We intend to limit the amount of money invested with our method, to preserve its optimal performance.

Quintile based analysis

It is common, in statistical historical studies, to work with quintiles, that is, the spectrum of available investments, divided into quintiles, in order to compare these quintiles with some degree of statistical certainty. We have chosen not to center our study around quintiles, for the reason that we are interested in actual business performance, and not in academic accomplishment.

However, we have made small tests using segmentations such as quintiles, and they do confirm our findings. The highest ranked quintile outperforms the second highest, the second highest outperforms the third highest, and so on. The results are slightly lower using quintiles, which is fully to be expected, since one does not invest in what one regards as optimal, but rather, with a forced hand, in an entire large section of the market all at once.

Potential performance reduction if methods were to become common knowledge

It is a given, that if a method such as this, which outperforms the market and most contemporary money managers, were to become common knowledge, where everyone would follow it, it might simply cease to work. (It could cancel itself out).

While this is theoretically possible, it is also one of the issues we take very seriously, and quite simply the reason why the methods are not explained in detail.

We have no intention of revealing the inner parts of the methods presented here to the public, and thus expect to preserve the performance, not least, because parts of the methods work in a manner so far not described in any literature, and is novel to our invention. Secondly, value investing in various forms have been well described for three quarters of a century, without causing everybody to follow the underlying methods. Certain human characteristics presumably prevent it.

Optimal period bias

We have seen several studies carried out in literature, which were made within a time frame, at which they excelled, and conveniently did not include time spans when they performed poorly.

We have avoided such behavior, and emphasized the maximum possible length of our study, even though yearly performance would obviously be quite a lot higher by selecting sub periods in which our methods excel.

Also, some studies have used 10 or 20 year periods, which seem too short for statistically sound evaluation. We believe 45 years are sufficient, even if 100 years would have been preferred.

To increase the value of the relatively short financial history we have at hand, we have in addition created 40 different periods of 5 years each, in order to be able to measure from start to end, on a number of sub periods, in order to reveal any weaknesses not found in the long continuous periods. We believe this increases the validity of our findings.

Friction / trading costs

An argument posed against a number of investment methods with seemingly sound results, has been friction costs, that is, trading related costs, which would in the end hurt performance.

This is no longer the issue it used to be, with equity trading costs at a possible 0,005 USD a share using direct access brokers.

However, we have still put emphasis on it, by ensuring that the Portfolio Analyzer only trades once a month, and in the general the turnover in the portfolios can be described as extremely low. For instance, for one of our methods, during a 42 year period, only 206 equities are owned, thus purchased & sold only once each.

Hence, none of our methods are hurt by friction costs, in a meaningful way.

Known issues

We have investigated the possible problems with this sort of study, and have found that our results are still valid when counter arguments have been put to the test.

The only issue we have identified with our methods, comes in the form of the law of large numbers. To achieve the performance we outline, there is a practical upper limit to the amount of funds we can invest with said results as an approximated expected outcome. If we invest more, our performance will be reduced.

Exactly where this limit is, is not an exact science, but rather a grey zone. Therefore, the performance given by the figures above, is valid for investment amounts that are no larger than X. What X is, can only be guessed.

A reasonable limit we expect to see for the moment, could be in the range of 50-100 million USD, before we expect to see any visible performance degradation. Any perceived performance degradation point, however, is arbitrary and a rather unsubstantiated guess, as it relates to variable market capitalizations of our purchase candidates, and a variety of unknown factors.

It is by no means a limit, but it is a given fact, that if we were to invest in the 10 billion+ USD range, our performance would be notably lower than indicated, albeit still somewhat ahead of the curve.

We know of no other issues, and in fact, have started to invest using this method.

Future results

[unknown](1) once said, "Prediction is very difficult, especially about the future".

We cannot predict the future, and hence, cannot state that investing using method C, will provide an approximate 36.98% return every year on average, for the next 44 years, as it has for the last 44 years.

What we can do, is to state that we believe the methods are of a sound business nature, that the possibilities we look for arise as a consequence of very basic human nature which is unchanged through the ages. Therefore, we believe, that we will be able to achieve results in the future that are somewhat similar to what we have calculated that we precisely could have done in the past.

"Similar" in this context, means with a few 1 or 2 year periods of negative returns, an occasional but quite rare 5 year period with a negative return, but in general by soundly beating the market, and generating outsized returns.

We also believe we can mitigate much of the "usual"(2) risk involved in the investment in equities.

(1) This quote has falsely been attributed to many, including Niels Bohr, Mark Twain, and Robert Storm Petersen. Its true origin however is unknown.

(2) Of course, any form of investment carries one level of fundamental risk which it is impossible to guard oneself against and that is "Black swan" events. Any behavior we have come to expect, may suddenly give way to the unexpected, however rare or unlikely it is based on statistical measure. No process and no method can safeguard against such events. Any investment thus carries risk, even an investment in United States treasuries or an FDIC guaranteed deposit. In practical life, it is thus all about risk versus reward, and it is of these calculative risks we speak, when we say "usual". Some types of risk can be mitigated, all risks can, however, never be mitigated.

Conclusions and future work, availability

Currently, we are in the process of deploying our methods. Our forward looking investment process started slowly in october 2008, and plans are progressing for further developments with new ideas.

We have presented the results of 3 methods for investing with a highly above average set of results, thus minimizing risk, and optimizing return, for the enterprising investor.

The results are on, or near, record levels, and we can ascertain no reasons why they should not continue to be possible to achieve in both the near and distant future, with all the periodical variations that are naturally inherent in the investment process.

Let us end with a quote by the famous J.P. Morgan, when asked by a reporter how he believed the stock market would do in the future:

"It will fluctuate".

-Thomas Lyck, October., 2008.

Bibliography

[1] Graham, Benjamin, and David. L. Dodd. 2005 (1934). *Security Analysis. Principles and Technique*. 3rd edition. New York: McGraw-Hill Book Company.

[2] Graham, Benjamin. 1949. *The Intelligent Investor*. New York: Harper Collins.

[3] Buffett, Warren E. 1984. The Superinvestors of Graham-and-Doddsville. *Hermes, the Columbia Business School Magazine*.

[4] Buffett, Warren E. 2008. Berkshire Hathaway 2008 annual report, *Berkshire Hathaway Inc.*

[5] Williams, John Burr. 1938. *The Theory of Investment Value*. Harvard: Harvard University Press.

[6] Franklin, Benjamin. 1748. *Advice to a young tradesman*, *American Annals*.