



**On Wall Street,
anything can happen.**

Dear partners and friends,

On March 16, 2020, the coronavirus outbreak nearly shattered the financial markets. These are exceptionally uncertain and difficult times, and all of it can be confusing and overwhelming to wrap one's head around. We have been seeing so many cases of the virus much so many terrible stories about loss and suffering.

The Center for Disease Control and Prevention, the CDC, recently attempted to offer a real estimate of the overall death rate for COVID-19, and under its most likely scenario, the number is 0.25%, as opposed to the 3.4% estimate offered by the World Health Organization, which instigated the initial panic and the lockdowns.

There are experts out there, and though I am most certainly not one of them, who state that ultimately that number might be lower, perhaps as less as 0.2%, exactly the rate of fatality Dr. John P.A. Ioannidis of Stanford University projected. And even that number might be inflated with people who died only with COVID-19 and not because of it.

COVID-19 has brought suffering to people everywhere, but its impact, the loss of life and the emotional trauma for families and even health care providers, is not shared equally. Words fall short of expressing my sorrow.

Efforts across the globe to deal with COVID-19 have sent the global economy into a tailspin, and financial markets have been hit along with it. There is no question that the global economy is now in the midst of a crisis, of an unprecedented kind.

One must remember that this is not the first market crash in history. We have lived through many others. But for investors like me, it's a wakeup call and it reminds me once again of the importance of investing in strong companies, with sustainable competitive advantages and healthy balance sheets with the capacity to weather recessions.

In that respect, you could argue that investing in companies with too much debt, for e.g. Veritiv, is questionable. I remember that I prioritized the uniqueness of the investment thesis, a Seth Klarman holding, above their indebtedness. Just think of what might have happened to debt-overloaded companies like Veritiv if governments decided to keep the economy in lockdown until a vaccine was found. Considering that, I will no longer invest in companies with a weak balance sheet, regardless of how unique the investment thesis or the investment manager that the idea was cloned from is. Here is an overview of the heftiest stock market corrections since 1929.

When	Correction	Rebound
1929 – 1932	–86%	15
1937 – 1938	–52%	10
1946 – 1946	–26%	5
1956 – 1957	–21%	3
1962 – 1963	–27%	2
1968 – 1970	–33%	4
1973 – 1974	–48%	8
1980 – 1982	–26%	2
1987 – 1987	–33%	2
2000 – 2002	–48%	7
2007 – 2008	–56%	6
2020 – 2020	–32%	?

For instance, during the crash of 1987, the S&P500 crashed 33% and rebounded within two years. On average, the markets rebound within five years and four months since the Great Depression, and most of the time, it has returned to record territory. Thus, it makes a lot of sense to buy when the markets are way down, although it is impossible to buy exactly at the lowest point.

Recently, an article titled “Bankrupt in Just Two Weeks” appeared in The Wall Street Journal. It concerned William Mark, a private investor, who decided to return to investing after the 2008 financial crisis. Needing to play catch-up with his retirement portfolio, he made a bet on a leveraged exchange-traded note. It worked so well—earning him 18% a year in dividends, on average—that he eventually poured \$800,000 into these notes. However, when the coronavirus pandemic hit, he almost lost everything.

Intelligent Cloning

The harsh reality of “cloning”, which comes with this connotation of being simple and easy, is that it can leave you dazed and confused. Just try it for a few years, and you will know what I mean. Copying great investors is

not easy and perhaps best illustrated by a metaphor that Howard Marks once used, but I will use it with a twist:

Cloning is like a bowl full of lottery tickets. And every lottery ticket represents a stock pick from a superior investor. So you actually have a bowl where there is a high probability that most of the lottery tickets turn out to be winners in the long run. Let's say 70% winners and 30% losers. Then you reach into the bowl and pull out a ticket. Once or twice a year.

Then there are probabilities and outcomes. We can get the probabilities on our side, but that does not ensure a favorable outcome. But it's the only thing we can try to do. And that's what cloning is all about.

To identify a single company in the portfolios of a handful of superior investors you admire and to build up the conviction that indeed this company will probably outperform in the long run, requires tremendous research and it takes, as far as I am aware, many, many months. And the confusing part of the deal is that there is a chance that if you just forget about all the hard work and randomly pick a high conviction stock of a superior investor, you not only put your trust in the hard work of this investor but also to a greater degree you acknowledge that there is a reason why this investor is superior and you are not, and you might actually end up doing even better.

*If you don't know jewelry, know your jeweler.
Warren Buffett.*

Let's have a look at the Intelligent Cloning Portfolio and let me remind you once again that these are not actual fund results, but the table illustrates what the results could have been if we indeed started an investment partnership in 2H '16. The stocks are selected with the view to hold on to these companies for several years, preferably decades, as long as the company remains a good company.

Current positions

When	Company	Price	Return
2H '16	Deere	87 USD	83%
2H '16	Allison Transmission	29 USD	35%
1H '17	Davita	65 USD	22%
1H '17	Verisign	83 USD	147%
2H '17	Monro	47 USD	25%
2H '18	StoneCo	17 USD	123%
2H '18	Veritiv	24 USD	-36%
1H '19	Liberty Global	22 USD	5%
1H '20	Graftech	12 USD	-34%
1H '20	eBay	30 USD	70%

Closed positions

When	Company	Price	Sold	Return
2H '17	Tegna	13 USD	2H '18	3 %
1H '18	Esterline Corp.	72 USD	2H '18	70 %
1H '18	Sinclair Broadcast	44 USD	2H '19	46 %

For example, Sinclair Broadcast was added to the Intelligent Cloning Portfolio in the first half of 2018, at a stock price of 44 USD, and closed in the second half of 2019 with a 46% return. The rationale behind closing the Sinclair Broadcast stock was that Seth Klarman closed this position, so there was no backing anymore from this superior investor.

Further, Mohnish Pabrai closed one of his positions, Graftech, during the corona crisis, only a few months after buying this stock. I have not closed this position as of yet. I hope for a rebound of the markets, and a (partial) rebound of Graftech as well, and then I will sell it, sooner rather than later.

By the way, Graftech is another example of a company that I was lured into by the uniqueness of the investment thesis that I prioritized above balance sheet strength. I don't consider Veritiv and Graftech as "mistakes", but from now on, I will focus much more on the original investment guidelines as presented in my first write-up on intelligent cloning:

- A "balanced" balance sheet.
- Consistency in the per-share figures.
- Substantial free cash flow.
- Consistently high return on capital.
- Margin of safety.

Arlington Value Capital

There are numerous reasons for being cautious before starting a new fund, and in my 2018 Investment Letter, I gave the example of investment manager Whitney Tilson, who outperformed the markets for several years, before ultimately being compelled to close his fund due to underperformance. This year we will have a look at Arlington Capital Management, a very successful fund managed by Allan Mecham, the 400% man. He also ultimately had to close shop due to underperformance. Are there lessons to be learned here?

On June 22, 2014, Forbes published an article entitled "Is This The Next Warren Buffett?". It is indeed about the young, unknown college dropout in Salt Lake City known as Allan Mecham, who was, in terms of investment performance, "shooting the lights out" and crushing his competitors, as well as the indexes, since he

launched his investment firm, Arlington Value Management, in the final days of 1999. Here are the rules they lived by.

- We believe that vigilance toward risk is central to achieving strong returns.
- We consider stock as ownership in a business.
- We let market volatility work to our advantage.
- We strive to be conservative, and invest with a margin of safety.
- We exercise patience and discipline to only invest in exceptional opportunities.
- We focus on businesses we thoroughly understand.
- We focus on companies with staying power. We look for long-term durability and low rates of change.
- We look for honest, intelligent management teams with proven track records.
- We only invest when the price is attractive, which provides both margin of safety and favorable prospective returns.

These rules resonate very well with me and are also illustrative of my investment approach. Below are three additional insights:

We will continue to follow a common sense based approach to investing, holding intellectual honesty and rigorous analysis as the keystones to success. We think our philosophy is an intelligent way to invest — regardless of whether we're characterized as 'growth' or 'value' investors. Such style-box definitions are not germane to stock picking success. Success is based, first, on the accuracy of analysis, not style categorization, and second, upon not overpaying for the business in question. The traditional 'margin of safety' concept, often emphasized by 'value investors', has utility and something I consistently apply, even if it is secondary. And the value is dependent on solid business analysis.

We think successful investing is less complicated, and for us, it boils down to taking a few simple tenets seriously: patience, discipline, long-term orientation, valuation, independent thinking, and an ethos of not fooling ourselves. Such simple investment principles seem obvious and easy to apply, much like the notion of eating healthy: everyone understands the benefits, yet few can resist indulging in the abundance of high calorie eatery options. Implementation is easier said than done.

We also don't engage in short selling. We're not fans of shorting stocks for two reasons: One, we don't like the math; shorting exposes you to unlimited liability with potential for gain—the opposite equation of investing “long.” Two, shorting has the potential to cause distracting agitation that could create unintended consequences.

From 2007 to 2019, Arlington Value posted a compound annual growth rate (CAGR) of slightly above 18%. In 2012, it was reported that investors who invested with Mecham a decade earlier would have increased their capital by 400%.

In April 2020, with an estimated \$1.5 billion assets under management, Allan Mecham announced to the winding up of his fund in the following six to nine months due to health issues, citing the fund's underperformance of major indexes by a “wide margin” and the stress caused by managing money during this exceptionally volatile COVID-19 crisis.

Here are the top 6 positions, as of 31 December 2019, weighing up for approximately 85% of his portfolio. The price decline during the COVID-19 crash is measured by the highest stock price in 2020 against the lowest.

Company	Allocation	Price decline
Berkshire Hathaway	30%	–30%
Cimpress	17%	–64%
Spectrum Brands	12%	–62%
AutoNation	9%	–54%
Alliance Data Systems	9%	–80%
Monro	8%	–48%

So what happened? According to dataroma.com, Allan Mecham reduced all these positions in Q1 2020, by 26.4%, 19.7%, 35.7%, 14.1%, 43.5% and 7.8% respectively.

If you monitor his stock positions over the years, you wonder how he could double or triple the performance of his underlying stock picks without using significant leverage. And he admits in one of his write ups that he actually used leverage. Leverage can be dangerous, especially in times of market turbulence like COVID-19.

Recently, based on the 13F activity dated 3 March 2020, whalewisdom.com reported a current fund market value of \$688 million and a prior market value of \$1.472 billion. That's a minus \$784 million in 3 months for Arlington Value Capital. Oops! Are these redemptions during a market crash or what? If he was “hefty on leverage” during this crisis, I would not be surprised if he received “margin calls”. I don't have any proof of that, and I wonder if we will ever know the rationale behind what actually happened.

Just like Whitney Tilson, in the end, Allan Mecham wasn't able to outperform— both extremely intelligent and respectable investors. Then we have Jeff Ubben quitting his job at ValueAct. It makes you wonder if there is a future for this fund industry at all. Or to quote Jeff Ubben:

Finance is, like, done. Everybody's bought everybody else with low-cost debt. Everybody's maximised their margin. They've bought all their shares back . . . There's nothing there. Every industry has about three players. Elizabeth Warren is right.

Even Berkshire Hathaway's chief stock pickers, Ted Weschler and Todd Combs, have failed to beat the index. It is just exceedingly difficult and that makes the Warren Buffett track record of 19 to 20% over a 50+ year time frame highly exceptional.

Let me give you another intriguing example. After beating the S&P 500 every year from 1991–2005, Bill Miller's Legg Mason's Value Trust collapsed and wiped out the fund's record streak. If you look at his experience alongside many other legendary fund managers who eventually destroyed themselves and their records, it is hard not to conclude that ultimately, no strategy works in all markets and no strategy works forever. Bill Miller now runs Miller Value Partners, which is, I believe, a very interesting firm to follow.

Even the best investment managers would go through severe down years or even blow up their funds. A terrific long-term track record is by no means a guarantee for favorable future results.

I have witnessed so many funds ultimately suffer the fate of utter failure. Therefore, before I start a fund, I want to ensure that I do possess the experience to consistently deliver good returns over an extremely long period of time, and that in the end, I do NOT blow up the fund. The learning process requires a lot of time, and you might even question if the traditional Warren Buffett type investing skills are the ones you really need to succeed in the future. Moreover, you could even question the value of the “yet to be developed skills” in the context of the COVID-19 pandemic. Or to quote Guy Spier:

But what good are these skills to investors who are drowning in a sea of fear that utterly overwhelms the rational neocortex?

I am in no hurry whatsoever to start a fund.

Quants

Every now and then, a crash year will happen. The year 2020 was one such year. Here are the results of the midyear quants in the year of the COVID-19 crash:

- 9 out of the 21 midyear quants ended up in the negative territory.
- The India quants are without a doubt the winners. Q26: +20.0%, Q27: +18.0%, Q28: +21.4%, Q29: +19.8%, Q30: +17.8%, Q31: +21.2%, Q32: +9.2%.

Below, you will find the most recent overview of the concentrated quants. Q1 to Q4 are the Mohnish Pabrai related Free Lunch Portfolio quants. The other quants are the Hermione Granger quants.

New year Quants

Quant	Description
Q1	The Mohnish Pabrai Free Lunch Portfolio (FLP).
Q2	The conservative version of the FLP.
Q3	The conservative FLP, no spinoffs. Sell at +40%.
Q4	The conservative FLP, only spinoffs. Sell at +40%.
Q5	The US new year quant. Sell at –20% or +40%.
Q6	The US new year quant. Sell at –20% or +50%
Q7	The US new year quant. Sell at –20% or +60%.
Q8	The US new year quant. Sell at +40%.
Q9	The US new year quant. Sell at +50%.
Q10	The US new year quant. Sell at +60%.
Q11	The US new year quant. No conditional selling.

Midyear Quants

Quant	Description
Q12	The US midyear quant. Sell at –20% or +40%.
Q13	The US midyear quant. Sell at –20% or +50%.
Q14	The US midyear quant. Sell at –20% or +60%
Q15	The US midyear quant. Sell at +40%.
Q16	The US midyear quant. Sell at +50%.
Q17	The US midyear quant. Sell at +60%
Q18	The US midyear quant. No conditional selling
Q19	The China midyear quant. Sell at –20% or +40%.
Q20	The China midyear quant. Sell at –20% or +50%.
Q21	The China midyear quant. Sell at –20% or +60%.
Q22	The China midyear quant. Sell at +40%.
Q23	The China midyear quant. Sell at +50%.
Q24	The China midyear quant. Sell at +60%.
Q25	The China midyear quant, No conditional selling.
Q26	The India midyear quant. Sell at –20% Or +40%.
Q27	The India midyear quant. Sell at –20% or +50%.
Q28	The India midyear quant. Sell at –20% or +60%.
Q29	The India midyear quant. Sell at +40%.
Q30	The India midyear quant. Sell at +50%.
Q31	The India midyear quant. Sell at +60%.
Q32	The India midyear quant. No conditional selling.

Now, let's have a look at quant Q28, to illustrate how these conditional selling rules actually function. You buy the three constituents of this quant, Sonata Software, Persistent Systems and NIIT Technologies, on the 1st of August and you put in place the conditional selling orders at –20% and at +60%.

- Sonata Software triggered the conditional downside selling order and was sold at –20%.
- Persistent Systems did not trigger a conditional selling order and ended up +24%.
- NIIT Technologies triggered the conditional upside selling orders: +40%, +50% and +60%.

Wingardium Leviosa! Here are the new constituents of the 2020 – 2021 midyear quants, to be added on 1st of August:

United States	Enova International, Innoviva, Lantheus Holdings.
China	Dongyue Group, Yadea Group, Bright Scholar Education.
India	eClerx services, Expleo Solutions, Accelya Solutions.

In the attachment you find the full results. I granted myself an unfair advantage just by skipping the negative midyear quants for this exceptional COVID-19 year.

However, let me remind you that this quant approach, though backed by considerable investing intelligence, is in truth “just an experiment”.

- First of all, investing intelligence comes from the pre-COVID-19 era. Thus, one may question if this investing intelligence is still relevant in the world we live in today.
- Second, investing intelligence is based on the United States financial markets. There are no guarantees that this investing intelligence will be applicable in China and India.
- Third, fraud is significantly more rampant in the Indian and Chinese markets, and that makes the China and India quants inherently riskier.

Ultimately, if all of these quants fail, then that’s just the way it is.

So here we are

I started this letter with a quote from Seth Klarman: “On Wall Street, anything can happen.” Early March, most global markets reported severe contractions, primarily in response to the COVID-19 pandemic and an oil price war between Russia and the OPEC countries steered by Saudi Arabia. At the time, it constituted the worst market drop since the Great Recession in 2008.

After the 2008 near-meltdown, Seth Klarman described 20 lessons from the financial crisis 2008, which, he says, “were either never learned or else were immediately forgotten by most market participants.” Here are three of them:

Things that have never happened before are bound to occur with some regularity. You must always be prepared for the unexpected, including sudden, sharp downward swings in markets and the economy. Whatever adverse scenario you can contemplate, reality can be far worse.

Beware of leverage in all its forms. Borrowers must always remember that capital markets can be extremely fickle and that it is never safe to assume a maturing loan can be rolled over.

Having clients with long-term orientation is crucial. Nothing else is as important to the success of an investment firm.

So what’s next for the financial markets? I certainly don’t know. Nobody knows. Uncertainty has seldom been higher. Buffett and Munger are actually quite bearish right now, and Ray Dalio’s Bridgewater Associates warned about the possibility of a “lost decade” for stocks.

At times, I look at the Buffett Indicator chart, which you will find below, to get an idea of where we might be in terms of market valuation. It indicates that the markets are strongly overvalued. With the recent strong rebound of the stock markets, it seems that we will not see a multiyear 1929 like recession, but I do not rule out any possibility. I just do not know what’s going to happen.



Source: currentmarketvaluation.com.

The COVID-19 pandemic will probably cause fundamental shifts for economies, societies and companies in the coming years. Along with the threats, new exciting opportunities are knocking on the door. Technology companies like ZOOM benefitted tremendously from the accelerated trend towards digitizing the economy, and for those willing to do the hard work, opportunities will be found in rapidly growing new economy businesses.

I hope you have found my communication lucid up until now, and if not, let me state once again right here that I am “just” a student of value investing and I am not managing any outside money up until now. Actually, with the knowledge and experience that I have as of today, in a way, I am glad I did not start a fund yet.

What I have learned over the years is that if I start a fund after all, it should be there for only a few extremely trustworthy clients or institutions, and I should only invest in a handful of excellent companies. No shorts. No leverage. No bullshit. Just a few stocks for the long run. That's it. Nothing more, nothing less.

The Value Firm B.V. as a company is still in its nascent years of becoming an independent investment firm. The funding of the company has been secured by one investment in a company that, I believe, in the long run will do very well. But if that company fails, my company might get into trouble as well. Don't count on the latter one though. My company is built to last for a very long time.

I am excited about the Intelligent Cloning Portfolio, the Quant Approach and the Risk Rating Algorithm. The latter two rely on access to the historical financials of many tens of thousands of companies globally. Hopefully, we will find a few quants that will just shoot the lights out and leave these index huggers flabbergasted in the shade.

If you want to join a fund or separately managed account, it's best that you stay with my company for at least for a decade, preferably longer. Since I am a one-man investment operation, I only serve a limited number of clients. I hope you visualize yourself as a part-owner of a business that you expect to stay with indefinitely, much as you might if you owned a farm or apartment house in partnership with members of your family. The original Buffett Partnership fee arrangement will be in place: no management fee, just a performance fee of 25% above a 6% annual performance hurdle with high water mark.

It makes a lot of sense to wait a few years before starting an investment partnership with me. Conversely, if markets indeed continue the rebound, you might miss out on a few years of interesting returns. It's completely up to you.

I will continue what I do best, and that's cloning superior investors. And once again, uncertainty has never been higher. The only thing I am quite sure of right now is that in the very long run, a concentrated portfolio of cloned investment ideas from a handful of carefully selected superior investors, acquired at a price that makes sense, will do just fine.

Thank you for reading my letter!
Stay safe.

Peter

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The Value Firm®
28 June 2020
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Everybody makes mistakes now and then. If you find any, let me know. Remember, always do your own research!

QUANTS

		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	CAGR
Q1	The Mohnish Pabrai Free Lunch Portfolio (FLP).	-17.0%	21.7%									0.0%
Q2	The conservative version of the FLP.	-9.7%	28.4%									7.7%
Q3	The conservative FLP, no spinoffs. Sell at +40%.	21.7%	35.2%									28.2%
Q4	The conservative FLP, only spinoffs. Sell at +40%.											
Q5	The US new year quant. Sell at -20% or +40%.	40.0%	40.0%	-20.0%								16.2%
Q6	The US new year quant. Sell at -20% or +50%.	50.0%	35.6%	-20.0%								17.6%
Q7	The US new year quant. Sell at -20% or +60%.	60.0%	42.3%	-20.0%								22.1%
Q8	The US new year quant. Sell at +40%.	40.0%	40.0%									40.0%
Q9	The US new year quant. Sell at +50%.	50.0%	35.6%									42.6%
Q10	The US new year quant. Sell at +60%.	60.0%	42.3%									50.9%
Q11	The US new year quant. No conditional selling.	18.4%	27.5%									22.9%
Q12	The US midyear quant. Sell at -20% or +40%.											
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Q16	The US midyear quant. Sell at +50%.											
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Q27	The India midyear quant. Sell at -20% or +50%.			18.6%								18.6%
Q28	The India midyear quant. Sell at -20% or +60%.			21.9%								21.9%
Q29	The India midyear quant. Sell at +40%.			21.1%								21.1%
Q30	The India midyear quant. Sell at +50%.			19.6%								19.6%
Q31	The India midyear quant. Sell at +60%.			22.9%								22.9%
Q32	The India midyear quant. No conditional selling.			9.5%								9.5%

After three years the compound annual growth rate (CAGR) of the quants Q4, Q5 and Q6 is 16.2%, 17.6% and 22.1%. And it looks as if the results of the quants Q7, Q8 and Q9 will end up even better than that by the end of the year.

These results, I believe, are remarkable. My goal is to find just one quant that consistently outperforms with a 15% CAGR. Why do I believe that the current CAGR results are sustainable?

2020 was the year of the COVID-19 crash. History shows that once every eight years a 20+% crash will occur. So statistically the upcoming five years will be "20+% crash free" and that leads me to believe that it is very doable to maintain these exceptional CAGR results.

Latest update: 24 August 2020. If you find any errors, please let me know: peter@thevaluefirm.com.

The results exclude transaction costs and dividend tax. A "red year", like 2020, is a "market crash > 20%" year.

If you want to do your own due diligence on these results, send me an email: peter@thevaluefirm.com, and I will send you the data.

Please be advised to wait for 2025 or even beyond, before drawing any meaningful conclusion from these numbers. Thank you.

Dear partners & friends,

We don't buy anything
'Just by the Numbers'



"Generally speaking, if you get a chance to buy a wonderful business — and by that, I would mean one that has economic characteristics that lead you to believe, with a high degree of certainty, that they will be earning unusual returns on capital over time — unusually high — and, better yet, if they get the chance to employ more capital at — again, at high rates of return — that's the best of all businesses."

This is a quote from Warren Buffet, the Oracle of Omaha. He looks for dominant businesses with a high degree of predictability of future performance, measured by return on capital (ROC).

Let's start this letter with the yearly disappointments and/or mistakes. And rest assured that there won't be a shortage of those.

Veritiv

Veritiv still remains an uncomfortable position in my portfolio. It is in fact a great example of the agonizing choice a long-term investor faces when the stock of a company is in, what seems to be, a structural decline. If you still believe in the long-term business potential of the company, as I do, you just hold on to the stock for many, many years, knowing that there always is a chance that ultimately your decision to hold on to the stock might turn out to be a mistake.

Investing is about being imprecise and accepting being wrong 30 – 40% of the time. If you find that hard to accept, you are much better off staying out of the investing game.

Veritiv Corporation is a Fortune 500® company and its long-term strategy remains the same – shift the portfolio mix to higher growth and higher margin businesses by investing in packaging and services; protecting the leading market positions in facility solutions, print and

publishing; and optimizing the business processes across their commercial, supply chain, and back office operations. Veritiv ended 2018 with 8.7B USD in revenue and currently trades below tangible book and at a price-to-sales ratio of 0.05.

The Veritiv packaging business as a "stand-alone business" is a 3.5B USD revenue business with an adjusted EBITDA of 250M USD and a sales growth of approximately 10% a year.

Veritiv Packaging	2016	2017	2018
Net Sales	2854	3158	3547
Net Sales growth		10,7%	12,3%
Adj. EBITDA	221	238	247
Adj. EBITDA growth		7,7%	3,8%
(in millions USD)			

Under the conservative assumption that the company grows at a 4 – 5% rate over the next 15 years, we will see an adjusted EBITDA of 450M – 500M USD. With a reasonable multiple of 8, you could argue that this stand-alone business represents a market cap of 4B USD, 15 years from now. Currently, Veritiv trades at a market cap of 320M USD.

What will drive the 4 – 5% long-term growth? Veritiv has officially joined the Amazon Packaging Support and Supplier Network. If they succeed, and obviously I believe they will, an exceptional business operation emerges with a unique competitive advantage in the North American packaging business, much of it closely tight to the ongoing boom in the fast-growing e-commerce strategy across major North American markets. I would not be surprised if Amazon ultimately buys the Veritiv packaging business.

I am not worried about the substantial debt position of Veritiv, neither am I worried about the decline in revenues. I am optimistic about their ability to generate free cash flow this year, and many years to come. Veritiv will remain in my portfolio, unless Baupost decides to substantially trim their position in this company. As of today, both Seth Klarman (Baupost), who owns 25% of the company, and Amazon are "Veritiv believers".

One additional remark for the sake of clarity – I run two portfolios; the first one is my personal account. I added Veritiv to this portfolio at 40 USD and used options to generate additional income from the declining stock price. The second is the Intelligent Cloning Portfolio, where I added Veritiv at 24 USD.

Intelligent Cloning

Over the years of learning and investing, my admiration for Lou Simpson just grew and grew. Lou Simpson is probably the world's greatest investor you never heard of. The essence of his approach (and thus mine) is **SIMPLICITY**. He only invests in companies he can understand and value. He runs a long-time-horizon portfolio comprised of ten to fifteen stocks. And they all have similar characteristics. Basically, they're good businesses. They have a high return on capital, consistently good returns, and they're run by leaders who want to create long-term value for shareholders while also properly treating their stakeholders.

Current positions

When	Company	Price	Return
2H '16	Deere	87 USD	97.9 %
2H '16	Allison Transmission	29 USD	65.0 %
1H '17	Davita	65 USD	(13.4 %)
1H '17	Verisign	83 USD	152.0 %
2H '17	Monro	47 USD	84.3 %
1H '18	Sinclair Broadcast	30 USD	81.3 %
2H '18	StoneCo	17 USD	74.0 %
2H '18	Veritiv	24 USD	(19.1) %
1H '19	Liberty Global	22 USD	22.7 %

Closed positions

When	Company	Price	Sold	Return
2H '17	Tegna	13 USD	2H '18	2,7 %
1H '18	Esterline Corp.	72 USD	2H '18	69,5 %

These are not actual fund results, but it illustrates what the results could have been if we indeed started an investment partnership in 2H '16. It's called **"The Intelligent Cloning Portfolio"**. The stocks are selected with the idea to hold on to these companies for many, many years, preferably decades, as long as the company remains a good company.

Just as important as picking the right company to invest in, is using the downturns of the markets. StoneCo, Veritiv, and Liberty Global were added to this portfolio just after the 20% market correction from its 52-week high.

In 2H '18, I sold both Tegna and Esterline Corporation at 13 USD and 122 USD, respectively. The rationale behind selling Tegna is that David Einhorn sold the stock, so there was no backing from one or more of the superinvestors I admire. The rationale behind selling Esterline Corporation is that TransDigm announced their acquisition of Esterline for 122.50 USD per share in cash.

Just copying successful investors is fascinating. On 22nd August, 2012, Mohnish Pabrai talked to the UC Davis's MBA Value Investing class where he explained the mental model of "cloning."

"There is this true story about two gas stations in California several decades ago. These two gas stations were diagnosed opposite each other. They were both self service gas stations. In one of the gas stations, the owner would come out every hour or two, pick a random car and tell the driver to just sit in the car as he pumped the gas, cleaned the wind shields, checked the oil and so on and all of this at no additional charge. Just a kind of "add on service" for free.

The guy across the street would see all this happening. He thought that this was stupid, because you can't do it for everyone. It's self served. Why do you want to do it for few people and set expectations that are way off base? So he never copied it.

And over time, he noticed that his business had going down and the person opposite him was actually doing more business. He saw his business go down. He also knew the reason why his business went down. And even after knowing the reason, there was no reaction. He did not change his approach of doing business.

Management consultant Tom Peters once explained that if you run a business, you can sit down with your direct competitors and you can lay out all your competitive advantages for them. And tell them exactly how you gain advantages, make money, etc. And they will listen to you carefully, but when they leave there will be no behavior change. Clearly there is something in the human gene that is stopping you from adopting things that are to your benefit.

I found that some of the biggest businesses on the planet were based on cloning. Because there is a sliver of humans, basically 1 or 2%, who actually look at what the competitors are doing and adopt it and run with it."

What I try to do with the Intelligent Cloning portfolio is just that – adopt what other great investors are doing and run with it.

Still confused

By the time I entered this business, the uncharted waters of the business of investment and stock picking, I bought *The Interpretation of Financial Statements* by Benjamin Graham. And I started to learn. One step at a time. I enjoyed the learning process very much and I never really understood why, until I read the comments from Howard Marks in the Fall 2017 Graham & Doddsville Letter.

"I think that investment management is fascinating, because it's not easy; it's challenging. In Fooled by Randomness, Nassim Taleb talks about the difference between investing and dentistry. There's no randomness in dentistry, and if you do the same things to fill a tooth,

you'll be successful every time. That's not true of investing. First of all, there's no magic formula. There are no physical laws at work. Number two, there's a lot of randomness. Those things make it interesting. It's an intellectual puzzle with partial information. The process is messy and imprecise. To me, that's fascinating. You can have guidelines developed over a career, but they sure don't work every day. I love it for that reason."

Indeed, I love investing. And boy, did I learn a lot! At the same time, I am still confused. Or to quote the Italian and naturalized-American physicist Enrico Fermi, "Still confused, but at a much higher level."

The business of investment currently has a problem they can't fix, and that is that index funds have come along, and they basically beat everybody. Even Ted Weschler and Todd Combs, the two Warren Buffett investing lieutenants, weren't able to beat the S&P 500. You could argue, and recently Charlie Munger did just that, that we have a whole profession that is basically being paid for accomplishing practically nothing.

The investment world is characterized by an enormous amount of high IQ people trying to be more skillful. They work so hard and they just can't do what they are supposed to do – get better than average results. This is an industry in complete denial. There is this belief that if we send our most talented students to these elite MBA institutions, they will learn the right skills and become great investors. Well...

Charlie Munger recently gave this interesting example. There was once this investment company that reasoned that since they have all these brilliant young people from top notch business schools, if they could just ask each one of those brilliant young men for their single best idea, they would outperform averages by a big amount. So they tried it out, and, of course, they failed utterly. And they tried it again and failed utterly. And they tried it the third time and also failed. Actually, this investment company was looking for the equivalent of turning lead into gold and obviously it didn't work. Why did that plausible idea fail?

If you figured that out, just let me know. My best guess is that these youngsters lack the experience of a veteran investor like Lou Simpson. And I doubt if all the academic stuff they teach them really helps. Let me give you an example.

The EV/EBITDA multiple

In September 2018, Michael Mauboussin, Director of Research at BlueMountain Capital Management, wrote an in-depth article on valuing businesses. Nearly 80% of all equity analysts use Enterprise Value relative to

EBITDA (the EV/EBITDA multiple) to measure the value of a corporation. Many investors and analysts deem it the best metric for measuring valuation. Here is my question to you. How much time did Warren Buffett spend contemplating this multiple when he bought the Apple stock?

But anyhow, the write-up contends that the ratio can be seen as a capital structure-neutral alternative for the P/E ratio. When valuations of different companies are compared with each other, the enterprise multiple is often considered more suitable than P/E.

The table below lists the S&P 500 Enterprise Multiples (EV/EBITDA) by sector. The data is provided by SIBLIS Research. Comparing the current enterprise multiple of a sector/industry to its historical average value can be used to estimate if the sector is currently undervalued or overvalued.

Sector	2015	2016	2017	2018
Communications	11.6	10.6	11.5	10.0
Consumer discretionary	12.4	11.7	14.2	13.1
Consumer staples	12.8	13.1	13.2	13.1
Energy	13.0	35.1(*)	12.3	7.4
Health care	13.6	11.8	14.9	14.3
Industrials	11.2	11.4	13.1	11.9
Information Technology	10.0	12.0	13.6	11.5
Materials	12.1	13.8	14.3	10.6
Utilities	9.8	12.0	12.0	11.2

(*) The number of 35.1 seems to me to be out of sync.

Interestingly enough, James O'Shaughnessy has extensively analyzed investment strategies over the last 50 years and found that a strategy which includes the group of shares with the lowest EV/EBITDA ratio would have obtained an annual return of 16.6%.

Nevertheless, I don't use this multiple at all. Most of the arguments against the use of EV/EBITDA are actually in this article of Michael Mauboussin and it seems that I put a different weight on these arguments than most of the investment community.

If you assess two companies with the same financials, with the only difference that company A has a lower debt, then this EV/EBITDA multiple would direct you to an investment decision in favor of company A. If company B was run by a fellow named Warren Buffett, I would most certainly favor company B.

If you use EBITDA as a measure for cash flow, you actually ignore a business's capital needs. While technically considered a non-cash expense for accounting purposes, depreciation and amortization are actually real costs of capital needed to maintain a business. There is this famous quote by Charlie Munger where he states that whenever he sees EBITDA Earnings, he substitutes it with "Bull Shit Earnings". So what happens when you come up with a ratio based upon Enterprise Value (EV) relative to "Bull Shit Earnings"?

The first pitfall to using EV/EBITDA is that there is not a proper reckoning for the investment needs of the business. The second pitfall is that multiples, including EV/EBITDA, do not explicitly reflect business risk. And the final problem, according to Michael Mauboussin, has to do with dissimilar tax rates for different companies.

Probably most investors will argue that the EBITDA critics may be overstating their case. Obviously, I disagree. My skepticism grows when I read about all kinds of “EBITDA innovations”, like the horrors of EBITDAC (with a change in acquisition costs used by insurers), EBITDAO (with an option expense, a cost of paying management), EBITDAP (pension and other retirement benefits), EBITDAR (the costs of leasing real estate or airplanes, depending on the industry), EBITDARE (losses, gains, and other adjustments on real estate), EBITDAS or EBITDASC (stock-based pay for management), EBITDAX (exploration costs for oil and gas companies), and community adjusted EBITDA (excludes basic costs of doing business as marketing, development, and administrative expenses). With compliments to the Jason Zweig’s article “How Companies Use the Latest Profit Fad to Fool You” in the Wall Street Journal (June 1, 2018).

And there are some arguments against the use of Enterprise Value (EV) as well. Most investors define EV as the sum of Net Debt and the Market Capitalization of a company. There are several ways in which you can underestimate EV:

- Cash is often valued at face value and that might not be correct. One reason is taxes on dividends and other distributions and another reason is that not all cash is excess cash. Part of it is operating cash, that is tied up in the business forever and should not be added to the EV.
- Another risk with EV is the underestimation of the value of debt. Many data providers just take the book value as a proxy for market value of debt. The true economic value of debt may be much higher, due to recent rating increases or interest rate decreases.

My best guess is that Warren Buffett doesn’t use this EV/EBITDA multiple at all. There is this Buffett quote that says it all: “We don’t use complicated valuation models, because we want investments that are so obvious that you don’t need one”. Warren Buffett has this extraordinary ability to identify companies with very long term staying power and sustainable future cash flows. He started learning valuing companies early, with his mentor and teacher Benjamin Graham; he expanded his circle of competence with the wisdom and insights from Charles Munger and Phil Fisher and he continues compounding knowledge and experience up until today. He has been on 19 boards valuing companies and industries and has a business network of hundreds of

CEOs and businessmen. This accumulated wealth of experience and insights will be very hard to beat.

In a 3-hour interview with CNBC’s Becky Quick (beginning 2018), Warren Buffett once again made it very clear how he values a business.

“If you buy a 30-year government bond, it has a whole bunch of coupons attached. And the coupon pays 3%, or whatever it may say. And you know that’s what you’re going to get between now and 30 years from now. And then they’re going to give you the money back.

What is a stock? A stock is the same sort of thing. It has a bunch of coupons. It’s just they haven’t printed the numbers on them yet. And it’s your job as an investor to print those numbers on it. If those numbers say 10%, and most American businesses earn over 10% on tangible equity, that “bond” is worth a hell of a lot more money than a bond that says 3% on it. But if that government bond goes to 10%, it changes the value of this equity bond that, in effect, you’re buying.

When you buy an interest in General Motors or Berkshire Hathaway or anything, you are buying something that, over time, is going to return cash to you. And those are the coupons. And your job as an investor is to decide what you think those coupons will be, because that’s what you’re buying. And you’re buying the discounted value. The higher the yardstick goes, and the yardstick is government bonds, the less attractive these “other bonds” look. That’s just fundamental economics.

So in 1982 or ‘83, when the long government bond got to 15%, a company that was earning 15% on equity was worth no more than book value under those circumstances because you could buy a 30-year strip of bonds and guarantee yourself for 15% a year. And a business that earned 12%, it was a sub-par business then. But a business that earned 12% when the government bond is 3% is one hell of a business now.”

Return on Capital

As a long-term investor, I value company performance by the cash flow relative to its capital base, defined by “tangible identifiable assets”. As I wrote in my first investor letter, there are many ways to calculate ROC and all these versions tell their own stories. You might want to study the writings of Michael Mauboussin, David Trainer, Ensemble Capital, Basehit Investing (John Huber) and Aswath Damodaran. You can also consider *Valuation: Measuring and Managing the Value of Companies* by McKinsey, *The Quest for Value* by G. Bennett Stewart, and *Inside the Investments of Warren Buffett* by Yefei Lu.

In my 2017 letter to shareholders, I stated that as the numerator, I use a cash flow version which is defined by the operational cash flow minus the maintenance capex, where it is assumed that depreciation and amortization expenses are roughly equal to maintenance capital spending.

I abandoned that approach and use just operating earnings (EBIT). The reason why I abandoned the 2017 numerator version is that the assumption that depreciation and amortization expenses are roughly equal to maintenance capital spending is way too fuzzy.

For instance, some companies tend to artificially inflate earnings by:

- Failing to allocate sufficient costs to the appropriate period through depreciating fixed assets too slowly;
- Amortizing intangible assets or leasehold improvements over too long a period;
- Changing to a longer period to depreciate or amortize an asset;
- Amortizing inventory, marketing, and software costs too slowly.

While Generally Accepted Accounting Principles (GAAP) encourage companies to write off costs quickly as benefits are received, there is, I believe, too much uncertainty in representing maintenance capital by depreciation and amortization expenses.

Moreover, Warren Buffett advises to focus on operating earnings, also known as Earnings Before Interest and Taxes (EBIT). In his latest annual letter, Warren Buffett stresses the influence of new GAAP on the income statement of Berkshire Hathaway and believed that wide swings in their quarterly GAAP earnings will inevitably continue. Just focus on the EBIT.

As always, there are exceptions. Palo Alto, the world's leading cybersecurity company, has a negative EBIT, but a positive operational cash flow (CFFO) and positive free cash flow (FCF). In practice, I look at all three of them – the EBIT ROC, the CFFO ROC, and the FCF ROC – and I don't bother too much about the exact value or definition. The only thing I want to know is, if the company indeed is a consistently high profitable one.

There are indeed many practices of calculating return on capital. And you have to be careful to take a company's reported return on capital for granted. Historically, the British multinational groceries and general merchandise retailer Tesco Plc managed eight changes in the definition of return on capital over the period 1998 – 2011.

Here is an illustrating example of the ROC version that AutoZone uses (from their annual reports). ROC is

calculated as after-tax operating profit (excluding rent) divided by invested capital (which includes a factor to capitalize operating leases). For FY2018, after-tax operating profit was adjusted for impairment charges, pension settlement charges, the impact of the revaluation of deferred tax liabilities, and net of repatriation tax.

<i>(in thousands, except percentages)</i>	2018
Net income	\$ 1,337,536
Adjustments:	
Impairment before tax impact.....	193,162
Pension termination charges	
before tax impact.....	130,263
Interest expense	174,527
Rent expense	315,580
Tax effect ⁽¹⁾	(211,806)
Deferred tax liabilities, net of	
repatriation tax	(132,113)
After-tax return.....	<u>\$ 1,807,149</u>
Average debt ⁽²⁾	\$ 5,013,678
Average (deficit) ⁽³⁾	(1,433,196)
Rent x 6 ⁽⁴⁾	1,893,480
Average capital lease obligations ⁽⁵⁾	<u>156,198</u>
Invested capital.....	<u>\$ 5,630,160</u>
ROIC	<u>32.1%</u>

- (1) The effective tax rate during FY2018 was 24.2% for impairment, 28.1% for pension termination, and 26.2% for interest and rent expense.
- (2) Average debt is equal to the average of the debt measured as of the previous five quarters.
- (3) Average deficit is equal to the average of the stockholders' (deficit) measured as of the previous five quarters.
- (4) Rent is multiplied by a factor of six to capitalize operating leases in the determination of pre-tax invested capital.
- (5) Average capital lease obligations are computed as the average of the capital lease obligations over the previous five quarters.

Keep in mind that a return on capital assessment, no matter what definition you want to use, is an evaluation of the past performance of the company. More important than the exact outcome of the return on capital calculation is the ability of the company to generate substantial future free cash flows relative to its capital base. That's what you should care about most and that is, as far as I am concerned, the quintessence of business valuation.

A fun exercise to do is to calculate every ROC definition and practice for e.g. Amazon over the last 20 years.

Quants

I started this letter with a quote from Warren Buffett: "We don't buy anything just by the numbers". Well. That's exactly the opposite of what "quants" actually do. Quant Q4, as described in the Spring Edition 2019 on Intelligent Cloning, is already up 40%, and by that,

defining the end result for this quant for the year. This is a 40% return for the second year in a row.

Is it luck? Is it skill? Or just a statistical coincidence? It is at least the trigger for some further examination of these quants. Let's put them under a thorough stress test. Here is the idea.

Not once, but twice a year, I come up with the new constituents for these quants. Every quant has a holding period of 1 year, and if, during the year a constituent is up e.g. 40%, I sell it.

And I will add a new selling rule. Let me explain. If you look at the back-test results of the Mohnish Pabrai Free Lunch Portfolio (FLP), you will find every now and then an extreme negative result, e.g. in 2008, -54.4% for the Shameless Cloning portfolio. These bad years will most certainly happen again, and since I focus on the more volatile small cap stocks, results could even get worse, e.g. all the way to -80%, with severe consequences for the final result.

The rule I want to add is that I will sell a stock if it is down 20%, and with that I will limit the maximum downside to 20% a year. The obvious disadvantage of this approach is that if a stock is down more than 20% and after that rises to positive territory during the year, it will be sold anyhow at -20%. But that is the disadvantage I am willing to accept.

And I will add some new quants. Let's test this approach in China and India as well. Here are the 2019 midyear constituents:

- **United States:** TrueBlue, Comfort Systems and Genesco.
- **China:** IGG Inc, Tianneng Power International and Consun Pharmaceutical.
- **India:** Sonata Software, Persistent Systems and NIIT Technologies.

Some of you may question why anyone would even think about setting up such a complex scheme for something where there is a very reasonable chance that, in the long run, it will underperform the index. The answer to that question is that it is a lot of fun, that there is a lot to learn by just doing all this and, finally, who knows, it might work after all. Here are the company profiles of the constituents who might happen to be great long-term buy-and-hold stocks as well:

TrueBlue (TBI) works with businesses to provide the workforce solutions they need to succeed. TrueBlue currently puts more than 840,000 people to work each year and partners with 130,000 companies around the world. TrueBlue is a 870M USD market cap company, trading at 7.7 times cash flow (where cash flow is defined by the 2 year average operational cash flow).

Comfort Systems USA (FIX) offers business solutions in workplace comfort, building environments and energy efficiency. Their services and solutions fall into three main categories: construction, building service and maintenance and retrofit (when systems age and become less reliable or energy-efficient, they can recommend and install upgrades and replacements). Comfort Systems is a 1.8B USD market cap company, trading at 13.8 times cash flow.

Genesco Inc. (GCO), a Nashville-based specialty retailer, sells footwear and accessories in more than 1,500 retail stores through the U.S., Canada, the United Kingdom, and the Republic of Ireland, principally under the names Journeys, Journeys Kidz, Schuh, Schuh Kids, Little Burgundy, Johnston & Murphy, and on many internet websites. Genesco is a 780M USD market cap company, trading at 4.7 times cash flow.

IGG Inc (0799.HK) is a renowned developer and publisher of mobile games with a strong global presence and international customer base. As at 31 December 2018, the user community of the Group consisted of approximately 620 million registered players around the world, with a total MAU (monthly active user) of over 19 million. For the year, 46%, 27% and 23% of the Group's total revenue were generated from Asia, North America and Europe respectively. IGG Inc is a 10.7B HKD market cap company, trading at 6.6 times cash flow.

Consun Pharmaceutical Group (1681.HK) is an investment holding company principally engaged in the manufacture and sale of pharmaceuticals. The pharmaceutical products of the Company include kidney medicines, contrast medium and others. The Company's subsidiaries include Brilliant Reach Group Limited, Century International Develop Limited and Grand Reach Company Limited. Through its subsidiaries, the Company is also engaged in the research and development of pharmaceutical products.

Tianneng Power International (0819.HK) adheres to the belief of "New Energy New World" in the People's Republic of China and aims at achieving the goal of becoming "a world leading new energy solution provider". After 32 years of development, the Group has developed into a new energy high-tech company engaging in businesses such as motive batteries for electric vehicles, smart energy solutions as well as recycling of resources. Tianneng is a 6.9B HKD market cap company, trading at 2.7 times cash flow.

Sonata Software (SONATSOFTW.NS) is a global technology company, that enables successful platform based digital transformation initiatives for enterprises, to create businesses that are connected, open, intelligent and scalable. Sonata's solution portfolio includes its own digital platform and best-in-class capabilities on ISV digital technology platforms such as Microsoft Dynamics 365, Microsoft Azure, SAP Hybris, Cloud Engineering and Managed Services, as well as new digital applications like IoT, Artificial Intelligence, Machine Learning, Robotic Process Automation, Chatbots, Block Chain and Cyber Security. Sonata is a 36.7B INR market cap company, trading at 15.2 times cash flow.

Persistent Systems Limited (PERSISTENT) is engaged in the business of building software products. The Company offers complete product life cycle services. The Company's segments include Infrastructure and Systems, Telecom and Wireless, Life science and Healthcare, and Financial Services. Persistent is a 47.2B INR company, trading at 13.4 times cash flow.

NIIT Technologies (NIITTECH) is a leading global IT solutions organization, enabling its clients to transform at the intersect of unparalleled domain expertise and emerging technologies to achieve real-world business impact. The Company focuses on three key verticals: Banking and Financial services, Insurance, Travel and Transportation. This domain strength is combined with leading-edge capabilities in Data & Analytics, Automation, Cloud, and Digital. NIIT is a 83.2B INR market cap company, trading at 11.0 times cash flow.

So here we are

Successful investing is very hard. Howard Marks talks a lot about juggling all the insights and experiences necessary to finally come up with just one solid investment decision. And we all know that capitalism is a relentless cycle of depressions, panics, recessions, bubbles – from the Roman empire through tulip manias, South Sea Bubbles, Great Depressions down to the “Great Deleveraging of 2008”.

If you want to join a fund or separately managed account, it's best that you stay with my company for at least 10 years, preferably longer. Since I am a one-man investment operation, I only serve a limited number of clients. I hope you visualize yourself as a part owner of a business that you expect to stay with indefinitely, much as you might if you owned a farm or apartment house in partnership with members of your family.

Your fund manager has a significant portion of his net worth invested in the partnership. As they say: “We eat our own cooking.” I cannot promise you results. But I can guarantee that your financial fortunes will move in lockstep with mine for however long you elect to be a partner.

I only serve professional investors. Just send in the legally required Customer Due Diligence documentation, and confirm that you read, understood, and agree with the Owner's Manual on my website. And then, let's talk.

Thank you for reading my letter!

Cordially,

Peter

Peter Coenen

Founder & CEO,

The Value Firm®

30 June 2019

Contact me: peter@thevaluefirm.com

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Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Dear (future) partner,

“Almost all of the successful company founders began as poor men. It was through hard work and wits that they climbed the economic ladder.”

This quote is from the letter addressed to shareholders from Mr. Ronnie C. Chan, Chairman of the Hong Kong based Hang Lung Group in 2016, better known as the Warren Buffett of Hong Kong. I added Hang Lung Group to my portfolio just to find out a few months later why it was a too perilous investment for me at this time.

Value investing is a risk averse investment approach. Focus on the downside risk, and only if the chance of losing money is small, you look at the upside potential. There is no room for Tesla and Bitcoin in my approach. I am perfectly happy that people get rich from this type of speculation. In the Dutch Golden Age, people became very wealthy from buying tulip bulbs.

Value investing is not a contest of who makes the most money. It's a very conservative approach for capital preservation. You just want to make sure that you don't lose money. Recently, I did buy some tulip bulbs, although. I enjoy gardening.

Veritiv

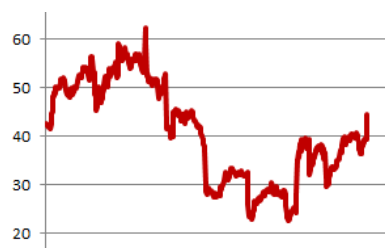
Veritiv is not an investment opportunity that hits you over the head immediately. It took me quite some time studying the company just to find out that in fact, it is a very exceptional investment opportunity for those who are willing to be very, very patient. If you want to receive the full write-up on Veritiv, drop me an email: peter@thevaluefirm.com.

The Veritiv business will change materially over the course of time. In the long run, approximately 95% of the adjusted EBITDA will be comprised of the packaging & services business (80%) and facility solutions (15%). The packaging & services market are poised to experience steady growth; much of it is closely tight to the ongoing boom in the swift growing e-commerce strategy across major North American markets. Veritiv is already the market leader of the growing packaging market in North America and will become more and

more dominant as a result of their unmatched competitive advantages and their power to lead this market with customer tailored innovations & smart acquisitions.

Nowadays, leading brands are leveraging packaging and supply-chain efficiencies as a competitive advantage. By making packaging a part of the product development process and implementing strategic improvements throughout the supply chain, businesses around the world are boosting their top and bottom lines through strategic packaging—and, Veritiv aims to be at the forefront to help these businesses thrive. Once Veritiv is deeply ingrained in the supply chains of these S&P 500 companies, these companies will not switch to competitors easily, especially knowing that there are hardly any competitors offering the kind of service solutions that Veritiv does.

Let's have a look at the price movements since I bought the stock:



Initially I bought stock at \$42. The stock went all the way up to \$62 and, then, all the way down to \$28. And, I informed you about the \$30 hedge I had in place, up until 19 January 2018. After I published my 2017 letter to partners, I bought more stock in Veritiv at \$28.

On 7 November 2017, as a result of a disappointing Q3 2017 financial update, the stock went down 20%, and a day later, even further to \$20.40. I exercised the put options at \$30 and invested the money to buy more stock at \$22.40. If you sell at \$30, you can buy back approximately 30% more stocks at \$22.40. As a result, the Veritiv investment will be 15% more profitable beyond the break-even point, which is at \$35.

This is a company getting ready for optimization and long-term growth. I just love free cash flow, and I am more than happy to read that Veritiv is ready to generate free cash flow of at least \$30m in 2018. The leadership team has shown before that they have the ability and courage to execute, and I do believe they will be able to meet their 2018 free cash flow target.

The ability not to sell a stock during times of adversity is very important. Suppose you did your thorough due diligence on Veritiv and bought stock at \$55, I am quite sure that most of the investors would sell the stock when it went down to \$20.8 (more than 50% decline in just a few months). I did not sell the stock. In fact, I bought more. And believe me, that is a very painful mental exercise because you are never 100% sure that you are right on your investment thesis.

The reason why I write in such a detail on the price movements of the Veritiv stock is that I want (future) investors to understand and realize that this type of hefty volatility is common in a portfolio of stocks that I prefer, and it will most certainly happen again and again.

As Mike Tyson famously said, “Everyone has a plan until they get punched in the face.” Are you willing and able to stay the course when adversity and stock price turbulence takes over? It takes a lot of conviction and mental courage to buy more, when the stock goes down. It is a crucial skill for successful investing.

Veritiv seems to be a classic low-risk high-uncertainty stock and the Street hates uncertainty. The long-term investment thesis remains strong and intact, and I will continue surfing the waves of short-term uncertainty.

Take the Buffett road

In the 1993 annual report of Berkshire Hathaway, Warren Buffett sums up his criteria for evaluating the risk of an investment. Here are four of them: the certainty with which the long-term economic characteristics of the business can be evaluated, the certainty with which management can be evaluated, both as to its ability to realize the full potential of the business and wisely deploy its cash flows, the certainty with which management can be counted on to channel the rewards from the business to shareholders rather than itself, and the purchase price of the business (the company has to trade at a price that makes sense).

Buffett looks for well-run, dominant enterprises producing consistent results. He considers “economic reality” over accounting statements, and he values business simplicity, managerial expertise and reputation highly.

You could argue that all of these aspects are covered in the “Buffett & Munger four-filter system”, which I consider to be a very compelling approach.

Filter 1. Understanding.

The first filter is often taken too lightly. How can you possibly make any intelligent and informed decisions about the potential and success of the company if you do not understand the business and its business environment? It is not just about the companies’ products and services (business model, customer loyalty, and pricing power). It is also about the industry outlook and the competitive dynamics of the industry, and these can be very hard to assess.

Filter 2. Durable competitive advantages.

Charlie Munger and Warren Buffett are undoubtedly the pioneers of “moat investing”. Buffett called companies “economic castles” and used a medieval analogy for what he looks for in a business and the managers running it. In capitalism, people are going to try to take that castle from you; so, you want a moat around it as well as a knight in that castle who is pretty darn good at warding off marauders.

Charlie Munger stresses the importance of figuring out how big a moat there is around the business. “What I love, of course, is a big castle and a big moat with piranhas and crocodiles. The problem is that it’s relatively easy to identify a company that is doing well. It’s much harder to look into the future and determine if that company will continue to do well. Identifying a wide and durable moat is a tough task and a task that’s hardly an exact science.”

Filter 3. A high caliber leadership team.

One of the most important investment criteria Buffett uses is a high caliber CEO. During the 2016 Berkshire Hathaway Annual Shareholders Meeting, Warren & Charlie discussed why they were willing to pay such a high price for the Precision Castparts acquisition, and they mentioned their confidence in CEO, Mark Donegan.

"A business, like Precision Castparts, requires a very superior management that's going to stay superior for a long time. It's simply amazing how well it works. I think, to some extent, we've gotten almost as good at picking superior managers as we were in the old days of picking the no-brainer businesses. It's very important that you have somebody there with enormous skill running this business, and their reputation among aircraft and engine manufacturers is absolutely unparalleled."

Another great example of the importance of an exceptional CEO is the unconventional conglomerate, Henry Singleton of Teledyne. If you can find a Henry Singleton look-alike... go for it!

Filter 4. A price that makes sense.

Buffett welcomes lower market prices of stocks as an opportunity to acquire even more of a good thing at a better price. Or, in his own words, "Our experience has been that pro-rata portions of truly outstanding businesses sometimes sell in the securities markets at very large discounts from the prices they would command in negotiated transactions involving entire companies. Consequently, bargains in business ownership, which simply are not available directly through corporate acquisition, can be obtained indirectly through stock ownership."

Often underestimated, when figuring out if a stock is cheap or expensive, are the interest rate levels. If interest rates are low, it makes any stream of earnings from investments worth more money. "The bogey is always what government bonds yield."

In a 2017 interview video clip found using the CNBC's Warren Buffett Archive, Buffett explains why rates matter so much for stock investors. "Any investment is worth all the cash you're going to get out between now and judgment day discounted back. The discounting back is affected by whether you choose interest rates like those of Japan or interest rates like those we had in 1982," Buffett said in 2017. "When we had 15% short-term rates in 1982, it was silly to pay 20 times earnings for stocks."

Buffett and Munger have been using these same four filters since 1972 and, obviously, it is working for them. If you're interested in studying the investment approach of Warren Buffett, just go to buffett.cnbc.com. It's an amazing collection of videos, documents, and insights.

Never borrow money

If you study the investment style of Warren Buffett, you will probably find that he uses leverage and that he advocates not to do that. It seems paradoxical, but in fact it is not.

For example, in his 1962 letter, he states, "I believe in using borrowed money to offset a portion of our workout portfolio, as there is a high degree of safety in this category in terms of both eventual results and intermediate market behavior." And, then, we have a 2012 study from AQR Capital Management that says that the real secret behind Warren Buffett's stellar track record is not great stock selection, it's portfolio leverage.

In his early years, Munger was also happy to borrow money to accelerate his returns. It has been stated that he did enormous trades with borrowed money, like British Columbia Power, which was selling at around \$19 and being taken over by the Canadian government at a little more than \$22. Munger did not only put his whole partnership, but also all the money he had and all that he could borrow into an arbitrage on this single stock—but only because there was almost no chance that this deal would fall apart. You could easily question if Munger's success by then was a result of his extreme genius or just pure luck.

Warren Buffett is very clear about the dangers of using leverage: "Leverage is the only way a smart guy can go broke. History tells us that leverage, all too often, produces zeroes, even when it is employed by very smart people." (LTCM and Lehman Brothers).

The mistake many investors make is that they try to emulate Buffett's use of leverage with a margin account. That's a very dangerous approach for using leverage. "Margin trading is dangerous because the person giving you credit can wipe you out at the bottom tick just because he feels nervous. Berkshire avoids that stuff where someone else can sell your securities, because they feel nervous."—Quote Charlie Munger.

Instead, Buffett prefers the following alternative sources of leverage: float and deferred taxes. These alternatives are cost-free, have no covenants or due dates attached and, thus, are much safer sources of leverage. Unless you have an insurance company in your backyard, you will not be able to emulate that. Buffett will not receive any margin calls, and if you use a margin account, you are subject to the risk of margin calls.

You might argue that you can use hedging techniques for limiting the downside risks of using leverage in a margin account. That doesn't make it less dangerous, and it is certainly not easy. And, here is my argument against it. Everybody makes mistakes now and then. Perhaps you remember the very experienced derivatives trader, Nick Leese? If you make a hedging mistake during times of severe market turbulence, the results can be disastrous and wipe you out for good.

What happens when the stock exchanges shut down in response to a panic? During the panic of 1873 (by then nearly 10,000 businesses failed), there was a 10-day closure followed by the failure of Jay Cooke & Company bank. If that happens, you will not have access to your margin account for preventing margin calls (add cash, add hedging, roll over options, etc.). Your broker won't hesitate to just close your account if you violated their adjusted margin rules. Some investors have been shocked to find out the hard way that the brokerage firm has the right to sell their securities that were bought on margin—without any notification, and at times, leaving their customers in personal bankruptcy.

Brokers use “sophisticated” liquidation software to automatically close down accounts that violate the margin rules. And brokers can and must adjust the margin requirements during times of turbulence. In fact, they use real-time margining software, and during volatile trading periods, margins can be increased a little or a lot without any notice to you. There are several lawsuits against brokers that accuse the broker, for e.g., of unlawful management of a number of portfolio margin accounts. And there is an example of a brokerage firm's system for selling securities from clients' accounts to pay margin debt that backfired, leaving a fund with hefty losses.

Now, you might think this will not happen to you, because you are a professional. Recently I received an erroneous warning on a margin cushion: “-100% remaining”. Just think about that for a moment. This happened as a result of a problem the broker had with “position display” and, fortunately, there were no financial consequences. This was a software problem during times of market stability. Try to imagine what can happen during times of market turbulence, when markets move up and down very, very nervously? Or what can happen to this liquidation software, when a cyber security incident hits the brokers trading platform?

Buying stocks on margin is one of those things that might appear on the surface to be a great way of making

money. Investing on margin is essentially investing with borrowed money. This inherently risky method of investing can lead to total bankruptcy and ruin your financial, personal, and business life.

Even if the account blows up, you are on the hook for the money immediately. No payment plan. No negotiating terms. If you don't pay, the broker can haul you into court to start getting judgments for seizing your other holdings, ultimately requiring you to throw yourself at the mercy of a bankruptcy judge.

During the Crash of 1929 preceding the Great Depression, maintenance requirements were only 10% of the amount of the margin loan! If an investor wanted to purchase \$20,000 worth of stock, he would only be required to deposit \$2,000 upfront. This wasn't a problem until the market crashed, causing stock prices to collapse. When brokers made their margin calls, they found that no one could repay them, as most of their customers' wealth was in the stock market. Thus, the brokers sold the stock to pay back the margin loans. This created a cycle that fed on itself until, eventually, prices were battered down and the entire market was demolished. It also resulted in the suspension of margin trading for many years.

There are many examples of entire retirement accounts that were wiped out and some investors talking about contemplating suicide.

You should read Buffett's latest letter to shareholders, where he stresses, once again, his aversion to leverage. “A stock market crash can happen anytime. No one can tell you when. The light can, at any time, go from green to red without pausing at yellow. When the market starts to go down, a lot of people overreact and start to panic. An unsettled mind will not make good decisions.”

Seth Klarman (who doesn't have an insurance company in his backyard, as far as I know) once said, “I side with those who are unwilling to incur the added risks that come with margin debt. Avoiding leverage may seem overly conservative, until it becomes the only sane course.”

Hang Lung Group

When I bought stock in Hang Lung Group, it traded at less than 0.5 times tangible book. The company, by then, had a market cap of 37.2B HKD (the equivalent of 4.2B

USD), a very solid balance sheet, a multi-year gross margin around 70%, and a unique business model with almost no debt. It grows free cash flow through the long-term holding of the best commercial properties in several promising cities in China. Actually, I “cloned” this investment from the New York-based investment company, Tweedy Browne.

Hang Lung specializes in luxury shopping malls in China. The company is controlled by the Chan family, which built the business in China practically from scratch in about 15 years. They have a great eye for location and, then, step-by-step they develop the mall. And, often, they are surrounding real estate with an eye to attract high-profile retailers and high-quality office tenants that drive additional traffic to the mall. Over the past ten years, the company’s book value has grown from just under 19 HKD per share to over 55 HKD per share.

The strategy of the Hang Lung Group is clear: to follow the success of their Shanghai developments with stunning world-class shopping malls and office towers in some of China’s fastest growing cities. And, they have the strengths for achieving these goals with a competitive advantage that will make them Mainland’s leading commercial real estate developer, owner, and manager. Having spent years in researching the cities poised for spectacular growth and developing the relationships that are needed to bring their plans to fruition, they are now poised to make the China market the center of their future growth and expansion plans. In this endeavor, the Hang Lung Group is way ahead of Hong Kong and Mainland developers because the vision is something that they have honed from scratch, based on their solid experience and expertise.

Global luxury brands came into China hand in hand with Hang Lung. In the early days, you could find the flagship stores of most luxury brands in Shanghai’s Plaza 66. Through years of cooperation, Hang Lung has cultivated great relationships with global brands. You can now find similar brands in Hang Lung’s new projects in second-tier cities. Hang Lung has clearly positioned itself as the host of global high-end brands, and there is massive growth potential in the long term.

What I also like about Hang Lung is that they prioritize commitment to integrate sustainability into every facet of its business. They remain focused on building and operating their properties in a sustainable fashion. “We are not running a for-profit business just for ourselves, but for the wider benefit of the communities in which we operate, creating value for the economy, society, and

the environment, which we consider essential to sustaining long-term growth.”

Perhaps you have some doubts about this investment, and you are afraid that the property bubble in China will burst. Property prices have been moving in big cycles, especially in the emerging markets and are highly correlated with the monetary policy. For a company with almost no debt and a predictable management team like Hang Lung, it is easier to look into the long term. Hang Lung’s China portfolio consists of best properties at best locations in cities with over 10 million people. A “hard landing” will actually be positive to Hang Lung in the long term. Managements’ track record suggests that they will definitely use the strong cash flow and balance sheet to take advantage of the crisis. An investment in Hang Lung is one where long-term investors should be happy to see a crash.

In general, you could argue that China is one of the best places for business. One Belt and Road Initiative, the modern-day version of the old Silk Road, enunciated by President Xi Jinping, should help keep China’s economy growing for many years to come. The aim of this 900 billion USD scheme is to kindle a “new era of globalization”, a golden age of commerce that will benefit all.

Thinking about this “New Silk Road”, there are two companies I added to my “watch list”. **China Merchants Port Holdings**, the largest public port operator in China, has been actively extending its reach down the tendrils of the Belt and Road. With investments in 29 ports around the world, the shipping giant is planning to move deeper into Southeast Asia, Turkey, Africa, the Baltics, and Russia over the next three years.

And, then, there is the **China Railway Construction Corporation**. It has been rumored that it is a Li Lu holding. The company currently has 111 projects underway in 37 countries along the Belt and Road that are worth more than \$15 billion combined. The company also recently signed a deal to build a \$12 billion rail line in Nigeria, inked an MOU with Thailand for a new railway, and is currently working out the details with India for a high-speed rail line that will stretch from Delhi to Chennai. It is also gunning for the proposed \$60 billion Moscow to Beijing high-speed rail line.

Although China looks very attractive as a destination for investments, I still sold the Hang Lung Group stock after a few months. The main reason for doing this is not that I doubt the long-term prospects of the Hang Lung Group,

but because of the risk of high leverage in the Chinese financial system.

High leverage is the ultimate origin of macro financial vulnerability, and according to central bank governor, Zhou Xiaochuan, China's financial system is becoming significantly more vulnerable due to high leverage. He warns of sudden, contagious, and hazardous financial risks.

Some high-risk activities are creating market bubbles under the cover of "financial innovation". Some Internet companies that claim to help people access finance are actually Ponzi schemes, and some regulators are too close to the firms and people they are supposed to oversee. But, one of the main concern is the majority of the financial action taking place beyond the reach of regulators. China's shadow banking sector, unregulated loans mostly, is hard to quantify with any precision; but, analysts agree it has the potential to put the financial system at risk.

Kyle Bass, founder of Hayman Capital Management, has warned of a looming crisis. Jim Chanos, the hedge fund manager who predicted the 2001 collapse of Enron Corp., stated that Chinese banks are showing signs of loan stress. The International Monetary Fund warned that China might eventually suffer a "sharp adjustment" unless it addresses its indebtedness. And, both S&P Global Ratings and Moody's Investors Service cut China's sovereign credit rating in 2017 for the first time during the current millennium, citing the risks from soaring debt.

The optimists argue that the authorities would bail out distressed lenders before any crisis threatens the financial system. Failed banks might even be dealt with quietly before anyone outside China knew, and some argue there's little chance of a financial meltdown because the biggest slice of China's debt pile is carried by state-owned enterprises. In the worst case, the government could take over some liabilities.

Seth Klarman frets about Chinese leverage and wealth management products that seem to have adopted a page from the 2008 opaque derivatives playbook. Klarman recognized the issues and addressed them in his 2017 year-end review and warned of a potential "bloodbath". And, that's the reason why I think that an investment in Hang Lung Group at this time is too risky to me.

My company

When I started The Value Firm®, the idea was to launch a new fund. As of today, I just didn't, and I do not regret that at all. In 2016, I visited the LatticeWork Conference in New York and, in my personal introduction, I wrote that if you envision Warren Buffett and Charlie Munger in stage 10 of successful investing, I felt I was still scratching the surface of the introductory course to stage 1. And up to today, I continue to believe that there still is so much to learn.

What I know by now is that it not only requires a lot of knowledge, studying companies and industries, and learning from mistakes, but also accumulated experience, especially in terms of "the right temperament". As of today, I put an enormous emphasis on understanding and dealing with risk. It's not just how well you do in your investments, but also how much risk you take for getting your return.

What I learned from studying "Capital. The Story of Long-Term Investment Excellence" by Charles D. Ellis is that the best time to start a new fund is when the markets are way down. And that just isn't so.

Bridgewater Associates, the world's largest hedge fund, is already sounding the alarm on nearly every financial asset. "We are bearish on almost all financial assets," the firm said. "2019 is setting up to be a dangerous period for the economy, as the fiscal stimulus rolls off while the impact of the Fed's tightening will be peaking," the firm continued. "And, since asset markets lead the economy, for investors the danger is already here."

If I had to start a fund today, it would be strongly hedged with a lot of cash, waiting at the sidelines for better investment opportunities. If that's of any interest to you, I am happy to discuss that. Just drop me an email and we can start a conversation.

There is a lot of reason for being cautious before starting a new fund. In May 2018, there was a great article in Forbes Magazine, where Whitney Tilson talked candidly about the rise and fall of Kase Capital.

"Tilson beat the market from 1999 through mid-2010 almost every year. The fund grew from \$1 million to \$200 million under management. But as the economy recovered and stocks rallied, Tilson developed the view that the market was ahead of the fundamentals, so he positioned the fund defensively, holding a lot of cash and carrying a meaningful short book, waiting for the next big downturn.

This conservative positioning led to his fund significantly underperforming this long bull market over the past seven years, which caused his investors to get fatigued and assets to shrink to \$50 million. More importantly, he was miserable: month after month, year after year, he felt like he was letting his investors down, so he finally decided to pull the plug last fall.”

So, even a very experienced and respected investor like Whitney Tilson closed down his fund as a result of underperformance. By the way, I never understood why investors like Whitney Tilson want to short stocks. Even Li Lu admits that shorting was one of the worst mistakes he has made.

A great reputation and track record is by no means a guarantee for future results. Bill Ackman's hedge fund empire crumbled in less than 3 years from public wrong-way bets on Herbalife, Chipotle. The majority of institutional investors including longtime partner Blackstone Group are leaving Ackman's Pershing Square hedge fund.

And what to think about David Einhorn. Greenlight Capital lost 5.4 percent in the second quarter 2018, bringing the performance of its funds to a year-to-date loss of 18.3 percent. David Einhorn says over the last three years, Greenlight's fund performance has been "far worse than we could have imagined, and it's been a bull market to boot."

And then we have Bruce Berkowitz. His performance between 2000 and 2010 was lauded and he was named Domestic Stock Fund Manager of the decade by Morningstar. However, since 2010 he has suffered long periods of underperformance and in October 2017, Berkowitz started liquidating Fairholme Capital's hedge fund.

Launching and building a successful fund is extremely difficult, especially these days. Growing a fund is really hard and very few people succeed in doing it. Tilson: "I can't tell you how many energetic, talented young investors I've seen over the years launch funds, get to \$5-10 million under management and, then, stall out, never growing beyond this. At this size, the business is losing money—not to mention the opportunity cost of not having a job and earning a salary—so these folks are just bleeding, year after year, refusing to give up on their dream... but it never materializes."

Recently, I watched a presentation on YouTube by Brian Bares of Bares Capital Management. And, he reminded

me about the importance of building a differentiated investment process that is hard to replicate.

What I prefer doing is running a concentrated portfolio (15 stocks) of very exceptional and unique investment opportunities. Often, I find them by studying the portfolios of successful investors. Veritiv is such an example, which I just copied from Seth Klarman. The unique differentiator is, I believe, the deep understanding of why the opportunity is so exceptional and why the stock might turn out to be a multibagger. The quantitative aspects in the investment process are important—the best investment decisions are made by focusing on the qualitative differentiators of businesses. You don't want to make a mistake on the business quality and the management quality.

Obviously, price is important; but, too much focus on price limits your investment opportunity universe. Coca-Cola was trading at 45 times earnings in the 60's. If you bought it then and hold on to it the next 4 decades, your return would gravitate to the ROE of the business, the longer you hold on to it. So over 4 decades, you probably still would be compounding in the high teens or low twenties.

Another differentiator is the fee structure. If you want your investment manager to behave with your best interests in mind, you have to ensure that your interests are aligned. The best way to do that, I believe, is the original Buffett Partnership fee arrangement, where the interest provision is set at 6% for everyone, beyond which your investment manager will take 25% of the gains. Since the market are going up 5-7% a year on average, the interest provision is set at a level so the investment manager earns nothing unless he beats the market. I have a "high-water mark" in place—any cumulative deficiency below a 6% annual gain will have to be recouped before I will resume taking fees.

And finally, what differentiates me from many other investors, I believe, is that I spend more time thinking about risk management and hedging. I consider risk management skills just as important as good stock picking skills. If done well, risk management is indeed a competitive advantage. It's key to generating higher returns, setting a bottom for potential losses, improving margins, and raising the confidence of clients, investors, and shareholders.

I always look for "cheap insurance". When appropriate, individual stocks might be hedged with put options; the portfolio might be hedged with index-puts and even

currencies might be hedged. What I try to do is overlay the portfolio of value stocks with a kind of disaster insurance.

Charlie Munger reminded us that the most important aspect of risk management is the right temperament. Probably, the biggest risk in investing is “panicking near a market bottom and selling out”. Many, many investors swore that they never ever do such a thing and they do exactly that. There is a lot of value in staying calm when adversity takes over.

This presentation and the information contained herein are for educational and informational purposes only and do not constitute, and should not be construed as, an offer to sell, or a solicitation of an offer to buy, any securities or related financial instruments. Responses to any inquiry that may involve the rendering of personalized investment advice or effecting or attempting to effect transactions in securities will not be made absent compliance with applicable laws or regulations (including broker dealer, investment adviser or applicable agent or representative registration requirements), or applicable exemptions or exclusions therefrom.

So here we are

I started this letter by quoting Mr. Ronnie C. Chan, Chairman of the Hong Kong based Hang Lung Group, and I might as well end with Mr. Chan.

“We should count ourselves fortunate to be doing business in East Asia, particularly in the relatively stable and biggest developing country in the world, China. Economic growth in this country will remain among the highest in the world. The combination of size and speed is unseen in human history and should be advantageous to our business.”

There is this huge and agonizing dilemma of investing in China, where Seth Klarman warns of the risk of a potential “bloodbath”, as a result of Chinese leverage and, where, Warren Buffett reminds us that what the Chinese have done in the last 50 or 60 years is a total economic miracle and that he believes the growth story is far from over. And, with that, I wish you all the best.

Thank you for reading my letter!

Cordially,

Peter

Peter Coenen, 12 August 2018.
Founder & CEO of The Value Firm®
E-mail: peter@thevaluefirm.com

Dear (future) partner,

The Sequoia Fund Investors Day 2017 transcript is a great read. You can get a very good idea of my investment approach just by reading theirs. So what is my investment approach? Well, I just try to find a handful of unique, exceptional and, at times, uncomfortable investing opportunities and then hold on to these companies as long as they remain good companies.

First of all, I am a “cloner”. I study successful value investors and if I can understand and agree with the investment thesis, I buy it whether it is a classic Buffett company, spinoff, or whatsoever. Secondly, I look for companies that have their “value creation engine” up and running (companies like Mastercard or Verisign) and if such a company trades at a price that makes sense, I buy it. I work patiently and very hard every day to identify these unique and terrific businesses trading below their intrinsic value and I enjoy every minute of it.

So let's have a look at a pretty uncomfortable situation in my portfolio and how to assess that. And then I will elaborate a little bit more on this value creation engine in “Take the Buffett road”. Enjoy!

How uncomfortable are we today?

A year ago I bought stock in Veritiv, a Seth Klarman holding. Probably because of the merger transaction that was implemented immediately after the International Paper spin-off, the misunderstanding and under-appreciation of the company's potential by the market was high by then and still remains high today. There are significant opportunities for growth, synergies, and cost savings due to a large size of the combined business.

On 2 August 2017, Veritiv reported a second-quarter loss of \$9.1 million, after reporting a profit in the same period a year earlier. Veritiv shares had a rough ride last year, from \$42 all the way up to \$62, and all the way down to \$28. Is Seth Klarman wrong and should I sell the stock?

I don't think so. During the latest quarterly update, CEO Mary Laschinger stated that the decrease of the consolidated adjusted EBITDA was primarily due to the combination of continuing industry pressures in the print and publishing segment, investment in their growth segments, and slightly higher operating expenses. Nevertheless, she expects a 2017 adjusted EBITDA of \$190 to \$200 million. (Wall Street loves EBITDA and I just don't. Not treating the depreciation of goods and amortization as “a real cost” is wrong. So I try to avoid EBITDA and try to focus on real cash flows). By the end of the trading day, on 2 August 2017, Veritiv traded at 3.2 times operational cash flow and at tangible book value. That is quite a margin of safety! So why not buy more?

Veritiv previously shared that they knew 2017 would be a challenging year due to the complexity and scale of the integration. Veritiv remains on track with their multiyear integration work and synergy capture plan and despite that, the environment in print and publishing has been more difficult than anticipated. I strongly believe that the growth in packaging and facility solutions more than offsets the decline in print and publishing. I see substantial long-term upside potential for this Fortune 500 stock. Even if things turn out to be worse and let's say that the revenues go down by 50%, it's still a \$4B revenue company. With a more than moderate price to sales multiple of 1, you could argue that this company has the potential, if management succeeds, to end up with a market cap of \$4B. As per today, 12 August 2017, the market cap is \$450M. Veritiv is a small cap generating big cap revenues.

Charlie Munger reminded us that one of the most important aspects of risk management is the right temperament. Many people can articulate a good investment approach in theory. It is far more difficult to remain rational and execute it under conditions of uncertainty and real-world pressures. What's happening to Veritiv today is such an apt example.

Patience is one of the most critical attributes for a long-term investor because you can be right and the market may tell you that you're wrong. There can be times where it looks like an investment might not work out, but in the end it does. However, you must sometimes be willing to endure a period of time (sometimes many

years) that is uncomfortably long to reap the benefits of the investment. Peter Lynch has often said that many of his stocks biggest gains come in their 4th or 5th year. American Express was flat from 1985 to 1992 before becoming a multi-bagger. There's this balancing act between too ashamed to admit you are wrong or in denial about being wrong and being stoic. In this case, I choose the latter one. The basic assumption and belief is that management will be able to get the company "up and running" and that Veritiv will be around and doing well many years from now. Neglect the short term volatility. Volatility is the price you pay (if you are right) for long-term outperformance.

I am perfectly ready to be proven wrong. Everybody makes mistakes now and then. My position is hedged at \$30 until 19 January 2018. So I have plenty of time to wait and see what's going to happen to the stock and then make up my mind. It looks like a low risk, high uncertainty opportunity: "Heads, I win; tails, I don't lose much".

Take the Buffett road

Value investors do not rely on the discounted cash flow (DCF) and capital asset pricing model (CAPM) approach that business schools teach in introductory corporate finance courses and that are at the core of methodologies like Economic Value Added (EVA), Market Value Added (MVA) and Shareholder Value Added (SVA).

Bruce Greenwald, the Robert Heilbrunn Professor of Finance and Asset Management and director of the Heilbrunn Center of Graham and Dodd Investing explains. "The DCF/CAPM methodology that business schools teach is a theoretical elegant formulation. But in practice, the margin of error makes it worthless for investing. These models depend not only on near-term cash flows, which can be projected reliably, but also on long-term cash flows and terminal values, which cannot. Terminal values rely on highly subjective assumptions of cost of capital and growth rates. Any error, however slight, in these variables can dramatically throw off valuations.

Furthermore, DCF models ignore balance sheets, throwing away some of the most tangible, reliable and therefore valuable information available. In contrast, the value investing approach starts with the balance sheet – first looking at the asset value, then earnings-power value, then competitive advantage and managerial

ability and then growth – is in every way more accurate than the DCF method, and value investors tend to do much better than the market as a whole".

It's my understanding that Warren Buffett looks for companies that have very long term staying power and buys them at a price that any reasonable discount rate would give him a great return in the long run. His business partner Charles Munger once said, "Warren often talks about these discounted cash flows, but I've never seen him do one. If it isn't perfectly obvious that it's going to work out well if you do the discounted cash flow calculation, then he tends to go on to the next idea".

In general, I carefully try to avoid the great academic insights like the Capital Asset Pricing Model (CAPM), Black–Scholes, Beta and the weighted average cost of capital (WACC). WACC is used to measure the cost for a company to acquire capital (through a mixture of debt and equity). Once you have found this number, you theoretically have a nice discount in figuring out the present value of a company's cash flow. The problem is that any slight change in WACC will have vast implications on your investment decisions.

If you look at the formula for WACC, you will hopefully start to see some problems. For instance, the tax shield causes many problems, the first of which is that the more debt a company has, the better their cost of capital will be due to this tax shield. A company with a very high debt may sometimes have a very low WACC for this reason. It can definitely be argued that companies with less debt perform much better than their levered peers in the long-term and we are doing the exact opposite here by using WACC.

Then we have the beta problem. Warren Buffett came up with this example in "The Super Investors of Graham and Doddsville" speech: "The Washington Post Company in 1973 was selling for \$80 million in the market. At the time, that day, you could have sold the assets to any one of ten buyers for not less than \$400 million, probably appreciably more. The company owned the Post, Newsweek, plus several television stations in major markets. Those same properties are worth \$2 billion now, so the person who would have paid \$400 million would not have been crazy.

Now, if the stock had declined even further to a price that made the valuation \$40 million instead of \$80 million, its beta would have been greater and to people who think beta measures risk, the cheaper price would

have made it look riskier. This is truly Alice in Wonderland. I have never been able to figure out why it's riskier to buy \$400 million worth of properties for \$40 million than \$80 million."

Return on Capital

In his 1987 letter to shareholders, Warren Buffett talks about the value of earnings: "Earnings by itself says nothing about economic performance. To evaluate that, we must know how much total capital - debt and equity - was needed to produce these earnings". This is known as return on capital (ROC).

There are many practices to calculate the ROC and you have to decide which methodology you want to use and why. For instance, you can calculate the rate of return from a financing perspective (e.g. by using long-term debt and equity as capital base), or you can calculate the rate of return from an operating perspective (e.g. by using the net working capital and the net fixed assets as capital base). People tend to think that the financing perspective is the most intuitive place to start because it builds up to the rate of return on capital from the standard return on equity. I definitely prefer to calculate the rate of return on capital from an operating perspective. The reason for that is that you will end up with terrible results if you calculate the rate of return of companies like Verisign and Autozone from a finance perspective. These are great companies, but these companies employ negative equity, which is indeed exceptional.

It's very hard to take just a few good investment decisions during your lifetime and that's all you need. It is probably even more difficult to hold on to a good investment during times of turbulence. So what is a good company? Warren Buffett once said that a good company is one that earns a high rate of return on tangible assets (the ROC from an operating perspective). Also, the best companies are the ones that earn a high rate of return on tangible assets and grow. If you take a closer look at Berkshire Hathaway holdings like Verisign, Precision Castparts or Mastercard, you will find that these are companies that earn a high rate of return on tangible assets (ROC) and demonstrate solid growth in the free cash flow per share (GROWTH). These are the characteristics I look for and I preferably want to buy these kinds of companies in the early stage of their competitive life cycle.

You might question if you want to include net working capital in the capital base. Net working capital was included by Joel Greenblatt because a company has to fund its receivables and inventory, but does not have to lay out money for its payables, as these are effectively an interest-free loan. If you believe that the cash generated on the net working capital is important for a long-term investor, you should include it.

There are choices to be made in the numerator of the ROC equation as well. You can use the classic definition of NOPAT (Net Operating Profit after Taxes), or you might want to use the pretax operating earnings (which is what Joel Greenblatt uses as described in his classic "The Little Book that Beats the Markets"). You might also have a preference for the CFROI Valuation Framework (introduced by Bart Madden and Bob Hendricks in the 70s and which is now owned and used by Credit Suisse) which uses cash flow as the numerator. So, there are actually a lot of choices to be made and I do not believe that there is such a thing as the one and only correct ROC. I guess it depends on your beliefs and convictions.

For the sake of simplicity, I use the following definition of ROC. As the numerator, I use a cash flow version which is defined by the operational cash flow minus the maintenance capex. It is assumed that depreciation and amortization expenses are roughly equal to maintenance capital spending. As the denominator, I just look at the tangible fixed assets as stated on the balance sheet. So, I will exclude intangibles and goodwill. I agree with Aswath Damodaran (Professor of Finance at the Stern School of Business at New York University, where he teaches corporate finance and equity valuation) that "good-will" is probably the most destructing accounting item ever created in history.

The question arises if there is an appropriate benchmark for ROC. Once again, Warren Buffett guides us through the accounting swamp. In his 1987 letter to shareholders, he refers to the Fortune 1988 Investor's Guide, where Fortune reported that among the 500 largest industrial companies and 500 largest service companies, only six had averaged a return on equity of over 30% during the previous decade.

Only 25 of the 1,000 companies met two tests of economic excellence— an average return on equity of over 20% in the ten years, 1977 through 1986, and no year worse than 15%. These business superstars were also stock market superstars. During the decade, 24 of the 25 outperformed the S&P 500. Buffett uses return on equity, because really good businesses usually don't

need to borrow. But if a company has debt, you should include debt into the capital base for calculating the ROC. Even better, always use tangible fixed assets as capital base.

Charles Munger also emphasizes the importance of a high ROC in “The Art of Stock Picking”: “If the business earns 6% on capital over 40 years and you hold it for that 40 years, you’re not going to make much different than a 6% return—even if you originally buy it at a huge discount. Conversely, if a business earns 18% on capital over 20 or 30 years, even if you pay an expensive looking price, you’ll end up with a fine result.”

Growth

There are many ways to calculate GROWTH. You can look at the revenue growth, the EBIT growth, the net income growth, the operational cash flow growth, the EBITDA growth, the free cash flow growth, the dividend growth, the book value growth and the tangible book value growth. And then, for all these items, you can decide to look at the “per share growth”. So that already makes 18 different growth rates. Then, for all these 18 items you can look at 1-year growth, or 3-year growth, 5-year growth, 10-year growth etc.

Although I’m not a big fan of management consultancy firms, I have to admit that McKinsey made some interesting observations on balancing ROC and GROWTH: “When a company’s ROC is already high, GROWTH typically generates additional value. But when it comes to GROWTH, companies are very likely to experience substantial declines. Of companies that grew by more than 20 percent in 1994, for example, 56 percent were growing at real rates of less than 5 percent ten years later”.

Many analysts often project companies like these to grow at double-digit rates for many years to come and they are wrong. While some quickly growing companies certainly maintain high growth for a decade or more, the average high growth company simply does not. Only 13 percent of the high-growth companies maintained 20 percent real growth ten years on, and acquisitions probably drove most of it.

The Value Creation Engine

What I prefer to look for are companies that have their value creation engine up and running and are trading at a price that makes sense. So what is the “Value Creation Engine”? Well, it’s ROC times GROWTH. But be careful. I am talking about a very conservative estimate of the

long-term growth. As conservative as good old Ronald Reagan.

Margin of Safety

You want to buy these companies when they are trading way below their intrinsic value (margin of safety). And that’s easier said than done. There are many ways to value a company. You can look at replacement costs, book value, present value of future cash flows, price to earnings multiple, price to cash flow multiple, price to sales multiple, sum of the parts, private market value, the PEG ratio, the Bruce Greenwald Earnings Power Value, the Peter Lynch Fair Value, the Ben Graham Number, the Joel Greenblatt Earnings Yield, etc. Some of them do not apply to all companies though. So you have a range of outcomes and if a stock trades below the lowest of that range, it’s perhaps quite interesting.

And you must take into account an estimate of the future interest rates. Warren Buffett talked about the importance of the future interest rates on business valuation in February 2017 on CNBC: “U.S. stock prices are on the cheap side. If rates were to spike, however, then the stock market would be more expensive. If interest rates were 7 or 8 percent, then these prices would look exceptionally high”.

I would rephrase “on the cheap side” as “moderate expensive, but by no means in a bubble”. Howard Marks recently wrote that we are living in a low-return, high-risk world. And that’s the way it is.

Ranking the stocks

Joel Greenblatt came up with a solid approach for ranking the stocks. So you rank e.g. 10 candidates by ROC. The highest gets 1 point and the lowest 10 points. And then you rank them by margin of safety. The highest gets 1 point and the lowest 10. You add the numbers and choose the lowest number.

At times I rank the stocks by multiplying the value creation engine (which is ROC times GROWTH) with the margin of safety and then choose the highest number. If you want to play it safe, use the Joel Greenblatt ranking system. But if you want this extra nuance of high growth companies you might want to try the latter approach. But keep in mind, growth is a very dangerous parameter, both in ranking the stocks as in business valuations.

Reengineering the investment thesis

There is no such thing as an investment without a thorough investment analysis. It takes a lot of time to really understand a business and its environment. I always start with the balance sheet. This might sound old fashioned, but it's a very important step and many value investors nowadays take the balance sheet information too lightly. You want the balance sheet to be as solid as a rock. But that's easier said than done. For instance, how do you assess a balance sheet that has negative equity (like Verisign and Autozone)?

However, I think the most exciting part is the assessment of the long-term growth potential of the company. You have to be certain about the future cash flow streams of a company—very certain. That can be achieved by studying industry trends, the regulatory environment, disruptive technologies, the long-term competitive dynamics of an industry and the durability of the competitive advantages. Where will this company be 15 years from now and what does that mean in terms of market capitalization?

Warren Buffett once said: "If there is risk, we just don't go ahead". What helps are two checklists. The first is in the appendix of Philip Fisher's classic "Common Stocks and Uncommon Profits", entitled "Key Factors in Evaluating Promising firms", where he discusses functional factors, people factors and business characteristics. The second checklist is in appendix A of an article written by Michael J. Mauboussin and Dan Callahan, entitled "Measuring the Moat Assessing the Magnitude and Sustainability of Value Creation", where they discuss e.g. barriers to entry, rivalry, brands, disruption and disintegration, etc. It's also worthwhile studying articles on "The Reinvestment Moat" by Connor Leonard and the comments on that by John Huber. Reinvestment moats are companies that have all the advantages of a legacy moat and earn strong returns on capital plus opportunities to deploy incremental capital at similar high rates.

A high caliber leadership team

Finally, let me stress the importance of good management. This might be the most crucial one. Warren Buffett looks for a proven track record and a history of operational success, the utmost integrity, the ability to allocate capital wisely and people who care deeply about the business that they led. I couldn't agree more.

So here we are

The methodology described thus far, based upon return on capital, growth and a margin of safety, and then reengineering the investment thesis, is, I believe, a very sound framework for stock picking. My talk during The Zürich Project 2017, on "Intelligent Cloning," was well received. I argued that by studying the latest 13Fs of Berkshire Hathaway, Sequoia Fund, Chuck Akre, Lou Simpson and Thomas Russo, my number one stock pick by then was Verisign.

However, companies like Credit Acceptance Corp (which is a Seth Klarman and Sequoia Fund holding), Linamar and Dart Group (both are Meryl Witmer holdings) also showed up by applying this methodology. Isn't that interesting? And it even gets better if these great businesses buy back their own stock at appropriate prices.

I started this memo by referring to the Sequoia Fund Investors Day 2017 transcript and I might as well end with a quote from David Poppe. *"Performance doesn't happen on a schedule, and I don't care who we are or what we do, over the next one, two, three years, the result we get is unfortunately out of our hands for the most part. The market is going to do whatever the market is going to do".*

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
12 August 2017

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Owners Manual

“Performance doesn’t happen on a schedule, and I don’t care who we are or what we do, over the next one, two, three years, the result we get is unfortunately out of our hands for the most part. The market is going to do whatever the market is going to do”.

This is a quote from David Poppe, former chief executive of asset manager Ruane, Cunniff & Goldfarb, says it all. It should not be assumed, that past investment performance is an indication of future results. Moreover, wherever there is the potential for profit there is also the possibility of loss.

The majority of professional investors, after accounting for their fees, underperform the index. Most investors are better off buying a low cost index fund, like the Vanguard S&P 500, and leave it there for the rest of your life. In the long run, it’s the best low risk, high return proposition on the planet.

Nevertheless, most people want to do better than the index. Well. Then you have to engage in active management with its costs and its risks. Most of us are in full denial of the fact that if you try to do better than the index, there is the risk that you will end up doing worse than the index. And then they get frustrated and forget that it was their own decision to take on the risk. To put it mildly: if you want to beat the index, that’s your problem!

Over the years of learning and investing, my admiration for Lou Simpson just grew and grew. Lou Simpson is probably the world’s greatest investor you never heard of. The essence of his approach (and thus mine) is simplicity. He only invests in companies he can understand and value. He runs a long-time-horizon portfolio comprised of ten to fifteen stocks. Most of them are U.S.-based, and they all have similar characteristics. Basically, they’re good businesses. They have a high return on capital, consistently good returns, and they’re run by leaders who want to create long-term value for shareholders while also treating their stakeholders right.

To me, it makes a lot of sense to carefully study the investment portfolios of superinvestors like Lou Simpson. Often I just copy their ideas. I mean, these ideas made it through the exhaustive due diligence process of one of the best investors on the planet. Profit from it!

Just copying successful investors sounds easy, but in fact it is not. The unique differentiator is, I believe, the deep understanding of why the opportunity is so exceptional and why the stock might turn out to be a multibagger. The quantitative aspects in the investment process are important—the best investment decisions are made by focusing on the qualitative differentiators of businesses. You don’t want to make a mistake on the business quality and the management quality.

Successful investing is about predicting the future performance of a company. Where will this company be 10 to 15 years from now and what does that mean in terms of future cash flow streams. Attached to these cash flow streams are risks. What can go wrong? And finally you have to decide what you are willing to pay for these future cash flow streams in the light of the current interest rate environment and that is much more a matter of experience than the result of an academic discounted cash flow analysis. And it is a very personal matter as well. If you want to buy @ very low prices, there is always the risk that Mr. Market will not offer you these low prices and you will not be able to buy into this wonderful company. And if you pay a price that is high and the markets collapse after you bought, you probably would regret that you bought it at such a high price.

I look for companies with the ability to outperform competition for many years to come. I only invest in businesses with durable competitive advantages and very long-term growth potential. This does not mean growth at any cost. The growth must be profitable of course, generating high returns on the additional capital invested into the business to enable this growth.

Successful investing is very hard. Howard Marks talks a lot about juggling all the insights and experiences necessary to finally come up with just one solid investment decision. And we all know capitalism’s relentless cycle of depressions, panics, recessions, bubbles – from the Roman empire through tulip manias, South Sea Bubbles, Great Depressions down to the “Great Deleveraging of 2008”. To handle hefty stock market volatility with care and wisdom is by no means easy.

There definitely will be years of fund underperformance. The only way to handle that is to stay calm and be patient. “This too will pass.” And remember that

depressions offer opportunity to buy more stocks at better prices.

If you want to join the partnership it's best that you stay with the fund for at least 10 years, preferably longer. I hope you visualize yourself as a part owner of a business that you expect to stay with indefinitely, much as you might if you owned a farm or apartmenthouse in partnership with members of your family.

Your fund manager has a significant portion of his net worth invested in the partnership. As they say: "We eat our own cooking." I cannot promise you results. But I can guarantee that your financial fortunes will move in lockstep with mine for whatever period of time you elect to be a partner. I have no interest in large salaries or options or other means of gaining an "edge" over you. I want to make money only when my partners do and in exactly the same proportion. Moreover, when I do something dumb, I want you to be able to derive some solace from the fact that my financial suffering is proportional to yours.

Communication with you as a partner will be done in several ways. Through the annual report, I try to give all shareholders as much value-defining information as can be conveyed in a document kept to reasonable length. Still another important occasion for communication is the Annual Meeting, where there will be plenty of time for questions. But there is one way I can't communicate: on a one-on-one basis.

Despite the policy of candor, I will discuss the activities in marketable securities only to the extent legally required. Good investment ideas are rare, valuable and subject to competitive appropriation just as good product or business acquisition ideas are. Therefore I normally will not talk about specific investment ideas. If you start talking about ideas, you can become "too wedded" to your thesis and that is actually quite dangerous.

I tend to believe that I am not a robot. I am not immune to the emotions and biases that everyone else has. However, it is the awareness of these, and the measures I put in place to control their effects, which will help me to generate superior performance. Examples of these measures include the rules I employ regarding quality and valuation. Or the checklists I use to ensure the features which every company I invest in must exhibit, and to identify specific warning signs e.g. of financial shenanigans. If an investment opportunity doesn't fit my circle of competence, I will not invest.

Superior investment performance is not my primary goal, but rather superior performance with less-than-commensurate risk. Above average gains in good times are not proof of a manager's skill: it takes superior performance in bad times to prove that those good-time gains were earned through skill, not simply the acceptance of above average risk. Thus, rather than merely searching for prospective profits, I place the highest priority on preventing losses. It is my overriding belief that, especially in the opportunistic markets in which I work, "if we avoid the losers, the winners will take care of themselves."

I believe consistently excellent performance can only be achieved through superior knowledge of companies and their securities, not through attempts at predicting what is in store for the economy, interest rates or the securities markets. Therefore, the investment process is entirely bottom-up, based upon proprietary, company-specific research.

Because I do not believe in the predictive ability required to correctly time markets, I keep portfolios fully invested with approximately 20% cash on hand to be able to invest when markets crash. If you miss a few good days in the market then your overall performance can be seriously impaired. Using the last 15 years as an example, if you had missed the strongest 10 days of performance in the S&P 500, a popular US benchmark, your total return over the period would be half of that achieved by remaining fully invested.

There are many fads in investing which come and go: the Dotcom boom; the mining "supercycle" (which turned out to be just a plain old cycle); the credit bubble; and most recently the cryptocurrency craze, one more example in a continuous stream of 'new' ways to make money. I would never knowingly take part in fads such as these. Although I may as a result miss out on seemingly high returns in the short term, you can rest assured that I will be nowhere near the assets in question when the speculative bubble bursts. Which it always does.

What I won't do? No upfront fees. No nonsense. No debt (leverage) or derivatives. No swaps. No shorting. No market timing. No index hugging. No trading. No hedging. I won't conduct any currency hedging, nor do I seek to hedge market indices, interest rates or anything else. I also dislike capital intensive industries such as utilities and telecoms which rarely achieve high rates of return on the mountains of capital they invest, especially given the fact that their returns are often limited by government regulation.

I agree with the remarks of Peter Lynch, who said he did not spend 15 minutes a year to forecast the economy. More money is lost worrying about or preparing for recessions than was lost in the recessions themselves.

What do I charge you? To begin with I do not charge an initial fee as many mutual fund providers do. If you want your investment manager to behave with your best interests in mind, you have to ensure that your interests are aligned. The best way to do that, I believe, is the original Buffett Partnership fee arrangement, where the interest provision is set at 6% for everyone, beyond which your investment manager will take 25% of the gains. Since the market are going up 5-7% a year on average, the interest provision is set at a level so the investment manager earns nothing unless he beats the market. I have a “high-water mark” in place—any cumulative deficiency below a 6% annual gain will have to be recouped before I will resume taking fees. But if you prefer a management fee anyhow, we can discuss that.

Before you consider participating in the partnership, please read PART I of “Warren Buffett’s Ground Rules” by Jeremy C. Miller.

- I am not in the business of predicting general stock market or business fluctuations. If you think I can do this, or think it is essential to an investment program, you should not be in the partnership.
- I do not know what stocks are going to do tomorrow, next week or next year.
- I can’t accurately and consistently predict the future or short-term moves in interest rates.
- I am unsure where the economy is going in the short or mid-term.
- I can not accurately predict what will happen to currency fluctuations in the future.
- If you are not in for the long haul and do not have “the capacity to suffer”, you should not be in the partnership.
- Over the last 52 years Warren Buffett increased the per-share book value of Berkshire Hathaway at a rate of approximately 20% compounded annually. If you think I will be able to beat Warren Buffett, you should not be in the partnership.

- Most people want to do better than the S&P 500 index, but that is inseparable from the risk of doing worse. What most people want to do is they want to try to do better through no lose positions and I’m afraid that option is not available.
- My approach isn’t meant for everyone. I offer this strategy to accredited (professional) investors seeking intelligent exposure to stocks.
- The approach is for long-term investors. Do not invest if you have less than a 10-year time horizon. A long attention span is indeed a unique competitive advantage.
- Volatility is the name of the game. Do not invest if you cannot stomach volatility. The approach will have periods of underperformance. To be right in the long-term, we must be willing to look wrong in the short-term. Periods of underperformance should be expected and viewed opportunistically.

It is of the utmost importance that you and I are on the same page. If you doubt that we are, you should not be in the investment partnership.

Finally, in order to satisfy the Anti-Money Laundering requirements, we need you to provide certified copies of your personal identity (e.g. passport) and address (e.g. Local authority tax bill, valid for current year). And there are new rules on Customer Due Diligence and the reporting of suspicious transactions. In addition, The Netherlands Authority for the Financial Markets announced a stricter monitoring of the reporting of unusual transactions by investment firms and investment funds.

The Dutch Act implementing the Fourth Anti Money Laundering Directive implements the Fourth EU Anti-Money Laundering Directive (4AMLD) by amending the Dutch Act on the prevention of money laundering and financing of terrorism. One of the changes concerns the obligation to carry out customer due diligence. This will continue to be based on a risk-based approach.

Institutions will in all cases be required to conduct a risk analysis. With respect to the possibility to carry out a simplified CDD, institutions may no longer automatically apply such a simplified CDD in specific circumstances. Institutions may only rely on these circumstances as part of a justification for simplified CDD after conducting a risk analysis.

During my entire life, I really didn't care about money at all. I guess the reason for that can be found in the European tradition of socialism that once existed.

Later in my career I got inspired by the thinking and teachings of Buffett and Munger. So I tried to use these insights to manage my own limited amount of capital, and guess what. It worked!

If you are looking for a money manager, you would be well advised to look for a professional with a proven track record of building a personal fortune by making smart investments. And that includes managing money through a severe bear market. That person is not me.

But it happens to be that my investment results thus far are exceptional indeed. And I believe, that by copying great investors that do have the exceptional track record, you are well off following my approach. If what I do resonates with you, and you want to give it a go, send me the required Customer Due Diligence documents and we will set up a separately managed account.

Don't forget that we are deep into a bull market, with high valuations and few bargains. Charlie Munger recently was asked if he was surprised by how long this expansion (the bull market) has lasted. Here is what he said: "Of course, it's lasted a long time. But what was really remarkable is that we never printed money so much and spent it so fast and bought back so much debt, public and private. So this is total terra incognita in economics."

By the way, Warren Buffett recently argued that stocks are "ridiculously cheap" if interest rates stay at these levels. Anyhow, when the bear roars, the stocks may go down rapidly, no matter how intelligently chosen.

But I leave it up to you. Will I be able to beat the index over time? Well. I will just give you my most honest answer. I just don't know.

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
24 May 2019

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Yes. I copied some paragraphs from Berkshire Hathaway, Oaktree Capital Management and FundSmith. Imitation is indeed the sincerest form of flattery.

Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Intelligent Cloning

The Autumn 2020 edition

"There and Back Again" was a book written by Bilbo Baggins recounting his adventures with Thorin and Company and the quest to reclaim the Dwarf-realm of Erebor. You might argue that the title of this book reflects the financial markets COVID-19 disaster: *"Down 32% and back again."*



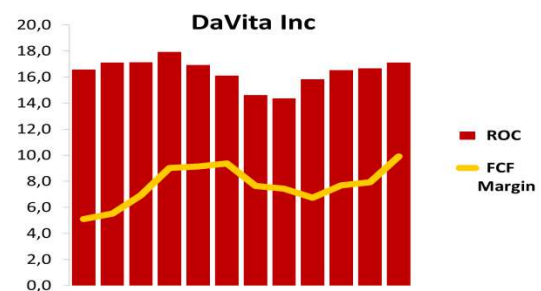
I don't recall if Bilbo ever needed any kidney care services, but that is what Davita does, and this stock pick of Berkshire Hathaway's Ted Weschler is probably the most controversial stock in the Intelligent Cloning portfolio. The company is a Fortune 500® health care provider focused on transforming care delivery to patients around the globe. The company is a constituent of the Intelligent Cloning portfolio since 1H '17, and is up 30%. Currently the company trades at a market cap of 10.3B USD and an owners earnings multiple of 8.2. The 2019 net debt relative to owner earnings ratio is 5.5.

DaVita has become a target of prominent short-seller Jim Chanos, the founder of Kynikos Associates, who first spoke publicly about his wager against the company on September 19, 2019, at the Delivering Alpha conference in New York. Was I wrong in copying DaVita from the Berkshire Hathaway portfolio? The Morningstar return on invested capital (ROIC) over the last 5 years doesn't look that impressive either: 3.7%, 8.4%, 7.2%, 3.8% and 8.5%. So let's forget about this shitty company and move forward.

Well... not so fast. During the past 13 years, DaVita's highest return on equity (ROE) was 27.8%. The lowest was 3.8% And the median value was 16.8%. DaVita's ROE is ranked higher than 96% of the 474 companies in the Healthcare Providers & Services industry, according to Gurufocus.com.

Moody's assigned DaVita a "Ba2" credit rating and S&P a "BB" credit rating, both indicating medium credit risk. The Value Firm® Risk Rating is "2", indicating a very low risk of financial distress within two years from now.

And let's have a look at this 12 year chart:



Businesses with a ROC plus the free cash flow margin consistently above the 20% suit me well. DaVita is by no means a shitty company.

DaVita is one of the largest providers of kidney care services in the U.S. and has been a leader in clinical quality and innovation for over 20 years. DaVita is committed to bold, patient-centric care models, implementing the latest technologies and moving toward integrated care offerings. Over the years, they have established a value-based culture with a philosophy of caring that is focused on both their patients and teammates. This culture and philosophy fuels their continuous drive towards achieving their mission to be the provider, partner and employer of choice and fulfilling their vision to "build the greatest healthcare community the world has ever seen."

Revenues

To get a better understanding of the Jim Chanos short, we'll have to dig a little bit deeper into the revenue streams. Kidney failure, also called end-stage renal disease (ESRD), is the last stage of chronic kidney disease. When your kidneys fail, it means they have stopped working well enough for you to survive without dialysis or a kidney transplant. Since 1972, the United States federal government has provided healthcare coverage for ESRD patients under the Medicare ESRD program regardless of age or financial circumstances. ESRD is the first and only disease state eligible for Medicare coverage both for dialysis and dialysis-related services and for all benefits available under the Medicare program. For patients with Medicare coverage, all ESRD payments for dialysis treatments are made under a single bundled payment rate.

Although Medicare reimbursement limits the allowable charge per treatment, it provides industry participants with a relatively predictable and recurring revenue

stream for dialysis services provided to patients without commercial insurance. For the year ended December 31, 2019, approximately 90% of DaVita's total dialysis patients were covered under some form of government-based program, with approximately 74% of their dialysis patients covered under Medicare and Medicare-assigned plans.

The short

Now let's try to understand the short thesis. Jim Chanos believes that DaVita is a massive insurance scam. DaVita uses its relationship with the American Kidney Fund — a charitable group that helps people with kidney disease pay for lifesaving care — to profit by moving Medicare patients into more expensive commercial insurance, he argues. The patients are willing to move to commercial insurance because they're told of better services, shorter wait times, and nicer facilities and the charitable American Kidney Fund will pay some to all of the premium tied to the private insurers.

For DaVita and its competitor Fresenius, it's a more profitable way to do business: they charge commercial insurers triple or quadruple what they get from the government's Medicare and Medicaid programs. The two largest donors, at slightly less than 90 percent of the donations to the American Kidney Fund, are DaVita and Fresenius. The concern is that their donations may be keeping people on more expensive forms of insurance so a provider of dialysis can make multiples of what it would otherwise be paid by Medicare for the same level of care.

In May 2019, Blue Cross and Blue Shield of Florida and Health Options — collectively known as Florida Blue — filed a complaint against DaVita for allegedly engaging in a “deceptive and illegal scheme” by making donations to the American Kidney Fund that are then used to buy commercial health insurance coverage for its dialysis patients.

Obviously, DaVita disagrees with Jim Chanos: “Contrary to his claims, charitable assistance is a longstanding financial safety net for a small percentage of kidney care patients who use it to afford their insurance plan, with the majority of patients using it to support their Medicare primary or secondary premiums. This assistance helps ensure they have continuity of care for life-sustaining treatment and access to transplantation.”

DaVita actually acknowledges that it loses money on patients that use government insurance and makes all its profits from patients using commercial insurance, who

are charged substantially higher rates for their dialysis services. Former DaVita CEO Kent Thiry said at the 2017 J.P. Morgan Healthcare conference:

The private payors dramatically subsidize the government. Most of our patients are Medicare. In fact, about 85%, 90% of our patients are from the government sector. On average we lose money on each one, which leads to a grotesquely large cross-subsidy from the private sector to the government.

Thus, the company's profitability largely relies on its mix of commercial versus government payors across its dialysis clinics. DaVita operates in a highly regulated industry. In the healthcare industry, lawsuits are, in a way, “business as usual”. Lawsuits and legal proceedings arise due to the nature of its business. The majority of the company's revenues are indeed from government programs and it's pretty obvious that every now and then they may be subject to adjustment by the government. It's just the way it works and if government changes the rules, DaVita will operate by the new rule. DaVita has been tested in the past and they have a track record of successfully battling reimbursement pressures over the past two decades.

But Jim Chanos believes that disruptive proposals could arise from the U.S. presidential election in 2020. “If we get Medicare for All, or a Medicare option, or the Affordable Care Act is shut down due to the federal court ruling, this business model blows up completely.” In addition to that, Chanos brought up the facts that DaVita is highly leveraged and repurchasing substantial amounts of stock.

Since 2010 the amount of issued stock decreased with almost 50%. As an investor, I applaud companies that repurchase their stock if done at prices that make sense. And with a 2019 net debt relative to owner earnings ratio 5.5, I would argue that debt is manageable. As far as the political threats are concerned, if all or a substantial part of the company's U.S. commercial patients were to convert to Medicare-level reimbursement rates, its profits would likely drop substantially. To lose all of this business, a Medicare for All requirement that eliminates the private insurance industry would need to be enacted. That's very unlikely to happen. DaVita provides lifesaving healthcare services to chronically ill patients in a low-cost, outpatient setting. I see little likelihood of DaVita faltering due to regulatory disruption in the long term.

Recently though, a new California bill was agreed upon to cap the profits of dialysis providers for more than

3,700 low-income patients in the state, starting in 2022. This bill is known as the Assembly Bill 290. The company may have trouble defending its core revenue should more states follow California's example and cap its profits. But both Davita and Fresenius are strong enough to work its way through it, should the bill succeed. The smaller competition will definitely have more problems surviving in such a new environment, and thus in the long run this Bill 290 actually strengthens the already dominating duopoly of Davita and Fresenius even further.

As a result of the new Assembly Bill 290, the American Kidney Fund said it will be forced to stop providing financial assistance to about 3,700 low-income patients in California when the law goes into effect. Certain provisions of the law will take effect in 2020 while the reimbursement changes go into effect in 2022.

But that scenario just might not happen. Recently, a federal court in California has granted a preliminary injunction to prevent Assembly Bill 290. "Considering both the likelihood that Assembly Bill 290 will abridge plaintiffs' constitutional rights and the extreme medical risks it poses to thousands of [end-stage renal disease] patients, the court finds it obvious that the public interest favors a preliminary injunction, and that the balance of the hardships tilts strongly in plaintiffs' favor," the court said in its ruling.

For now, Davita and Fresenius have the odds on their side. DaVita doesn't seem shaken by Jim Chanos. Recently, Berkshire sold 2 million shares and now holds 36 million shares of DaVita. With this 29.6% stake, Buffett is still the company's largest guru shareholder. Think about it. Buffett recently sold all of his airplane holdings and (part of his) financial holdings (J.P. Morgan, Wells Fargo, Goldman Sachs, PNC Financial), but he isn't giving up on Davita. That's what I call a high conviction holding! Since its low in May 2019 of 43.4 USD, the stock is way up to 84.5 USD as of today. If DaVita was indeed an insurance scam, as Jim Chanos claims it to be, I am quite sure that Warren Buffett, who values business ethics and candor highly, would have sold his entire position to prevent reputational damage for the Berkshire conglomerate.

DaVita is actually fully aligned with the U.S. Government and Health and Human Services Secretary Azar's vision. What Azar's talking about is a focus on outcomes and preventative care and Davita is totally aligned and optimistic and eager to see the details of his plan. Azar's talked about payment reform and regulatory reform,

and Davita's been working and giving their feedback and is actually excited to see what the details bring.

"DaVita is encouraged that this administration has taken steps toward holistic, value-based care for kidney patients. We have pushed for progressive policies to give all patients access to integrated kidney care, the benefits of which are significant to our patient population," DaVita CEO Javier Rodriguez said. The constructive relationship Davita has with the U.S. government is, I believe, an important driver for favorable future results.

Industry outlook

The dialysis market size exceeded \$80 billion in 2018 and is expected to register more than 4% CAGR from 2019 to 2025. The market will exceed 105B USD after 2025. Dialysis market growth is driven by significant rise in the prevalence of chronic kidney diseases, which in turn has increased patient visits in renal therapy clinics over the last decade. Improved reimbursement policies for renal therapy by private as well as public institutions is boosting the expansion of the market at a remarkable rate.

The market is projected to witness a boost in growth owing to the recent COVID-19 outbreak. The increasing number of patients affected by COVID-19 has led to a rise in the demand for renal equipment, as critically ill patients are experiencing multiple organ failure, including kidney failure. As per National Institutes of Health (NIH), around 5% of the COVID-19 patients are currently experiencing acute kidney injury and would require renal replacement therapy. This scenario has led to an increase in the adoption of renal therapy equipment in hospital settings and is projected to propel the market in coming years.

Growing prevalence of diabetes in developing countries such as India and China due to changing lifestyle and dietary habits will drive the dialysis industry growth. Diabetes interferes with normal kidney functioning and often results in kidney failure. According to the World Health Organization, a large population base in India suffers from diabetic and pre-diabetic condition. Moreover, with an increase in income levels, there is an increase in the standard of living as well as rise in calorie rich food intake, that further escalates risk of diabetes among the population. High blood glucose levels in diabetic patients thus increase the risk of kidney related diseases such as diabetic nephropathy that requires dialysis treatment. Growing prevalence of diabetes associated kidney diseases should prove beneficial for the overall business expansion.

The market size in North America stood at USD 36.5 billion in 2019. North America is projected to dominate the market share during the forecast period. High prevalence of chronic kidney disease and ESRD in the

U.S. and Canada, coupled with higher treatment rates in these countries, are the key factors estimated to boost the expansion of the market during the forecast period. The U.S. is also projected to witness growth in the demand for the services and product, attributable to the increasing incidence of coronavirus infections and subsequent renal failures. Europe is expected to emerge as the second-largest region in this market in terms of size, witnessing moderate growth in long-term period. High growth is majorly due to increasing rate of geriatric population suffering from renal disorders in the region.

Asia-Pacific is expected to witness relatively significant growth in terms of value in this market. Funding by public players to improve the accessibility of renal care is likely to augment the expansion of the market during the forecast period. In December 2016, the National Health and Family Planning Commission of China set up the regulations for the basic standard and the management of hemodialysis centers, with an aim to standardize the development of independent such centers in the country. Such established regulatory scenario for renal treatment facilities is projected to boost the expansion of the market in Asia-Pacific.

Competition

The U.S. dialysis industry has experienced some consolidation over the last few years, but remains highly competitive. Patient retention and the continued referrals of patients from referral sources such as hospitals and nephrologists, as well as acquiring or developing new outpatient dialysis centers are some of the important parts of DaVita's growth strategy. In the U.S. dialysis business, DaVita continue to face intense competition from large and medium-sized providers, among others, which compete directly with them for limited acquisition targets, for individual patients who may choose to dialyze with DaVita and for physicians qualified to provide required medical director services. Competition for growth in existing and expanding geographies or areas is intense and is not limited to large competitors with substantial financial resources or established participants in the dialysis space.

Operator	U.S. Market Share
Davita	37%
Fresenius	35%
U.S. Renal Care	3%
Dialysis Clinic	3%
American Renel Associates	3%
Independently owned	11%
All other	7%

DaVita also competes with individual nephrologists, former medical directors or physicians that have opened their own dialysis units or facilities. Moreover, as DaVita continues their international dialysis expansion into various international markets, they face competition from large and medium-sized providers, among others, for acquisition targets as well as physician relationships. Together with their largest competitor, Fresenius Medical Group, they account for approximately 73% of outpatient dialysis centers in the U.S. Many of the centers not owned by DaVita, Fresenius or other large for profit dialysis providers are owned or controlled by hospitals or non-profit organizations.

Fresenius manufactures a full line of dialysis supplies and equipment in addition to owning and operating outpatient dialysis centers worldwide. This may give Fresenius cost advantages over DaVita because of its ability to manufacture its own products or prevent DaVita from accessing existing or new technology on a cost-effective basis. Additionally, Fresenius has been one of DaVita's largest suppliers of dialysis products and equipment over the last several years.

Competitive advantages

Probably the most important part of the investment analysis, and the most difficult one, is identifying durable competitive advantages, also known as "moats". You want to make sure that the company is able to outsmart competition for many years to come.

- The DaVita brand is a compelling one. In 2019 the company has been recognized as one of FORTUNE® Magazine's World's Most Admired Companies of 2019. This is the 12th consecutive year and 13th year overall the company has appeared on this prestigious list. Building such a trustworthy brand in the healthcare industry is very hard and difficult to replicate.

- DaVita has built the largest network of dialysis clinics in the U.S. over several decades, based in part on its compelling brand and reputation for high-quality services, extensive physician relationships, and convenient locations, which all influence the lifeblood of its business--referrals from nephrologists. That's an extremely valuable and hard to replace asset.
- In the Health Care Medical Facilities category, DaVita ranked as the second most innovative company and with their recently unveiled DaVita Venture Group (DVG) well on its way to improve even further. I will come back on this recent initiative in the next chapter.
- High-quality metrics suggesting that other U.S. clinics are having a tough time replicating the service quality that DaVita and Fresenius regularly demonstrate, including hospitalizations, mortality rates, bloodstream infections, and waste removal.
- Scale related factors leading to structural cost advantages and great negotiating power with key players. Both DaVita and Fresenius enjoy stronger negotiating positions than the average U.S. healthcare service provider versus commercial health insurers.
- The average DaVita and Fresenius clinic in the U.S. operates with higher potential capacity, higher utilization, and fewer full-time employees than their smaller peers.

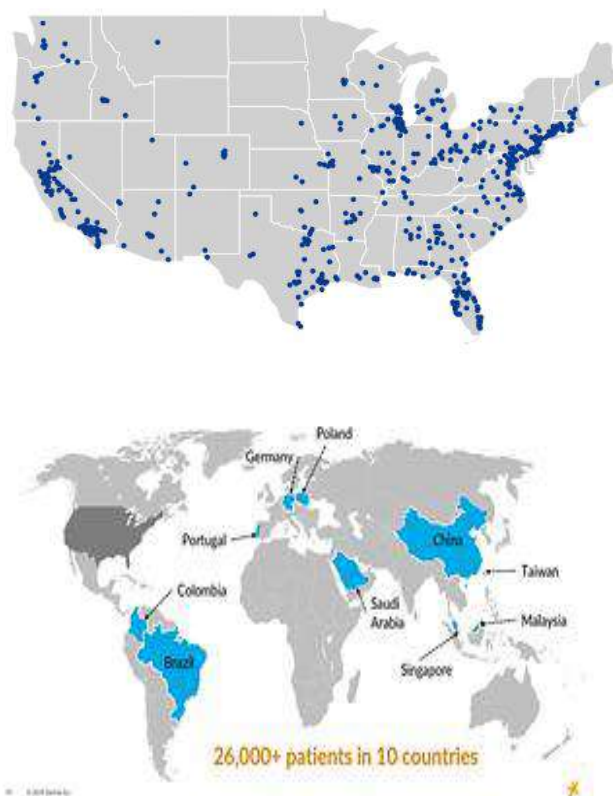
Growth

What I try to do as an investment manager is to identify strong companies, preferable operator owned or family controlled, with exceptional long term growth prospects, and a leadership team, that's able to execute on its strategy and in doing so consistently outsmarts competition. To me, DaVita, although not operator owned or family controlled, is such a company.

DaVita is the largest provider of home dialysis in the country. As of December 31, 2019, DaVita served 206,900 patients at 2,753 outpatient dialysis centers in the United States. The company also operated 259 outpatient dialysis centers in ten countries worldwide. DaVita has reduced hospitalizations, improved mortality, and worked collaboratively to propel the kidney care industry to adopt an equitable and high-quality standard of care for all patients, everywhere.

From 2010 to 2019 the revenue per share grew at 10% per year. But studying past performance is not as important as understanding how a company can create value in the years ahead. DaVita's business model can best be described as a franchise model in the healthcare industry. There is still plenty of room to grow, both

nationally as internationally, as in terms of further healthcare services diversification. DaVita continues striving to align itself with the evolving path of the nation's healthcare system.



As part of its continued efforts to further transform patient care, DaVita recently unveiled DaVita Venture Group (DVG). This incubator group plans to accelerate DaVita's efforts to develop and deploy solutions that are designed to improve the health care and quality of life for people with kidney disease and related chronic conditions.

"Innovation should never stop when there is an opportunity to improve patient care," said Javier Rodriguez, CEO of DaVita. "We want to transform kidney health – from chronic kidney disease to transplant – and we're putting financial and strategic resources into these solutions. We believe we can be the partner of choice for entrepreneurs who want to bring best in class technology and innovations to market."

Bringing patient-centered chronic care to scale requires reimagining health care as it exists today. A typical patient with end-stage kidney disease is high-risk and high-need. They often have four or more comorbidities and spend approximately 11 days in the hospital each year. With a focus on broadening innovation across the

continuum, DVG aims to expand access to care and improve clinical outcomes while also increasing the adoption of value-based care to reduce costs.

I do expect Davita to be a global and leading next-generation healthcare company with a strong focus on innovation and new services, such as:

- Home Remote Monitoring captures and wirelessly transmits patients' biometrics to the care team for proactive intervention.
- Care Connect App enhances patient engagement through features such as secure messaging, care reminders and access to educational resources.
- Telehealth visits enabled through multi-way video conferencing capability.
- Health Management Navigator provides advanced training to DaVita nurses so they can more effectively manage patients with comorbidities.
- Predictive Modeling helps identify Home dialysis patients most at risk for adverse events so that early intervention can take place.

So here we are

Ted Weschler owned DaVita since at least 2001. Before going to Berkshire, Ted Weschler ran a hedge fund called Peninsula Capital. DaVita was one of Peninsula Capitals largest positions from 2001 through 2011. In June 2001, Peninsula had \$71 million of its \$239 million portfolio (30%) invested in DaVita. And at almost all times between 2001 and 2011, Peninsula had between 20% and 40% of its portfolio in DaVita.

What I learned over many years of investing is that it makes a lot of sense to try to catch these exceptional companies early in their competitive lifecycle, when they are still small. In 2001 you could have bought Davita stock for 6 USD. Nowadays it's trading at 84.5 USD. That's a 14 bagger. I like 14 baggers! As long as Berkshire holds on to the company, I will. Unless... unless I find an even better opportunity.

Peter

Peter Coenen
Founder & CEO
The Value Firm®
29 September 2020

Post scriptum.

- Liberty Global was removed from the Intelligent Cloning portfolio (+5%) and replaced by XPEL @15 USD.
- Kudos for this write-up go to Christine Idzelis, who published "Berkshire Hathaway Bet Big on Dialysis Giant DaVita. Jim Chanos Thinks It's a Scam", to Julie Utterback who published "DaVita Remains an Essential Business in Any Environment", to Jack Strole, who published several write-ups on Davita and to Global Market Insights for the Industry Outlook data.

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During the due diligence I gather a lot of free available information on the web and then try to "connect the dots". I try to refer to the original authors and documents where necessary, but that's not always doable. If I forgot to mention you, just let me know and I will add you anyhow. Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Thanks for reading!

Intelligent Cloning

The Spring 2020 edition

The old classical moats are disappearing rapidly.



In this edition on Intelligent Cloning, we'll have a look at John Deere, a constituent of the Intelligent Cloning Portfolio for three years now, and up 72%, dividends included. Are the "green and yellow tractor moats" old eroding moats, or is John Deere nowadays a compelling "pandemic" investment opportunity?

Nothing runs like a Deere

You probably know the John Deere story. In the early 19th century, a blacksmith named John Deere moved from Vermont to Illinois, where he noticed that the farmers were having trouble. The sticky prairie soil accumulated on their traditional iron plows, forcing them to stop frequently to clean the blades.

Deere had an idea, and in 1837 he introduced his "self-scouring" steel plow. The blade cut through the tough, root-filled earth, and its curved shape allowed the soil to turn over. Deere's invention became known as "the plow that broke the plains" and helped transform the Midwest into fertile farmland. His eponymous company became the largest plow manufacturer in the world.

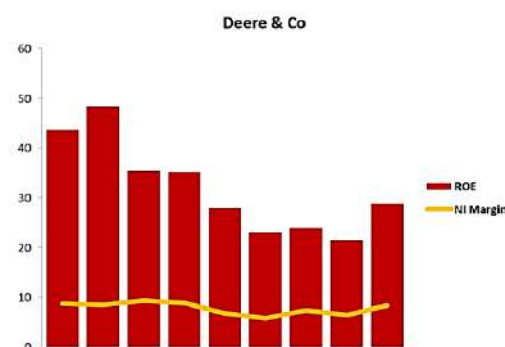
Since 1837, John Deere has capitalized on the opportunities presented by increasing population, prosperity, and urbanization. Today, broad trends based on population and income growth, especially in developing nations, are driving agricultural output and infrastructure investment. Further, technological advances and agricultural mechanization are expanding existing markets and opening new ones.

Recently, Charlie Munger made some comments on the durability of moats. "The pace of change has accelerated in recent years. Technology and new business models are making it harder for many incumbent companies to maintain their competitive advantage and continue to

generate abnormal profits relative to the capital employed. It's probably a natural part of the modern economic system that the old moats stop working.

Therefore, it's even more important than usual to not practice "blind" value investing. In blind value investing, an investor just looks backwards at the financial history, assumes that something similar will occur in the future, and considers a company a bargain if it's cheap relative to historical profits. That is still a good place to start, but a lot more judgement needs to be exercised to guard against adverse fundamental changes to the business."

So what about the John Deere moats? Are they still there, and if so, how durable are they?



This chart shows the John Deere return on equity (ROE) and the net income (NI) margin.

Return on equity is an important measure of company performance. In his 1987 letter to shareholders, Warren Buffett refers to the Fortune 1988 Investor's Guide, where Fortune reported that only 25 of the 1,000 companies met two tests of economic excellence:

- An average return on equity of over 20% in the last ten years.
- No year worse than 15%.

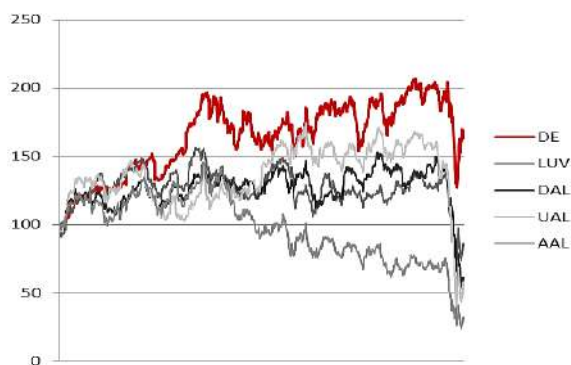
John Deere matches both criteria for economic excellence.

John Deere doesn't use ROE as the one and only performance metric though. They use Shareholder Value Added (SVA). This is the metric former Deere CEO Bob Lane introduced 2 decades ago. And they still are using this rigorous financial discipline as of today. It is a sign, I believe, of good corporate governance, and not many

investors truly appreciate (or realize) the compounding effect good corporate governance can have on stock returns.

John Deere was copied, or “cloned” if you will, from the Berkshire Hathaway portfolio. Interestingly enough, as of recently Berkshire Hathaway bought stock in Kroger, the United States' largest supermarket by revenue. Kroger is another example of a company that (almost) matches these ROE Buffett criteria for economic excellence.

Perhaps you remember, it's in my initial write-up on Intelligent Cloning, that I decided NOT to follow Buffett in selling the John Deere stock, and buying airline stocks (Southwest Airlines LUV, Delta Airlines DAL, United Airlines Holdings UAL and American Airlines Group AAL). This is what would have happened if you invested 100 USD in these stocks. All airlines stocks went into negative territory, while the John Deere stock is up 63% since October 2016. Before the corona-crash, it was up more than 100%.



You can't deny that I was the lucky one over here, at least up until now. And “luck” is one of the ingredients of investment success. If you have an appetite for contrarianism, and a strong stomach, why not pick up some airline stocks right now? Anyhow, Let's have another look at this chart 10 years from now.

Shareholder Value

Robert W. Lane joined John Deere in 1982, following an early career in global banking. He managed various operations within the Worldwide Construction Equipment Division and later served as president and chief operating officer of Deere Credit, Inc. In 1992, he joined the Worldwide Agricultural Equipment Division where, as senior vice president, he directed equipment operations in Latin America, Australia, East Asia and South Africa.

Lane was elected chief financial officer in 1996, and two years later moved to Germany where, as managing director, he led Deere's agricultural equipment operations in Europe, Africa, the Middle East, India and the nations of the former Soviet Union. He returned to the United States as president of the Worldwide Agricultural Equipment Division in 1999; subsequently he was elected Deere & Company's President and Chief Operating Officer.

Lane established the SVA model, which helped the company attain world-class status in asset efficiency and return on investment. His focus on global expansion led to significant investments throughout the world, most notably in Brazil, India and China. Deere's traditional factories were reworked and modernized, and at the same time, Deere's dealer organizations worldwide were significantly upgraded to better support the advanced needs of customers.

Lane announced that SVA, based on a simplified version of the economic value added formula used previously in the Construction and Forestry division, was a metric that operating staff worldwide could understand, and it would be implemented company-wide, with all employees working toward the common goal of producing increased shareholder value.

Simply, operating return on operating assets (OROA) was the measure while shareholder value added (SVA) was the outcome—additional cash created from a more efficient operation using less assets. Shareholder Value Added (SVA), essentially, is the difference between operating profit and the pretax cost of capital.

Lane set lofty objectives, believing that to become a truly great business, John Deere needed to aim high. The line was originally established at 12 percent to be acceptable on what the company referred to as operating return on operating assets (OROA). 12% represents actually a SVA neutral level. But to be a great business, Lane eventually concluded that John Deere actually needed to strive for a 20 percent annual OROA, at mid-cycle sales volumes and equally ambitious returns at other points in the cycle. For purposes of this calculation, operating assets are average identifiable assets during the year with inventories valued at standard cost.

I remember, when I first read a John Deere annual report in 2016, that I contacted their Investor Relations department to ask for their definition of average identifiable operating assets. Well, it includes inventory, receivables, plant property and equipment (PP&E) and

goodwill. Excluded are cash, deferred taxes, pension and investment in financial services subsidiaries.

Here is a summary of the OROA & SVA results. You can find the exact calculations in their annual report.

Equipment Operations			
\$MM	2017	2018	2019
OROA % standard costs	21.3%	24.1%	21.3%
SVA	1,248	1,790	1,478

Construction & Forestry			
\$MM	2017	2018	2019
OROA % standard costs	10.2%	20.9%	21.9%
SVA	-61	321	395

AG & TURF			
\$MM	2017	2018	2019
OROA % standard costs	25.1%	25.1%	21.1%
SVA	1,309	1,469	1,083

Financial Services			
\$MM	2017	2018	2019
Return on Equity %	10.6%	11.1%	10.7%
SVA	35	70	37

Looking at the SVA results over the last 2 decades, I think it's fair to say that John Deere succeeded in attaining world-class status in asset efficiency and return on investment. Here are the latest ratings:

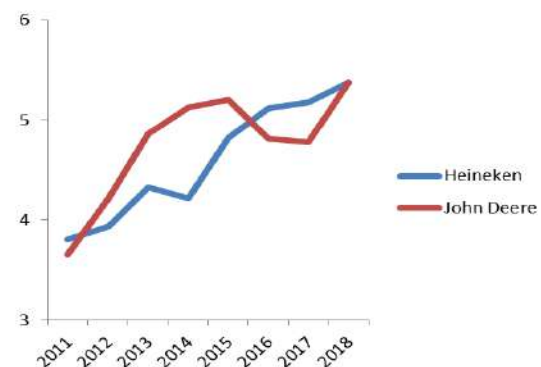
Ratings	
Fitch Credit Rating	A
Moody's Credit Rating	A2
Standard & Poor's Credit Rating	A
The Value Firm® Risk Rating	2

All ratings indicate "Low risk".

Still the brand to beat

Like great people, great brands are dimensional. They have a soul, personality and behaviors that differentiate them from others. They leave an impression and invite you to engage with them. Great brands are interesting and make it clear why people need them. – Quote from Shawn Parr.

Building an iconic brand like John Deere takes decades. It will be very hard to replicate. Brands generally drive a price premium and willingness to pay because consumers are willing to pay for consistency, trust and piece of mind. In terms of brand value growth in \$B, the John Deere brand is comparable, I believe, to the Heineken brand.



Source: Interbrand.

The three top performing factors for the John Deere brand are clarity, engagement and authenticity. Besides that, the brand is compelling, relevant, entertaining and it's courageous and different.

Brand clarity drives confidence and performance. It's one of the most important assets you have as a company to drive and differentiate your business. Like confident people, brands that operate with clarity generally deliver more consistent results.

According to a Farm Equipment Survey a few years ago, John Deere farmers have maintained their level of brand loyalty. 77% of the Deere farmers would call themselves "brand loyal" and 84% desire to buy new equipment of the same brand, as what they consider to be their primary brand, the John Deere brand.

A few years ago, BrandingBusiness talked to Bill Becker, by then the Director of the Brand Center of Excellence at John Deere, about the multi-country communications initiative using the purpose-driven corporate theme of "Committed to Those Linked to the Land" and a philanthropic theme of "Solutions for World Hunger".

"When people come to us and share terrific stories of how John Deere helped them be successful over generations it is really fulfilling. Some are so loyal they even sport tattoos of the John Deere logo on their backs or say they have decorated their House in green and yellow. The reason people love us? We've helped them succeed.

The world is going to produce more food in the next 40 years than we have produced in the last 10,000 years. With the standard of living getting better and with growth in emerging markets and in the middle class, the need for more, better food is there. Also, people are moving

to cities faster than we ever imagined. So there is demand for our products in agriculture and construction. In China alone, big equipment is needed on state-run farms in Northern China while, right down the road, are smaller farms that require different mechanization.

We have a great dealership network that takes care of our customers. We select the best and support them with a suite of tools that few others just can't match. We are bringing tech innovation to the fold that's a way to differentiate John Deere above product and service."

Also Sam Allen, former CEO of John Deere, made two points that stood out as particularly poignant. First he talked about the importance of trust with its customers, ensuring that farmers can depend on Deere's products to be running at critical times. That's key to the farmer's profitability. Allen highlighted that the reputation of their 183 year-old company is predicated on trust.

Allen also made it very clear that their dealers are their most sustainable competitive advantage. For Deere, the company's ability to be responsive for end users is made possible by their long-standing relationships with the field. Allen also highlighted that many of their dealers are independent businessmen and businesswomen who have an existential need to run their dealership well. Brand clarity, being clear why the brand exists and what it's trying to accomplish, is a precondition for moving decision making on future changes closer to the edge (to customer end points). These changes can only be done in a way that doesn't betray the trust of those who ensure that customer outcomes are met at critical times.

John Deere brings a strong sense of how to do business in high-integrity way. They are very strong in terms of integrity. They operate every day around the world with compliance training. Some markets may still have a culture of bribing. Deere doesn't do that. Does that mean they lose business? Maybe. But that's the way they do business.

Through their "Solutions for World Hunger," John Deere supports projects in farmer training, value-chain enhancement, and water access and use as just a few examples. John Deere is tying their brand to citizenship.

"We are in the business of feeding the world and providing for infrastructure needs and helping our customers feed the world. We are turning that into a higher-purpose message and using it to support the business.

There are key messages we use and we turn the volume up or down based on who we are talking to. Our message of "feeding the world" is a very powerful motivator for our distributors, employees, and for governments. Customers appreciate that message but most of all want us to help them be successful. So with them we make sure we do that but we let them know that they can feel confident that they are doing their part to feed 2 billion people."

John Deere was an early content marketer with The Furrow magazine. The Furrow is a tour de force combining strong horizontal global brand messages mixed nicely with dedicated content geared to segment and market, depending on the edition of the magazine. It is available in scores of countries and languages around the world.

It has a strong history of being a good friend to the farmer in terms of information that is important for that farmer/business man or woman to make smart decisions on how they spend the resources. Interestingly, the emerging markets love it. They love the high level of knowledge that goes into it and the personalized flexibility of how the message is delivered to the customer.

The Furrow's content is strong enough to make it a respected reading choice beyond customers to governments, NGOs and associations. It has done much to help the success of the individual farmer and for the John Deere brand as a "thought leader" in the industry.

John Deere's The Furrow has become something of a legend in two exceptionally disparate communities: agriculture and brand publishing. For farmers, it's the agrarian version of Rolling Stone. For brand publishers, it's a thing of wonder: a brand magazine born generations before the term "content marketing" was coined, which sees its back issues fought over—fiercely—on eBay.

The Furrow's first issue was printed in 1895, and its popularity quickly snowballed. According to longtime Furrow art director Tom Sizemore, most consumers seem to still be reading the print edition, even as the digital age has changed many other farming routines. <https://www.johndeerefurrow.com/>

Competition

The competitive environment for the agriculture and turf segment includes some global competitors, including AGCO Corporation, CLAAS KGaA, CNH Industrial N.V., Kubota Tractor Corporation, Mahindra, and The Toro Company and many regional and local competitors.

These competitors have varying numbers of product lines competing with the segment's products and each has varying degrees of regional focus. Additional competition within the agricultural equipment industry has come from a variety of short-line and specialty manufacturers, as well as indigenous regional competitors, with differing manufacturing and marketing methods.

Because of industry conditions, including the merger of certain large integrated competitors and the emergence and expanding global capability of many competitors, particularly in emerging and high potential markets such as Brazil, China, and India where John Deere seeks to increase market share, the agricultural equipment business continues to undergo significant change and is becoming even more competitive. The segment's turf equipment is sold primarily in the highly competitive North American and Western European markets.

Global competitors of the construction and forestry segment include Caterpillar Inc., CNH Industrial N.V., Doosan Infracore Co., Ltd. and its subsidiary Doosan Bobcat Inc., Fayat Group, Komatsu Ltd., Kubota Tractor Corporation, Ponsse Plc, Terex, Tigercat Industries Inc., Volvo Construction Equipment (part of Volvo Group AB) and XCMG. The construction business operates in highly competitive markets in North and South America and other global markets, including China and Russia. The forestry and road building businesses operate globally. The segment manufactures over 90 percent of the types of construction equipment used in the U.S. and Canada, including construction, forestry, earthmoving, road building, and material handling equipment.

In terms of the Warren Buffett criteria for economic excellence, only The Toro Company fits the bill. If you take into account only the last 5 years, Ponsse Plc is the second competitor John Deere is advised to keep an eye on.

And finally, Deere would be well advised to keep an eye on CNH Industrial. Although their current 5 year ROE profile isn't that impressive at all, its new ambitious five year 2020-2024 business plan "Transform 2 Win" is.

John Elkann led EXOR owns 27% of economic rights and 42% of the voting rights of CNH Industrial. Whenever the name Elkann or Agnelli appears, competition better make sure they have their act together. First of all, CNH Industrial plans for significant growth and project a ROIC of 20%. And secondly, their plan for a separation of "On-Highway" (commercial vehicles and powertrain segments) and "Off-Highway" assets (agriculture, construction and specialty segments) will result in the creation of two listed entities, each a world leader in its business. Better keep an eye on the latter one!

On the other hand, none of these companies matches the Artificial Intelligence (AI) capabilities that John Deere brings to the table, and that just might be the core competence that separates the winners from the rest.

Here are the return on equity (ROE) numbers of the John Deere competitors:

Return on Equity (ROE)	2014	2015	2016	2017	2018
Agco	11,0	8,5	5,7	6,4	9,6
CNH Industrial	14,5	5,2	-5,5	6,7	22,6
Kubota Corp	15,6	13,8	11,3	10,9	10,5
Mahindra	12,8	11,8	12,7	22,6	13,9
Toro Co	46,3	45,6	45,9	42,3	35,9
Doosan Infracore	-2,0	-25,6	-4,9	-8,7	-17,3
Doosan Bobcat	n.a.	5,0	5,5	8,1	7,4
Komatsu	10,6	9,0	7,3	12,1	14,7
Ponsse	38,8	40,5	34,2	27,4	23,2
Terex	7,5	-10,5	9,5	10,9	6,1
Volvo	2,7	18,6	14,6	20,7	21,6
XCMG	2,1	0,3	1,0	4,6	7,6
Caterpillar	19,7	13,3	-0,5	5,6	44,3

Data from Morningstar.Com

You might question if return on equity (ROE) is the best corporate performance measure to use. In his latest letter to shareholders, Warren Buffett stated:

What we see in our holdings is an assembly of companies that we partly own and that, on a weighted basis, are earning more than 20% on the net tangible equity capital required to run their businesses. These companies, also, earn their profits without employing excessive levels of debt.

And Buffett also refers to return on capital employed (ROCE) as well:

What we really want to do is buy a business that's a great business, which means that business is going to earn a high return on capital employed for a very long period of time, and where we think the management will treat us right.

These return ratios are often used together to produce a complete evaluation of financial performance. John Deere includes goodwill in their calculations as Michael Mauboussin does, according to his paper entitled “Calculating Return on Invested Capital” (4 June 2014). Warren Buffett though seems to indicate with his remark on “20% on the net tangible equity capital” that you should exclude it. A matter of preferences I suppose.

Using all these ratios on the companies mentioned earlier did not change the end result, with one exception. Mahindra showed up as a company with exceptional financial performance as well.

Deere delivers

When a company earns a profit, it has to decide what to do with it. As a rule, a portion of the profit must be used to replenish capital equipment of the core business that produced that profit. Warren Buffett considers these earnings to be restricted earnings.

Buffett also believes that management should use the unrestricted earnings to give the shareholders the best value, and only retain them if it can earn a higher rate of return on these earnings than the shareholder could earn on the outside.

Year	Dividend per share	Retained Earnings per share
2005	0,6	13,3
2006	0,7	16,7
2007	0,9	19,9
2008	1,0	24,3
2009	1,1	25,9
2010	1,1	28,8
2011	1,4	34,4
2012	1,7	42,0
2013	1,9	50,5
2014	2,1	60,1
2015	2,6	73,1
2016	2,4	76,0
2017	2,4	78,6
2018	2,5	86,5
2019	3,0	95,3

The growth rate (CAGR) of the dividend per share plus the retained earnings per share over a 14 year time horizon is approximately 15%.

“Reinvestment should always come first if a manager can find attractive reinvestment opportunities. The next option is value-creating acquisitions. Not vanity acquisitions, which often result in value destruction. The value to all owners of the retained earnings of a business enterprise is determined by the effectiveness with which those earnings are used.” – Quote Warren Buffett.

On September 26, 2018, the John Deere acquired **PLA**, a privately-held manufacturer of sprayers, planters, and specialty products for agriculture. PLA is based in Argentina, with manufacturing facilities in Las Rosas, Argentina and Canoas, Brazil. The total cash purchase price before the final adjustment, net of cash acquired of \$1 million, was \$69 million with \$4 million retained by the company as escrow to secure indemnity obligations. In addition to the cash purchase price, the company assumed \$30 million of liabilities.

In March 2018, the company acquired **King Agro**, a privately held manufacturer of carbon fiber technology products with headquarters in Valencia, Spain and a production facility in Campana, Argentina. The total cash purchase price, net of cash acquired of \$3 million, was \$40 million, excluding a loan to King Agro of \$4 million that was forgiven on the acquisition date. In addition to the cash purchase price, the company assumed \$11 million of liabilities.

In December 2017, the company acquired **Wirtgen**, which was a privately-held international company and is the leading manufacturer worldwide of road construction equipment. Headquartered in Germany, Wirtgen has six brands across the road building sector spanning processing, mixing, paving, compaction, and rehabilitation. Wirtgen sells products in more than 100 countries and had approximately 8,200 employees at the acquisition date. The total cash purchase price, net of cash acquired of \$191 million, was \$5,136 million, a portion of which is held in escrow to secure certain indemnity obligations of Wirtgen. In addition to the cash purchase price, the company assumed \$1,641 million in liabilities, which represented substantially all of Wirtgen’s liabilities.

In September 2017, the company acquired **Blue River Technology** (Blue River), which is based in Sunnyvale, California for an acquisition cost of approximately \$284 million, net of cash acquired of \$4 million and \$21 million funded to escrow for post-acquisition expenses. Blue River has designed and integrated computer vision and machine learning technology to optimize the use of farm inputs. Machine learning technologies could

eventually be applied to a wide range of the company's products.

Revolutionizing agriculture, one plant at a time

Former CEO and currently Chairman of the Board of Directors Sam Allen likes to boast that its technology has more lines of software code than a space shuttle. And that assessment was made before John Deere entered the world of Artificial Intelligence by acquiring Blue River.

So let's have a look how the advancement of precision agriculture technology took place. Allison Marsh wrote an interesting article about it for IEEE, and that comes in handy.

Rockwell International Corp., better known as a defense contractor, developed one of the first precision-agriculture applications. The Global Positioning System that precision agriculture relied on was primarily a military constellation, and Rockwell used its knowledge of military satellites to design its Vision System. The system recorded the volume of crops harvested and paired those numbers with location data. The resulting map revealed which plots of land were more productive than others. Farmers could follow up with field tests to determine soil composition and apply targeted levels of fertilizer and insecticide the following planting season.

Unfortunately, the equipment came with a steep learning curve, technical support was lacking, systems were buggy and expensive. Rockwell joined other companies exiting the field.

In comes John Deere. The company worked with NASA's Jet Propulsion Laboratory and NavCom Technology (now a Deere subsidiary) on a better GPS system. The result was Deere's first GPS receiver, which also worked with other regional constellations of positioning satellites. Designed to be mounted on top of a tractor's cab, it carried a GPS antenna as well as a C-band antenna that used signals from regional base stations to correct the GPS readings. The Deere receiver was more accurate because it corrected the signals coming from each GPS satellite.

Meanwhile, Deere engineers continued to work on AutoTrac, their autonomous tractor. They embedded in the second-generation StarFire the ability to link up with a Terrain Compensation Module, which allowed the

tractor's GPS system to follow the contours of the ground and trace a line exactly parallel to the tractor's previous path. AutoTrac launched as a commercial product in 2002.

The combination of more accurate GPS and autonomous vehicle control has made precision farming economical, at least for large farms. Self-guided systems now farm approximately 60 to 70 percent of the crop acreage in North America, 30 to 50 percent in Europe, and more than 90 percent in Australia (figures from 2018).

Now let's bring in the artificial intelligence element in the development of precision agriculture. John Deere has never been a stranger to the internet of things. It was connecting sensors and actuators on the farm twenty years ago. The next generation AI driven precision agriculture combines "connected" with "devices" with "machine learning" to have them make faster and more precise decisions, possibly without a farmer's input.

To make this the new reality, John Deere needed Silicon Valley skills. That's why it opened an office in the SoMA area of San Francisco to connect with local talent, hoping to find startups solving robotics, machine learning and artificial intelligence problems that may be of use in agriculture.

For example, looking for a way to deliver nutrients to plants at the right place and at the right time. Other efforts involve making better algorithms that can take advantage of the increasing number of sensors John Deere wants to add to its machinery.

The secondary goal of the office is to connect more deeply with Bay Area companies that already work with John Deere or its growers. For example, John Deere has a relationship with companies such as drone and satellite imagery company Mavericks; software providers FBN, FarmLogs and AgDNA and roughly 70 others.

John Deere acquired Blue River Technology, a startup with computer vision and machine learning technology that can identify weeds—making it possible to spray herbicides only where they're needed. The technology reduces chemical use by about 95%, while also improving yield. What Blue River Technology allows John Deere to do is move to the plant level, and start managing at that plant level.

The technology will be marketed first to cotton growers, who are struggling to deal with weeds that have

developed resistance to the chemicals in conventional herbicides. Using computer vision tech to identify and spray only weeds, farmers can switch to other herbicides—including, potentially, organic herbicides that the weeds haven't evolved to resist (and that might otherwise kill the cotton, if they were sprayed everywhere). By killing weeds precisely, crop yields can double—even as herbicide use radically drops. The company plans to target soybean growers next.

You can imagine that growers see dollars and cents when they see a 95% reduction in herbicide spend—that clearly gets them interested, but with everything they're seeing in the last year with herbicide resistance as well as drift, this is becoming a much more important sustainability play as well.

Computer vision and machine learning technology can also be used in every other step of farming: tilling soil, planting seeds in the optimal locations, spraying fertilizer or nutrients, and harvesting. Machines that harvest corn, for example, typically drop a percentage of the corn on the ground. A machine with blades that could dynamically adjust to the width of a corn stalk could increase yield (and reduce wasted resources used to grow the crop) simply by catching more of the harvest. Each of these applications of technology is a way to help prepare for global population growth; there will be another 2.4 billion people to feed in the next three decades. Without changes in agricultural technology, it's unlikely that we'll be able to grow enough food for everyone.

Pulled behind tractors, its See & Spray machine is about 40 feet wide and covers 12 rows of crops. It has 30 mounted cameras to capture photos of plants every 50 milliseconds. But these tractors can't rely on network connections back to the data center. They need inference performance in a low-power, small form factor—onboard. The NVIDIA® Jetson™ platform delivers this performance in the world's fastest, most power-efficient supercomputer for inference at the edge.

The cameras have a forced mechanical shutter, coupled with edge-computing capabilities, and neural networks trained on what to recognize. Powered by computer chip developer NVIDIA's Jetson AI/ML chips, the new Deere rig uses Jetson-powered smart cameras to identify crops and weeds in real time, and trigger precisely metered sprays that kill the weeds and nurture the lettuce.

As a tractor pulls at about 7 miles per hour, according to Blue River, the Jetson Xavier modules running Blue

River's image recognition algorithms need to decide whether images fed from the 30 cameras are a weed or crop plant quicker than the blink of an eye. That allows enough time for the See & Spray's robotic sprayer — it features 200 precision sprayers — to zap each weed individually with herbicide.

Blue River has trained its convolutional neural networks on more than a million images and its See & Spray pilot machines keep feeding new data as they get used. Capturing as many possible varieties of weeds in different stages of growth is critical to training the neural nets, which are processed on a "server closet full of GPUs". (A GPU is a graphics processing unit. GPUs have ignited a worldwide AI boom).

See & Spray can reduce the world's herbicide use by roughly 2.5 billion pounds, an 80 percent reduction, which could have huge environmental benefits. It's a tremendous reduction in the amount of chemicals. It's very aligned with what customers want.

John Deere has other machine and deep learning systems which are already in the hands of thousands of farmers across the globe. One of these is the Combine Advisor system. Again, built around computer vision, this involves using cameras mounted on combine harvesters that monitor video images of grains as they are taken up the combine's elevator and into the tank.

Deep neural networks are used to analyze the quality of the grain and make adjustments to the operating parameters of the machinery on-the-fly if grains are getting damaged. More cameras monitor the detritus from the harvesting operation — stalks, leaves, and cobs — as they are ejected from the rear of the harvester to become fertilizer for the fields. These cameras check that no grains are being ejected — with the aim being to ensure zero wastage.

The revolution taking place with deep learning has opened doors to solving problems that farmers have dreamed about solving for years ... with computer vision systems and deep neural nets, there's a very exciting future in these technologies in farms. Pretty cool stuff.

So here we are

I started this Edition on Intelligent Cloning with an observation from Charlie Munger:

The old classic moats are eroding rapidly.

At first glance, John Deere seemingly has the characteristics of a corporate dinosaur. Many of Deere's competitive advantages are rooted in its long-standing operations and the conservative culture it has embraced throughout its corporate life. As a testament to the company's consistency and steady culture, the Roman Catholic Church has had more popes than Deere has had CEOs since it was started in the 19th century.

Since 1837, John Deere has capitalized on the opportunities presented by increasing population, prosperity, and urbanization. Today, broad trends based on population and income growth, especially in developing nations, are driving agricultural output and infrastructure investment. Further, technological advances and agricultural mechanization are expanding existing markets and opening new ones. If you take a closer look, I would argue that John Deere successfully has added the dynamics of silicon valley startups to its already excellent businesses.

According to Melius Research analyst Rob Wertheimer, John Deere has a quarter-trillion opportunity selling new technology and services that improve farmers' crop yield while saving them money on pesticides, herbicides, fertilizer and seeds.

John Deere is exceptionally well-positioned to seize compelling opportunities and, besides their other businesses, lead the pack in the AI driven precision agro tech business, and fulfill their higher purpose of helping improve living standards for people everywhere through their commitment to those linked to the land.

Just remember the next time you eat a sandwich that, if it's up to John Deere, every grain your sandwich is made of, is analyzed by convolutional neural networks powered by the world's fastest, most powerful NVIDIA supercomputers for inference at the edge.

Finally, food supplies across the world will probably be "massively disrupted" by the coronavirus. Those who advocate this lockdown of the economy are probably clueless when it comes to the ripple effect through the rest of the economy. Unless governments act the number of people suffering chronic hunger could double. And the harsh reality is that that makes a company like John Deere, offering "Solutions for World Hunger", even more important and irreplaceable, and, I believe, a great investment opportunity. The stock trades just below 11 times 2019 pretax income.

John Deere continues to operate in the face of COVID-19 because their business, as designated by the President of the United States and the United States Department of Homeland Security, is essential to ensuring community and national resilience and well-being.

Keeping farmers and those involved in infrastructure and energy production up and running is essential to food production and their ability to support critical infrastructure needs. Recently, their employees were identified by the Department of Homeland Security as essential critical infrastructure workers, defined as "the essential workers needed to maintain the services and functions Americans depend on daily and need to be able to operate resiliently during the COVID-19 pandemic response.

Stay healthy!

Peter

Peter Coenen
Founder & CEO
The Value Firm®
15 April 2020

Post scriptum. The latest addition to the Intelligent Cloning Portfolio is eBay @ 30 USD.

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Writing an investment thesis nowadays, with all the information available online, is much more a matter of selecting the information that makes sense, put it into context and add some thoughts on valuation. In other words, it's a matter of connecting the dots. In the process of doing so, at times, I just forget or just didn't pay much attention to the original authors of certain passages of text. If I forgot to mention you as the original author, I'm sorry. Just let me know, and I will make the reference anyhow.

Intelligent Cloning

The Winter 2020 Edition

Thou shall be a
shameless cloner...



This is the 10th Commandment of the Mohnish Pabrai Commandments of Investment Management. I couldn't agree more. There are some great investors out there. Copy their highest conviction ideas. Cloning is good for your health.

In this Edition on Intelligent Cloning we start with some refreshing insights on cloning. Then we will revisit the Mohnish Pabrai Free Lunch Portfolio and the new quants, with remarkable results thus far. And finally, we will have a first in-depth look at the newly developed Risk Rating Algorithm. Enjoy!

Cloning

Cloning is fascinating. I just follow a few exceptional investors. I study them and try to understand what they do and why they do it. And then, I just do what they do. That's it.

Sounds simple? It's certainly not easy. It takes a lot of experience and hard work first of all to decide who you want to follow, and then to identify a truly exceptional investment opportunity in the portfolios of these investment managers. And you do need this specific long-term investment temperament to handle stock market volatility with care. Finally, and that just might be the toughest part of it, you have to build up the personal conviction to pull the trigger and buy the stock, knowing that ultimately the decision you finally made might turn out to be a mistake after all.

Professional cloners aren't born. They are forged in fire. They are pounded and shaped with the hammer of experience. Some cloners aren't malleable and break. Others learn and adapt and flow into an investing niche they can exploit.

Picking individual stocks is extremely tough, even for the experts. Recently, Guy Spier made some enlightened comments on the idea of cloning. He even used the phrase "There is an art to cloning". So what did he say?

"There is this idea that we get at universities and schools, that your work has to be original. And in an academic setting that is absolutely true. But the minute we get into the world of business, actually "copying", or as Mohnish Pabrai says, "cloning", is the ultimate thing to do. It's the thing we don't do enough of. When you copy other people, when you copy success, you actually make it your own. So it's actually in a certain way not copying. It's learning from other people."

You could even argue that Warren Buffett is a professional cloner. Buffett didn't come up with a framework on how to think about investing himself. He copied it from Ben Graham. And later on, he copied, or learned from if you will, Phil Fisher and Charlie Munger. There seems to be a kind of academic conviction in people's minds when it comes to cloning. Well. Get rid of it. Start cloning!

Research by Barclays, entitled "Systematic 13F Hedge Fund Alpha", showed that the "best ideas" of successful fund managers produce economically meaningful and statistically significant risk-adjusted returns that outperform the S&P 500.

The more I think about this Intelligent Cloning strategy, the more I realize that it is all about focusing on the best of the best. Forget about the rest. You identify the very best investors on the planet. You select only their very best ideas. You rank these best ideas and once a year pick the number 1 "best-of-the-best-of-the-best" opportunity.

Over the years of learning and investing, I found two categories of investments that suit me best. First, companies with very long term staying power, like John Deere or Heineken. And secondly, companies that are very cheap relative to their 4 to 5 year certainty equivalent future free cash flows. The second category is also known as typical "Mohnish Pabrai P/E equals 1 or less" investment opportunities.

In the end it's all about "certainty" and "price". You have to be very certain on the future prospects of the company you are about to invest in. And since there is no such thing as a company with an infinite price, you demand a price that makes sense.

Lunch for free

In 2017, Mohnish combined three (quant) strategies into a single 15-stock portfolio and christened it “The Free Lunch Portfolio.” You can learn a lot just by trying to understand the thinking behind these Mohnish Pabrai quant strategies. So let’s highlight one of the three strategies: the Uber Cannibals.

This strategy pays attention to an often overlooked corner of the stock market: cash-rich, undervalued businesses that are consistently buying back shares, and thereby generating tremendous value for shareholders. Here are the Uber Cannibals selection criteria:

- Minimum market cap of \$100 million.
- Price-to-sales ratio less than 2.5.
- The share buyback percentage over the dividend yield for the last one year is required to be greater than 2.
- No insurance companies.
- Must have a minimum of a 5% increase in trailing twelve month revenue over the previous year and 20% over the last five years.
- The company must have reduced its share count by 3% in the previous year.

The back-test that Mohnish describes in his original Forbes article shows that on average, the Ubers beat the S&P 500 by 6.3% annualized. That is an annual return of 15.5% from 1992 through December 2016. Since 1 March 2017 this approach returned 36.7%. An investment of \$100,000 by then, would be worth \$136,656 nowadays (according to his website “chaiwithpabrai.com”).

In the Spring 2019 Edition on Intelligent Cloning, I came up with 5 additional quants. So what happened?

	Q1	Q2	Q3	Q4	Q5	Q6
2018	-17.0%	-9.7%	21.7%	40.0%	50.0%	60.0%
2019	21.7%	28.4%	34.7%	40.1%	34.4%	41.1%
2020						
2021						
2022						
2023						
2024						
2025						
2026						
2027						
CAGR	0.01%	7.7%	28.0%	40.0%	42.0%	50.3%

Mohnish reports a 0.01% CAGR for Q1. My calculations tell me 0.5%. Anyhow. Perhaps some rounding difference?

Q1: The Mohnish Pabrai Free Lunch Portfolio (FLP).

Q2: The conservative version of the FLP.

Q3: The conservative FLP, no spinoffs. Sell @ 40%.

Q4: The Hermione Granger Portfolio. Sell @ 40%.

Q5: The Hermione Granger Portfolio. Sell @ 50%.

Q6: The Hermione Granger Portfolio. Sell @ 60%.

With 8 more years to go in this *Grand Prix du Quants*, we have Q6 in pole position with a 2 year CAGR of 50.3%, closely followed by Q5 and Q4.

These quant strategies are only 2 years old, so we can't draw any meaningful conclusions about its long-term performance yet. It's a huge mistake to believe that these exceptional Q4, Q5 and Q6 returns will be sustainable over a longer period. Prepare for much lower results the upcoming years!

As mentioned in my 2019 Investor Letter, the quants Q3 to Q6 have an extra rule in place: when the stock is down 20%, it will be sold. Here is how this works. Let's have a look at quant Q4. You buy the three Q4 constituents the first trading day of the new year. And at the same time you add for all of these 3 stocks a conditional sell order at +40% and a conditional sell order at -20%. Both with a time limit of 1 year. So a stock will be automatically sold if the price hits its +40% target or its -20% target.

- The Q2 conservative version of the Free Lunch Portfolio (DXC Technology, Discover Financial, Sleep Number, Lear Corp, Micron Technology, Delphi Technology) was up 28.4%.
- The Q3 conservative version of the Free Lunch Portfolio, with the Spin-Offs excluded (Discover Financial, Sleep Number, Lear Corp and Micron Technology), and 2 conditional selling rules in place (sell @ -20% and sell @ +40%) was up 34.7%.
- The Q4 Hermione Granger Portfolio (Xperi Corp, DXP Enterprises and Vera Bradley), and 2 conditional selling rules in place (sell @ -20% and sell @ +40%) was up 40.1%.
- The Q5 Hermione Granger Portfolio (Xperi Corp, DXP Enterprises and Vera Bradley), and 2 conditional selling rules in place (sell @ -20% and sell @ +50%) was up 34.4%.
- The Q6 Hermione Granger Portfolio (Xperi Corp, DXP Enterprises and Vera Bradley), and 2 conditional selling rules in place (sell @ -20% and sell @ +60%) was up 41.1%.

If you follow my writings very closely, you know I initially came up with Express Inc as a constituent of the Hermione Granger Portfolio. And since that turned out to be a mistake by the algorithm, I replaced it after a few days by Xperi Inc. Indeed, Express Inc turned out to be a

mistake, and the stock went down substantially, so it would have been sold @ -20%. But still the overall result would be satisfactory, namely 20% for Q4, 26% for Q5 and 33% for Q6.

Here are the 2020 constituents of the Q1 Free Lunch Portfolio: Allison Transmission Holdings, Asbury Automotive Group, Corning, Quanta Services, Sleep Number, Alphabet, Berkshire Hathaway, Chipotle Mexican Grill, Citigroup, Fiat Chrysler Automobiles, Athene Holding, FirstService, Hilton Grand Vacations, RMR Group, Vectrus.

And here are the 2020 constituents of the Q2 conservative Free Lunch Portfolio: Allison Transmission, Asbury Automotive, Sleep Number, Fiat Chrysler, Hilton Grand Vacations, RMR Group, Vectrus.

The Q3 constituents (spinoffs excluded from Q2) are: Allison Transmission, Asbury Automotive, Sleep Number, Fiat Chrysler.

And yes, Mrs Hermione Granger was so nice to welcome me once again at Hogwarts for some intelligent magic. "Just stick to high quality small cap stocks trading at attractive prices. In the long run, from 1990 until now, the S&P 600 Small Cap Index, although more volatile, outperforms the S&P 500 Large Cap Index. And don't forget to include your conditional selling orders at +40% and -20%."

"Wingardium Leviosa!" Here are the constituents for the 2020 Hermione Granger portfolio (Q4, Q5 and Q6): Tivity Health, Hillenbrand and Lantheus Holdings."

Actually, these are the 2020 New Year Quants. If you read my Investor Letter 2019, you know I came up with the Mid Year Quants as well. The first lessons learned over there is that you should buy the Mid Year Quants on the first of August, not on the first of July. And the second lesson learned is that testing this approach in China and India as well, just might turn out to be a mistake. The financial markets in the United States are much more mature, while emerging stock markets like China and India may experience a very different dynamic. But we will see what happens.

Finally, I will introduce a new quant Q17. The numbers Q7 to Q16 were already occupied. Mohnish came up with some changes to the spinoff selection criteria, and I definitely applaud those changes:

- We tightened the Price/ Sales Ratio entry condition from a P/S of less than 3 to a P/S of less than 2.
- We changed the credit rating requirement so that now both the parent company and its spinoff must meet the minimum credit rating threshold at the spinoff's entry into the portfolio. If the spinoff experiences any credit rating downgrade since IPO, it is removed.
- We added a new quality condition and now select the top 5 spinoffs with the highest trailing 12-month return on invested capital (ROIC).

The new quant Q17 is the "spinoff only" quant, actually the spinoffs in the Q2 quant. The 2020 constituents are: Hilton Grand Vacations, RMR Group and Vectrus. The conditional selling orders at +40% and -20% do apply.

Risk Ratings

I consider risk management skills just as important as stock picking skills. If done well, risk management is indeed a competitive advantage. It's key to generating higher returns, setting a bottom for potential losses, improving margins, and raising the confidence of clients, investors and shareholders.

Up until recently, I must admit that my thinking about risks was rather opportunistic. So what I am trying to do over here, is to develop a more comprehensive, or a more holistic if you will, red flag approach for assigning risk ratings to publicly held non-financial companies. The newly developed risk rating methodology is founded on the insights gained by studying 55 bankruptcy cases (from Enron to Thomas Cook), many different fraud and bankruptcies models and years of studying Buffett & Munger. Here are the 55 cases:



“I think you are asking for a lot if you want some simple way of not been taken in by the frauds of this world. If you start to think about it, enormously talented people deliberately go into fraud, drift gradually into it, because the culture carries them there. And the frauds get very sophisticated and they are very slickly done. I think it is part of the business of getting wisdom in life that you avoid getting taken by the frauds.” – Quote Charlie Munger.

If you study bankruptcies, you will find some unusual risk profiles, either via the fraud and bankruptcy models, or just by studying the financial statements one at a time. E.g. Ahold, Enron and SunEdison did not generate any substantial free cash flow at all over a 3 to 5 year period before collapsing. This specific risk profile, or “suspicious data pattern” if you will, defines, in combination with other parameters, the risk or probability of financial distress.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
6	Medium risk	Good company with a moderate risk of financial distress.
5	Low risk ++	Good company, with still a low, but slightly more risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.
3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

The end result is simple. The underlying algorithm is not. The Risk Rating Algorithm tries to identify these unusual risk profiles (“potential bankruptcy data footprints”) and then, in combination with other parameters, assign a risk rating to that company. What I have in place as of today, is a first release of the algorithm, and as time passes by and more bankruptcies become available, there is opportunity to make the algorithm smarter, case by case. The purpose of these risk ratings is to provide investors, auditors, fund managers, short sellers and other external users with a simple system of graduation by which “the probability of financial distress of a company within 2 to 3 years” may be gauged.

The results of a back-test using historical financial data until 2017 are encouraging. Looking for European stocks with at least 500M Euro in sales, the algorithm assigned

a risk rating of 1 to companies like Ferrari, Moncler and ASLM, meaning that these companies are companies of exceptional high quality. They all went up in stock price substantially since 1 June 2017.

A risk rating of 10 was assigned to companies like Astaldi Spa, Duro Felguer and Adveo Group, meaning that these companies are companies with too many identifiable signs of possible financial distress. The first two went down in stock price substantially since 1 June 2017. The latter one actually went bankrupt.

In the United States, a 10 rating was assigned to Sears and Toys R US, which both went bankrupt. And a 1 rating (very low risk) to Visa and Domino’s Pizza, which showed strong gains in stock market price.

In China, a 10 rating was assigned to Lifan Industry and Guangdong Janus Intelligent Group. And a 1 rating was assigned to Kweichow Moutai. In India, a 10 rating was assigned to HCL Infosystems and Splendid Metal Products. In Japan, a 10 rating was assigned to Otsuka Kagu. In Canada, a 10 rating was assigned to Sears Canada. In England, a 10 rating was assigned to Interserve Plc. All these 10 ratings experienced a substantial decline in price during the first 30 months after buying the stock or actually went bankrupt.

What you hope for is that the algorithm may also act as good leading indicators or predictors of future stock price performance, but if that indeed will be the case is way too early to tell and remains to be seen. A high risk rating is a warning of potential distress, but not necessarily proof of wrong-doing. It’s merely cause for suspicion. There are certainly firms with a very high risk rating, without doing anything wrong. These companies with a high risk profile may even outperform the markets “against all odds”. The majority though, of the companies rated 10, experienced a substantial decline in stock market value.

Please note that risk ratings are statements of opinion and not statements of fact or recommendations to purchase, hold or sell any securities or make any investment decisions. It would be a huge mistake to use these risk ratings, or any other rating methodology, as a standalone tool for investment decisions. Always do your own in depth due diligence!

It would be very interesting though, to use e.g. the Moody’s Credit Ratings together with The Value Firm® Risk Ratings. Or you might want to have a look at the S&P 600 Small Cap Index and skip the companies with

risk ratings 8, 9 or 10. That just might turn out to be a very compelling and new lower risk small cap index.

In 1975, Philip Fisher published a book entitled “Conservative investors sleep well.” As an investor you most certainly want to avoid the stocks with a risk rating of 9 or 10. And if you think about it, you might want to skip the 7 and 8 ratings as well. I am quite sure that if you find a great investment opportunity with a risk rating of 7 or higher, you will be able to find another opportunity with the same upward potential in the safer region of the 1 to 6 ratings.

And finally, if you are a short seller (not my cup of tea!), you might be interested in companies with 2 consecutive years of these very high risk ratings.

The Algorithm

The algorithm was designed one step at a time. Every moment I found a new insight or data pattern of importance, I just added new code to the algorithm. The end result is an algorithm that, at first sight, looks like a conglomerate of fuzzy logic. But that’s fine with me, as long as I feel comfortable with the results.

For example, most of you will know the Altman Z score as an indicator of potential financial distress. A slightly modified version of the Altman Z score is used in the algorithm. The interesting part is how the Z score contributes to the final risk rating. The contribution of the Z score to the final rating of what I consider a low quality company is much higher than the contribution of the Z-score to the final risk rating of what I consider a high quality company.

Another example is the use of big changes, or “big delta’s” if you will, in certain financial ratios, like the total liabilities to cash flow from operations ratio. You can set up many ratios to monitor for “big delta’s”, and than just count the number of “big delta’s” as a measure of potential distress.

An interesting question from a developers perspective is if the algorithm has Artificial Intelligence characteristics. And the answer to that questions is “yes” and “no”.

One of DeepMinds (nowadays Google) programs learned how to play 49 different Atari games from scratch just from seeing the pixels and score on the screen, and their AlphaGo program was the first to beat a professional player at the ancient game of Go, a feat experts described as a decade ahead of its time. My algorithm

fits by no means in this category of highly advanced “from scratch developed” artificial intelligence.

On the other hand, e.g. the Beneish M-score and Dechow F-score models can be seen as approximations to using machine learning. Their approach is a classical supervised classification problem — developing a model by working out a relationship between input variables and the output — using probit and logit models on relevant financial ratios. Probit models the probability of manipulation as a normal distribution, while logit handles it as a logistic distribution: the logarithm of the odds.

And as stated earlier, each new bankruptcy offers opportunity to make the algorithm smarter, by adding new “suspicious data patterns”, although I have to admit that these data patterns are not generated by a smart self-learning software module, but by using my own limited human convolutional neural network between the ears.

It will be very hard to use “AlphaGo lookalike” machine learning to develop such an algorithm. These type of algorithms need lots of datasets to start the actual learning process, and I am afraid there aren’t enough bankruptcy datasets available. If you have a different view on this matter, let me know.

To use the algorithm, you need the historical financial data of the companies you want to assess. There are several high quality databases out there, but I don’t know of any database without errors. So you have to make your own choice which dataset you want to use.

When I started my “journey of the quants” a few years ago, I had some serious doubts if there would be an algorithm that consistently could beat the markets. Nowadays, I would say that you should never underestimate the power of smart algorithms, either as a servant to the final human decision making, or as a full blown algorithmic investment operation, like Renaissance Technologies.

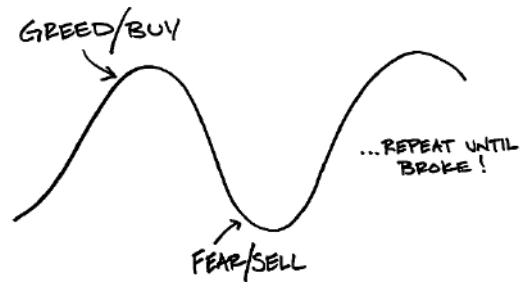
I’m quite certain that this risk rating algorithm can be put to good use for private companies as well. Here are The Value Firm® Risk Ratings 2018 for companies trading at the Amsterdam Stock Exchange.

8	Fugro NV
7	ASM International NV
7	Galapagos NV
7	Koninklijke Bam Groep NV
7	Oranjewoud NV
7	SBM Offshore NV

6	Alfen NV
6	Beter Bed Holding
6	Koninklijke Boskalis Westminster NV
6	Stern Groep NV
5	Accell Group NV
5	Basic-Fit NV
5	Heijmans NV
5	Lucas Bols NV
5	Neways Electronics International NV
5	OCI NV
5	Ordina
4	Aperam SA
4	Arcadis NV
4	ArcelorMittal SA
4	Brunel International NV
4	Coca-Cola European Partners PLC
4	DPA Group NV
4	Heineken NV
4	IMCD NV
4	Koninklijke VolkerWessels NV
4	Royal Philips NV
4	Signify NV
3	Aalberts Industries NV
3	AFC Ajax NV
3	Altice Europe NV
3	Batenburg Techniek NV
3	Corbion NV
3	Ctac NV
3	Fagron SA
3	Hydratec Industries NV
3	ICT Group NV
3	Kendrion NV
3	Koninklijke Vopak NV
3	Randstad NV
3	TKH Group NV
3	Wessanen NV
2	Adyen NV
2	Air France-KLM
2	Akzo Nobel NV
2	Amsterdam Commodities NV
2	B&S Group SA
2	BE Semiconductor Industries NV
2	Envipco Holding NV
2	ForFarmers NV
2	GrandVision NV
2	Heineken Holding NV
2	Holland Colours
2	Hunter Douglas NV
2	Koninklijke Ahold Delhaize NV
2	Koninklijke DSM NV
2	Koninklijke KPN NV
2	Nederlandsche Apparatenfabriek NEDAP
2	PostNL NV
2	RELX NV
2	Sif Holding NV
2	Sligro Food Group NV
2	TomTom NV
2	Unilever NV
2	Wolters Kluwer NV
1	ASML Holding NV

So here we are

Before I come to the final remark, let me share with you an educational picture on behavioral finance. It's from the book "The Behavior Gap: Simple Ways to Stop Doing Dumb Things with Money" by Carl Richards.



The message is obviously clear. The hard part though, is to imprint this message into your brain and act accordingly.

I started this Edition on Intelligent Cloning with a remark from Mohnish Pabrai, namely that you should look at the highest conviction ideas of great investors. Recently, Mohnish took a position in Graftech, a global leader of ultra-high-performance graphite electrodes.

Probably the most difficult part of a cloning strategy is actually doing nothing. Just sit there. Like a Zen Buddhist. Don't move. Don't act. Just read.

And every now and then, when a great idea comes along, you have a choice: further deepening your Buddhist Zen meditation, or get off your ass, adopt the idea and run with it!

Graftech, @12 USD, is the newest constituent of the Intelligent Cloning portfolio.

Peter

Peter Coenen
Founder & CEO
The Value Firm®
24 December 2019
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Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Intelligent Cloning

The Autumn 2019 Edition



Everything
is cyclical

"The basic reason for the cyclicity in our world is the involvement of humans. Mechanical things can go in a straight line. Time moves ahead continuously. So can a machine when it's adequately powered. But processes in fields like history and economics involve people, and when people are involved, the results are variable and cyclical. The main reason for this, I think, is that people are emotional and inconsistent, not steady and clinical."

– Howard Marks.

Recently, Howard Marks published a book, entitled "Mastering the Market Cycle". Carl Icahn wrote on the back cover of the book: "If you're uncertain as to whether there will be a correction in the market, or if you think there's no reason to worry because this time it's different, you have to read this book before you make a move."

In this edition on Intelligent Cloning we will reevaluate Allison Transmission, one of the constituents of the Intelligent Cloning Portfolio, and look at the long-term performance of this company through a different lens.

Allison Transmission

Allison Transmission (ALSN) is the world's largest manufacturer of commercial-duty automatic transmissions and a leader in electric hybrid propulsion systems. Their products are specified by more than 300 of the world's leading vehicle manufacturers and are used in a range of market sectors—from bus, refuse and emergency to construction, distribution and defense.

The company is a constituent of the Intelligent Cloning portfolio for three years now, and is up 62%. The idea was copied, or "cloned" from Lou Simpson.

Recently, Lou Simpson sold almost 54% of his position. Is it time to sell Allison Transmission?

First, let's try to understand the business of automatic transmissions a little bit better.

Commercial vehicles typically employ one of three transmission types: manual, automated manual or fully-automatic. Manual transmissions utilize a disconnect clutch causing power to be interrupted during each gear shift resulting in energy loss-related inefficiencies and less work being accomplished for a given amount of fuel consumed. In long-distance trucking, this power interruption is not a significant factor, as the manual transmission provides its highest degree of fuel economy during steady-state cruising. However, steady-state cruising is only one part of the duty cycle. When the duty cycle requires a high degree of "start and stop" activity or speed transients, as is common in many vocations as well as in urban environments, Allison believes manual transmissions result in reduced performance, lower fuel efficiency, lower average speed for a given amount of fuel consumed and inferior ride quality.

Moreover, the clutches must be replaced regularly, resulting in increased maintenance expense and vehicle downtime. Manual transmissions also require a skilled driver to operate the disconnect clutch when launching the vehicle and shifting gears.

Automated manual transmissions (AMTs) are manual transmissions that feature automated operation of the disconnect clutch. Fully-automatic transmissions utilize technology that smoothly shifts gears instead of a disconnect clutch, thereby delivering uninterrupted power to the wheels during gear shifts and requiring minimal driver input. These transmissions deliver superior acceleration, higher productivity, increased fuel efficiency, reduced operating costs, less driveline shock and smoother shifting relative to both manual transmissions and AMTs in vocations with a high degree of "start and stop" activity, as well as in urban environments.

Fuel efficiency, reduction in fuel consumption and reduced emissions are important considerations for commercial vehicles everywhere and they tend to go together. Allison believes fuel efficiency, the measure of work performed for a given amount of fuel consumed, is the best method to assess fuel consumption of commercial vehicles as compared to the more commonly-used fuel economy metric of miles-per-gallon

("MPG"). MPG is inadequate for commercial vehicles because it does not encompass two key elements of efficiency that Allison believes are important to vehicle owners and operators: payload and transport time.

Served markets	Competitors
North America On-Highway	BAE Systems plc, Ford Motor Company, ZF Friedrichshafen AG ("ZF") and Voith GmbH .
North America Off-Highway	Caterpillar Inc, Twin Disc, Inc, Komatsu Ltd., Volvo Group, and ZF.
Outside North America On-Highway	No companies specified.
Outside North America Off-Highway	Caterpillar, Volvo, ZF, Komatsu and Danyang Winstar Auto Parts Co.
Defense	L3 Technologies, Inc., Renk AG, ZF and Caterpillar.
Service Parts, Support Equipment and Other	No companies specified.

And let's have a look at a selection of the financial data:

In million USD	2014	2015	2016	2017	2018
Revenue	2127	1986	1840	2262	2713
Gross profit	976	934	864	1131	1422
Operating income	512	510	452	684	927
Net income	229	182	215	504	639
Shares (Dil.)	182	177	169	150	134
Assets	4656	4408	4219	4205	4237
Equity	1398	1189	1080	689	659
Operating cash flow	573	580	591	658	837
Capex	-64	-58	-71	-91	-100

This is a highly profitable, free cash flow generating company. So why did Lou Simpson sold part of his position in Allison Transmission? The great Leon Cooperman once came up with four criteria to sell a stock.

- The first reason to sell a security is when you buy something with a price objective. When it appreciates to that price objective, and you think it's fully valued, you sell it.
- The second reason is when things are not moving along the originally anticipated lines, so you get out before you get murdered. It is very hard to make up for big losses, so you have to sell before you get creamed.
- A third reason to sell is when we find an idea that's more attractive than the idea we're acting on already. So we sell something to buy something that we think has a better risk/reward ratio.
- Finally, the fourth reason to sell is when the market outlook changes. This can be very hard, because a traditional value investor wants to buy more if the price of a stock goes down, but in practice Mr. Market doesn't care how smart you are as an investor and the stock might decline into much lower territory anyhow.

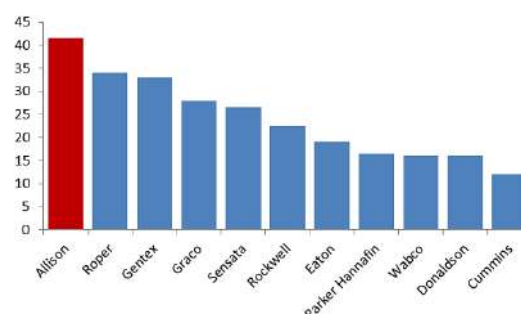
Allison Transmission is moving forward just as anticipated, although their 2019 sales guidance is slightly below the 2018 figure. What you look for when you reassess a company in your portfolio are exactly the same items you were looking for when you decided to invest in the first place. The only difference is the price. When you buy the stock, you want to buy it cheap, but when the company is already in your portfolio, you want to hold on to the company as long as the company remains a good company. The only reason to sell a good company is an extremely high price relative to the intrinsic value of the company. This rarely happens.

Allison Transmission still possesses the characteristics I am looking for:

- Safety in the balance sheet
- Growth in the per share figures
- Consistently high return on capital
- Substantial free cash flow
- Future areas of profitable growth

Value creation

Allison Transmission presented a peer-to-peer comparison, based upon the EBITDA margin (%).



It illustrates the EBITDA margin of Allison Transmission, 41.6%, in relation to its peers. Many investors use EBITDA analysis. I try to avoid it and look at peer-to-peer comparison, or competitor analysis, through the lens of value creation (VCE). Let me explain.

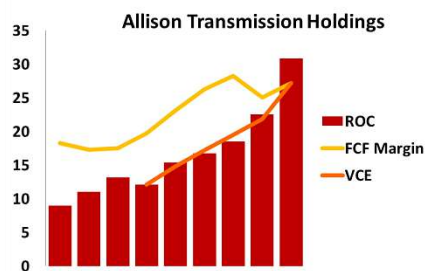
There are exceptional companies out there that possess a kind of "kinetic energy", that drives future profitability. In physics, the kinetic energy of an object is the energy that it possesses due to its motion. It is defined as the work needed to accelerate a body of a given mass from rest to its stated velocity. Having gained this energy during its acceleration, the body maintains this kinetic energy unless its speed changes. In classical mechanics,

the kinetic energy of a non-rotating object of mass m traveling at a speed v is: $\frac{1}{2}mv^2$.

This equation reveals that the kinetic energy of an object is directly proportional to the square of its speed. That means that for a twofold increase in speed, the kinetic energy will increase by a factor of four.

The Value Creation Engine (VCE) is the kinetic energy of a company or the business flywheel, if you wish. It's the intrinsic business energy that once "on the move" lifts a company to a higher plateau of value creation. It is actually a return on capital measure (ROC), adjusted for growth. And the interesting aspect of this (new) measure is, I believe, that if you visualize it over time, you will find some differential insights.

I tend to believe that if you just focus on companies with a substantial free cash flow margin and a consistently high and/or increasing value creation engine (VCE), in other words companies that grow their intrinsic value, that you are fishing in the right pond.

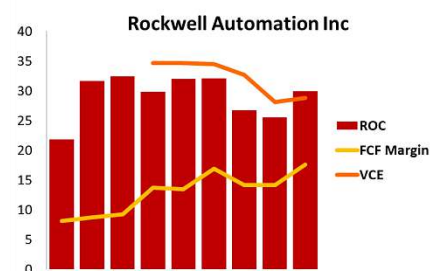
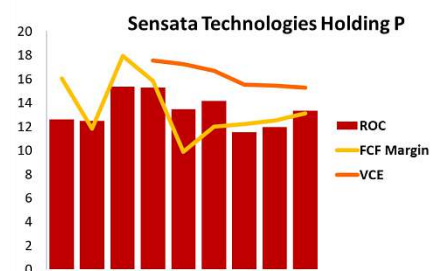
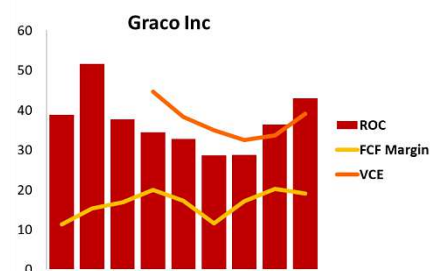
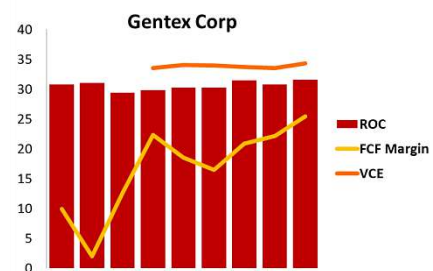
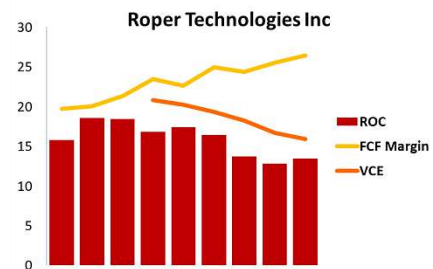


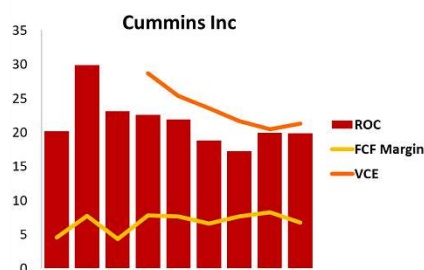
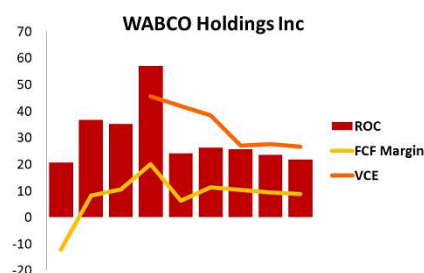
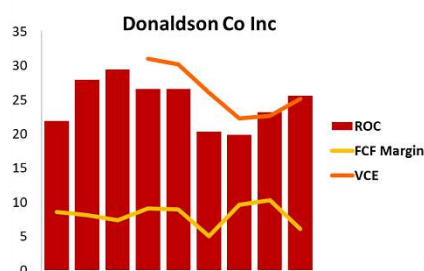
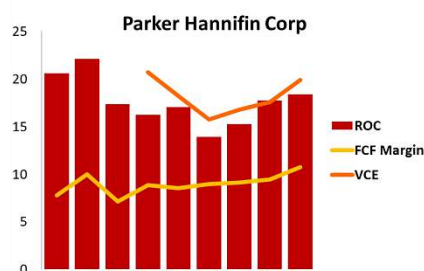
The orange line is the VCE over the last 6 years and the yellow one is the free cash flow margin (where free cash flow is defined as operational cash flow minus capex). Both show an upward trend, and I like what I see.

Currently, Allison trades at 8 times owner earnings per share. Not many people use owner earnings nowadays. Buffett uses it though. Some investors prefer free cash flow, but that's not the same as owner earnings. And I most certainly do not use GAAP Earnings per share as a metric for valuation.

"We consider the owner earnings figure, not the GAAP earnings figure, to be the relevant item for valuation purposes, both for investors in buying stocks and for managers in buying entire businesses" – Warren Buffett.

So how did the peer companies perform?





As long as the company growth is average, you can compare the VCE with the 3 year average ROC. But if the company experiences strong growth, the VCE will be a

few basic points above the 3 year average ROC. That's the idea.

If I have a look at the VCE and free cash flow profiles of the peer companies, I would be interested in Gentex, Graco and Rockwell Automation. Unfortunately, these companies are not really cheap. I would rather prefer to buy more Allison Transmission stock.

Company	Owners earnings multiple
Allison Transmission	8
Roper Technologies	27
Gentex	15
Graco	24
Sensata Technologies	17
Rockwell Automation	18
Eaton	17
Parker Hannifin	15
Donaldson	35
Wabco	18
Cummins	14

Date: 18 september 2019

The maintenance capex for this group of companies varies between 55% and 85%. Owners earnings and maintenance capex are rough estimates, based upon historical financials. Despite that, Buffett considers owner earnings to be the relevant item for valuation purposes.

Profitable growth

Allison Transmission has a 60% global market share of fully-automatic transmissions. The Allison brand is associated with high quality, reliability, durability, vocational value and expertise, technological leadership, superior customer service and an attractive total lifecycle value. End users frequently request Allison Transmissions by name and pay a premium for them. That's kind of special.

The company is well positioned for revenue and earnings growth through further adoption outside North America, expanding the addressable market and funded growth opportunities in an asset light business model. It has a strong cash flow generation and a well-defined capital allocation policy.

Allison Transmission has over 50 years relationship with industry leading OEMs (original equipment manufacturers). It's often overlooked in company due diligence, but there is a lot of value in long-standing business relationships.



Future growth comes from opportunities in the developed markets, accelerated adoption in emerging markets, especially China, increased penetration of fully-automatic transmissions and from global off-highway growth opportunities. The penetration of fully-automatic transmissions in North America is 89%, but outside the US, that number is significantly lower, 5%, which offers tremendous business potential.

China is where a substantial part of the “new growth” will come from. Allison is already the #1 supplier of fully-automatic transmissions in China.

Now let’s talk estimating future growth. There is this great quote in the classic book “Value Investing. From Graham to Buffett and beyond” by Bruce Greenwald, Judd Kahn, Paul Sonkin and Michael van Biema, and it goes like this:

“We should be struck here by a glaring inconsistency between the precision of the algebra [of a discounted cash flow analysis] and the gross uncertainties infecting the variables that drive the model. We estimate growth rates for 10 years and then another growth rate from the end of year 10 to forever. This is a heroic, not to say foolhardy exercise.”

Yes indeed! Actually it is a foolhardy exercise, only to be applied to dominant companies where the long-term durability of their competitive strength and the opportunities for future growth are very certain. My believe is that Allison Transmission is such an exceptional company.

I anticipate a long-term growth of 10% owners earnings per share, based upon their revenue prospects and disciplined stock buy back program. If the current low interest rate environment prevails, and the stock trades at 15 times owners earnings per share 10 to 15 years from now, I anticipate a long term 15% CAGR of the price of the stock. Obviously, if the long-term treasury

rate increases dramatically, the stock price CAGR will be much lower.

Acquisitions

Allison wants to grow, either via organic initiatives in their 6 end markets or via the execution on thoughtful and strategic acquisitions. In April 2019, Allison Transmission announced the completion of two acquisitions — Vantage Power, a small UK-based start-up in electrification, battery systems, and vehicle telematics, and AxleTech’s electric vehicle systems division (EVS). These acquisitions not only complements, but will also accelerate their electrification strategy, and research and development in digitalization and connectivity.

Both of these acquisitions align with Allison’s leading innovator position in propulsion technology, and will complement its existing capabilities to advance electrification adoption in commercial vehicles. The acquired AxleTech product lines are highly integrated, e-axle solutions, the first of their kind in the heavy-duty truck and bus markets. These differentiated products provide a substantial increase in power density and capability versus competitive products. Moving forward, their electrification strategy entails leveraging and growing current capabilities and technologies to provide a full range of electrification solutions.

Vantage Power was acquired for 9M USD, potentially to pay up to an additional approximately 8M USD over the next three years based on specific conditions being met. Vantage Power is an award-winning London-based technology company specializing in developing electrified propulsion and connected vehicle technologies for medium- and heavy-duty vehicle manufacturers and their suppliers. With particular focus on battery technology development, vehicle integration and control systems, as well as vehicle connectivity and telemetry, Vantage Power technologies have been deployed in a wide range of applications including complete electric hybrid repower systems for buses to grid energy storage. The acquisition benefits are:

- History of innovation in components and sub-systems complement Allison’s strengths in electrified propulsion
- Highly skilled, experienced and specialized engineers and operational staff
- Complements Allison’s integration expertise with battery systems, vehicle control systems and vehicle telematics

- Aligns with Allison's electric vehicle (EV) strategy to be the global leader in electrified propulsion for commercial vehicles

AxleTech was acquired for 123M USD. AxleTech is a leading technology company that designs, engineers, manufactures, sells and services axles and integrated electrified axle solutions for on- and off-highway heavy-duty commercial vehicles. With industrial roots established in 1919, the company's nearly 800 worldwide employees drive the company to develop advanced powertrain systems, axles, components and aftermarket parts for global customers. The EV systems division is located at AxleTech's headquarters in Troy, Michigan. The acquisition benefits are:

- Portfolio of highly integrated electric axles for medium- and heavy-duty truck and bus applications
- Global customer relationships and active OEM programs
- Talented, cross-functional and experienced engineering team
- Collaborative efforts facilitated thorough knowledge of the technology
- Aligns with Allison's EV strategy

Recently, Allison Transmission announced that it has acquired the assets and certain liabilities of Walker Die Casting located in Lewisburg, Tennessee and C&R Tool and Engineering located in Muscle Shoals, Alabama.

Walker's products are a critical component in the manufacture and quality of their on-highway transmissions. Walker produces aluminum castings and has been a supplier to Allison for 20 years. C&R Tool and Engineering is a leading supplier of metal working tools for use at Walker and other companies.

Allison paid approximately 103M USD in cash for the Walker Die Casting and C&R Tool and Engineering assets.

Leadership



David S. Graziosi, Director, President & Chief Executive Officer, has served as a director of Allison Transmission Holdings Inc. since May 2018.

Mr. Graziosi, age 52, joined Allison in November 2007. He currently serves as the President and Chief Executive Officer of Allison and has served in that capacity since June 2018. Prior to that, he served as President, Chief Financial Officer and Assistant Secretary from January 2016 to May 2018 and as Executive Vice President, Chief Financial Officer, Treasurer and Assistant Secretary from November 2007 to December 2015. Before joining Allison,

between 2006 and 2007, he served as Executive Vice President and Chief Financial Officer of Covalence Specialty Materials Corporation. Prior to joining Covalence Specialty Materials Corporation, Mr. Graziosi held various positions in industry, including as Vice President of Finance Precursors and Epoxy Resins at Hexion Specialty Chemicals, Inc. from 2005 to 2006, Executive Vice President and Chief Financial Officer at Resolution Performance Products LLC from 2004 to 2005, and Vice President and Chief Financial Officer of General Chemical Industrial Products Inc. from 2000 to 2004. Prior to 2004, he served in various positions for Sun Chemical Group B.V., the Colgate-Palmolive Company and Arthur Andersen LLP. Mr. Graziosi is also a Certified Public Accountant and a Certified Information Systems Auditor (non-practicing). He earned a bachelor's degree in business economics from the State University of New York and a Master of Business Administration from Rutgers University.



Lawrence E. Dewey, age 62, currently serves as Chair of the Board. Mr. Dewey served as Chair and Chief Executive Officer of Allison from January 2016 until his retirement as CEO in June 2018.

Prior to that, Mr. Dewey served as Chair, President and Chief Executive Officer since the sale of Allison in August 2007. Prior to the sale, Mr. Dewey served in various capacities at Allison, including as President of Allison, a role he assumed in 2000; worldwide Director of Marketing, Sales and Service, Managing Director of Allison Transmission Europe, B.V., based in The Netherlands; Central Region (U.S.) Sales Manager; Marketing Manager; Manager of Aftermarket Products; and Production Manager. From 2003 until 2007, concurrent with his role as President of Allison, he took on the responsibilities of Group Director of Marketing, Sales, Brand Management and Customer Support for General Motors Powertrain group. Before joining Allison, Mr. Dewey held several positions of increasing responsibility in General Motors' Diesel Equipment Division and Rochester Products Division. He began his career in 1974 as a General Motors co-op student at General Motors Institute (now Kettering University), graduating Suma Cum Laude. Mr. Dewey earned his Master in Business Administration with honors from the Harvard Graduate School of Business.

Risks

Concentrated sales

Their sales are concentrated among the top five OEM customers and the loss or consolidation of any one of these customers or the discontinuation of particular vehicle models for which they are a significant supplier could reduce their net sales and have a material adverse effect on their results of operations and financial condition. For the years ended December 31, 2018, 2017 and 2016, their top five OEM customers accounted for approximately 49%, 49% and 52% of their net sales, respectively. Their top two customers, Daimler

and PACCAR accounted for approximately 18% and 10%, respectively, of their net sales during 2018. The top 3 in terms of % accounts receivables are Daimler (18%), Volvo Group (11%) and Kirby Corporation (9%).

Cyclicality

Some of the markets in which Allison Transmission operates, including energy, mining, construction, distribution and motorhomes, exhibit a high degree of cyclicality. Decisions to purchase their transmissions are largely a result of the performance of these and other industries they serve. If demand for output in these industries decreases, the demand for their products will likely decrease. Demand in these industries is impacted by numerous factors including prices of commodities, rates of infrastructure spending, housing starts, real estate equity values, interest rates, consumer spending, fuel costs, energy demands, municipal spending and commercial construction, among others. Increases or decreases in these variables globally may significantly impact the demand for their products, which could have a material adverse effect on their business, results of operations and financial condition.

US – China trade war

Substantial future growth will come from China. Over the past year, the world's two largest economies have imposed tariffs on billions of dollars worth of one another's goods. US President Donald Trump has long accused China of unfair trading practices and intellectual property theft. In China, there is a perception that the US is trying to curb its rise. Negotiations are ongoing but have proven difficult. The two sides remain far apart on issues including how to roll back tariffs and enforce a deal.

The Value Firm® risk rating of Allison Transmission is "very low". This (newly developed) risk rating represents the probability that some kind of unexpected financial distress will occur the upcoming 2 years.

Final thoughts

Allison is a wide-moat business with considerable barriers to entry, e.g. safety concerns, and the complexity of developing the technology for transmissions. Also patents and other proprietary rights are important. Allison relies upon trade secrets, know-how, continuing technological innovation and licensing opportunities to develop and maintain their competitive position. They protect their proprietary rights through a variety of methods, including confidentiality agreements and proprietary information agreements.

Allison's truck-maker customer base would rather not change suppliers. Allison believes that their existing OEM customers have chosen to purchase certain transmissions due to the quality, reliability and strong brand of their transmissions and in order to limit fixed costs, minimize production risks and maintain company focus on commercial vehicle design, production and marketing. As such, Allison has few competitors and lots of pricing power, which keep its profit margins high.

Allison Transmission possesses a solid balance sheet, with a long-term debt relative to EBIT ratio of 2.6. The company spent 2.3B USD on stock buybacks and consequently reduced the share count from 188M shares at the beginning of 2014 to 134M shares at the end of 2018, and is expected to continue to aggressively repurchase stock. And once again, Allison trades at 8 times owner earnings per share.

If I look back and forward, from the funding and building the Indianapolis Motor Speedway more than 100 years ago, to the selling of the company by General Motors to the private equity firms The Carlyle Group and Onex Corporation and the (if I may say so) debt overloaded IPO in 2012, I see Allison Transmission as a company that ultimately transformed into a world-class independent enterprise and one of the best industrial businesses in the world with great long term prospects. What a company!

Lou Simpson sold 54% of his position in Allison Transmission, perhaps to take some money off the table, or perhaps as a result of the Allison 2019 net sales guidance, which is slightly below the 2018 net sales figure. This guidance probably reflects a lower demand in the North America Off-Highway and Service Parts, Support Equipment & Other end markets.

Interestingly enough, if you review Mr. Simpson's 13f filings of Q1 2019, you will notice that similar proportions of all holdings were sold across his entire portfolio. Allison was not necessarily singled out. And that just might be the result of decreasing the AUM of his portfolio in general, returning money to outside shareholders. It has been reported that Mr. Simpson announced plans to convert into a family office, ceasing managing outside money.

Whatever the reason might be, I just leave Allison Transmission in my portfolio and if the company keeps performing as it does, it will be in my portfolio for a very long time.

A final warning. Normally I rely very much on the Morningstar data. It's a great database! But even great databases make mistakes. The capex data of Allison Transmission, and with that the free cash flow data, is not correct. You have to be so careful with these databases and the interpretation of screeners. Always do your own research and doublecheck the results!

That's it for this edition on Intelligent Cloning. In the next edition, we will revisit the Mohnish Pabrai Free Lunch Portfolio, and travel all the way to Hogwarts in search of some Intelligent Magic.

*If you think there's no reason to worry
because this time it's different...*

Cordially,

Peter

Peter Coenen
Founder & CEO
The Value Firm®
30 September 2019
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Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Post scriptum. Howard Marks is wearing the classic Telly Savalas alias the New York City Police Department Detective Lieutenant Kojak hat.

Intelligent Cloning

The Spring 2019 edition

Carefully look at what other great investors have done.



There is a reason why there is a select group of very exceptional investment professionals. These people work harder and smarter than everyone else. They dig deeper than everyone else and have a more holistic approach towards investing. They have better emotional control and behave differently. They have superior individual networks and better access to industry veterans and CEO's that helps them to gain better and differentiated insights. And often, these investors study companies for many, many years before making the final decision. There are those amongst us, who call all this "accumulated experience".

If you think you can beat these great investment teams, I tip my hat to you. For the most of us, just following what they do is a very compelling alternative. The idea is to ride the coattails of their expertise – without having to pay for it. Not many people do so, but it's interesting. And certainly not easy. It's called "cloning".

In the previous edition on Intelligent Cloning I announced some topics of interest for this edition, but I have a much better idea. Let's have a look @ quants.

The Perfect Quant

David Abrams, a protégé of Baupost's Seth Klarman, gave a rare public address at a conference in New York for Project Punch Card. He was critical of people who are "always looking for a short, easy solution" in investing. "I don't think there's a black box or easy answer or algorithm" for investing, he said.

Let's set the stage for some thoughts on algorithmic investing. I couldn't find a better framework than the memo of Howard Marks, entitled "Investing without People". Marks describes three ways in which the securities markets seem to be moving toward reducing the role of people:

- Index and other forms of passive investing
- Quantitative and algorithmic investing
- Artificial Intelligence and machine learning

It's important to understand the difference between the latter two. Quantitative (algorithmic) investing consists of establishing a set of rules and having a computer carry them out. Artificial Intelligence (AI) refers to the ability of machines to think, where you give machines access to data and let them learn for themselves (also known as "deep learning"). Let me assure you, I am not in the business of Artificial Intelligence. I am just scratching the surface of what is known as algorithmic investing.

Nevertheless, Artificial Intelligence (AI) is intriguing, so allow me to make some comments about it anyhow. If there is one person out there, who deserves the name of Mr. Artificial Intelligence, it is Demis Hassabis. He co-founded the company DeepMind, to build the world's most powerful Artificial Intelligence.

In 1997, after IBM's Deep Blue computer had beaten the chess grandmaster and world champion Garry Kasparov, Demis Hassabis met Masahiko Fujisawa, a Japanese board-game master to discuss a computer program using artificial intelligence to beat the greatest human Go player. Confucius wrote about the ancient Chinese game of Go as one of the four great arts to any true scholarship master, along with poetry, calligraphy and music. In 2016, The DeepMind program, called AlphaGo defeated Ke Jie, the world's number one Go player and scored a victory in one of the most creative and complex games ever devised. The human champion, one of the most brilliant minds on the planet, no longer stood at the pinnacle of intelligence.

DeepMind also created artificial intelligence programs that play Atari games, using a combination of deep artificial neural networks and reinforcement learning. After presenting their initial results with the algorithm, Google almost immediately acquired the company for several hundred million dollars, hence the name Google DeepMind.

How does it work? An Atari Breakout player controls a bat that can be moved horizontally across the bottom of the screen, using it to bounce a ball against blocks that hover above it, destroying them on impact. The player wins when all blocks are obliterated or loses if the player misses the ball with the bat.

Like humans, the “artificial agents” learn for themselves. This learning by trial-and-error, solely from rewards or punishments, is known as “reinforcement learning”. It involves an agent, a set of states S , and a set A of actions per state. By performing an action, the agent transitions from state to state. Executing an action in a specific state provides the agent with a reward (a numerical score).

The goal of the agent is to maximize its total (future) reward. It does this by adding the maximum reward attainable from future states to the reward for achieving its current state, effectively influencing the current action by the potential future reward.

The agents must continually make value judgements so as to select good actions over bad. This knowledge is assembled in a Q-network, where the Q stands for quality. Quality in this case represents how useful a given action is in gaining some future reward. The Q-network at its simplest stores data of states, actions and rewards in tables. It estimates the total reward that an agent can expect to receive after taking a particular action. The key idea is to use deep neural networks to represent the Q-network, and to train this Q-network to predict total reward.

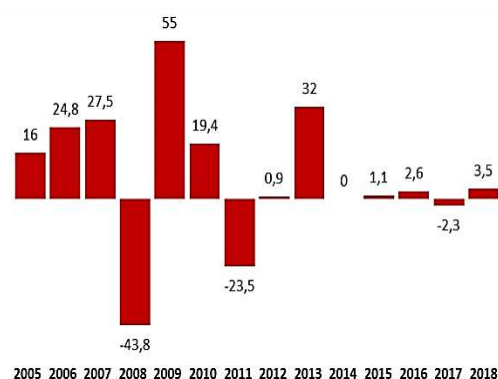
Here are two video tutorials by Siray Raval, [V1](#) and [V2](#). “So easy, a liberal art major could do it.”

The model they used for the Atari’s Breakout videogame is a convolutional neural network, trained with a variant of Q-learning, whose input is raw pixels and whose output is a value function estimating future rewards.

Without human instruction, DeepMind’s program not only learned to play the game but also worked out how to cannon the ball into the space behind the blocks, taking advantage of rebounds to break even more blocks. It’s interesting to read e.g. “[DeepMind and Google: the battle to control artificial intelligence](#)” by Hal Hodsonis.

Once again, I am not in the business of Artificial Intelligence. I am just scratching the surface of what is known as algorithmic investing.

Quants still have a long way to go. Joel Greenblatt published his “magic formula” in *The Little Book That Beats The Market* in 2005, in which he described a very simple stock selection system that in backtests showed 24% annual returns between 1994 and 2004 (page 153). But how has it fared since the book was published in 2005? InvestorsEdge ran some research, just to find out. The polite answer is “not that great”.



The strategy would have returned just 5.3%. The culprit is the last four years where returns have barely broken even.

In comes Mohnish Pabrai. His “Free Lunch” Portfolio combines the power of Uber Cannibals, Shameless Cloning and Spinoffs. The Free Lunch Portfolio is a 15-stock, 12-month “set it and forget it” approach that, according to the 17 year backtest results, “beats the pants off the S&P 500”.

The Free Lunch Portfolio was down 17% in 2018 and the more conservative version of the Free Lunch Portfolio was down 9.7% in 2018.

Conservative Free Lunch Portfolio.				-9,7%
Sleep Number	37,7	31,7		-15,9%
The Hackett Group	15,7	16,0	0,34	3,9%
Micron Technology	41,5	31,7		-23,6%
Synchrony Financial	38,8	23,5	0,72	-37,7%
GCP Applied Technologies	32,1	24,6		-23,4%
CSRA	29,9	41,3	0,20	38,6%

Let's see if we can improve this approach in hindsight. What I especially like about the Free Lunch Portfolio is the rationale behind it. The idea of a portfolio of Uber Cannibals, Shameless Cloning and Spinoffs is actually based upon Charlie Munger's 3 Rules on How to Become a Successful Investor.

- Munger's first rule is to carefully look at what the other great investors have done. The "cloneables" or "shameless cloning".
- The second rule is to pay close attention to "cannibals". These are businesses that are buying back huge amounts of their stock.
- And the last rule is to focus on "spinoffs". Successful investing is about finding situations of mispricing, or companies selling below their true worth. Spinoffs is the place to be.

Let's have a closer look at the backtest results. The "spinoffs" returned 13.4% on average over a 17 year period, the "cloneables" 16.1% and the "cannibals" 20.0%. If I had to manage a company with 3 business lines generating these returns respectively, and if my Board insisted on even better results, I would seriously consider spinning off the first business line. So let's spinoff "the spinoffs".

As a result, the conservative version of the Mohnish Pabrai Free Lunch Portfolio would consist of only 3 companies: Sleep Number, The Hackett Group and Micron Technology.

The next step is to carefully study how these stocks performed in 2018. And that led me to an insight I already knew for many years. It's a Seth Klarman insight: you should sell the stocks when the birds are chirping.

Were the birds chirping in 2018? Yes. The birds were chirping in 2018. Both The Hackett Group and Micron Technology were up more than 40% during the year. If you added a conditional sell order for all these three companies at the beginning of the year @ 40%, this is what the results would look like:

Conservative Free Lunch. No spinoffs. Sell @40%.				21,7%
Sleep Number	37,7	31,7		-15,9%
The Hackett Group	15,7	22,0	0,17	41,1%
Micron Technology	41,5	58,1		40,0%

Can we improve even further? Now we need a wizard! Let's forget about Mr Potter and let's turn to Mrs Hermione Granger for some Intelligent Magic. She noticed the impact of the conditional sell order on the performance at the end of the year and suggested to

look for the more volatile stocks in order to increase the chances that one or more stocks would actually be sold during the year @ 40%. "Just stick to high quality small cap stocks, trading @ attractive prices", she said.



Stick to the high quality small cap stocks. In the long run, from 1990 until now, the S&P 600 Small Cap Index, although more volatile, outperforms the S&P 500 Large Cap Index.

"Wingardium Leviosa!" And here are the results: AMAG Pharmaceuticals, Cardtronics and American Public Education. These stocks were up during the year more than 75%. A conditional sell order at the beginning of the year anywhere between 40% and 75%, would actually define your result for the year.

Many great investors indeed doubt if there ever will be a successful algorithm for investing. I am quite sure that if there is one (and I have my doubts as well), it will only be found by disciplined trial-and-error reinforcement learning. And if you don't mind, I will just stick to my own limited human convolutional neural network.

"Wingardium Leviosa!" Here are the 2019 constituents: Xperi Corp, DXP Enterprises and Vera Bradley. So the algorithm for picking three stocks for the Hermione Granger Portfolio is up and running, and yes, I will publish each years constituents upfront.

Here we have "the 6 quants under surveillance" for the upcoming 10 years:

- Q1. The Mohnish Pabrai Free Lunch Portfolio (FLP).
- Q2. The conservative version of the FLP.
- Q3. The conservative FLP, no spinoffs. Sell @ 40%.
- Q4. The Hermione Granger Portfolio. Sell @ 40%.
- Q5. The Hermione Granger Portfolio. Sell @ 50%.
- Q6. The Hermione Granger Portfolio. Sell @ 60%.

In my write-up of 9 april 2019, I added Express Inc as a constituent, but that was a "mistake of execution". By the way, I do expect that the final result will be quite satisfactory with Express Inc. as constituent as well.

	Q1	Q2	Q3	Q4	Q5	Q6
2018	-17,0%	-9,7%	21,7%	40,0%	50,0%	60,0%
2019						
2020						
2021						
2022						
2023						
2024						
2025						
2026						
2027						

Let me add some common sense to these results. It is very well possible that we will not see another 2018 any time soon. We saw a 20% decline from its 52 week high, with a devastating effect on Q1 and Q2. And we saw exceptional outcomes of the concentrated quants Q4, Q5 and Q6, as a result of the conditional selling orders.

Don't get too excited about Q4, Q5 and Q6. These results might be just as well the outcome of a statistical coincidence, rather than the conclusion of a smart algorithm. But it surely helps. The best performer of last year might turn out to be the worst performer of this year and vice versa. Every quant will have its fair share of good years and bad years. And hopefully more ups than downs. With the exception of Q1, there are no backtest results for these quants.

When I left Hogwarts, Professor Albus Percival Wulfric Brian Dumbledore handed me a special gift, not to be opened. "Great! What's in it?" I asked. "Q7", he said, with this mysterious Hogwarts smile on his face. "It's fully backtested, 2008 included, and the results are exceptional indeed. But don't reveal it. It's a secret."

That's it for this Edition on Intelligent Cloning. And if, after 10 years, it happens to be that all of these quants utterly failed... Well, then The Value Firm® just might invoke article 50.

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
28 April 2019

Postscript. Annual rebalancing and conditional selling do not belong to my normal investment routine. I am a notoriously long-term investor, and I like to hold on to stocks preferably for decades. And I won't change that. I was lured into this idea of rebalancing by the Free Lunch Portfolio, and also by the work of Joel Greenblatt. Anyhow, it was nice to do some thinking on this subject.

The final question obviously is, if Artificial Intelligence will be able to disrupt the long-term (value) investing industry. The AI believers contend that human intelligence is limited by the size of the skull that houses the brain and its power is restricted by the puny amount of energy that the body is able to provide.

I am skeptical though. Even the great Joel Greenblatt track record wasn't able to stand the test of time. If I look at some of my latest investments, Seritage Growth Properties, Veritiv and StoneCo, they all were found by exceptional business insights that were almost impossible to derive from available data. But I am perfectly ready to be proven wrong. And there are definitely interesting companies successfully pioneering Artificial Intelligence in Investing.

The flagship investment vehicles of Renaissance Technology, Two Sigma, Citadel and DE Shaw notched up hefty gains in 2018, where most money managers experienced their worst year since the financial crisis. But then again you could question if these companies really used "deep learning artificial intelligence algorithms" or "just computerized strategies". To be continued...

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Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Intelligent Cloning

The Winter 2019 Edition

**Thou shall not have
an investment team.**



This is the second commandment of the Mohnish Pabrai 10 Commandments of Investment Management. I couldn't agree more. You don't need an expensive research department, since the best investment ideas on planet Earth are available for free.

13F filings, which have to be filed with the Securities and Exchange Commission within 45 days after the end of each calendar quarter, is the place to be and they give us a great snapshot into where exceptional investment minds like Mohnish Pabrai, Todd Combs, Ted Weschler or Stanley Druckenmiller, are finding value in the current market.

In the previous edition on Intelligent Cloning, I announced a few topics of interest for this edition, but I have a much better idea. Let's go fishing in Istanbul!

Istanbul

For more than three thousand years, the citizens of former Byzantium and Constantinople enjoy fishing in Istanbul. They just know that the first rule of fishing is to fish where the fish are.

Recently, Mohnish Pabrai mentioned that during his visit to Istanbul, he was actually swimming in cheap quality companies (companies with a forward P/E ratio of 1). And also Howard Marks, in a recent Podcast with Meb Faber, mentioned Turkey as one of the places to be for bargain hunting.

It doesn't make much sense to travel all the way to Istanbul to fish for mediocre fish. Lots of mediocre fish

over here in my own country. So I only want the good fish. What is a good fish?

A good fish is a fish that earns a high rate of return on tangible assets. That's a good fish. The fisherman from Omaha also said that the best ones are the ones that earn a high rate of return on tangible assets and grow.

And there is another special type of fish with amazing talents. These fish earn an average return on equity of 20% in ten years, and no year worse than 15%.

When I go fishing abroad, I always bring my two fishing nets. The first net screens the fish based upon the latter idea. And the second net is a little bit more complicated, and screens for fish with an exceptional value creation engine (VCE), which is actually an adjusted return on capital (ROC) measure.

If you apply the second screen to the fish in Istanbul, and rank the results (first the highest VCE gets 1 point and the lowest VCE the highest number, then the highest margin of safety gets 1 point and the lowest margin of safety the highest number, add those two numbers and start the ranking with the lowest number), you will find exceptional fish,

1. Çimsa Cimento Sanayi Ve Ticaret AS
2. Migros Turk TAS
3. Bizim Toptan Satis Magazalari AS
4. Klimasan Klima Sanayi Ve Ticaret AS
5. Aksa Akrilik Kimya Sanayii AS

Çimsa

During his talk on "The Ten Commandments of Investment Management" to Prof. Arvind Navaratnam's class on Value Investing at the Carroll School of Management (Boston College), Mohnish talks about this cement company in Turkey. He didn't mention which company it was, but besides knowing that it is a cement company in Turkey, what do we know? Well...

Mohnish said that it is a cement company in Turkey that exports 8 – 9% of the cement to the east coast of the United States and the west coast of Africa.

The company Mohnish is talking about is, I believe, Çimsa. Perhaps I am wrong, but the reason why I think it's Çimsa comes from reading the message from their general manager Nevra Özhatay in their 2017 Annual Report:

"The markets where we grew the most in 2017 have been the Mediterranean Basin, West Africa and North America."

By the way, Mohnish also said that he probably won't make an investment in this company. Time will tell.

The Istanbul Basket

One of the most famous contrarian investors of all time was Sir John Templeton. A notable example of Templeton's against-the-tide investments is Japan in the 1960s when people thought the Japanese market was a mess and it would be crazy to invest there. He committed significant sums and years later earned big on this investment.

Turkish stocks currently trade @ the lowest multiples in 9 years. Why not set up an Istanbul basket of 5 stocks. Here are the companies that comprise "The Istanbul Basket":

Çimsa is a global pioneer in white cement, continuously growing by creating a difference in the industry and putting its mark on distinguished products and solutions in the (Turkish) cement sector for more than 40 years. Cimsa is a 1.0B TRY market cap company (the equivalent of 190M USD), trading @ 3.6 times cash flow (where cash flow equals 3 year average operational cash flow).

Migros is one of the biggest chains of supermarkets in Turkey. Together via Migros supermarkets, Şok discount stores, international Ramstore shopping centers, online shopping, wholesale stores, and mobile sales units, Migros serves an estimated 160 million customers. Migros is a 2.7B TRY market cap company (the equivalent of 510M USD), trading @ 3.5 times cash flow.

Klimasan offers a complete range of solutions for the plug-in commercial refrigeration market worldwide. Having a diverse portfolio of products and services and with its extensive expertise, Klimasan is currently one of the largest companies in the industry and continues to grow. They offer several products and custom-made designs under its brands Metalfrio, Klimasan and Şenocak. Klimasan is a 160M TRY market cap company (the equivalent of 30M USD), trading @ 3.1 times cash flow.

Bizim Toptan is engaged in the wholesale of fast-moving consumer goods. It has 106 stores in 54 provinces of

Turkey selling over 7,000 different kinds of products. The Company's main customers are retailers; catering businesses, such as restaurants, patisseries and hotels, and corporations. Bizim Toptan is a 375M TRY market cap company (the equivalent of 70M USD), trading @ 3.6 times cash flow.

Aksa is the world's largest and Turkey's only acrylic fiber producer with premises of 502 thousand square meters and a capacity of 315,000 tons per year. The company is a global giant with approximately 300 customers in over 50 countries across 5 continents. With more than 1200 employees, Aksa is a 1.4B TRY market cap company (the equivalent of 265M USD), trading @ 4.1 times cash flow.

Let's revisit **The Istanbul Basket** once every few years and see what an initial investment of 100.000 USD in these 5 stocks will be worth a few decades from now. As of today 1 USD equals 5.29 TRY.

Remember to always do your own in depth due diligence! Anyone who invests in any strategy needs to do their own research and are themselves fully responsible for the outcome. Or in the words of good old Ben Graham:

"Quantitative data are useful only to the extent that they are supported by a qualitative survey of the enterprise".

The Intelligent Cloning Portfolio

I added two companies to the Intelligent Cloning portfolio: StoneCo and Veritiv. The 5 criteria I normally use for identifying the more conservative opportunities are not applicable for these two new additions though. You can find the full investment theses on my website: www.thevaluefirm.com.

The Intelligent Cloning portfolio, thus far:

2H '16	Deere & Co (Berkshire) @ 87 USD
	Allison Transmission (Simpson) @ 29 USD
1H '17	Davita Inc. (Berkshire) @ 65 USD
	Verisign (Berkshire) @ 83 USD
2H '17	Tegna (Einhorn) @ 13 USD
	Monro (Akre, Mecham) @ 47 USD
1H '18	Sinclair Broadcast (Cooperman) @ 30 USD
	Esterline Corporation (Witmer) @ 72 USD
2H '18	StoneCo (Berkshire) @ 17 USD
	Veritiv (Klarman) @ 24 USD

Lunch for free

Finally, if you follow my writings, you know I came up with this idea of the conservative version of the Mohnish Pabrai Free Lunch Portfolio. Just after one year, I could already write many, many pages on the pros, cons and lessons learned.

The conservative Free Lunch Portfolio (Sleep Number, The Hackett Group, Micron Technology, Synchrony Financial, GCP Applied Technologies, CSRA) was down 9.9% (2 more trading days in 2018 to go).

In December 2018, stocks saw a 20% decline from its 52-week high. It reminded me of a quote from the German philosopher, Friedrich Nietzsche: "If it doesn't kill you, it only makes you stronger." And to quote Mohnish Pabrai: "Keep the faith and do not overreact to short-term negative performance. This is a long-term "set it and forget it" strategy. We don't recommend putting more than 10-20% of your nest egg into this strategy. And we think it only makes sense if you follow it for a decade, or two, or longer."

Here are the 2019 constituents of the conservative Free Lunch Portfolio: DXC Technologies, Discover Financial, Sleep Number, Lear Corp, Micron Technology, Delphi Technology.

That's it for this edition on Intelligent Cloning. In the next edition, we try to touch base camp with some thoughts on the Berkshire Hathaway portfolio and the shareholders meeting.

"Thou shall not have an investment team."

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
28 December 2018
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The Istanbul Fishing Pond

Aciselsan Acipayam Selulöz Sanayi ve Ticaret A S	Is Yatirim Ortakligi AS
Adana Cimento Sanayi TAS	Isbir Holding AS
Adel Kalemcilik Ticaret Ve Sanayi AS	Isiklar Enerji ve Yapi Holding AS
Adese Alisveris Merkezleri Ticaret AS	Isiklar Yatirim Holding AS
AFM Uluslararası Film Produksiyon AS	Iskenderun Demir ve Celik AS Ordinary Shares
Afyon Cimento Sanayii TAS	Ittifak Holding AS
Ag Anadolu Grubu Holding Anonim Sirketi	Iz Hayvancilik Tarim ve Gida Sanayi Ticaret AS
Ak-Al Gayrimenkul Gelistirme ve Tekstil Sanayii AS	Izmir Demir Celik Sanayi AS
Akbank TAS	Izmir Firca Sanayi ve Ticaret AS
Akcansa Cimento Sanayi Ve Ticaret AS	Izocam Ticaret ve Sanayi AS
Akdeniz Guvenlik Hizmetleri AS	Jantsa Jant Sanayi ve Ticaret AS
Akenrji Elektrik Uretim AS	Kafein Yazilim Hizmetleri Ticaret AS Ordinary Shares
Akfen Gayrimenkul Yatirim Ortakligi	Kapital Yatirim Holding AS
Akfen Holding AS	Kaplamin Ambalaj Sanayi Ve Ticaret AS
Akin Tekstil AS	Karakas Atlantis Kiyetli Madenler Kuyumculuk Telekomunikasyon Sanayi
Akis Gayrimenkul Yatirim Ortakligi AS	Kardemir Karabuk Demir Celik Sanayi ve Ticaret AS Class A
Akmerkez Gayrimenkul Yatirim Ort AS	Karel Elektronik Sanayi ve Ticaret AS
Aksa Akrilik Kimya Sanayii AS	Karsan Otomotiv Sanayii Ve Ticaret AS
Aksa Enerji Uretim AS	Karsu Tekstil Sanayii Ve Ticaret AS
Aksel Yatirim Holding Anonim Sirketi	Karsusan Karadeniz Su Urunleri Sanayii AS
Aksigorta AS	Kartonsan Karton Sanayi ve Ticaret AS
Aksu Enerji Ve Ticaret AS Bearer Form	Kent Gida Maddeleri Sanayii Ve Ticaret AS
Akyurek Tuketim Urunleri Pazarlama Dagitim ve Ticaret AS	Kerevitas Gida Sanayi Ve Ticaret AS
Alarko Carrier Sanayii Ve Ticaret AS	Kervansaray Yatirim Holding AS
Alarko Gayrimenkul Yatirim Ortakligi AS	Kiler Alisveris Hizmetleri Gida Sanayi Ve Ticaret
Alarko Holding AS	Kiler Gayrimenkul Yatirim Ortakligi AS
Albaraka Turk Katilim Bankasi AS	Klimasan Klima Sanayi Ve Ticaret AS
Alcatel Lucent Teletas Telekomunikasyon AS	Koc Holding AS
Alkim Alkali Kimya AS	Konfrut Gida Sanayi ve Ticaret AS
Alkim Kagit Sanayi ve Ticaret AS	Konya Cimento Sanayii AS
Alternatif Yatirim Ortakligi AS	Kordsa Teknik Tekstil AS
Alternatifbank AS	Korfez Gayrimenkul Yatirim Ortakligi AS
Altin Yunus Cesme AS	Koza Altin Izletmeleri AS
Altinyag Kombinalari AS	Koza Anadolu Metal Madencilik Isletmeleri AS
Anadolu Anonim Turk Sigorta Sirketi	Kristal Kola Ve Mesrubat Sanayii Ticaret AS
Anadolu Cam Sanayii AS	Kron Telekomunikasyon Hizmetleri AS
Anadolu Efes Biracilik ve Malt Sanayi AS	Kustur Kusadasi Turizm Endustrisi AS
Anadolu Hayat Emeklilik AS	Kutahya Porselen Sanayii AS
Anadolu Isuzu Otomotiv Sanayi Ve Ticaret AS Class C	KUYAS Kuyumculuk Gayrimenkul Yatirimlari AS
Anel Elektrik Proje Taahhut ve Ticaret AS	Latek Lojistik Ticaret AS
Anel Telekomunikasyon Elektronik Sistemleri Sanay ve Ticaret AS	Link Bilgisayar Sistemleri Yazilimi ve Donanimi Sanayi ve Ticaret AS
Ar Tarim Organik Gida AS	Logo Yazilim Sanayi ve Ticaret AS
Arbul Entegre Tekstil Isletmeleri AS	Lokman Hekim Engurusag Saglik Turizm Egitim Hizmetleri ve Insaat Taahhut AS
Arcelik AS	Luks Kadife Ticaret Ve Ssanayii AS
Arena Bilgisayar Sanayi Ve Ticaret AS	Makina Takim Endustrisi AS
Armada Bilgisayar Sistemleri Sanayi ve Ticaret AS	Mango Gida Sanayi ve Ticaret AS
Arsan Tekstil Ticaret ve Sanayi AS	Mardin Cimento
Arti Yatirim Holding AS	Marka Yatirim Holding AS
Aselsan Elektronik Sanayi Ve Ticaret AS	Marmaris Altinyunus Turistik Tesisler AS
Asil Celik Sanayi ve Ticaret AS	Marshall Boya VE Vernik Sanayii AS
Aslan Cimento AS	Marti Gayrimenkul Yatirim Ortakligi AS
Asya Katilim Bankasi AS B	Marti Otel Isletmeleri AS
Ata Gayrimenkul Yatirim Ortakligi Anonim Sirketi	Mavi Giyim Sanayi ve Ticaret AS
Atac Insaat Ve Sanayi AS	Mazhar Zorlu Holding AS
Atakule Gayrimenkul Yatirim Ortakligi AS	MCT Danismanlik AS
Atlantik Petrol Urunleri Ticaret ve Sanayi AS	Mega Polietilen Kopuk Sanayi ve Ticaret AS
Atlantis Yatirim Holding AS	Menba Holding A.S.
Atlas Menkul Kiyetler Yatirim Ortakligi AS	Menderes Tekstil Sanayi ve Ticaret AS
AvivaSA Emeklilik ve Hayat AS	Mensa Sinai Ticari Mali Yatirimlar AS
AVOD Kurutulmus Gida ve Tarim Urunleri Sanayi Ticaret AS	Mepet Metro Petrol ve Tesisleri Sanayi Ticaret AS
Avrasya Gayrimenkul Yatirim Ortakligi AS	Merit Turizm Yatirim ve Isletme AS
Avrasya Petrol ve Turistik Tesisler Yatirimlar AS	Merko Gida Sanayi Ve Ticaret AS Class A
Avrupa Yatirim Holding AS	Mert Gida Giyim Sanayi ve Ticaret AS

Ayen Enerji AS	Metal Gayrimenkul AS
Ayes Akdeniz Yapı Elemanları Sanayi ve Ticaret AS	Metemtur Otelcilik ve Turizm AS
Aygaz AS	Metro Ticari ve Mali Yatırımlar AS
Bagfas Bandırma Gubre Fabrikaları AS	Migros Turk TAS
Bak Ambalaj Sanayi Ve Ticaret AS	Milpa Ticari Ve Sınai Urunler Pazarlama Sanayi Ve Ticaret AS
Balatacılar Balatacilik Sanayi ve Ticaret AS	Mish Dekorasyon Sanayi ve Ticaret AS
Bantas Bandırma Ambalaj Sanayi ve Ticaret AS	Mistral Gayrimenkul Yatırım Ortaklığı AS
Banvit Bandırma Vitaminli Yem Sanayii AS	MLP Sağlık Hizmetleri AS
Bastas Baskent Cimento Sanayi ve Ticaret AS	MMC Sanayi Ve Ticari Yatırımlar AS
Baticim Bati Anadolu Cimento Sanayii AS	Mondi Tire Kutsan Kagit Ve Ambalaj Sanayii AS
BatiSoke Soke Cimento Sanayii TAS	Mutlu Aku ve Malzemeleri Sanayi AS
Bera Holding AS	Net Holding AS
Berkosan Yatılım Ve Tecrit Maddeleri Üretim Ve Ticaret AS	Net Turizm Ticaret ve Sanayi AS
Besiktas Futbol Yatırımları Sanayi Ve Ticaret AS	Netas Telekomünikasyon AS
Beyaz Filo Oto Kiralama AS	Nigbas Nigde Beton Sanayi ve Ticaret AS
Bilici Yatırım Sanayi Ve Ticaret AS	Nuh Cimento Sanayii AS
Bim Birlesik Magazalar AS	Nurol Gayrimenkul Yatırım Ortaklığı AS
Bimeks Bilgi İşlem Ve Dis Ticaret SA	ODAS Elektrik Üretim Sanayi Ticaret AS
Birko Birlesik Koyunlulular Mensucat ve Ticaret AS	Olmuksan International Paper Ambalaj Sanayi Ve Ticaret AS
Birlik Mensucat Ticaret Ve Sanayi AS	OMV Petrol Ofisi AS
Bizim Tiptan Satış Magazaları AS	Orge Enerji Elektrik Taahhut AS
Bolu Cimento Sanayi AS	Orma Orman Mahsulleri İntegre Sanayi ve Ticaret AS
Bomonti Elektrik Mühendislik Musavirlik İnşaat Turizm ve Ticaret AS	Osim Endüstriyel Yatırımlar ve İşletme AS
Borusan Mannesmann Boru Sanayi ve Ticaret AS	Osmanlı Menkul Değerler AS
Borusan Yatırım Pazarlama AS	Otokar Otobüs Karoseri Sanayi AS
Bosch Fren Sistemleri Sanayi ve Ticaret AS	Oyak Yatırım Ortaklığı AS
Bossa Ticaret VE Sanayi İşletmeleri TAS	Oylum Sınai Yatırımlar AS
Boyner Büyük Magazacılık AS	Ozak Gayrimenkul Yatırım Ortaklığı
Boyner Perakende Ve Tekstil Yatırımları AS	Ozbal Çelik Boru
Brisa Bridgestone Sabancı Lastik San & Tic AS	Ozderici Gayrimenkul Yatırım Ortaklığı AS
BSH Ev Aletleri Sanayi ve Ticaret AS	Panora Gayrimenkul Yatırım Ortaklığı AS
Burçelik Bursa Çelik Dokum Sanayi AS	Park Elektrik Üretim Madencilik Sanayi ve Ticaret AS
Burçelik Vana Sanayi Ve Ticaret AS	Parsan Makina Parçaları Sanayii AS
Bursa Cimento Fabrikası AS	Pegasus Hava Tasımacılığı AS
CarrefourSA Carrefour Sabancı Ticaret Merkezi AS	Penguen Gıda AS
CBS Boya Kimya Sanayi VE Ticaret AS	Pera Gayrimenkul Yatırım Ortaklığı AS
CBS Printas Oto Boya ve Gereçleri Sanayii AS	Pergamon Status Dis Ticaret AS
Celebi Hava Servisi AS	Petkim Petrokimya Holding AS
Çelik Halat ve Tel Sanayii AS	Petrokent Turizm AS
Cemas Dokum Sanayi AS	Pimas Plastik İnşaat Malzemeleri AS
Cemtas Çelik Makina Sanayi Ve Ticaret AS	Pinar Entegre ET ve Un Sanayi AS
Cimbeton Hazır beton ve Prefabrik Yapı Elemanları Sanayi ve Ticaret AS	Pinar Su Sanayi Ve Ticaret AS
Cimentas İzmir Cimento Fabrikası Türk AS	Pinar Sut Mamülleri Sanayii AS
Cimsa Cimento Sanayi Ve Ticaret AS	Plastikkart Akıllı Kart İletişim Sistemleri Sanayi Ve Ticaret AS
CLK Holding AS	Polisan Holding AS
Coca Cola İçecek AS	Politeknik Metal Sanayi ve Ticaret AS
Cosmos Yatırım Holding AS	Prizma Pres Matbaacılık Yayıncılık Sanayi ve Ticaret AS
Creditwest Faktoring AS	QNB Finans Kiralama AS
Cuhadaroglu Metal Sanayi Ve Pazarlama AS	QNB Finansbank AS
Dagi Giyim Sanayi ve Ticaret AS	Ral Yatırım Holding AS
Dagi Yatırım Holding AS	Ran Lojistik Hizmetleri AS
Dardanel Onentis Gıda Sanayi AS	Ray Sigorta AS
Datagate Bilgisayar Malzeme İleri Ticaret AS	Reysas Gayrimenkul Yatırım Ortaklığı AS
Demisas Dokum Emaye Mamülleri Sanayi AS	Reysas Tasımacılık ve Lojistik Ticaret AS
Denge Yatırım Holding AS	Rhea Girişim Sermayesi Yatırım Ortaklığı AS Shs
Deniz Gayrimenkul Yatırım Ortaklığı AS	Rodrigo Tekstil Sanayi ve Ticaret AS
Denizbank AS	Royal Hali İplik Tekstil Mobilya Sanayi ve Ticaret AS
Denizli Cam Sanayii Ve Ticaret AS	RTA Laboratuvarları Biyolojik Urunler İlac ve Makina Sanayi Ticaret AS
Dentas Ambalaj ve Kagit Sanayi AS	Saf Gayrimenkul Yatırım Ortaklığı AS
Derimod Konfeksiyon Ayakkabı Deri San Ve Tic AS	Safkar Ege Sogutmacılık Klima Soguk Hava Tesisleri İhracat İthalat AS
Desa Deri ve Sanayi Ticaret AS	Salix Yatırım Holding AS
Despec Bilgisayar Pazarlama ve Ticaret	San-El Mühendislik Elektrik Taahhut Sanayi ve Ticaret AS
Deva Holding AS	Sanifoam Sunger Sanayi ve Ticaret AS
Diriteks Dirilis Tekstil Sanayi ve Ticaret AS	Sanko Pazarlama İthalat İhracat AS
Ditas Dogan Yedek Parça İmalat Ve Teknik AS	Saray Matbaacılık Kagitcilik Kırtasiyecilik Ticaret ve Sanayi AS
Dogan Burda Dergi Yayıncılık ve Pazarlama AS	Sarkuysan Elektrolitik Bakir Sanayi AS
Dogan Gazetecilik AS	Sasa Polyester Sanayi AS
Dogan Sirketler Grubu Holdings AS	Say Reklamcilik Yapı Dekorasyon Proje Taahhut Sanayi ve Ticaret AS
Dogan Yayın Hldg AS	Seker Finansal Kiralama AS
Dogtas Kelebek Mobilya Sanayi ve Ticaret AS	Seker Pilic Ve Yem Sanayii Ticaret AS

DOGUS Gayrimenkul Yatirim Ortakligi AS	Sekerbank TAS
Dogus Otomotiv Servis Ve Tic AS	Sekuro Plastik Ambalaj Sanayi AS
Dogusan Boru Sanayi ve Ticaret AS	Selcuk Ecza Deposu Ticaret ve Sanayi AS
Doktas Dokumculuk Ticaret Ve Sanayi AS	Selcuk Gida Endustri Ihracat Ve Ithalat AS
DP Eurasia NV	Senkron Guvenlik Ve Iletisim sistemleri AS
Duran Dogan Basim ve Ambalaj Sanayi AS	Serve Kirtasiye Sanayii Vi Ticaret AS
Dyo Boya Fabrikalari Sanayi ve Ticaret AS	Servet Gayrimenkul Yatirim Ortakligi AS
Eczacibasi Yapi Gerecleri Sanayi Ve Ticaret AS	Seyitler Kimya Sanayi AS
Eczacibasi Yatirim Holding Ortakligi AS	Silverline Endustri ve Ticaret AS
Edip Gayrimenkul Yatirim Sanayi ve Ticaret AS	Sinpas Gayrimenkul Yatirim Ortakligi AS
Ege Endustri ve Ticaret AS	Soda Sanayii AS
Ege Guebre Sanayii AS	Sodas Sodyum Sanayii AS
Ege Profil Ticaret Ve Sanayi AS	Sok Marketler Ticaret AS
Ege Seramik Sanayi ve Ticaret AS	Soktas Tekstil Sanayi ve Ticaret AS
Egeli & Co Enerji Yatirimlari AS	Sonmez Filament Sentetik Iplik Ve Elyaf Sanayi AS
Egeli & Co Tarim Girism Sermayesi Yatirim Ortakligi AS	Sonmez Pamuklu Sanayii AS
Egeli & Co Yatirim Holding Anonim Sirketi	Sumas Suni Tahta VE Mobilya Sanayi AS Ordinary Shares
Egeplast Ege Plastik Ticaret Ve Sanayi AS	T Tuborg Bira Ve Malt Sanayii AS
EGS Gayrimenkul Yatirim Ortakligi AS	Tac Tarim Urunleri Hayvancilik Gida Sanayi ve Ticaret AS
EIS Eczacibasi Ilac ve Sinai ve Finansal Yatirimlar Sanayi ve Ticaret AS	Taraf Gazetecilik Sanayi ve Ticaret AS
Ekiz Kimya Sanayi ve Ticaret AS	Tat Gida Sanayi A.S
Emek Elektrik Endustrisi AS	Taze Kuru Gida Sanayi ve Ticaret AS
Eminis Ambalaj Sanayi Ve Ticaret AS	TEK-ART Turizm Zigana AS
Emlak Konut Gayrimenkul Yatirim Ortakligi AS	Tekfen Holding AS
Enerjisa Enerji AS	Teknosa Ic ve Dis Ticaret AS
Erbosan Erciyas Boru Sanayii ve Ticaret AS	Te-mapol Polimer Plastik ve Insaat Sanayi Ticaret AS
Eregli Demir Ve Celik Fabrikalari TAS	Tesco Kipa Kitle Pazarlama Ticaret Lojistik ve Gida Sanayi AS
Ericom Telekomunikasyon ve Enerji Teknolojileri AS	TGS Dis Ticaret AS
Ersu Meyve ve Gida Sanayi AS	Tofas Turk Otomobil Fabrikasi AS
Escort Teknoloji Yatirim AS	Torunlar Gayrimenkul Yatirim Ortakligi AS
Esem Spor Giyim Sanayi ve Ticaret AS	Trabzonspor Sportif Yatirim Ve Futbol Isletmeciligi Ticaret AS
Etiler Gida ve Ticari Yatirimlar Sanayi ve Tica ret AS	Trakya Cam Sanayii AS
Euro Kapital Yatirim Ortakligi	Transturk Holding AS
Euro Menkul Kiymet Yatirim Ortakligi AS	TSKB Gayrimenkul Yatirim Ortakligi AS
Euro Trend Yatirim Ortakligi AS	Tugcelik Aluminyum ve Metal Mamulleri Sanayi ve Ticaret AS
Euro Yatirim Holding AS	Tukas Turgutlu Konservecilik AS
Favori Dinlenme Yerleri AS	Tumosan Motor ve Traktor Sanayi AS
Federal-Mogul Izmit Piston ve Pim Uretim Tesisleri AS	Tupras-Turkiye Petrol Rafineleri AS
Fenerbahce Futbol Anonim Sirketi	Turcas Petrol AS
Fenis Aluminyum Ve Ticaret AS	Turk Demir Dokum Fabrikalari AS
Finans Yatirin Ortakligi AS	Turk Ekonomi Bankasi AS
Flap Kongre Toplantı Hizmetleri Otomotiv ve Turizm AS	Turk Prysmian Kablo ve Sistemleri AS
Fonet Bilgi Teknolojileri AS	Turk Telekomunikasyon AS
Ford Otomotiv Sanayi AS	Turk Traktor ve Ziraat Makineleri AS
Formet Celik Kapi Sanayi ve Ticaret AS	Turkcell Iletisim Hizmetleri AS
Frigo Pak Gida Maddeleri San Ve Ticaret AS	Turker Proje Gayrimenkul ve Yatirim Gelistirme AS
Galatasaray Sportif Sinai Veticari Yatirimlar AS	Turkiye Garanti Bankasi AS
Garanti Faktoring AS	Turkiye Halk Bankasi AS
Garanti Yatirim Ortakligi AS	Turkiye Is Bankasi AS Class A
Gedik Yatirim Holding AS	Turkiye Kalkinma Bankasi AS
Gedik Yatirim Menkul Degerler AS	Turkiye Sinai Kalkinma Bankasi AS
Gediz Ambalaj Sanayi ve Ticaret AS	Turkiye Sise ve Cam Fabrikalari AS
Gen Yatirim Holding AS	Turkiye Vakiflar Bankasi TAO
Genpower Holding AS	Ufuk Yatirim Yonetim Ve Gayrimenkul AS
Gentas Clenel Metal Sanayi Ve Ticaret AS	Ulaslar Turizm Yatirimlari ve Dayanikli Tuketim Mallari Ticaret Pazarlama
Gersan Electric Ticaret ve Sanayi AS	Ulker Biskuvi Sanayi AS
Gimsan Gediz Iplik Ve Mensucat Sanayi AS	Ulusoy Elektrik Imalat Taahhut ve Ticaret AS
Global Menkul Degerler AS	Ulusoy Un Sanayi ve Ticaret AS
Global Yatirim Holding AS	Umpas Holding AS
Goldas Kuyumculuk Sanayii Ithalat Ve Ihracat AS	Unico Sigorta AS
Goltas Goller Bolgesi Cimento Sanayi ve Ticaret AS	Unye Cimento Sanayi Ve Ticaret AS
Good Year Lastikleri TAS	Usak Seramik Sanayii AS
Gozde Girism Sermayesi Yatirim Ortakligi AS	USAS Yatirimlar Holdings AS
GSD Denizcilik Gayrimenkul Insaat Sanayi Ve Ticaret AS Bearer form	Utopya Turizm Insaat Isletmecilik Ticaret AS
GSD Holding AS	Uyum Gida ve Ihtiyac Maddeleri Sanayi ve Ticaret AS
Gubre Fabrikalari TAS	Uzertas Boya Sanayi Ticaret ve Yatirim AS
Guler Yatirim Holding AS	Vakif Finansal Kiralama AS
Gunes Sigorta AS	Vakif Gayrimenkul Yatirim Ortakligi AS
Haci Omer Sabanci Holding AS	Vakif Menkul Kiymet Yatirim Ortakligi AS
Halk Gayrimenkul Yatirim Ortakligi AS	Vakko Tekstil ve Hazir Giyim Sanayi Isletmeleri AS

Hateks Hatay Tekstil Isletmeleri AS
Haznedar Refrakter Sanayii AS
Hedef Girişim Sermayesi Yatir Ortak
Hektas Ticaret AS
Hitit Holding AS
Hurriyet Gazetecilik ve Matbaacilik AS
ICBC Turkey Bank AS
Idealist Gayrimenkul Yatirim Ortakligi AS
Ihlas Ev Aletleri Imalat Sanayi Ve Ticaret AS
Ihlas Gayrimenkul Proje Gelistirme ve Ticaret AS
Ihlas Gazetecilik AS
Ihlas Holding AS
Ihlas Yayin Holding
Indeks Bilgisayar Sistemleri Muhendislik Sanayi Ve Ticaret AS
Info Yatirim AS
Intema Insaat Ve Tesisat Malz Yat Ve Paz AS
Ipek Dogal Enerji Kaynaklari Arastirma ve Uretim AS
Is Finansal Kiralama AS
Is Gayrimenkul Yatirim Ortakligi AS
IS Yatirim Menkul Degerler AS

Vanet Gida Sanayi Ic ve Dis Ticaret AS
Verusa Holding AS
Verusaturk Girişim Sermayesi Yatirim Ortakligi AS
Vestel Beyaz Esa Ticaret Sanayi AS
Vestel Elektronik Sanayi Ve Ticaret AS
Viking Kagit Ve Seluloz AS
Yapi Kredi Koray Gayrimenkul Yatirim Ortakligi AS B
Yapi Kredi Sigorta AS
Yapi Kredi Yatirim Ortakligi AS
Yapi Ve Kredi Bankasi AS
Yaprak Sut ve Besi Ciftikleri Sanayi Ve Ticaret AS
Yayla Enerji Uretim Turizm ve Insaat Ticaret A. S.
Yeni Gimat Gayrimenkul Yatirim Ortakligi AS
Yesil Gayrimenkul Yatirim Ortakligi AS
Yesil Yapi Endustrisi AS
Yesil Yatirim Holding AS
Yibitas Yozgat Isci Birliğı Insaat Malzemeleri Ticaret ve Sanayi AS
Yonga Mobilya Sanayi ve Ticaret AS
Yunsa Yunlu Sanayi Ve Ticaret AS
Zorlu Enerji Elektrik Uretim AS

Intelligent Cloning

The Autumn 2018 Edition

During the Graham & Dodd Luncheon Symposium, October 2, 2008, @ the Heilbrunn Center for Graham & Dodd investing (Columbia Business School), chaired by Seth Klarman, David Abrams, who actually worked for Seth Klarman's Baupost Group for 10 years, made it obviously clear:

*"We just try to steal good ideas from other people.
A lot of my best ideas have been stolen."*

And that's what you try to do: steal, copy or clone great investment ideas. The question obviously is, whether we can in any case still discover ideas that are "cloneable". I mean, we are right now amidst the longest positively trending market in history since World War II.

In this Autumn 2018 edition on Intelligent Cloning we will look back @ all the stocks covered thus far in my write-ups and rank them once again, to see if there is still some value out there. Furthermore, we will examine the portfolios of two fascinating value investors not covered thus far: Bob Robotti and Francisco García Paramés. Both of them showed up @ the London Latticework Conference 2018. It was a treat to be present at this motivating session.

Looking back

Just a quick reminder. The Joel Greenblatt Magic Formula approach shows that stocks that rank well on both Return on Invested Capital (ROIC) and cheapness do much better than the market over time. This approach makes a lot of sense to me, though I have to admit that I use a slightly different approach in calculating ROIC and cheapness (margin of safety).

Intelligent Cloning means copying great investors while avoiding their "too risky" investments. And to identify the "cloneables" I use 5 criteria, very straight forward: a "balanced" balance sheet; consistency in the per-share figures; substantial free cash flow; consistently high return on capital and a margin of safety. Without further ado, here are 3 compelling ideas from the past that meet the criteria:

Sinclair Broadcast Group Inc. (Seth Klarman, Leon Cooperman, Ruane Cunniff) is a 2.9B USD market cap company, trading @ 6.1 times cash flow (where cash flow equals the 3 year average operational cash flow). The company is one of the largest and most diversified television broadcasting companies in the United States.

Sinclair owns and operates, programs or provides sales services to more television stations than anyone and has affiliations with all the major networks. In addition, Sinclair is the leading local news provider in the country, as well as a producer of sports content. Sinclair owns a multicast network, four radio stations and a cable network. Sinclair's broadcast content is delivered via multiple-platforms, including over-the-air, multi-channel video program distributors, and digital platforms. Sinclair, either directly or through its venture subsidiaries, makes equity investments in strategic companies.

Spectrum Brands Holdings (Leon Cooperman, Bruce Berkowitz, Jeremy Grantham) is a 3.7B USD market cap company, trading @ 5.5 times cash flow. The company completed its previously announced merger with HRG Group, Inc. on Friday, July 13, 2018. Following the closing, Spectrum Brands continued as the successor to HRG Group under the name Spectrum Brands Holdings, Inc.

Spectrum Brands Holdings is a global and diversified consumer products company and a leading supplier of consumer batteries, residential locksets, residential builders' hardware, plumbing, shaving and grooming products, personal care products, small household appliances, specialty pet supplies, lawn and garden and home pest control products, personal insect repellents, and auto care products. Helping to meet the needs of consumers worldwide, the company offers a broad portfolio of market-leading, well-known and widely trusted brands. Spectrum Brands' products are sold in approximately 160 countries.

Fiat Chrysler Automobiles (Mohnish Pabrai, Guy Spier, Bill Miller, Bill Nygren, Steven Cohen) is a 23.4B EUR market cap company, trading @ 2.3 times cash flow. The company designs, engineers, manufactures and sells vehicles and related parts and services, components and production systems worldwide through 159

manufacturing facilities, 87 R&D centers, and dealers and distributors in more than 140 countries.

Its stable of brands includes Abarth, Alfa Romeo, Chrysler, Dodge, Fiat, Fiat Professional, Jeep, Lancia, Ram, Maserati and Mopar, the parts and service brand. The Group's businesses also include Comau (production systems), Magneti Marelli (components) and Teksid (iron and castings).

Cloning Robotti & Paramés

Francisco Garcia Paramés seeks to invest in easy-to-understand companies and is "willing to wait as long as necessary for the market to finally recognize true value." Value investing to him means in-depth analysis, picking quality companies at attractive prices, and being patient for them to rise in value. Very patient.

The current portfolio of investments is, I believe, a treasure of "cloning opportunities" and the companies I would like to highlight are Dixons Carphone and Aryzta.

Dixons Carphone is a 1.8B GBP market cap company, trading @ 5.0 times cash flow. The company is Europe's leading specialist electrical and telecommunications retailer and services company. The company has built an unrivalled offer for the connected world.

As mobile, electrical and connectivity increasingly integrate, Dixons now has a unique position in the UK&I and Nordic markets to grow the business; through a relentless execution within core multi-channel retail; via the expansion of its existing consumer services Team Knowhow division; and by developing existing and entering new agreements with other businesses through Connected World Services.

Aryzta AG is a 975M CHF market cap company, trading @ 2.4 times cash flow. Aryzta is a Switzerland-based company engaged in food business. It is primarily focused on specialty baking.

The company's products include artisan breads, sweet baked goods and morning goods, as well as an array of other savoury items, such as pizza, tarts and pies. The company's customer channels consist of a mix of retail, convenience and independent retail Quick Serve Restaurants.

The company is now planning a share sale to raise as much as 800 million euros as the firm struggles to lower its debt after multiple profit warnings. Always do your own due diligence!

Robotti & Company focuses its research to identify companies which for various reasons are trading at significant discounts to intrinsic value. A particular area of focus is on cyclical businesses which at depressed times in their cycles can be dramatically discounted. Once identified, Robotti's investment team focuses on deep primary industry and company research to identify investments through the lens of a long-term business owner.

Also this portfolio is very unique and interesting for a professional cloner like me. **Spectrum Brands Holdings**, as discussed before, also popped up in the Robotti portfolio and the other company I would like to highlight is Ensco (which is actually also a Paramés holding).

Ensco PLC is a 3.7B USD market cap company, trading @ 3.7 times cash flow. The company provides offshore contract drilling services to national and international oil companies as well as independent operators. It operates its business in U.S. Gulf of Mexico, Mexico, Brazil, the Mediterranean, and the North Sea. Ensco owns one of the newest jackup and deep-water fleets in the contract drilling industry. The firm is based in London, but its rigs drill around the world for national and international oil companies, as well as independents.

Shenanigans

Have you read the awesome book on Financial Shenanigans by Howard Schilit? You should. Because of his track record in detecting the manipulation of financial results, Howard Schilit has been called the Sherlock Holmes of accounting. Whereas most forensic accountants come in after the fact for the investigation and litigation, Schilit is the rare exception who comes in to detect accounting manipulation before it is widely discovered.

Additionally, in case you welcome that stuff, you should start examining the Journal of Forensic and Investigative Accounting. They contend that there are six well established fraud or earnings manipulation detection tools and ratios: The New Fraud Model (Dechow, Ge,

Larson, and Sloan 2007); The Old Fraud Model (Beneish 1999); The Quality of Earnings (Schilit 2010); The Quality of Revenues (Schilit 2010); The Altman Bankruptcy Model (Altman 2005); The Sloan Accrual (Sloan 2012).

Exceptionally intriguing for sure, but allow me to give you some simple ideas that might turn out to be valuable as well. With the following 5 red flag questions you would have avoided business failures like Valeant, Enron, Toshiba, SunEdison, Royal Ahold and Royal Imtech. Actually, just the first 2 questions would do.

1. **Does the company generate free cash flow?** Ahold, Enron, SunEdison and Toshiba did not generate any substantial free cash flow at all over a 3 to 5 year period before collapsing. Huge red flag.
2. **What about debt?** Just try to use the total liabilities relative to EBIT and relative to operational cash flow. You would have found terrible results for Valeant, Enron, Imtech, SunEdison and Toshiba. Huge red flag.
3. **Is the company profitable?** Before crashing, Valeant was not (GAAP) profitable at all for 3 out of 5 years and SunEdison for 5 out of 5 years. That's a huge red flag.
4. **Does operational cash flow lag way behind net income?** With this simple "quality of earnings" test you would have identified Royal Imtech easily. Red flag.
5. **And what about financing future growth?** If the cash flow from investing substantially exceeds the cash flow from operations, that's not a good sign. Imtech, Valeant, Enron, SunEdison and Ahold used way too much debt to finance future growth. Huge red flag.

"It takes a very special type of ineptitude to fail on such a massive scale." – Quote Eric Wesoff on SunEdison.

In the end only Royal Ahold and Valeant were able to raise from the ashes. Valeant, nowadays known as Bausch Health, still does not make the grade of a safe investment. The debt is still way too high and the cumulative net income over the last 3 and 5 years is still negative. But Royal Ahold, nowadays known as Royal Ahold Delhaize, does make the grade of a safe investment and actually, it is trading at what I consider an attractive price for a very long term investor.

And what about Lehman Brothers and AIG? Leverage is the no. 1 reason why financial companies fail. In 2007 the leverage ratio (total assets relative to equity) of AIG was approximately 11, while the leverage ratio of more conservative insurance operation like Berkshire Hathaway was just 2. And in the banking sector Lehman Brothers hit the jackpot with a leverage ratio above 30,

while e.g. J.P. Morgan levered up only 10 times then, and now.

I am not in the business of predicting bankruptcies, but over the last 4 years Tesla's operating income, net income, operational cash flow and free cash flow were negative. In 2017 Tesla generated a negative free cash flow of 4B USD and @ the end of the second quarter 2018 their net debt position (total debt minus cash & cash equivalents) was almost 11B USD!

That's it for this edition on Intelligent Cloning. As always, one must be prepared for the unexpected, including sudden, sharp downward swings in markets and the economy. Whatever adverse scenario you can contemplate, reality can be far worse.

In the Winter edition, we will revisit the Mohnish Pabrai Free Lunch Portfolio, have a look at the portfolios of Allan Mecham and Leucadia and disclose the latest additions to the Intelligent Cloning Portfolio.

"We just try to steal good ideas from other people."
David Abrams

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
6 October 2018

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Intelligent Cloning

The Spring 2018 Edition

"Most everything I've done I've copied from somebody else". This quote is from Sam Walton, best known for founding the retailers Walmart and Sam's Club, from his book "Made in America". Mohnish Pabrai calls Sam Walton the "King of Cloning" or in more modern language the "Uber Cloner". And cloning, copying the best ideas of super investors, is what I am fanatical about. I tend to believe that if you just copy successful investors, and do that intelligently, in the long run you will do fine.

Looking back

In the winter 2018 edition on Intelligent Cloning I described the more conservative version of the 2018 Mohnish Pabrai free lunch portfolio. Let's just have a first look at one of the exciting companies in this conservative free lunch portfolio.

As the leader in sleep innovation, **Sleep Number Corporation** delivers the best quality sleep through effortless, adjustable comfort and biometric sleep tracking. Sleep Number is a visionary in health and wellness, proving the connection between quality sleep and wellbeing. With its powerful SleepIQ® technology platform, powering one of the most comprehensive databases of biometric consumer sleep data in the world, Sleep Number is fundamentally changing the way we monitor and manage health.

Actually all of the companies in the 2018 edition of the conservative free lunch portfolio are worth a more closer look.

In the winter 2018 edition on Intelligent Cloning I also identified three companies of interest to me, namely **Express Scripts** (a Seth Klarman stock), **Allison Transmission** (a Lou Simpson stock) and **Centene** (a David Tepper stock). What I would like to do next, is to have a look at the stock picks of Meryl Witmer, Bill Miller and Leon Cooperman to see if that leads to some new ideas and then, in the end, make my final choices for the companies to add to my Intelligent Cloning Portfolio.

Cloning Witmer, Miller & Cooperman

So let's have a look @ some of the stock picks from Meryl Witmer (Barron's Round Table) and the portfolios of Bill Miller and Leon Cooperman.

If I look @ the 3 to 12B USD market cap companies and sort them according to a Joel Greenblatt type of ranking system, I end up with this list of investment ideas:

1. Gamestop (Bill Miller)
2. Foot Locker (Bill Miller)
3. AMC Networks (Leon Cooperman)
4. Sinclair Broadcast (Leon Cooperman)
5. Spectrum Brands (Meryl Witmer)
6. GNC Holdings (Bill Miller)
7. Fossil Group (Bill Miller)
8. Linamar Corp (Meryl Witmer)
9. Trinity Industries (Leon Cooperman)
10. Supervalu (Bill Miller)

And if I look at the companies with a market cap below 3B USD, same ranking methodology, I end up with these investment opportunities:

1. Altisource Portfolio (Leon Cooperman)
2. Endurance International (Bill Miller)
3. Greenhill (Bill Miller)
4. MDC Partners (Leon Cooperman)
5. National Cinemedia (Bill Miller)
6. Express, Inc (Bill Miller)
7. Orion Engineered Carbons (Meryl Witmer)
8. Esterline Technologies (Meryl Witmer)
9. Dart Group PLC (Meryl Witmer)

The companies I like most from both the winter edition on Intelligent Cloning and this spring edition are Sinclair Broadcast (Leon Cooperman) and Esterline Technologies (Meryl Witmer). Keep in mind that this is a 2014 Barron's Roundtable stock pick, and still very compelling.

Sinclair Broadcast Group is one of the largest and most diversified television broadcasting companies in the United States. Sinclair owns and operates, programs or provides sales services to more television stations than

anyone and has affiliations with all the major networks. In addition, Sinclair is the leading local news provider in the United States, as well as a producer of sports content.

Esterline Technologies is a specialized manufacturing company serving principally aerospace and defense markets. Approximately 70% of total revenues are generated from aerospace & defense markets. The remaining 30% is from the application of these technologies in adjacent markets. The three business segments are Avionics & Controls, Sensors & Systems, and Advanced Materials.

The Intelligent Cloning Portfolio

I started this approach in 2016. In 2017 I introduced the approach during The Zürich Project and I will continue using this approach probably for many, many years and I will optimize it, if necessary, as I move forward.

My guess is that this approach will end up as a very compelling methodology for those that want to avoid too much risk, like pension funds, endowments and family offices looking for a risk averse approach.

So here are the stock picks of the Intelligent Cloning Portfolio thus far.

2H '16	Deere & Co (Berkshire) @ 87 USD Allison Transmission (Simpson) @ 29 USD
1H '17	Davita Inc. (Berkshire) @ 65 USD Verisign (Berkshire) @ 83 USD
2H '17	Tegna (Einhorn) @ 13 USD Monro (Akre, Mecham) @ 47 USD
1H '18	Sinclair Broadcast (Cooperman) @ 30 USD Esterline Corporation (Witmer) @ 72 USD

These stocks are selected with the idea to hold on to these companies for many, many years. Preferably decades, as long as the company remains a good company. And to sleep well let's agree we start looking at the results only after a 3 year holding period. And if that doesn't help, you might want to add some powerful SleepIQ® technology of the Sleep Number Corporation.

Cloning Exor?

Have you read the latest Exor Letter to Shareholders? Thomas Russo talks a lot about the advantages of investing in family owned businesses, and now we have John Elkann, CEO of EXOR, talking about the advantages of investing in family owned businesses. Here are his thoughts:

There are a number of characteristics of family-owned businesses which give them enduring strength:

- They tend to be prudent in how they are run, particularly in relation to financial matters, which means they remain robust when they face downturns, crises and unexpected events;
- They have the patience not to act when action is unnecessary and resist the pressure to do so. As Charlie Munger says, "Success means being very patient, but aggressive when it's time";
- They are aware of changes in the world and are able to adapt when those changes require it;
- They have strong cultures, clearly defined purposes and a sense of responsibility. Their cultures, rather than pay, help them to retain talent and to grow leaders internally.

And also very interesting to read is that Matteo Scolari is going to lead EXOR and PartnerRe's financial investments. Matteo already started investing in a concentrated portfolio of high conviction stocks based on deep fundamental research. His two largest positions are **RWE** and **Ocado**. The latter one, a UK-based technology company focused on food e-commerce, has been on my "to do list" for quite some time now and this might be the trigger to start my in depth due diligence on this company.

When the birds are chirping...

There are many great value investors out there that believe that stocks are expensive. So you have to decide if you want to buy stock right now at all. And if you still believe it's prudent to buy stocks, this idea on when to sell the stock might be of help.

There is this old Dutch saying that you should sell your stock when the birds are chirping. Well...to be honest,

that's just not so. Actually it's Seth Klarman who once said that the intelligent investor has to sell when the birds are chirping. Klarman would sell just before a stock reached fair value to make sure he could lock in the gains.

My approach to selling a stock in markets that look expensive is to sell 50% of the position when the stock price is up 50%. By doing so, you just take 75% of the initial investment of the table. So nobody, and that includes our good old friend Mr. Market, can take that profit away from you anymore.

That's it for this edition on Intelligent Cloning. In the summer, I will write my annual letter to investors and I will be back with another edition on Intelligent Cloning in the autumn of 2018.

*"Most everything I've done
I've copied from somebody else..."*

Sam Walton

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
15 April 2018

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Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Intelligent Cloning

The winter 2018 edition

There are some great investment minds out there. Don't even think about trying to beat these guys. Just copy and profit from them. I mean, these ideas made it through the exhaustive due diligence process of one of the best investors on the planet. It's called "cloning".

If you are unfamiliar with that, 13F filings are the portfolio reports that institutional-size investors (anyone with a portfolio of over 100 million dollar) have to make to the SEC each quarter. They're public, and include any long US equity positions, so they give great insight into the portfolios of large and successful investors.

In this winter 2018 edition on Intelligent Cloning, let's dig a little bit deeper in the autumn 2017 results, have a look at the current portfolios of Seth Klarman, David Tepper and Lou Simpson and finally enjoy lunch for free.

Looking back

In the previous edition on Intelligent Cloning I identified 10 companies with a market cap below 5B USD. These are companies that have their Value Creation Engine (VCE) up and running and are trading at a price that makes sense. The next step is the "quick fit".

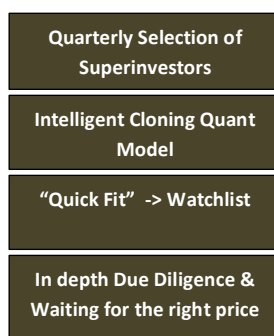


Figure 1: The process of intelligent cloning

During the "quick fit" phase I look at the business activities of the company and then decide if there is a fit between my investment experience (circle of competence) and the company. Here are my "quick fit" considerations.

DSW Inc., **Dillard's** and **AutoNation** are retailers. DSW Inc. is a footwear retailer. Dillard's is a retailer of fashion apparel, cosmetics and home furnishing. AutoNation is an automotive retailer. I don't want to touch the retail sector right now. It's one of the scarier ones to be in, I think. The fear, perhaps unjustified, is that these companies will be "amazonized". Let me put it like this: I do not have the expertise to identify the retailers that will not be "amazonized". So I just skip this sector.

Emcor is a leading specialty construction, building and industrial services provider, with significant expertise in project execution and delivery and excellence in managing skilled labour. It's a very impressive diversified group, but it is not the exceptional niche player I prefer to look at. The same holds for **MSC Industrial**.

A company I like more is **Tegna**. Tegna has spun-off Car.com and sold Career Builder to focus on its TV-Stations, moves that could appeal to a buyer. Its streamlined focus on TV-stations may invite activist interest. David Einhorn's Greenlight Capital Inc. recently acquired a 1.1% stake in the media company, heightening speculation that activists may be scrutinizing Tegna for a takeover.

USG Corporation is a manufacturer and distributor of building materials. It's a Berkshire Hathaway holding and Warren Buffett himself stated that USG overall has been disappointing because the gypsum business has been disappointing. "Just put that one down as not one of our brilliant ideas" (quote Warren Buffett).

The Boston Beer Company is a craft brewer in the United States. Although the competition is intense, keep an eye on Boston Beer. It has, I think, a lot of staying power, but it also could turn out to be a great take-over target. I was really surprised to find out that Allan Mechem sold this stock after just one quarter. I still like it though. I mean, in this world nothing can be said to be certain, except death, taxes and drinking beer.

Monro is the largest chain of company-operated automotive car facilities, with 1,136 stores across 27 states. There is a long runway with the company only operating in 27 states. I like the company, because of their customer loyalty. And there isn't an industry riper for consolidation than the car care industry. I mean, who doesn't like a good roll-up strategy?

And then there is **Valmont**. They are stewards of agricultural and economic growth around the world: from equipping Ag producers in third-world countries to

expand their production to fabricating and installing some of the world's most complex steel structures. It is an interesting company to watch. Allan Mecham recently sold part of his Valmont holdings and that makes it less attractive for now.

The two companies I like most from the autumn 2017 edition are **Tegna** and **Monro**. The latter one doesn't look cheap from a traditional P/E multiple valuation. In this case I prefer to focus on the (certainty of the) future free cash flows, in combination with the current low 2.4% risk-free yield on the ten-year treasury rates. That makes it attractive, even at this high P/E multiple. And sure, I would applaud a lower stock price. For now, I add both companies to my watch list and start the in-depth due diligence.

Cloning Klarman, Tepper & Simpson

There are two ways to calculate the Value Creation Engine (VCE). In the autumn edition on intelligent cloning I used the more conservative approach, which is actually an adjusted ROC version. In this winter edition I use the more aggressive version of the VCE, which is ROC times GROWTH.

If I do just that and then rank the stock from the portfolios of Klarman, Tepper & Simpson with a Joel Greenblatt type of ranking system, I end up with the following companies.

1. Apple (David Tepper ↑)
2. Express Scripts (Seth Klarman)
3. AmerisourceBergen (Seth Klarman ↑)
4. Allison Transmission (Lou Simpson ↑)
5. Centene (David Tepper ↑)
6. McKesson (Seth Klarman ↑)
7. Avis Budget (Seth Klarman ↓)
8. HCA Healthcare (David Tepper ↑)
9. CBS Corp (David Tepper ↑)
10. Twenty-First Century Fox (Seth Klarman ↑)

If I had to pick just one stock from each of these super investors, my choice would be Express Scripts, Allison Transmission and Centene.

Express Scripts believes in practicing pharmacy smarter. They put medicine within reach of tens of millions of people by aligning with their customers, taking bold action and delivering patient-centered care to make better health more affordable and accessible.

Allison Transmission is the world's largest manufacturer of fully automatic transmissions for medium- and heavy-duty commercial vehicles and is a leader in hybrid-propulsion systems for city buses.

Centene is committed to improving the health of the community through health insurance solutions for the under-insured and uninsured, and through specialty services that align with their focus on whole health.

Lunch for free!

Have you read the Forbes article "[The 15-Stock 'Free Lunch' Portfolio](#)" by Mohnish Pabrai?

In my initial write up on Intelligent Cloning I wrote that you can probably boost the returns of the "shameless cloning approach" even further by using a specified set of 5 criteria. Let's do just that. Mohnish came up with 15 stocks in the Free Lunch Portfolio. Thank you, Mohnish!

If I use the first 4 criteria I end up with the following list of companies: Lowe's, NVR, Sleep Number, The Hacket Group, Alibaba, British American Tobacco, Fiat Chrysler, Micron Technology, Lamb Weston Holdings, GCP Applied Technologies, Synchrony Financial and CSRA.

I don't like the tobacco company, so I just skip that one. And if I apply the fifth criterion, an attractive price, I end up with these companies (random order):

1. Sleep Number
2. The Hacket Group
3. Micron Technology
4. Synchrony Financial
5. GCP Applied Technologies
6. CSRA

I guess that makes the 2018 conservative Free Lunch Portfolio.

In January, 2019, I will publish the updated "conservative Free Lunch Portfolio". The idea is to sell the companies that do not make the new year's picks and invest the proceeds equally in the "newbies".

It has been 10 years now since the publication of "The Dhando Investor" by Mohnish Pabrai. And Mohnish is sharing all his knowledge and experiences with us. For free. If you are a believer in the Free Lunch Portfolio, as I am, why not send Mohnish a "thank you gift". No costs involved.

Here is how it works. Just start an account with e.g. Interactive Brokers and make your pick which strategy you want to follow: the Free Lunch Portfolio or the more conservative version of the Free Lunch Portfolio that I just described. Both approaches will do fine in the long run. For the next 30, 40 or 50 years I want you to follow that approach and then wire the money to the Dakshana Foundation. Even if you take out “your initial capital adjusted for inflation times two” just before wiring, I am quite sure Mohnish will be pleased with this small gift for his foundation. On 8 January 2068 I have some “wiring” to do.

That’s it for this edition on Intelligent Cloning. In the spring 2018 edition we will have a look at the portfolios of Bill Miller, Leon Cooperman and some of the Barron’s Roundtable stock picks of Meryl Witmer.

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
29 December 2017

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Intelligent Cloning

The Autumn 2017 Edition

During the Zürich Project 2017 I introduced the idea of Intelligent Cloning. It's all about combining the Ben Graham thinking on risk aversion with the Charlie Munger rule nr. 1 on how to become a successful investor: carefully look at what other great investors have done. You can find the initial write-up on intelligent cloning on my website.

So I introduced 5 criteria to avoid the too risky stocks and then rank the remaining investment ideas according to a Joel Greenblatt type of ranking system. In this autumn edition on intelligent cloning I elaborate a little bit more on this "Joel Greenblatt type of ranking system" and what I mean by that. And then we will have a look at the autumn 2017 results. Enjoy!

Ranking the stocks

If you use the original Joel Greenblatt ranking system, you rank e.g. 10 candidates by ROC. The highest gets 1 point and the lowest 10 points. And then you rank them by margin of safety. The highest gets 1 point and the lowest 10. You add the numbers and choose the lowest number.

If you have two companies with identical ROC and company A grows e.g. with 3% free cash flow per share and company B with 6%, both companies are treated equally. I tend to believe that there is value in adding additional weight to company B.

The question is how to do that. During the Zürich Project 2017 I introduced the Value Creation Engine. The more aggressive definition of this Value Creation Engine is ROC times GROWTH. A more conservative approach is to add just a few extra points to the ROC for company B. In the latter case you could argue that the Value Creation Engine is a sort of adjusted ROC.

This might seem a simple idea, but in reality it is not. There are many ways to calculate ROC and GROWTH. You have to decide for yourself what suits you best.

The same holds for the third variable, Margin of Safety. Joel Greenblatt used the Earnings Yield, which is EBIT/Enterprise Value, but there are many other ways of calculating the Margin of Safety and once again, it depends on your personal preferences.

The Autumn 2017 results

If I apply the conservative approach of the Value Creation Engine (VCE) with the preferences I have for Margin of Safety and then rank the stocks, first according to VCE (the highest VCE gets 1 point, the lowest 10 points) and then according to Margin of Safety (the highest gets 1 point, the lowest 10 points), add the two numbers (the lowest number comes first) and do just that for the portfolios of Berkshire Hathaway, Sequoia Fund, Chuck Akre, David Einhorn and Allan Mecham, I end up with the following results:

1. Apple (Berkshire Hathaway ↑, David Einhorn ↓)
2. Verisign (Berkshire Hathaway)
3. IBM (Berkshire Hathaway ↓)
4. Delta Air Lines (Berkshire Hathaway ↓)
5. Emcor Group (Sequoia Fund)
6. Omnicom Group (Sequoia Fund ↑)
7. PVH Corp (David Einhorn ↓)
8. Liberty SiriusXM Group (Berkshire Hathaway ↑)
9. Jacobs Engineering Group (Sequoia Fund)
10. Davita (Berkshire Hathaway)

The arrows indicate if there has been some recent activity in buying/increase the position ↑ or selling/decrease the position ↓. No arrow means no specific recent action.

Obviously, there are some limitations to this approach. Most of the financial companies and spinoffs are automatically excluded. And you might want to ask yourself the question if it is wise to "clone" the Berkshire Hathaway portfolio. Berkshire Hathaway has a limited investment universe, because of its size. They only look for "the big elephants". It might be much more interesting to look for companies that are at the beginning of their competitive lifecycle (small and midcap stocks).

If I exclude the companies with a market cap above 5 billion USD I end up with the following ranking:

1. Emcor Group (Sequoia Fund)
2. Tegna (David Einhorn ↑)
3. DSW (David Einhorn ↑)
4. Dillard's (David Einhorn ↑)
5. MSC Industrial (Allan Mecham ↑)
6. USG Corp (Berkshire Hathaway)
7. Boston Beer Company (Allan Mecham ↑)
8. AutoNation (Allan Mecham ↑)
9. Monro (Chuck Akre ↑, Allan Mecham ↑)
10. Valmont Industries (Allan Mecham ↓)

By the way, if I move the benchmark for VCE just a little bit higher, and I might do that next time, Valmont Industries would not be on this list.

Some final remarks. You could argue that intelligent cloning is a new quant approach, a sort of algorithmic overlay on top of all the intensive research and decision making of these super investors. But there is no such thing as an investment without your own investment analysis. I always reengineer the investment thesis and do my own due diligence and I advise you to do the same. Intelligent cloning is a great way of prioritizing your research efforts.

The greatest advocate of “cloning” in the investment world is obviously Mohnish Pabrai. He introduced “shameless cloning” in an article in Forbes entitled “Beyond Buffett: How to Build Wealth Copying 9 Other Value Stock Pickers”. So is “intelligent cloning” more intelligent than “shameless cloning”? I don't think so. It's just a matter of words. “Shameless cloning” is highly intelligent and “intelligent cloning” is just as shameless. Intelligent cloning is a more risk averse, conservative approach towards cloning.

Next time, the winter 2017/2018 edition on intelligent cloning, I will include the portfolios of David Tepper and Seth Klarman. Should be quite interesting!

Cordially,

Peter

Peter Coenen, 5 October 2017
Founder & CEO of The Value Firm®

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Intelligent Cloning

Initial write-up

The idea of “Intelligent Cloning” is all about combining Ben Graham thinking on risk aversion with the Munger rule nr. 1 on how to become a successful investor. And to remind you. Mungers first rule is to carefully look at what the other great investors have done. The second rule is to pay close attention to cannibal companies (companies buying back huge amounts of stock) and the third rule is to focus on spinoffs.

If there is one investor out there that takes these simple Munger ideas very seriously it has to be Mohnish Pabrai. Recently he wrote an article in Forbes entitled “Beyond Buffett: How To Build Wealth Copying 9 Other Value Stock Pickers”, where he talks about “Shameless Cloning”. Actually he wrote it together with Fei Li and you can find the article on his wonderful website Chai with Pabrai.

Shameless Cloning. Isn't that great. You know that there are some great investment minds out here. Don't try to compete against these guys. Instead copy their best ideas and profit from them. I love it! Mohnish Pabrai is not just a great investor, he is a great communicator as well. I like the way he puts forward his ideas. Let me just quote from his article. Here it is:

“Santa knocks on all our doors not once, but four times a year. During his off-season, he reliably shows up bearing profitable gifts on February 14, May 15, August 14 and November 14. These are the deadlines for 13-F filings”.

Think about that. Four times a year you get probably the greatest stock picks on the planet on your doormat. For free! Mohnish describes a method to pick 5 stocks and rebalance the portfolio once every year. So, how did this 5-stock portfolio perform over the last 17+ years? It beats the S&P 500 by 10.7% annualized! That's amazing!

A slightly different road

I took a slightly different road. Not necessarily better, but different. First of all I am a long term investor and hold stocks as long as the company remains a good company. So I will avoid annual rebalancing. And secondly I make an extra effort and try to avoid the

investing mistakes of these great value investors. Does anybody know how many mistakes great value investors make? It has been said that George Soros made money on fewer than 30% of his trades.

Now think about this for a moment. Suppose you run a concentrated portfolio of 10 stocks. And you joined the merry band of shameless cloners. So you picked for instance Valeant (Bill Ackman/Sequoia), SunEdison (David Einhorn), Horsehead Holdings (Mohnish Pabrai) and Royal Imtech (for many years the stock market darling of the Dutch stock exchange). These are all companies that went bankrupt or had to raise from the ashes. I mean, the result would have been devastating.

In comes Ben Graham. When investors make mistakes it is usually because they forget the inherent simplicity of the Ben Graham value investing system. I truly believe an investor can make better decisions by keeping things simple. So why not apply the Graham criteria for the defensive and enterprising investor to avoid mistakes? Now you might argue that these criteria are outdated and rightfully so. When Graham wrote them down he didn't have access for instance to cashflow statements. Well. Then let's rewrite them with the knowledge and insights we have right now.

What you want to do is to avoid the “too risky” investments. And to identify these I use 5 criteria. Very straight forward:

- A “balanced” balance sheet. So you try to avoid too much debt, too much leverage and too much goodwill/intangibles.
- Consistency in the per-share figures. I just don't like companies that show a consistently growing earnings-per-share (which is good) in combination with a highly fluctuating operational cashflow per share.
- Substantial free cash flow. As a company, if you don't have free cash flow, you don't have anything. Management could choose to reinvest in the business, buy other businesses, reduce debt loads, buy back stock, or pay out dividends.

- Consistently high return on capital. You probably all know Joel Greenblatts Magic Formula. There are many ways to calculate ROC, so you have to figure out what suits you best and why.
- Margin of safety. There is no such thing as a company that's worth an infinite price. So you want a price that makes sense. I believe it was Chuck Akre who once said that he is willing to pay up to 20 times free cash flow for a high quality company. You might want to figure out what Warren Buffett paid for Precision Castparts.

By using this simple set of criteria you would have avoided Valeant, SunEdison, Horsehead Holdings and Royal Imtech. Instead you would have probably invested in John Deere (Team Berkshire) and Allison Transmission (Lou Simpson). As of recently team Berkshire sold John Deere. Probably not because it is a bad investment, but just to free up money to invest elsewhere. I will keep John Deere in my portfolio as long as the company remains a good company.

You might argue that team Buffett found better opportunities, so why not follow them for example into airlines. Well. That's not who I am. If I find a low-risk solid-return opportunity I buy it and forget it. The same for Heineken. It's not trading at an attractive price right now, but if the markets would go way down and I could buy Heineken below 55 euro, I buy it and forget it. And it makes life a lot easier, you know. If you continually keep hunting for "the best opportunity", eventually that will drive you mad. In Value Investing your worst enemy is probably your own brain.

One final twist. Dependent on how many great value investors you want to follow you very well might end up with more than one investment opportunity. So which one to choose? You might want to use a simple Joel Greenblatt ranking system. So you rank e.g. 10 candidates by ROC. The highest gets 1 point and the lowest 10 points. And then you rank them by margin of safety. The highest gets 1 point and the lowest 10. You add the numbers and choose the lowest number.

Now let's go back to Mohnish. He beats the the S&P 500 with 10.7% annualized over the last 17+ years. That's like indexing on steroids and you can probably boost returns even further by using the above set of criteria. But you have to be very rational and unemotional to successfully implement a long-term cloning strategy. And most people unfortunately are impulsive and irrational. The average investor is probably too restless and the smart investor too smart to just follow a simple strategy. For most of us investing periodically in a low cost index fund probably remains the best low-risk solid-return proposition on the planet.

Mohnish and Fei end the article with the hope we will join the merry band of shameless cloners. Well. Just count me in.

Happy Santa Claus!

Cordially,

Peter

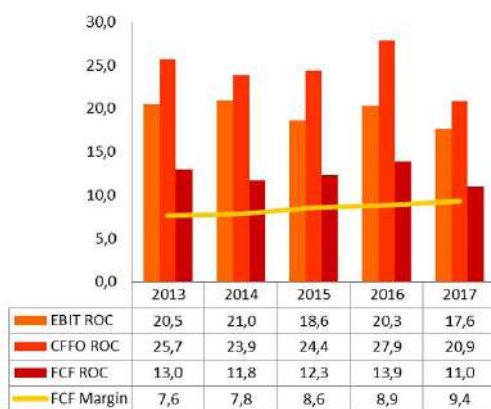
Peter Coenen, 11 March 2017
Founder & CEO of The Value Firm®

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Thoughts on Heineken

Heineken has, I believe, the characteristics of a classic Buffett stock. The high quality businesses I look for have a strong balance sheet, a history of consistently high return on invested capital (ROC) and strong cash flows, where large amounts of “free” cash flow are generated.

The net debt relative to EBITDA over the last 5 years fluctuated between 2.5 and 2.9 and here is an outline of the ROC and the free cash flow margin of Heineken.



A family owned business

Heineken is a family-owned business. In the latest annual report of EXOR, John Elkann wrote about the importance of family control:

There are a number of characteristics of family-owned businesses which give them enduring strength:

- They tend to be prudent in how they are run, particularly in relation to financial matters, which means they remain robust when they face downturns, crises and unexpected events;
- They have the patience not to act when action is unnecessary and resist the pressure to do so.
- They are aware of changes in the world and are able to adapt when those changes require it;
- They have strong cultures, clearly defined purposes and a sense of responsibility. Their cultures, rather than pay, help them to retain talent and to grow leaders internally.

In his 2017 Investor Letter, Thomas Russo, the Managing Member Gardner Russo & Gardner LLC and General Partner Semper Vic Partners, describes 3 occasions of how the protection of the Heineken family voting control of the public company, Heineken N.V., has enabled the Heineken Leadership team to make right long term decisions. It is a wonderful Investor Letter by Thomas Russo and I encourage you to read it.

The first precedent happened when Heineken leadership passed on the buy of Brazil's second biggest brewer, Schincariol, as they felt the value Kirin paid, over \$4 billion, tremendously exaggerated the business. Heineken got specific “Wall Street Heat” for their “failing”. After four years, and for a simple \$1.1 billion, Heineken bought the then cash losing business from Kirin.

Second, Heineken competitor SABMiller ended up in the awkward position of being a takeover target of AB InBev. SABMiller decided to launch a hostile takeover of its own targetting Heineken. The Heineken family “just said no.”

Third, Heineken invested heavily to increase market awareness in Vietnam. As they repositioned their Heineken and Tiger brands to create a new price tier at the high end of Vietnam’s beer market, Heineken risked short term declines in market profitability and once again “Wall Street Heat”. In the end, Tiger’s repositioning has resulted in accelerated growth of both repositioned brands and increased profitability.

In the Fall 2018 Investment Newsletter of Graham & Doddsville, you will find an interesting interview with the New York Investment Firm Tweedy Browne. One of the questions asked was related to Heineken. The question was: “You are long Unilever and Nestle, right?”

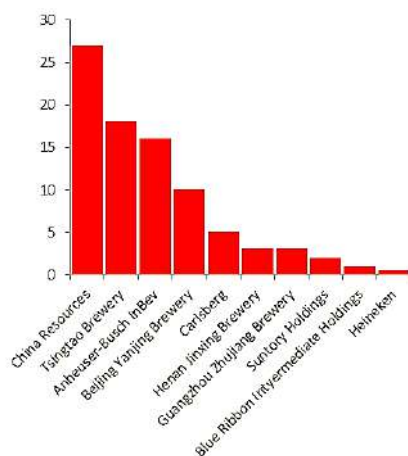
And here is the answer. Yes, as well as Heineken. They’ve almost become semi-permanent holdings. We have owned them for 15-20 years. They have durable competitive advantages that have allowed them to compound our estimate of their underlying intrinsic values at an attractive and predictable rate. It’s a very tax efficient way to invest. We’ll sometimes trade around their estimated intrinsic value, meaning we’ll trim the position if the stock price moves ahead of intrinsic value and add to the position if the stock price drops below. These companies also give us exposure to faster growing parts of the world. When growing middle

classes around the globe get more discretionary income, they want a better beverage and a better food product. These companies are serving that demand, which is growing all the time.

China

Until recently, Heineken, the world's No. 2 brewer, had struggled to compete with the dominant players in China's premium lager market such as Anheuser-Busch InBev and Carlsberg. The Dutch group had a 0.5 percent share of the China market by volume in 2017 (data from research firm Euromonitor International), while AB Inbev had 16.1 percent. The Budweiser maker is by far the leading foreign brewer in the world's biggest beer market and CR Beer had more than a quarter share.

Interestingly enough, China Resources bought the 49 per cent stake in Snow Breweries from SABMiller, its previous foreign partner. SABMiller sold its Snow stake to get regulatory clearance to merge with AB InBev in 2016, creating the world's largest beer company.



On 3 August 2018, Heineken N.V. announced that it has signed non-binding agreements with China Resources Enterprise, Limited ('CRE') and China Resources Beer (Holdings) Co. Ltd. ('CR Beer') to create a long-term strategic partnership for Mainland China, Hong Kong and Macau (together 'China'). In the context of this partnership, Heineken will become CRE's 40% minority partner in holding company CRH (Beer) Limited ('CBL'), which controls CR Beer. The companies are conducting due diligence and will need anti-trust approval from China. The transaction is expected to complete by year-end.

"We very much look forward to joining forces with CRE and CR Beer, the undisputed market leader in China. CR Beer is everywhere in the country, but they lack an international premium beer, making the Chinese group's distribution network and Heineken's brands a good match. They have what we don't have and we have what they don't have, so it's a win-win situation. Consumers switch to alternatives such as wine, meaning growth can only come from selling higher-end brews as tastes shift towards the premium end of the market. We believe that our strong Heineken® brand and marketing capabilities, combined with CR Beer's deep understanding of the local market, its scale and best-in-class distribution network will create a winning combination in the growing premium beer segment in China." – Quote Heineken CEO Jean-François van Boxmeer.

As part of the strategic partnership, Heineken China's current operations will be combined with CR Beer's operations and Heineken will license the Heineken® brand in China to CR Beer on a long-term basis.

Together, Heineken, CRE and CR Beer are perfectly positioned to win in the rapidly growing premium beer segment in China.

China's beer market, the world's largest beer market by volume, is now the second largest premium beer market globally and is forecast to be the biggest contributor to premium volume growth in the next five years, driven by its rapidly growing middle class. Profitability of the Chinese beer market is expected to improve significantly, driven by premiumisation, demand for international beer brands and cost optimisation. In increasing middle class means disposable incomes in China are growing faster than in most developed markets and, coupled with urbanization, creates new opportunities for socialising and consuming higher-end beers. Younger consumers in particular, are interested in trying new beer styles. Wheat beer and stout have recorded very strong growth over the past five years. While growth has now become more restrained it remains in double digits."

"We are very excited about this partnership and see immense potential in the combined strengths of CR Beer and Heineken. With Heineken's long heritage and world-class iconic brand portfolio, along with our leading presence and deep understanding of China, we believe we can win together in this new era of the Chinese beer market, in which the premium segment will become increasingly important. In Heineken we have found the

perfect partner to achieve our ambitions in China and - as an international partner - to support us in growing our business outside China." – Quote Chen Lang, Chairman of CRE.

The combination of Heineken and CR Beer in China is expected to be highly complementary. CR Beer has a best-in-class route to market network, a wide brewery footprint and a deep understanding of the Chinese market. Heineken has proven premium brand building capabilities and a world-class international brand portfolio, led by the iconic Heineken® brand for which it has built strong equity over the years in China. Heineken, CRE and CR Beer are convinced that their strategic partnership will drive growth for their businesses. The partnership will enable CRE to advance its premiumisation strategy and it will help Heineken to significantly expand availability of the Heineken® brand in China to fully leverage the brand's potential.

Under the strategic partnership agreement, Heineken will be CRE's exclusive partner for international premium lager beers in China. Heineken and CR Beer will investigate which other premium brands from Heineken's portfolio can be licensed to CR Beer in China. Heineken and CRE will also investigate if the Dutch brewer's global presence and marketing capabilities can be leveraged to support and accelerate the international growth of the locally popular CR Beer's Snow® brand and its other Chinese brands to become the Chinese beers of choice. "This (deal) will help accelerate CR Beer's Snow beer high-end strategy and achieve its goal to take a leading position in the premium market within 5-10 years." – Quote CR Beer's Chief Executive Hou Xiaohai. Snow accounts for about 90 percent of CR Beer's total beer sales volumes but is almost exclusively sold in China.

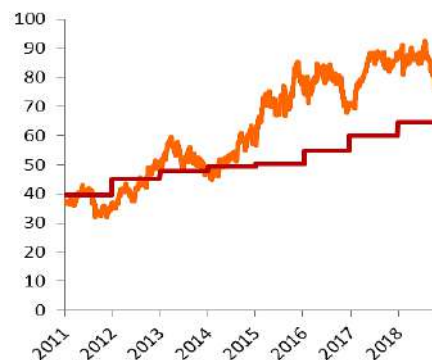
How to value Heineken?

The only thing I try to do when valuing high quality stocks like Heineken is applying a very conservative multiple of the company's cash flow in light of prevailing interest rates.

It seems as if the Federal Reserve officials, despite the vocal critics of the central bank's actions by President Donald Trump, remain convinced that continuing to gradually increase interest rates is the best formula to preserve a steady economy. There might even be a

period where the Fed will need to go beyond normalization of rates and into a more restrictive stance.

Nevertheless, given this interest rate environment I do believe that a multiple of 10 times 3 year average operational cash flow per share is reasonable, which happens to be the equivalent of a P/E ratio of 19.



As of today the stock trades well above this multiple (red line). As you can see, there was a great window of opportunity in 2011-2012 to buy into this wonderful company.

For a value investor a P/E multiple of 19 might seem too high. The current interest rate environment is, I believe, very favorable for stock market valuations. Warren Buffett recently (once again) explained that when interest rates rise to high levels such as in the early 1980s, it makes higher equity valuation multiples much less attractive to investors: "When we had 15 percent short-term rates in 1982, it was silly to pay 20 times earnings for stocks."



The buying price, I believe, is a very personal matter. Perhaps you want to buy as cheap as possible, but then there is a risk that Mr. Market doesn't offer you this low buying price and you will not be able to buy into this wonderful company. Or perhaps you believe the current price is right, but if the markets crash after you bought the stock, you probably would regret you bought the stock @ such a high price.

In his 2017 Investor Letter, Thomas Russo points out that if you want to buy, the Heineken Holding N.V. stock (HEIO.AS) might turn out to be the better alternative.

"Ironically, for over 30 years, Heineken Holding N.V. shares have often traded at a discount to the operating company shares which they control. The discount has exceeded 15 percent, in some instances, even though every share of Heineken Holding N.V. economically represents a share of the more expensive public company holding." – Quote Thomas Russo.

And finally, Alexander. The 34-year-old Alexander de Carvalho, the eldest son of Charlene and Michel de Carvalho and the favorite grandchild of Freddy Heineken, studied at Harvard. There he was not only praised as one of the 'brightest stars', he was also known as 'excessively flamboyant'. He kicked it among other things to join the very exclusive Porcellian Club, whose balloting is so strict that once even Franklin D. Roosevelt, who would later become president of the United States, was refused. Will Alexander once become the new CEO? Time will tell...

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Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
21 October 2018

The Heineken Leadership Team

18 October 2018

Jean-François van Boxmeer, Chairman Executive Board / CEO

Jean-François van Boxmeer was born on 12 September 1961 in Elsene, Belgium. He received a master's degree in Economics from the Facultés universitaires Notre-Dame de la Paix in Namur, Belgium in 1984. In 2001, appointed member of the Executive Board and from 1 October 2005 Chairman of the Executive Board/CEO. Joined HEINEKEN in 1984 and held various management positions in Rwanda (Sales & Marketing Manager), Democratic Republic of Congo (General Manager), Poland (Managing Director), and Italy (Managing Director). Executive Board responsibility for HEINEKEN Regions and Global functions: Human Resources, Corporate Relations, Supply Chain, Commerce, Legal Affairs, Strategy, Internal Audit and Company Secretary.

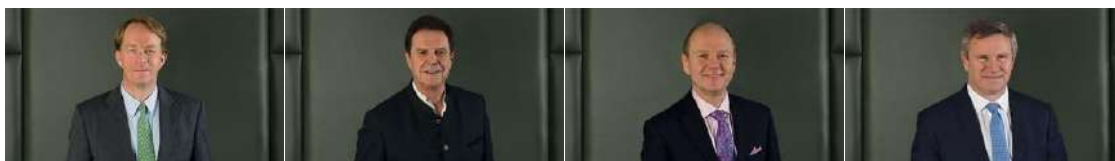


Jean-François van Boxmeer
Chairman Executive Board / CEO

Laurence Debroux
Member Executive Board / CFO



From left to right: Marc Busain - President Americas, Dolf van den Brink - President Asia Pacific, Marc Gross - Chief Supply Chain Officer, Blanca Juti - Global Corporate Affairs Officer.



From left to right: Jan Derck van Karnebeek - Chief Commercial Officer, Roland Pirmez - President Africa Middle East and Eastern Europe, Stefan Orłowski - President Europe, Chris Van Steenberghe - Chief Human Resources Officer.

Thoughts on Verisign

This is actually an investment thesis I wrote in 2017. Much of the work for this investment thesis was already done by John Huber, Phil Ordway, H.A. Capital Management, Eric Nickolaion, Stephen Pomeroy, Trefis.Com, D. Smith and probably many more. So I tried to understand their insights and wrote my own version of it. What really helped to grasp this thesis from a business perspective was, I believe, many years of experience in the telecommunication & ICT business.

An investment in Verisign is actually a bet on the future of the internet and the growth of cybersecurity business. The importance of the Internet is still underestimated. The next ten years will be more spectacular than the previous 10 years. The Internet is simply the most important technological development in the history of humankind.

Summary

Verisign is the Mercedes of the domain name business and essentially has a legal monopoly on the business. The beauty of having exclusivity to .com is that Verisign has a branding and security moat in the minds of consumers. It is as close as you can get to having a legal monopoly with pricing power.

Considering the potential for internet growth in emerging economies and the e-commerce boom, it seems highly plausible that domain name registrations are going to increase at an unprecedented rate in the years to come. The real catalyst that I see for this stock is Non-Latin Script and Foreign Language Domains. Verisign Internationalized Domain Names (IDNs) enable businesses to say .com and .net in local language characters. It's a friendlier, more meaningful way to connect with customers. There is long-term growth in emerging markets like China and India. In 2014 approximately 6.5% of Verisign's revenue came from China. This number grew to 11.1% in 2016.

Verisign makes money mainly by collecting \$7.85 per year for each .com domain name that is registered, and there are around 127 million .com domain names. The company also gets paid a similar fee for each of its roughly 16 million .net domain names. Verisign is the exclusive registry for domain names ending in .com and

.net (among a few others), an extremely attractive and enviable competitive position that could be likened to a monopoly within the .com and .net TLD's. The margin on this recurring revenue is extraordinarily high, and there is very minimal need for cash in this business. The high margin recurring revenue and the low capital requirements lead to stable and predictable free cash flow, which the company uses almost exclusively to buy back stock.

- Verisign trades @ a 9.4B USD market cap (30 June 2017) and has an operating margin of 60% (2016). It has 101.5M shares outstanding (trading @ 92.9 USD per share), it has 1.8B USD cash position and 1.2B USD long-term debt on the balance sheet and has a strong and predictable free cash flow, 641M USD over 2016. Verisign has 984 Full-Time Employees (March 31 2017).
- The average trading range (price to 3-year average free cash flow) of the Verisign stock over the past 8 years is between 17,2 and 25,1. Based upon a conservative estimate of long-term growth, the trading range of the Verisign stock in 2024 is estimated between 230 and 335 dollar per share. The corresponding stock price CAGR is between 12,2 and 17,6%, approximately 15%.
- According to Morningstar.com 13.04% of the shares are owned by T. Rowe Price, 12.58% by Capital World Investors, 12.72% by Berkshire Hathaway and 8.34% by Vanguard Group.

Company history

Verisign was founded in 1995 as a spin-off of the RSA Security certification services business. The new company received licenses to key cryptographic patents held by RSA and a time limited non-compete agreement. The new company served as a certificate authority (CA) and its initial mission was "providing trust for the Internet and Electronic Commerce through our Digital Authentication services and products". Prior to selling its certificate business to Symantec in 2010, Verisign had more than 3 million certificates in operation for

everything from military to financial services and retail applications, making it the largest CA in the world.

In 2000, Verisign acquired Network Solutions, which operated the .com, .net and .org TLDs under agreements with the Internet Corporation for Assigned Names and Numbers and the United States Department of Commerce. Those core registry functions formed the basis for Verisign's naming division, which is now the company's largest and most significant business unit. In 2002, Verisign was charged with violation of the Securities Exchange Act. Verisign divested the Network Solutions retail (domain name registrar) business in 2003, retaining the domain name registry (wholesale) function as its core Internet addressing business.

Verisign operates two businesses, Naming Services, which encompasses the operation of top-level domains and critical Internet infrastructure, and Network Intelligence and Availability (NIA) Services, which encompasses DDoS mitigation, managed DNS and threat intelligence. Verisign's share price tumbled in early 2014, hastened by the U.S. government's announcement that it would "relinquish oversight of the Internet's domain-naming system to a non-government entity". Ultimately the Internet Corporation for Assigned Names and Numbers chose to continue Verisign's role as the root zone maintainer and the two entered into a new contract in 2016.

The unique position of Verisign

For more than 19 years, Verisign has maintained 100 percent operational accuracy and stability for .com and .net—managing and protecting the DNS infrastructure for over 142.2 million domain names and processing more than 143 billion transactions daily—keeping the world connected online, seamlessly and securely.

At the core of the internet are 13 root servers. Verisign operates two of the internet's root servers. That's approximately 15% of the core of the web. The other root servers are held by University of Southern California, Cogent Communications, University of Maryland, NASA, Internet Systems Consortium, US Department of Defense, US Army, Netnod, RIPE NCC, ICANN and WIDE Project. At the top of the root server hierarchy is the "A" root server owned by Verisign, which every 12 hours generates a critical file that tells the other 12 servers what Internet domains exist and where they can be found.

The defense community views Verisign as important to national security. Verisign provides a hugely important critical function, namely providing stability and ensuring proper functioning of the internet. The department of the Homeland Security has designated the root servers as critical homeland security infrastructure. The U.S. Government (or ICANN) will not mess with a function that is so crucial, when the company performing that function is doing so (and has always done so) perfectly. And they probably even won't allow new competition to enter. Should a new operator screw things up—means the internet, and thus society and crucial competitive advantages of the United States of America, stops functioning properly.

Much of the root zone infrastructure itself is inextricably intertwined with Verisign's TLD operations for .com (as states in the Public Comment on Proposed Amendment to .COM Registry Agreement). It is my understanding that the servers that provide root services are hosted at every .com resolution site (over 100 locations). These servers share bandwidth, routing and monitoring with the .com operations, and the servers use the same code base as the .com TLD name servers and are operated and maintained by the same operation and engineering group. On the provisioning side, the root zone's provisioning system is derived from the .com Shared Registration System (SRS), using the structure, schema, and software used for .com provisioning operations. Verisign builds and signs the root zone today using the same cryptographic facilities used for .com as well as signing software derived from that used for signing .com.

Importantly, Verisign's root zone operations are also within the .com's Denial of Service attack detection and mitigation framework including independent internal and external monitoring and packet filtering at all layers. A key component of ensuring security of the root operations was making sure that those operations continued to benefit from its historic association with the .com operations.

Knowing this I think it's fair to say that Verisign has a unique and very crucial position to maintain stable, secure, and reliable operations of the root zone not only for direct root zone management service customers (Registry Operators, Registrars and Root Server Operators), but also to maintain the security and stability of the Internet's domain name system and thus the internet as a whole. And I think it's fair to say that it will be very, very hard, if not impossible for competitors to even come close to this unique service offering by Verisign.

The relation with ICANN

Verisign existed before ICANN, and thus with the establishment of the Internet's oversight body, Verisign was in a place of sustained recognition as the registry of many of the Internet's most important TLDs. While it has given up some of its original TLD oversight, it continues to manage the Internet's most well-known extension, *.com*, and others.

Verisign is consistently one of the largest sponsors of ICANN's meetings; they sponsored at the Platinum level or above for all 2011 meetings. Some commentators attributed the ability of ICANN to secure former U.S. President, Bill Clinton, to speak at ICANN 40 with the especially high level at which Verisign sponsored that meeting. Clinton described international non-governmental organizations like the internet governing body ICANN as the highest pinnacle of civilization and established his bona fides by pointing out that when he was inaugurated as president in 1993, there were only 50 websites, while there were 36 million by the time he left office in 2001. That, he said, gave him "the great honor of being the president at the dawn of the internet age."

It's interesting that despite the opposition of senator Ted Cruz on competition issues and pricing Verisign will remain the sole registry operator and is allowed to raise prices and thus maintains its unique monopoly-like position. So how come? In reality ICANN has about as much control over the internet as Ted Cruz has a grasp on how DNS actually works—which is to say, very little. But the perpetuation of the fiction that ICANN controls the internet is representative of the completely understandable human impulse to try and assign control of the internet to someone or something. Saying any one group controls the internet is as absurd as saying who "controls" capitalism or globalization itself.

I do not believe that ICANN will dare to assign this crucial function to another company. Verisign will be the sole operator of *.com* and *.net* domain names far beyond 2024. Actually, as of today Verisign is the only company feasibly capable of performing the registry operations (more than 143 billion transactions daily) and has been operating for fifteen years. Why mess with a function that is so crucial, when the company performing that function is doing so (and has always done so) perfectly?

I think the relation between ICANN and Verisign goes deeper than a favored position. There can really only be one registry at the end of the day. They provide the

matching for domains and IP addresses on all the *.com* addresses. It would be counterproductive to have multiple entities doing this - and not even sure if logistically it would be possible without having those multiple entities coordinating changes and new domains between them. This is ultimately the role VeriSign plays as you can get a *.com* domain from a number of approved registrars (eg GoDaddy) but they consolidate and combine at the VeriSign level - and you need somebody playing that role.

With the introduction of new top level domains "whatever", other entities can act as the VeriSign equivalent but for each of those there can really only be one top registry. I think what you're really betting on here is the growth in *.com* and *.net* websites (and others that VeriSign now runs) as well as the stickiness and difficulty in changing from VeriSign to someone new by ICANN. From that perspective I'm of the belief that VeriSign will own this forever (as long as they don't do stupid things). The risk to the entire internet of changing over to a new provider will massively exceed the value of somebody bidding a couple of pennies below on price. I can't imagine anyone investing to build the infrastructure (the security costs alone would be massive) if they were subject to being displaced themselves in a couple of years.

Danny McPherson, SVP and Chief Security Officer of Verisign, serves on the Internet Corporation for Assigned Names and Numbers (ICANN) Security and Stability Advisory Committee (SSAC), and also on the U.S. Department of Homeland Security's Cybersecurity Subcommittee, and the Federal Communications Commission's (FCC) Communications Security, Reliability and Interoperability Council (CSRIC), as well as the Online Trust Alliance (OTA) Board of Directors.

Pricing

Verisign can petition for removal of the price cap if it can prove to the U.S. Department of Commerce that market conditions no longer warrant price restrictions. It will have to demonstrate "that competition from other top level domains, use of alternative Internet navigation techniques (including search engines, browsers and URL shorteners, among others), reduced demand for domain names, or other factors are sufficient to constrain Verisign's pricing of Registry Services at the current Maximum Price."

And Verisign can show that a new Consensus Policy or extraordinary expense “from an attack or threat of attack on the Security or Stability of the DNS” raised its costs. On recent investor calls, Verisign CEO James Bidzos has hinted that he thinks the domain name market is moving closer to the point at which Verisign might be able to trigger price increases. A small price increase means big money to Verisign. There are nearly 128 million .com domains registered. If the price is increased 7% from \$7.85 to \$8.40, that’s another \$70 million of pure profit per year for Verisign. Still, I could see ICANN agreeing to a small increase to make Verisign happy and then see what the Department of Justice thinks. It could do this under the guise of new policies increasing the cost to run .com.

Back in 2005, Verisign used its financial and legal advantage over ICANN to push it into an agreement where Verisign retained the dot-com contract on very favorable terms: it retained control, plus a presumptive renewal of the contract, and was given the ability to increase prices by seven percent in four of the six years of the contract term. In return, it gave ICANN what it wanted: recognition that ICANN had authority over the domain name system. When the contract was renewed again in 2012, ICANN was planning to give Verisign the exact same deal including the same price-rising rights, but the US government intervened and said the contract should not include any price increases.

Emerging Markets

Considering the potential for growth in internet penetration in emerging economies and the e-commerce boom, it seems highly plausible that domain name registrations are going to increase at an unprecedented rate in the years to come. Domain name registrations and the number of internet users are directly proportional. The four key countries in which VeriSign sees potential for increased business are China, India, Vietnam and Indonesia. To gain a better perspective, it would be worthwhile to analyze the internet penetration levels in two of the largest economies in question here - India and China.

China leads the pack with the largest internet user base in the world. The country has almost 668 million citizens with access to the internet. Like India, most of the users in the country access the internet via their smartphones - almost 89% of the internet using population. Internet

penetration in the country now stands at close to 49%. Given the current economic conditions, it does seem plausible that the rate of growth is going to come down marginally, but this could prove to be only a temporary setback.

The number of internet users in India has grown (and continues to grow) at unprecedented levels in the recent past. The country witnessed an addition of more than 200 million users to its internet user base over the last 5 years. In the latest reports available from October, India’s internet user base was recorded at 375 million users (significantly higher than the population of the U.S.). This figure is expected to reach 400+ million users by the end of this month (a whopping 49% jump over last year). Only about 30% of the country’s population has access to the internet. This definitely leaves a great scope for growth in the coming years.

Businesses in India are beginning to realize the power of the Internet. With only a small percentage of businesses having a Web presence, there is an opportunity to educate the mass market on the value of getting online, of having a branded email address and a professional website. This market education and awareness, along with strong growth in Internet penetration, will result in a large Web services economy in India for the years to come. Given the reasons highlighted above, it seems highly plausible that there is scope for heavy registrations in the .com and .net space over the next five years.

The next Internet revolution will not be in English

Imagine if, every time you wanted to visit a website, you were expected to type in letters from a foreign language, or worse, an entirely foreign script, such as Arabic, Cyrillic, or Chinese. For more than a billion people, this is how they experience the Internet today. The Internet was designed to be global, but it was not designed to be multilingual. For decades, this limitation was most evident in website and email addresses, which permitted only a small set of Latin characters. Fortunately, over the past decade much work has been done to allow website addresses to support non-Latin characters, referred to as internationalized domain names (IDNs). More than 30 countries, ranging from Saudi Arabia to South Korea, now support country code domains in their native scripts.

For more than a billion web users, *.com* has always been a foreign address. Local-language domain names do have value. And they will improve the usability of the Internet. VeriSign, the registry that manages *.com*, is now pursuing a Russian transliteration: *.kom*, as well as variations in Chinese and Hindi. The fact is, IDNs are here, and many more are coming. And the regions these IDNs span constitute more than 2.5 billion people, most of whom do not speak English as a native language. The regions also represent where most of the growth in Internet usage will occur over the next decade. We're inching closer to a linguistically local Internet, in which people no longer have to leave their native languages to get where they want to go. This is a positive development for making the Internet truly accessible to the world.

The threat and opportunity of Cybersecurity

Verisign has unmatched experience in protecting critical internet infrastructure, and is entrusted by leading organizations to help secure and protect their businesses. And there is a need for guidance in the cybersecurity evolution.

The ever-evolving technology sector has truly transformed our lives but not without some hiccups. That's because cybercrime, which includes destruction of data, identity theft, spying and other illegal activities, poses a threat. Enterprises and government agencies are frequently targeted by hackers, and therefore have to adopt strict cyber security measures. Over the past few years, high-profile business houses and government agencies have reported a significant rise in data breaches which, in turn, prompt them to impose tighter security measures. The latest was a massive ransomware attack on May 12, 2017, which halted daily work at several companies, government offices and even hospitals across the globe.

According to a report from cybersecurity firm FireEye Inc. FEYE, the attack, which persisted throughout the whole weekend, affected over 200,000 computers in at least 150 countries across the Americas, Europe, Russia and Asia over the following weekend. Known as WannaCrypt or WannaCry, the malicious software reportedly seizes the control of computers and encrypted files with a password which only hackers have access to. After that, victims were asked to pay ransoms

in order to regain control of their systems. The hackers demanded ransom in bitcoin. The latest cyberattack proved that, whether government or private enterprise, most organizations around the world lack proper security measures.

Per the predictions of CSO, a provider of news, analysis and research on a broad range of security and risk management topics, cybercrime damages may cost the world a whopping \$6 trillion annually by 2021, double from \$3 trillion in 2015. According to a joint report of Identity Theft Resource Center (ITRC) and CyberScout, 1,093 data breaches had been recorded in 2016, which was 40% higher than 780 reported in 2015. The long list of data breaches puts the Internet security market in focus, as companies are beginning to realize the necessity of beefing up cyber safety measures. Moreover, with rapid technological advancement, more organizations are adopting the "bring your own device" (BYOD) policy to enhance employee productivity with anytime, anywhere access. This trend, on the other hand, has made it necessary for companies to enforce stricter data security measures.

From being a niche industry a decade ago, cyber security has grown into a very important segment in the IT space. Various independent research firms forecast strong demand ahead. According to a Markets and Markets report, worldwide cybersecurity spending will reach \$90 billion in 2017, \$101 billion in 2018 and \$170 billion by 2020. Gartner had earlier mentioned that IT security spending peaked to above \$83 billion in 2016. This indicates that business houses and government agencies would rather compromise on other IT expenses than security measures, which, I believe, will enhance long-term prospects for cyber security providers like Verisign.

Risks

For a comprehensive risk assessment, please look at section 1A of the Form 10-K. The top 3 risks:

Risk. Undetected or unknown defects in their service, security breaches, and DDoS attacks could expose Verisign to liability and harm their business and reputation. **Assessment.** Cybercrime, which includes destruction of data, identity theft, spying and other illegal activities, poses a huge threat to reputational damage. Verisign has unmatched experience in protecting critical internet infrastructure, and is

entrusted by leading organizations to help secure and protect their businesses.

Risk. Governmental regulation and the application of new and existing laws in the U.S. and overseas may slow business growth, increase their costs of doing business, create potential liability and have an adverse effect on their business. **Assessment.** VeriSign operates in a highly regulated industry. Regulation is great because it decreases competition and makes it difficult for new incumbents, but it's also an issue because it reduces margins unnaturally. The department of the Homeland Security has designated the root servers as critical homeland security infrastructure. The U.S. Government (or ICANN) will not mess with a function that is so crucial, when the company performing that function is doing so (and has always done so) perfectly.

Risk. Verisign operates two root zone servers and are contracted to perform the Root Zone Maintainer function. Under ICANN's New gTLD Program, Verisign face increased risk from these operations. **Assessment.** In a recent survey that was conducted by ICANN, .com was still the most popular and most recognized gTLD. Legacy TLDs like .com, .net, and .org were also chosen by about 90% of the participants as being the domain extensions they trust. The .com extension has been around for almost 30 years and is firmly set in people's mind. Lastly, it would be worthwhile to mention that VeriSign is also participating in the new gTLD program, albeit only partially. The company has applied for IDN versions (Internationalized Domain Names) of .com and .net domains. In the latest quarter earnings, the company has announced a planned rollout of about 11 IDNs by the end of the year. Therefore, if new gTLDs do catch up in the future, VeriSign is ready to capitalize on the changing trend.

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Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
30 June 2017

The Verisign Leadership Team

9 October 2018

D. James Bidzos. Verisign President, Chief Executive Officer and Chairman of the Board

James Bidzos is president and chief executive officer of Verisign. He also serves as chairman of the board of directors and has been executive chairman since August 2009. As the founder of Verisign, Bidzos is an Internet and security industry pioneer whose accomplishments include building RSA Security into the early standard-bearer for authentication and encryption, and launching Verisign as a company in 1995 to develop the digital certificate infrastructure for Internet commerce.

Before returning to the president and chief executive role in August 2011, Bidzos served as Verisign's first president and CEO and also served as Verisign's chairman of the board of directors from April 1995 until December 2001, as vice chairman from December 2001 to July 2007, and as interim CEO from July 2008 to August 2009. Bidzos served as president and CEO of RSA Security from 1986 to February 1999, and then served as RSA's vice chairman from 1999 to May 2002.

Bidzos was named one of Time Magazine's "Digital 50," and is in CRN's Computer Industry Hall of Fame.



D. James Bidzos

President, Chief
Executive Officer and
Chairman of the Board



Thomas Indelicato

Executive Vice
President, General
Counsel and Secretary



Dr. Burt Kaliski, Jr.

Senior Vice President
and Chief Technology
Officer



Pat Kane

Senior Vice President,
Naming and Directory
Services



Ebrahim Keshavarz

Senior Vice President,
Product Management



George Kilguss III

Executive Vice President
and Chief Financial
Officer



Danny McPherson

Executive Vice President
and Chief Security
Officer



Dave Pool

Senior Vice President,
Technology Services



Scott Schnell

Senior Vice President of
Global Marketing and
Channel Management



Todd Strubbe

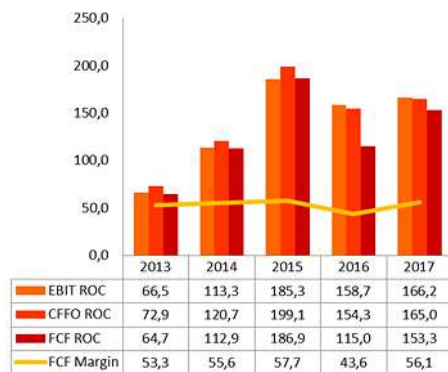
Executive Vice President
and Chief Operating
Officer

Update on Verisign

7 November 2018. The U.S. Government has extended its Cooperative Agreement with Verisign for managing the .com domain name. The deal will allow Verisign to negotiate with ICANN to raise the price of .com by 7% in each of the last four years of each six-year .com contract.

In the amendment, the U.S. Department of Commerce stated that ccTLDs, new gTLDs and social media “have created a more dynamic DNS marketplace”, and as such, it’s appropriate for Verisign to have pricing flexibility.

To get an idea of the profitability of this company, just have a look at this graph:



Verisign will still have to get ICANN’s approval for any price hikes. ICANN is likely to grant price hikes in return for a higher cut of the action. The Department of Commerce billed the changes as reducing regulatory burdens in line with Trump’s policies:

NTIA and Verisign have agreed to extend and modify the Cooperative Agreement. These modifications are in line with policy priorities of the Trump Administration. The changes create a new commitment to content neutrality in the Domain Name System (DNS), provide market-based pricing flexibility, and reduce the regulatory burden on Verisign.

Amendment 35 confirms that Verisign will operate the .com registry in a content neutral manner with a commitment to participate in ICANN processes. To that end, NTIA looks forward to working with Verisign and other ICANN stakeholders in the coming year on trusted notifier programs to provide transparency and accountability in the .com top level domain.

Some observations:

- .com domains have massive market power. According to Verisign’s own industry brief, there are currently 135.6 million .com domains names registered. The second largest extension only has 22.7 million registrations. More than 480 of the Fortune 500 companies use a .com for their company URL. Simply put, .com domains continue to have overall market power and has significant global demand in the marketplace.
- Over the past 6 years (2012 through 2017) Verisign has only put \$275 million into capital expenses to invest in additional networking, bandwidth and server upgrades. At the same time, it spent \$4.17 billion dollars to repurchase its own stock. Instead of investing cash into its business and upgrading its infrastructure, Verisign is investing purely in its own stock.
- Verisign’s cost to operate the Registry has remained flat since 2009. Even though VeriSign added 54 million new domains to its base since 2009, the cost to operate the entire business have have not changed at all. It cost \$455 million to run VeriSign in 2009, and it cost \$455 million to run VeriSign in 2017. The base of domains has grown 55.0% from 2009 to 2018, yet the cost to operate the business has remained flat. This level of earnings-to-operational expenses is unheard of in the tech industry.
- Verisign currently employees fewer employees than ever before – Even though the number of domains has increased by more than 50% since 2009, Verisign continues to reduce staffing. In 2009, Verisign had 1,100 full-time employees. At the end of 2017, Verisign ended the year with only 952 full-time employees. On the Q2 2018 Earnings Conference Call, Verisign reported only 941 employees. While revenues have grown 89.2% since 2009, the number of full time employee has decreased by 13.5%.

- Verisign's operating margins have climbed from 26.0% in 2009 to 60.7% for the full year end 2017. In the most recent Q3 2018 quarterly earnings call, Verisign announced its margins reached the highest levels yet of 63.8%.
- As far as their .net domain names are concerned, on 27 July 2017, Verisign announced that it is increasing the price of .net domain names by 10%, as per 1 February 2018. Verisign increases these prices 10% every year and has the contractual right to do so until 2023 under its recently-renewed contract. This means the wholesale price of a .net registration could be \$14.52 in 2023.

With thanks to <https://domainnamewire.com>.

Thoughts on Monro

Headquartered in Rochester, NY, Monro, Inc. is a leading independently-owned and operated auto service and tire provider in the United States. The Company went public in 1991 and trades on the NASDAQ under the symbol MNRO.

The Company operates more than 1150 stores, has 98 franchised locations, 9 wholesale locations and 3 retread facilities in 28 states, serving the Mid-Atlantic and New England regions and portions of the Great Lakes, Midwest and Southeast.

While Monro, Inc. has enjoyed a steady history of success, the company has experienced significant growth in recent years through acquisitions and, to a lesser extent, the opening of newly constructed stores.

The Monro, Inc. brand portfolio features 10 quality brands, the majority offering complete auto care and service at significant savings compared to dealers and local repair shops. Core product and service offerings include:

- Oil changes
- Brake systems
- Exhaust systems
- Suspension systems
- Wheel alignments
- Belts and hoses
- Tires
- Heating and cooling systems
- Transmission flush and fills
- Tune-ups
- Batteries, alternators and starters
- Belt and hose installations
- State inspections
- Scheduled maintenance

The company wants to be America's leading auto and tire service centers, trusted by consumers as the best place in their neighborhoods for quality automotive service and tires by exceeding guest expectations, providing consistent value and by building a committed, knowledgeable organization of friendly and professional teammates

The Balance Sheet

With a 2018 current ratio of 1.07, quick ratio of 0.28, a long-term debt of 2.8 times EBIT and a long-term debt relative to equity of 60%, the balance sheet looks "balanced". Other balance sheet characteristics: 47% of the total assets consist of "intangibles", a total shareholders' equity relative to total assets of 50.2%, and the retained earnings per share growing consistently from 11.9 in 2014 to 16.3 in 2018 (values in 000's).

Industry overview

Demand for automotive repair services, including undercar repair and tire sales and services is correlated to the overall number of vehicles in operation and the increasing average age of vehicles, and to a lesser extent, with increased average miles driven. The number of vehicles in operation is expected to continue to grow over the next several years, with vehicles 6 years or older representing the vast majority of this growth.

This is in contrast to the past several years in which the number of vehicles 6 to 12 years old declined significantly in response to the lower volume of new vehicles sold during 2008 to 2012. Additionally, vehicles continue to increase in complexity, making it more difficult for a vehicle owner to perform do-it-yourself repairs. At the same time as demand for automotive repair services has grown, the number of general repair outlets has decreased. Monro believes that these factors present opportunities for increased sales by the Company.

Monro competes in the automotive service and tire industry. This industry is generally highly competitive and fragmented, and the number, size and strength of competitors vary widely from region to region.

Monro believes that competition in this industry is based on customer service and reputation, store location, name awareness and price. Monro's primary competitors include national and regional undercar, tire specialty and general automotive service chains, both franchised and company-operated; car dealerships, mass merchandisers' operating service centers; and, to a lesser extent, gas stations, independent garages and

Internet tire sellers. Monro considers TBC Corporation (operating under the NTB, Merchant's Tire, Midas and Tire Kingdom brands), Firestone Complete Auto Care service stores, The Pep Boys — Manny, Moe and Jack service stores, Meineke Discount Mufflers Inc., and Mavis Discount Tire to be direct competitors.

In most of the new markets that they have entered, at least one competitor was already present. In identifying new markets, they analyze, among other factors, the intensity of competition.

Monro.Forward

Monro has experienced significant growth in recent years through acquisitions and, to a lesser extent, the opening of newly constructed stores. Management believes that the continued growth in sales and profits of the Company is dependent, in large part, upon our continued ability to open/acquire and operate new stores on a profitable basis.

Monro believes that there are significant expansion opportunities in new as well as existing market areas, which may result from a combination of constructing stores on vacant land and acquiring existing store locations as well as purchasing existing businesses.

They believe that, as the industry consolidates due to the increasingly complex nature of automotive repair, the expanded capital requirements for state-of-the-art equipment and aging of existing shop owners, there will be increasing opportunities for acquisitions of existing businesses or store structures.

Monro seeks to set competitive prices for quality services and products. They support their pricing strategy with special offers and coupons distributed through a variety of channels including: direct mail, e-mail, digital advertising, newspaper, promotional store signage and in-store displays. In addition, to increase consumer awareness of the services they offer, Monro advertises through radio, cable television and yellow page advertising.

Their digital marketing efforts include paid and organic search on all major search engines, search remarketing and banner and mobile advertising. They also manage social media profiles on a variety of platforms.

Their websites include Monro.com, MrTire.com, TQTire.com, AutoTire.com, TireWarehouse.net,

KenTowery.com, TireBarn.com, TheTireChoice.com and Tiresnowonline.com. These websites help their customers search for store locations, print coupons, make service appointments, shop for tires and access information on their services and products, as well as car care tips.

Monro currently maintains mobile apps on the iPhone and Android platforms that enable customers to access information, coupons and specials and make appointments on their smart phones, as they do on our websites.



Monro.Forward centers around four key pillars, which will be supported by a number of investments in technology and data-driven analytics across the business:

Improving Customer Experience

The primary focus is to drive operational excellence and deliver a consistent 5-star experience to their customers with a focus on increasing customer lifetime value. It starts with the improvement in their online reputation and increased efforts to solicit customer feedback. Leveraging the insights from this feedback, they are making improvements to their store operations, which, in turn, are leading to a material improvement in Monro's overall star rating across online review sites.

The increased number of online reviews is also leading to higher conversion, and most importantly, driving higher traffic to their stores. Additionally, they are setting clear brand standards for how they operate and how they look across their store base. This includes developing standard operating procedures for the teammates using an education-centered approach to position them as expert advisers, who can clearly and professionally provide their customers with options and

choices for the work their vehicles need. They are also implementing a store refresh initiative to ensure their stores are inviting and modernized, while remaining appropriate for what their customers expect from the Monro brand.

Enhancing Customer-Centric Engagement

The second objective is to engage with their customers more effectively and invest in marketing channels with the highest return to drive increased customer retention and new customer acquisition, and to develop an omnichannel presence. They will leverage their customer relationship marketing platform to reach their customers with the right message for the right service at the right time, increasing brand loyalty and building long-term one-to-one relationships. Their data-analytics will also assist in identifying high-value potential new customers, as well as optimizing the digital marketing efforts to reach them. Additionally, Monro recognizes the importance of developing a robust omni-channel presence, which they will roll out in two phases: modernizing the online presence through their mobile platform and website, and creating a seamless buying experience for their customers.

Optimizing Product & Service Offering

Creating a clearly defined product and service offering is another strategic priority which will allow them to improve the customer experience and maximize their ticket through higher conversion. They will accomplish this through a redefined selling approach and optimized tire assortment. By implementing a stronger merchandizing strategy across good, better and best pricing options, they will allow their technicians to properly educate their customers on their vehicle needs and provide them with clear options to choose the right products and services for their vehicle. Given that tires represent half of their sales, they have been particularly focused on optimizing their assortment. Monro has taken considerable steps to ensure they are offering the right tires at the right prices, leveraging the breadth of their tire brand portfolio.

Accelerating Productivity & Team Engagement

Given that the teammates are at the heart of the organization, Monro will implement a number of initiatives to increase productivity and engagement across their base. They will focus on optimizing their store staffing model and using data-driven scheduling to ensure they have the appropriate amount of talent allocated to each store. Additionally, they are committed

to attracting, developing and retaining their talent. Monro wants their technicians to have a clearly defined career path at Monro and will provide them with the necessary onboarding materials and proper training to optimize their performance, particularly as vehicles become increasingly complex. Monro will also ensure their compensation model is based on a balanced scorecard designed to increase incentives as the teammate's performance improves, with maximum payouts for outstanding performance.

Monro has had a successful rollout of their foundational technology and tools, including business intelligence and key performance indicator dashboards and a tabletbased, standardized store review process.

Amazon.Com

Monro expanded its collaboration with Amazon.com to provide tire installation services at over 330 additional Monro retail tire and automotive service locations in 10 states across the Eastern United States and are now expanding this option for tire installation to Amazon.com customers at a total of nearly 400 locations.

The preferred tire agreements with online retailers are a key initiative of their omni-channel strategy, and this expanded collaboration underscores the strong progress they have made as they continue to develop their online presence. Monro plans to make these services available to Amazon.com customers at more than 1,170 retail locations across 28 states.

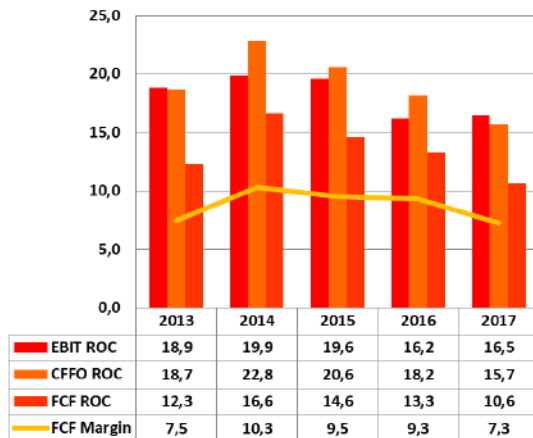
The partnership with Amazon is still in its early innings. About half of the traffic Amazon brings in are first-time customers for Monro, and the majority are car enthusiasts, according to the company.

Monro believes that there are significant expansion opportunities in new as well as existing market areas. Monro has a strong presence in the Northeastern U.S., and continues to expand in Southern and Western adjacent markets.

It's pretty difficult to even comprehend how ridiculously large the US economy is, and the map below helps put America's Gross Domestic Product (GDP) of \$20.5 trillion in 2018 into perspective by comparing the economic size (GDP) of individual US states to the entire national output of other countries. The chart was put together by The American Enterprise Institute (AEI).

Profitability

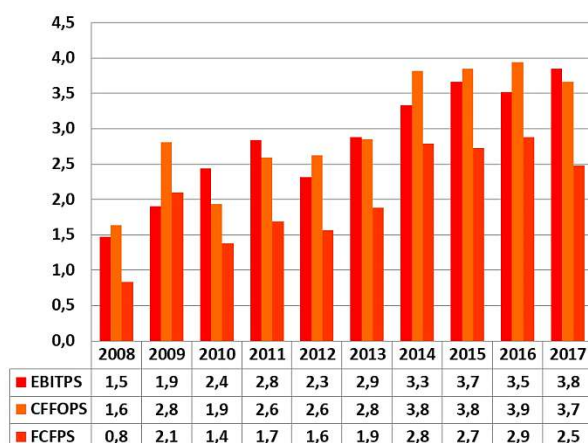
The first graph visualizes respectively operating income (EBIT), operating cash flow (CFFO) and free cash flow (FCF) relative to the net PP&E plus net working capital.



Looks very healthy. The yellow line is the free cash flow relative to the revenue (free cash flow margin).

Growth

The 10 year compounding annual growth rate (CAGR) of the operating income per share, earnings per share, the operational cash flow per share, the free cash flow per share and the book value per share are respectively 9.7%, 9.1%, 8.7%, 12.1% and 11.8%.



Value Creation Engine

At times, I use the Value Creation Engine (VCE) for stock selection. If you have two companies with identical ROC and company A grows e.g. with 3% free cash flow per share and company B with 6%, I tend to believe that there is value in adding additional weight to company B.

The question is how to do that. During the Zürich Project 2017 I introduced the Value Creation Engine. The more aggressive definition of this Value Creation Engine is ROC times GROWTH. A more conservative approach is to add just a few extra points to the ROC for company B. In the latter case you could argue that the Value Creation Engine is a sort of adjusted ROC.

Let's have a look @ the Monro 3 year average CFFO ROC, where the capital base is defined by the net PP&E plus net working capital; approximately 27.6. Dependent on the FCF per share CAGR, I will add some basic points to it. This results in a Value Creation Engine (VCE) of approximately 30.

Valuation

Monro was added to the Intelligent Cloning Portfolio in the second half of 2017, when the stock was trading @ 47 USD (1.55B Market Cap), or 13 times 3 year average operational cash flow, and 19 times 3 year average free cash flow.

If the stock trades @ 25 times free cash flow, 15 years from now, and the compounded annual growth rate (CAGR) of the free cash flow equals 6%, 8%, 10% or 12%, then the company trades @ a market cap of respectively 5.4B, 7.1B, 9.4B or 12.3B USD, 15 years from now.

A market cap of 10B USD, 15 years from now, would correspond to an annual stock price growth rate of 13.2%.

Risks

Competition.

The automotive repair industry in which Monro operates is generally highly competitive and fragmented, and the number, size and strength of their competitors varies widely from region to region. Their primary competitors

include national and regional undercar, tire specialty and general automotive service chains, both franchised and company-operated, car dealerships, mass merchandisers operating service centers and, to a lesser extent, gas stations, independent garages and Internet tire sellers.

Technology.

The demand for their products and services could be adversely affected by continuing developments in automotive technology. Automotive manufacturers are producing cars that last longer and require service and maintenance at less frequent intervals in certain cases. Quality improvement of manufacturers' original equipment parts has in the past reduced, and may in the future reduce, demand for their products and services, adversely affecting their sales.

Integration.

Monro may not be successful in integrating new and acquired stores. Management believes that the continued growth in sales and profit is dependent, in large part, upon the ability to open/acquire and operate new stores on a profitable basis. In order to do so, Monro must find reasonably priced new store locations and acquisition candidates that meet their criteria and they must integrate any new stores (opened or acquired) into their system. Their growth and profitability could be adversely affected if they are unable to open or acquire new stores or if new or existing stores do not operate at a sufficient level of profitability. If new stores do not achieve expected levels of profitability, this may adversely impact their ability to remain in compliance with their debt covenants or to make required payments under their credit facility.

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Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
12 March 2019

Brett T. Ponton, President and Chief Executive Officer

Brett T. Ponton was named Chief Executive Officer of Monro, Inc. in October 2017. He was appointed to serve as President in August 2017, bringing over 25 years of auto industry and operational turnaround experience to the Company. Mr. Ponton spent over 15 years in executive leadership roles at The Goodyear Tire & Rubber Company and 10 years leading organizations in private equity backed companies.

Most recently Mr. Ponton served as CEO of private equity backed American Driveline Systems, the parent company of AAMCO, where he led a strategic turnaround at the company, leading to a successful sale of the company to private equity sponsor. Prior to A.D.S, Mr. Ponton was CEO of Heartland Automotive, the largest franchise operator of Jiffy Lube locations in North America. He was successful in growing Heartland Jiffy Lube from 390 locations to nearly 600 locations while leading Operational Excellence initiatives, during his tenure, resulting in a successful sale to a private equity buyer.

Previously, Mr. Ponton served as Managing Director, Asia-Pacific of Veyance Technologies, a private equity backed industrial and automotive products manufacturing company, located in Shanghai, China and Melbourne, Australia. While at Goodyear, Mr. Ponton served as Vice President, of Marketing for Goodyear Tires in North America and was also the Vice President & General Manager for Goodyear's Company-owned Retail Division.

Thoughts on StoneCo

The IPO prospectus of StoneCo is great. The only thing I had to do to write this thesis is to put it into context, summarize it (lots of copy and paste, but not copying in this case means probably a lower quality of the thesis) and add some thoughts on valuation. Here is the result.

What is FinTech?

Financial technology (FinTech) brings about a new paradigm in which Silicon Valley's innovative technologies are poised to continue to disrupt and permeate throughout Wall Street's core financial businesses. J.P. Morgan CEO Jamie Dimon warned in his annual letter to shareholders that these Silicon Valley startups are coming to eat Wall Street's lunch. And indeed, FinTech's like Lu.Com, Stripe and One97 have achieved huge success and are actually multi-billion market cap companies.

FinTech is not merely one type of solution. Rather, it is an ecosystem of digital tools designed to serve a multitude of needs. The areas experiencing the greatest activity today are payments, funding, lending, investing, business services and digital currencies. E.g. digital payments have become a mainstay in the life of nearly all consumers.

Recently, Berkshire Hathaway announced \$600 million in investments into 2 FinTech companies; StoneCo and PayTM. Obviously, Todd Combs and the Berkshire management see tremendous promise in the future of mobile payments and the FinTech industry as a whole. Ant Financial, Alibaba's finance affiliate controlled by billionaire Jack Ma, agreed to buy a stake in the Brazilian payments firm StoneCo as well.

Aside from Buffett and Jack Ma, another billionaire family is also seeking to increase its stake. Madrone Capital Partners, backed by heirs to the Walmart Inc. fortune, has also indicated it wants to buy more shares. Among other shareholders of StoneCo are 3G Capital Inc -- of billionaire Jorge Paulo Lemann -- and former Brazil central bank chief Arminio Fraga.

Major banks, credit card companies and financial giants have long controlled payments but their dominance looks increasingly shaky. Since 2014, investors have poured \$130 billion into ground breaking technologies

like Blockchain and mobile payments. Thanks to next generation payment methods that bypass banks and credit cards, the unbanked and underbanked have been increasing their economic activity.

Previously, many financial services firms had no desire to extend their services to the emerging markets' middle class. FinTech firms, however, are uniquely positioned to serve them. Given their highly scalable platforms, adding a middle class banking customer with a few thousand dollars in savings or who requests a loan for a few hundred dollars may still be profitable. In China and India, the number of middle class consumers is growing at 6% per year, compared to just 0.5% growth in developed markets. Globally, the middle class is adding approximately 160 million people each year. There is a huge potential revenue from extending financial services to the unbanked.

Digital payments

The global payments industry is a \$100 trillion plus market consisting of large and small companies fiercely competing for retail, cross border transactions, peer to peer services, and e-commerce. Big financial companies like Citi, JP Morgan Chase and Bank of America collect consumer deposits, provide low-cost funds to support loan origination, and facilitate retail and cross border payments. Startups developing Blockchain and smart contracts will redefine the relationship between customers, suppliers, and vendors. MasterCard and Visa are heavily spending to preserve their dominant market share in credit cards. With so much at stake, the category is attracting considerable investment.

The payments industry is experiencing significant transformation because of changing consumer behavior. The industry has moved from traditional checking/savings accounts to seamless "one-click" messenger applications like Alipay, WeChat and PayTM. Payment firms such as Stripe, Adyen and PayTM are disrupting banks, credit card companies and payment processors. Stuck with out of date infrastructure, these incumbents are trying to remain relevant by expanding into adjacent markets, including point of sale and peer-to-peer services. Tech giants like Apple, Google and Samsung all provide cash-less and card-less payment

solutions for consumers at the point-of-sale. Major retail chains are already using their platforms. Big tech's sophistication and considerable financial resources pose a unique competitive threat to legacy financial services providers.

These days even the corner coffee shop needs to offer in-store as well as desktop and mobile ordering options to customers, while accepting physical payment in cash, credit, debit, gift cards, as well as digital payments from mobile wallets on phones and wearables, money transfers from apps, and sometimes even in a variety of cryptocurrencies. Take, for example, the payment methods accepted at Starbucks, according to their website: Gift cards, Starbucks Mobile App, Chase Pay, Apple Pay, PayPal, Visa Checkout, Credit Cards and Cash. All of these forms of payment need to occur instantaneously, while ensuring security, reliability, and integration across the business's other accounting, inventory, and order fulfillment systems. For many firms, offering such a complex web of payments options requires working with third-party FinTech firms that offer point-of sale hardware, cloud-based software solutions, and payments infrastructure to facilitate these transactions. The end result is that payments firms are entrenched as an essential component of retail business operations around the world.

Brazil

Brazil is a geographically vast country, of continental proportions, composed of more than 5,500 cities and 200 million people to date. According to Neoway, there are currently approximately 9 million small and medium businesses in Brazil, battling the difficulties associated with the high cost banking environment and the infrastructure challenges that such a vast geography imposes, while trying to grow their businesses despite these challenges.

Brazil is a large and fast-growing market for financial technology solutions. According to the World Bank, Brazil GDP and Private Consumption Expenditures in 2017 were R\$6.6 trillion and R\$4.2 trillion, respectively, up from R\$6.3 trillion and R\$4.0 trillion, respectively, in 2016. According to Statista, retail e-commerce sales in Brazil excluding digitally distributed services and digital media downloads were approximately R\$61.8 billion in 2017 and are expected to grow to approximately R\$104.8 billion by 2022. According to the World Payments Report 2017, Brazil is the fourth largest

market in the world for non-cash transaction volumes. The payments market has continued to grow and demonstrate resiliency to macroeconomic fluctuations in Brazil.

Despite Brazil's large size, its payments market remains less penetrated and has greater growth upside than more mature economies, such as the United States and the United Kingdom.

- Electronic payments volume represented 28.4% of total household consumption in Brazil in 2016. This penetration percentage is lower than comparable measures of 46.0% and 68.6%, respectively, in the United States and the United Kingdom.
- 27.0% of the Brazilian population aged 15 and above had a credit card in 2017, compared to 65.6% in the United States and 65.4% in the United Kingdom.
- In 2017, 17.6% of the Brazilian population aged 15 and above used the internet to pay bills or made online purchases over the previous year, compared to 77.2% in the United States and 80.7% in the United Kingdom.

In the early years, the merchant acquiring market in Brazil was still a duopoly dominated by two payment processing companies owned by the country's largest banks that had exclusive arrangements with the global networks. In 2010, the Central Bank of Brazil and Brazilian antitrust authorities implemented a series of initiatives to create a regulatory framework aimed at fostering a more open and competitive environment.

StoneCo's founders envisioned to help the small and medium businesses in Brazil be more productive and efficient, by leveraging technology, a differentiated approach to service and support, and local proximity. They believed that owning direct distribution is the only way to create a true understanding of merchants' needs, and to be able to respond effectively to those needs by establishing a relationship of trust and transparency.

There is a range of business needs that can be addressed through better technology to make those merchants more productive and profitable. With the roll-out of their Stone Hub strategy, their experience in thousands of cities has enabled them to understand how they can provide better commerce solutions to merchants and act as a partner, introducing the best technologies and solutions that can help them grow and become more competitive.

There are various important trends that are impacting the growth and market opportunity for their services in Brazil:

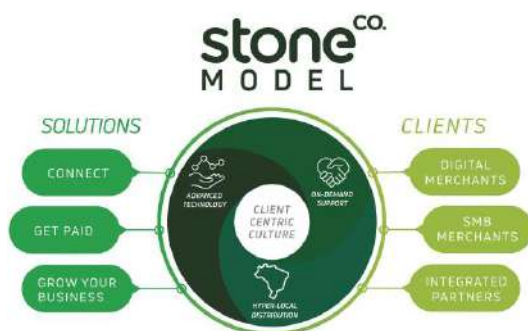
- **Increasing Use of Electronic Commerce** — Commerce in Brazil is increasingly being transacted through electronic accounts, such as credit, debit, and prepaid cards, eWallets, and mobile devices instead of cash and checks.
- **Increasing Shift to Digital Channels** — Consumers and merchants are increasingly conducting commerce through digital channels online and through mobile devices.
- **Growing Use of Omni-Channel Commerce** — As a result of the growing use of electronic commerce and the increasing shift to digital channels, consumers and merchants are increasingly conducting commerce across more than one channel. Businesses are responding to increased consumer spending online and through mobile devices by increasing their e-commerce and mobile commerce capabilities.
- **Expanding Use of Technology at the POS** — As the costs of technology have decreased in Brazil, access to the internet has increased, and software has become easier to use, merchants are using more solutions, such as smart POS devices, integrated POS terminals, mobile devices, and specialized software applications to run their front-of-house operations and back-office functions.
- **Deployment of Technology Services is Changing** — As a result of the growing use of omni-channel commerce and the expanding use of technology at the POS in Brazil, service providers are increasingly deploying technology in new ways, including through: (1) cloud-based solutions; (2) integrated software solutions; (3) mobile devices; and (4) third-party applications.
- **Deployment of Financial Services is Changing** — As a result of these trends, the deployment of financial services is also changing. More financial services are being provided outside of traditional bank branches, such as at the point-of-sale or online, and more financial services are being provided by non-bank firms that are using technology to deliver these services more efficiently and conveniently.
- **More Open Regulatory Environment** — The regulatory environment for the payments industry in Brazil has undergone significant changes in the past few years due to a concerted effort by the Central Bank and the Brazilian government to foster innovation and promote more open and fair competition. In 2010, the Central Bank and antitrust authorities initiated a series of measures that eliminated the exclusivity of certain vendors and opened up the market to new entrants. Since then, a new regulatory framework has been developed and government authorities have been fostering competition.
- **Growing Market in Small and Medium-Sized Cities** — The incremental growth of electronic payments in Brazil will be significantly driven by commerce in small and medium cities. According to a 2015 McKinsey report, small and medium cities with populations between 20,000 and 500,000 inhabitants will account for more than 50% of total consumer spending growth in Brazil between 2015 and 2025. This spending growth will be compounded by the continued shift to electronic payments to generate above-market growth rates for electronic payment volumes in Brazil.

The company

StoneCo is a leading provider of financial technology solutions that empower merchants and integrated partners to conduct electronic commerce seamlessly across in-store, online, and mobile channels in Brazil. They have developed a strong client-centric culture that seeks to delight their clients rather than simply providing them with a solution or service. In their initial years, they were inspired by Zappos' approach to customer relationships. One of the first decisions they made relating to the business was to build the customer relationship team in-house, to serve clients of all sizes and channels. Brazil suffers from a general lack of a service mentality and, being entrepreneurs, they understood the sense of urgency that exists and wanted to assure they would not frustrate their clients by having them wait in line or make multiple phone calls to solve a simple issue. This Zappo's type of customer centricity, in their case merchants centricity, which only can be the result of a deeply embedded "customer first" culture, is

very hard to replicate and might turn out to be a very unique competitive advantage.

StoneCo created a proprietary, go-to-market approach called the Stone Business Model, which enables them to control the client experience and ensure that interactions are provided by their people or technology. The Stone Business Model combines their advanced, end-to-end, cloud-based technology platform; differentiated hyper-local and integrated distribution approach; and white-glove, on-demand customer service.



The Stone Business Model is disruptive and has enabled them to gain significant traction in only four years since the launch of their service. In 2017, they were the largest independent merchant acquirer in Brazil and the fourth largest based on total volume in Brazil. In 2017, they became the first non-bank entity to obtain authorization from the Central Bank of Brazil to operate as a Merchant Acquirer Payments Institution. In the same year, they grew their total revenue and income to R\$766.6 million, an increase of 74.3% from 2016. They have managed this rapid growth while maintaining high-quality service and obtaining high NPS (Net Promotor Score), a measure of the willingness of customers to recommend a company's products and services. As of August 2018, they had an NPS of 65, the highest NPS among their peers in their key markets in Brazil.

The combination of the various proprietary and vertically-integrated elements of the Stone Business Model are difficult to replicate in full. This provides them with strong protective barriers to entry which may make it difficult for competitors to replicate the value proposition.

They served over 200,000 active clients in Brazil as of June 30, 2018, including digital and brick-and-mortar merchants of varying sizes and types, although their focus is primarily on targeting the approximately 8.8 million small-and-medium-sized businesses, or SMBs. They also served over 95 integrated partners as of June

2018, which use or embed StoneCo's solutions into their own offerings to enable their customers to conduct commerce more conveniently in Brazil. These integrated partners include global payment service providers, or PSPs, digital marketplaces, and integrated software vendors, or ISVs.

The balance sheet

StoneCo has \$1.6 billion in total liabilities compared to \$1.84 billion in total assets. StoneCo clearly uses a significant amount debt to boost returns, as it has a debt to asset ratio of 0.9. StoneCo reported negative cash flow over the past several quarters.

The Stone Technology Platform

StoneCo developed and operate the Stone Technology Platform which brings together an integrated suite of advanced technologies designed to provide differentiated capabilities and seamless omni-channel commerce client experiences in a more secure, all-in-one environment. The platform was developed to operate in a completely digital environment and enables them to develop, host, and deploy their solutions, conduct a broad range of transactions seamlessly across in-store, online and mobile channels, manage the distribution hubs, and optimize the client support functions—all in a fully-digital, fully-integrated, and holistic manner. Given its digital DNA and cloud-based architecture, the platform is agile, reliable, and scalable with fast processing speeds and a broad range of capabilities that can be maintained and expanded relatively easily and cost-effectively. The advanced nature and flexibility of the platform enables them to provide a number of technologies and benefits, which provides operating advantages, including the ability to:

- Connect and integrate easily with their clients —StoneCo develops and provides a range of powerful connection and integration technologies, user-friendly client portals, and convenient reporting tools that are simple and easy to use. These were designed to eliminate the technical complexity and difficulty that many clients and partners typically encounter when trying to conduct electronic commerce, and they are designed to require minimum effort to implement by their clients or

personnel. StoneCo has publicly published their proprietary APIs, which provide a set of programming instructions and standards to access and connect to their systems. StoneCo has also developed a set of SDKs, which provide software development tools, code, and documentation to help third-party developers create applications on their platform. Together, these help their clients connect to their systems easily and make StoneCo a partner of choice for many ISVs, PSPs and marketplaces seeking to do business in Brazil.

- Provide seamless omni-channel experiences — StoneCo designed the platform to enable merchants to conduct commerce and reconcile data seamlessly across various sales channels in a single, brick-and-mortar store or multi-location environment, online through an e-commerce or mobile commerce enabled website, or inside of a mobile application. This provides a competitive advantage that appeals to merchants and integrated partners who are increasingly operating across more than one channel and are looking to provide their consumers with a streamlined shopping experience.
- Implement and deploy new capabilities — StoneCo utilizes their digital, cloud-based architecture and integration capabilities to implement and deploy new features and technologies to their clients and integrated partners. The technology platform provides the flexibility to do this easily without the need for expensive upgrades, complex conversions, or lengthy service disruptions. This enables them to provide their clients with the latest functionality in a quick and frictionless process. In addition, the architecture and infrastructure are designed for rapid scalability, which enables them to expand the capacity and manage utilization efficiently and cost-effectively.
- Utilize AI and Machine Learning Technology — The digital DNA and cloud-based architecture of the platform enables them to generate, capture and aggregate a vast array of data across the various business activities. For example, they have developed and deployed machine-learning technologies throughout the enterprise to leverage this data to improve the speed, functionality, and quality of many of their services and operations. For example,

they use AI to: (1) predict merchant behavior and enable proactive action by their sales teams; and (2) increase the accuracy of their fraud management. In addition, they use AI in many of the internal processes to create better efficiencies and performance. For example, they use AI to: (1) improve the management and interpretation of the operational KPIs; and (2) better predict cultural fit, job satisfaction, and long-term performance of job candidates during the talent recruitment and retention processes.

- Operate at Low Marginal Costs —The architecture and various operating advantages of the Stone Technology Platform enables them to run the business increasingly efficiently and with lower incremental transaction costs.

Payments Volume and Processing Fees

StoneCo derives a substantial part of their revenue from fees earned as a percentage of the TPV (total payment volumes) of their clients. Their TPV is primarily driven by:

- Growth of volume within their active client base. As active clients grow their transaction volume, the TPV will also grow. Their active clients are positioned in attractive growth market segments. The focus is primarily on targeting the approximately 8.8 million SMBs in Brazil, which have historically been underserved. In addition, despite the large size of Brazil's economy, its Payments market, particularly among SMBs in small and medium cities, remains less penetrated and has greater growth upside than more mature economies, such as the U.S. and the U.K. StoneCo also targets the e-commerce market, which is expected to grow faster than the overall Payments markets in Brazil.
- Growth of their active client base. Growth of their active clients is driven by (i) growth in the number of merchants resulting from openings and ramp-up of Stone Hubs; (ii) growth in the number of integrated partners in specific verticals and niche market segments; (iii) growth in their e-commerce merchant base.

The quarterly TPV grew 192% in a two-year period, from R\$6.3 billion for the quarter ended June 30, 2016 to R\$18.5 billion for the quarter ended June 30, 2018, and the number of active clients expanded 216% over the same period, from approximately 63,500 active clients as of June 30, 2016 to approximately 200,600 active clients as of June 30, 2018.

A significant part of the net revenues is generated through fees they charge for providing end-to-end processing services using the Stone Technology Platform, which include the authorization, capture, transmission, processing and settlement of transactions. In the case of e-commerce merchants, they may additionally charge a fixed fee per transaction to provide gateway services.

Deep expertise and track record

StoneCo's founders and several members of their management team have deep expertise in developing and delivering disruptive financial solutions. The team has a proven track record of founding, investing, and scaling several successful financial technology businesses in Brazil, including:

- Pagafacil —an e-commerce escrow service, which was sold to private investors in 2004;
- NetCredit —a provider of consumer credit solutions, which was sold to BNG Bank in 2009;
- Braspag —an e-commerce payments solution provider, which was sold to Grupo Silvio Santos in 2009;
- PGTX —a payments technology company, which was sold to Pontual in 2014;
- Sieve Group —an e-commerce price comparison service, which was sold to B2W in 2015 and
- Moip —an e-commerce payments facilitator, which was sold to Wirecard in 2016.

Their board of directors is comprised of highly successful senior executives that combine strong global operating, financial, and regulatory experience with deep expertise in the financial services, payments, and technology industries. In addition, StoneCo has attracted a strong base of world-class investors, many of whom have been key strategic advisors to the company and have consistently increased their investment in the group over prior capital rounds. The mix of the entrepreneurial, executive, board, and shareholder experience and

expertise provide a key competitive strength for the company.

André Street is the Chairman of the board of directors. He has held the position of member of the board since 2014. In 2000, he founded Pagafacil.com, a company specialized in internet payments in Brazil that partnered with websites such as I-Bazar, Mercadolivre, Lokau.com and Arremate. In 2005, he founded Braspag Tecnologia Em Pagamentos, a service provider of payment solutions in Latin America, where he served as CEO until 2009, when the company was sold. In 2007, he also founded Netcredit Promoção de Crédito S.A., a consumer credit company that geared towards facilitating business growth by offering extended payment terms and emphasizing digital credit approval processes. Mr. Street is a founding partner of ACP Investments Ltd – Arpex Capital (formed in 2011), a company focused on investing in e-commerce technology companies in Latin America and in the United States. While at Arpex, he founded StoneCo Ltd., the issuer company, controller of Stone Pagamentos S.A. and Mundipagg Tecnologia em Pagamentos S.A., two of their subsidiaries. Between 2012 and 2015 he had indirectly controlled Sieve Group Brasil Tecnologia S.A., a holding company that was owner of several technology companies, sold in 2015. He also served on the board of directors of B2W Companhia Digital S.A. from 2015 to June 2018 and currently serves on the board of directors of Lojas Americanas S.A. In 2010, Mr. Street completed the Owner President Manager Program at Harvard Business School.

Thiago Dos Santos Piau is the Chief Executive Officer, a position he has held since 2017. Prior to 2017, he was their Chief Operations Officer and prior to 2016, he was the Chief Financial Officer. He is a partner at ACP Investment Ltd. – Arpex Capital, where he was responsible for the definition of the business strategy, investment structuring, merger and acquisition transactions and oversees the management of portfolio companies. In 2011, he founded Paggtaxi, a company that facilitated the payment of taxi rides through a mobile app and credit card machines, where he served as a partner until 2013. Mr. Piau conducted studies in mechanical engineering at Universidade Federal do Rio de Janeiro from 2007 to 2011 and participated in the Key Executive Program at Harvard Business School in 2013. He also participated in the Owner President Manager Program at Harvard Business School in 2018.

Growth

StoneCo's distribution is a key competitive strength that will enable them to expand their footprint and market penetration and continue to extend the reach of their business. They intend to continue to:

- **Grow the base of Stone Hubs** —As of June 30, 2018, they had nearly 180 operational Stone Hubs across Brazil and expect to continue to launch new hubs to increase their coverage and penetration of the market. The strategy of targeting underserved, small-and-medium sized cities, combined with their speed and agility, provides StoneCo with a significant growth opportunity. Following the development of the Stone Hub, they have established highly-scalable, plug-and-play processes that enable them to deploy new hubs faster and more effectively, with more efficient hiring, training, and selling.
- **Grow the base of Integrated Partners** —As of June 2018, they had over 95 integrated partners, such as PSPs, marketplaces, and ISVs. These integrated partners represent an important growth channel for StoneCo to capture more e-commerce and software-integrated payment volumes. StoneCo expects to continue to leverage their powerful connectivity and integration capabilities, including the Mundipagg gateway and Pagar.me PSP platform, to grow their base of integrated partners and help their existing clients grow their businesses.
- **Sell additional solutions to their clients** —As in-store merchant locations continue to become digitalized, the broad suite of solutions and their omni-channel commerce capabilities provide StoneCo with significant opportunity to sell additional existing solutions into their client base. StoneCo intends to leverage the strong relationships and distribution capabilities provided by their Stone Hubs to sell additional solutions to their merchant base with a view to minimizing incremental acquisition costs.

StoneCo intends to develop new solutions and capabilities for their current client segments to better serve their clients and further empower them to grow their businesses, such as:

- **Digital Banking Solutions** —StoneCo is developing a suite of digital banking solutions designed to enable their clients to conduct financial transactions, receive and remit funds, issue boletos, pay bills, and integrate their enterprise financial data in a more efficient, streamlined, and cost-effective manner than traditional bank accounts.
- **ERP Software** —StoneCo is deploying ERP software to help merchants in the food and beverage industry manage and integrate their point-of-sale transactions with their front-of-house functions and back-office operations more effectively. They also aim to identify opportunities to develop and deploy ERP software into other industry verticals.

And StoneCo intends to develop new solutions and capabilities for their new client segments, to address new business opportunities that leverage their technology, solutions and distribution, such as Micro-Merchant Commerce —they are deploying an independently branded easy-to-use, out-of-the-box, and cost-effective solution, which combines point-of-sale technology with their payment acceptance services and a fully integrated digital wallet account and bank card to help the approximately 5.5 million micro-merchants in Brazil, according to Neoway data as of June 2018, who may not need all of the advanced functionality of the standard offerings, to run their businesses more effectively.

StoneCo intends to enter new markets. The Stone Business Model is well suited to serve clients in other markets where their technology, solutions, and support model can continue to disrupt traditional vendors and legacy business models. Opportunity exists in:

- **New Sectors** —They are exploring new complementary business opportunities in adjacent sectors, such as digital banking and vertical-specific software solutions. In the future, they may selectively expand into other sectors where they see an opportunity to leverage their capabilities to provide a differentiated value proposition for clients, such as CRM solutions and loyalty programs.
- **New Geographies** —They are also expanding their geographic footprint by growing the base of Stone Hubs across Brazil. In the future, they may also seek to grow their business by selectively expanding into new international

-

markets where they can leverage the Stone Business Model .

Competition

The Brazilian payments industry is highly competitive and fast-changing. StoneCo faces competition to acquire merchants from a variety of providers of payments and payment-related services. Primary competitors include traditional merchant acquirers such as affiliates of financial institutions and well-established payment processing companies, including Cielo S.A., a company controlled by Banco Bradesco S.A. and Banco do Brasil S.A., Redecard S.A., a subsidiary of Itaú Unibanco Holding SA, Getnet Adquirência e Serviços para Meios de Pagamento S.A. (Santander Getnet), a subsidiary of Banco Santander (Brasil) S.A. Other competitors include other payment processing companies, such as PagSeguro Digital Ltd., First Data Corporation, Global Payments—Serviços de Pagamentos S.A., a subsidiary of Global Payments Inc., Banrisul Cartões S.A.(known as Vero), a subsidiary of Banrisul S.A., Adyen B.V. and SafraPay, a unit of Banco Safra S.A. StoneCo also faces competition from non-traditional payment processors that have significant financial resources and develop different kinds of services, including gateways, PSPs, other reconciliation providers and ERPs. Other means of payment, both digital and traditional, including cash, checks, money orders and electronic bank deposits or transfers, compete indirectly with their products and services.

The most significant competitive factors in this segment are price, brand, breadth of features and functionality, scalability and service capability. While competitive factors and their relative importance vary based on the size, industry and focus of each merchant, StoneCo seeks to differentiate from their competitors through their disruptive business model. And interestingly enough, Brazil's own internal regulations mean that outside FinTech companies like PayPal will not be able to easily muscle in and compete.

Risks

For a comprehensive risk assessment, please look at section "risk factors" (page 22) of the IPO prospectus.

- The first risk is fierce competition (previous paragraph).

- The second risk relates to the rapid developments and change in the industry. This market is characterized by rapid technological change, new product and service introductions, evolving industry standards, changing client needs and the entrance of nontraditional competitors. In order to remain competitive and continue to acquire new merchants rapidly, StoneCo is continually involved in a number of projects to develop new services or compete with these new market entrants, including the development of mobile phone payment applications, e-commerce services, digital banking, ERP, digital wallet account and bank card, prepaid card offerings, and other new offerings emerging in the electronic payments industry.
- And the third risk relates to regulation. Their business is subject to Brazilian laws and regulations relating to electronic payments in Brazil. Pagar.me has applied to the Central Bank to be licensed as a payment institution, and is awaiting such Central Bank approval. While Pagar.me is permitted to continue operations as a payment institution pending the outcome of the approval process, the failure to eventually obtain such approval would have material adverse effects on the business. In addition, Pagar.me currently operates as a payment scheme settlor pursuant to Central Bank license exemption, and depending on its growth in volumes processed, will be subject to the applicable regulations to operate as a payment scheme settlor.

Valuation

StoneCo is by no means a classic low risk value stock with a huge margin of safety. Actually, it's the prototype of a high risk growth stock. It probably will be a bumpy road for the StoneCo stock, especially the first few years, with lots of risks that can materialize. StoneCo is currently trading @ a market cap of 6.5B USD. So is this company going to double, triple, quadruple or even more? Well, I just don't know.

Many times, analysts project companies like these to grow @ double rate digits and often they are wrong. Only 10 percent of the high growth companies maintain 20 percent real growth 10 years on. But there are indeed

exceptional growth stocks, e.g. Amazon, Verisign, Nvidia and Constellation Software. And it is not exceptional that these companies trade @ 20 to 25 times EBITDA.

Valuing companies like StoneCo, early in the life cycle, is difficult, partly because of the absence of operating history. Like Buffett, Munger and Klarman, I also believe that valuations based upon EBITDA multiples in general don't make sense at all. You should avoid that, as much as possible. The traditional value investor critique from Buffett, Munger and Klarman is simple and correct: it isn't actually cash flow because it excludes necessary expenses and capital reinvestment.

But there are exceptions. John Malone, faced with the capital intensive and competitive needs of the early cable industry, was likely the first to introduce EBITDA to Wall Street. If companies create value, e.g. gaining market share, without profits, the best attempt to measure this "yet unprofitable value creation" might be EBITDA. The same counts for companies early in their lifecycle and companies that come into existence from a special situation, like spinoffs. For these companies, net income, or other measures, do not reflect the value that might be accumulated or earned. EBITDA might give a better performance picture when traditional metrics are negative.

Let's suppose that StoneCo will be one of these exceptional companies with a consistent growth rate of 20% or even more over 10 years and let's assume that the EBITDA of StoneCo equals 250M USD soon and take that as the starting point. Then the EBITDA 10 years from now approximately will be 1.5B USD. If by then the stock trades @ 20 to 25 times EBITDA, the company will actually trade @ a market cap of approximately 34B USD. The stock currently trades @ 6.5B USD. You could argue that the stock has the potential to become a 5 to 6 bagger.

The question is if StoneCo will be one of those elite long term growth stocks. Time will tell. And once again, obviously Todd Combs and the Berkshire management see tremendous promise in the future of mobile payments. There is research out there suggesting that the annual global growth rate of mobile payments 2016 – 2021 is 52% and Brazil is just scratching the surface of this trend.

Cordially,

Peter

Peter Coenen
Founder & CEO of The Value Firm®
1 December 2018

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Veritiv Corp

Recommendation: Long

Veritiv is a small cap (631M USD) with big cap revenues (8B USD). Multibagger potential.

EXPECTED RETURN	TIMEFRAME	POSTED
142.7%	2 Years To 5 Years	6/30/2018



Author: Peter Coenen

Posted While At: The Value Firm BV

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About Peter Coenen



The Value Firm® is a classic value investing company inspired by the thinking and teachings of investing legends like Warren Buffett and Seth Klarman. The company is based in the greater Amsterdam area. The company offers investment partnerships (fund management, separately managed accounts) based upon the original Buffett Partnership principles.

Veritiv Corp

Asset Class: **Equity** Symbol: **VRTV:US** Submitted: **6/30/2018** Updated: **7/2/2018**



BY:
Peter Coenen

CURRENTLY AT
The Value Firm BV

COMMUNITY RATING:

★★★★★ 6 VOTES

PERCENTILE: **60%**

Veritiv is a small cap (631M USD) with big cap revenues (8B USD). Multibagger potential.

Return Performance

RETURN TO DATE:	▼ -2.1%
EXPECTED RETURN:	142.7%
IRR:	N/A
RETURN VS. BENCHMARK: (S&P 500)	-0.8%

Pricing Details

↑ **LONG**

RECENT PRICE:	39.15 USD <i>7/03/18 at 11:59PM</i>
TARGET PRICE:	95.00 USD
INITIAL PRICE:	40.00 USD <i>7/02/18 at 12:00AM</i>
CLOSING PRICE:	N/A



ASSET CLASS:
Equity



SITUATION:
Deep Value



TARGET ALLOCATION:
5% - 10%



CATALYSTS:



TIMEFRAME:
2-5 Years

Fundamentals

CURRENCY	United States Dollar
52 WK. RANGE	22.55 - 43.85 USD
MARKET CAP	630M USD
EV	1.72 Billion
TOTAL CASH	71 Million
TOTAL DEBT	1.16 Billion
BOOK VALUE PER SHARE	34.03
THREE MO. AVG. DAILY VOLUME (USD)	2,576,010
SELLSIDE CONSENSUS	2.33

Mutiples/Ratios

LTM P/E	-22.76
FORWARD P/E	9.46
EV/EBITDA	13.85
EV FCF	68.72
EV SALES	0.20
PRICE BOOK	1.15
FCF YIELD	0.04
DEBT BOOK	2.13
DIV YIELD	N/A

Additional Data

SECTOR	Industrials
INDUSTRY	Capital Goods
COUNTRY	United States
REGION	North America

Thesis

Summary

- Given their competitive business model, their unmatched national supply chain, their exceptional customer base, their sales force and their world class relationships with both their suppliers and customers, you could argue that the barriers to entry into this business are very high. Veritiv is the market leader in all of their segments and there is no one in the industry offering the full suite of products that Veritiv does.
- The Veritiv business will change materially over the course of time. In the long run approximately 95% of the adjusted EBITDA will be comprised of the packaging & services business (80%) and facility solutions (15%). The packaging & services market is poised to experience steady growth, much of it closely tied to the ongoing boom in the fast growing e-commerce strategy across major North American markets.
- Currently, 30 June 2018, the stock trades @ 1.17 times book, 3.5 times adjusted EBITDA and @ a price-to-sales ratio of 0.1. Veritiv is a small cap (631M USD) with big cap revenues (8B USD). Even if things get worse and revenues decline 50%, it is still a 4B USD revenue company. With a moderate P/S ratio of 1 you could argue that this company has the potential to become a 4B USD market cap company. Baupost (Seth Klarman) owns 24% of the company.

The balance sheet

As of December 31, 2017, Veritiv had approximately \$934.8 million in total indebtedness, reflecting borrowings of \$897.7 million under the asset-based lending facility (the "ABL Facility"). The 2017 debt-to-equity ratio is 2. The current ratio is 2.33, the quick ratio is 1.45.

The business model

I would like to spend some time with you on the Veritiv business model (slide 8 of [Veritiv strategy & optimization presentation](#)) and what that means in terms of

barriers to entry. It is a simple business model. Veritiv sits between the manufacturer and the customer. The value Veritiv brings to the manufacturer is reach to the customer base. They have over 1900 sales professionals, who have those connections and understand the markets.

Veritiv also has an unmatched and very effective national supply chain and that enables them to reduce their costs, to serve approximately 170 distribution centers (and there is still room for optimization), 20 million square feet of warehouse space, their own 1000+ trucking fleet and 13 packaging design centers that actively support their packaging business today. Veritiv buys over 7B USD worth of products and services to support, not only to their manufacturing supply chain, but to their customer supply chain as well.

From a customer standpoint the value Veritiv brings is a full product line, which consequently reduces their costs of supply chain and reduces their complexity. Veritiv can support large, national customers, because they are one of the few with a broad national network. Veritiv provides more than just products to their customers. They also provide total solutions and services in areas where customers chose not to invest or don't have the capabilities themselves in general.

Veritiv has an exceptional customer base. They do business with more than half of the Fortune 500. No one customer accounts for more than 3% of their sales, which leads to a high quality working capital and therefore strong asset backed lending facility, with very low interest rates. Veritiv has world class relationships

with their suppliers and their customers. Through design solutions, sourcing, and delivery, Veritiv provides significant value to both suppliers and customers.

Obviously, given their business model, their unmatched national supply chain, their exceptional customer base, their sales force and their world class relationships with their suppliers and customers, you could argue that the barriers to entry into this business are very high. Veritiv is the market leader in all of their segments and there is no one in the industry offering the full suite of products that Veritiv does.

The strategy

Veritiv's strategy is to invest in the higher growth, higher margin segments packaging & services, to protect the leading market positions in print & publishing and facility solutions, and optimize (post integration activities 2018 – 2020) the supply chain, support (back office) services and working capital. Important to know is that the Veritiv business materially will change over the course of time. Slide 25 of the strategy & optimization presentation clearly shows that in the long run approximately 95% of the adjusted EBITDA will be comprised of the packaging & services (80%) and facility solutions segments (15%). If you want to understand the future of this company, you have to understand the key drivers for the packaging & services segment, the competitive dynamics of this market and the specific competitive advantages Veritiv has, to become an even more dominant player in this market.

The global packaging industry is a growth business. And it is a very stable business. The packaging business will be around and doing well 25 years from

now. CEO Mary Laschinger expects that Veritiv will be able to grow at least at GDP type levels, perhaps even better. I believe that's a very conservative statement. There is increasing demand for packaging due to a shift in consumption behavior across the globe as a result of a growing middle class as well as a growing elderly population. Today's consumers are looking for three main qualities in their packaged products, especially when it comes to food product packaging: convenience, ease of use, and ease of transport. Retailers are seeking similar qualities, in addition to packaging that provides longer shelf-life. With greater demand comes greater market opportunity. The global packaging market is poised to experience steady growth, much of it closely tied to the ongoing boom in the fast growing e-commerce strategy across major North American markets. It's estimated to reach 1 trillion USD by 2020.

Veritiv is already the market leader of the growing packaging market in North America and will become more and more dominant as a result of their unmatched competitive advantages and their power to lead this market with customer tailored innovations & smart acquisitions. On September 2, 2017 Veritiv completed the acquisition of All American Containers, a family-owned and operated leading distributor of rigid packaging, including plastic, glass and metal containers, caps, closures and plastic pouches. All American Containers had trailing twelve month revenues of approximately 225M USD as of June 30, 2017. The company has approximately 260 employees and more than 1 million square feet of warehousing. Their vast global reach and technical expertise allow them to provide a worldwide, high quality manufacturing network. Over the past two decades, All American Containers has experienced significant year-over-year growth.

Through this acquisition, Veritiv is gaining important expertise in rigid plastic, glass and metal packaging that complements their industry-leading portfolio of packaging products and services. The markets they serve are Cosmetics & Personal Care, Food & Beverage, Household & Industrial Chemical, Pet & Vet, Sports Nutrition, Pharmaceutical, Nutraceutical, & Supplements, Wine, Beer & Spirits and Custom Packaging. I wouldn't be surprised at all if Veritiv continues to roll up its smaller peers in the industry and to acquire more high growth, high margin businesses.

Nowadays, leading brands are leveraging packaging and supply-chain efficiencies as a competitive advantage. By making packaging part of the product development process and implementing strategic improvements throughout the supply chain, businesses around the world are boosting their top and bottom lines through strategic packaging. And Veritiv aims to be at the forefront to help these businesses thrive. Once Veritiv is deeply ingrained in the supply chains of these S&P 500 companies, it will be very difficult for these companies to switch to competitors of Veritiv, especially knowing that there are hardly any competitors offering these total services solutions that Veritiv does. And that, just might offer Veritiv the pricing power needed to grow their profitability even beyond the long term estimate of 5 to 6 % a year over the upcoming 20 years.

Margin of Safety

Investing in spin-off companies is not easy. Veritiv seems to offer some benefits that usually characterize spin-offs. In addition, due to merger transaction that was implemented immediately after the spin-off, the misunderstanding and under-appreciation of company's potential by the market is even higher. Attractive valuation, significant opportunities for growth, synergies, and cost

savings due to a large size of the combined business, and presence of a famous value investor with a significant stake in the company make Veritiv an attractive investment target for a long-term, value investor.

Currently, 30 June 2018, the stock trades just above book, 3.5 times adjusted EBITDA and @ a price-to-sales ratio of 0.1. Veritiv is a small cap (631M USD) with big cap revenues (8B USD). It's by no means a value trap, since the future core business of the company, packaging & distribution, will grow at US GDP level at a minimum for a very long time. You will not lose money on this investment. Even if things get worse and revenues decline 50%, it is still a 4B USD (packaging & delivery) company. With a moderate P/S ratio of 1 you could argue that this company has the potential to become a 4B USD market cap company.

I believe that the long-term business potential of Veritiv is mispriced. My best estimate is that the long-term growth rate of this company will be consistent and low. But very consistent. I think it's fair to say that in a conservative scenario Veritiv will grow the upcoming 20 years in a range of 4 to 5 % and in an optimistic scenario 6 to 7%. If you do the math, based upon the current adjusted EBITDA of approximately 180M USD, you will find out that Veritiv will end up with an adjusted EBITDA 20 years from now that will justify a market cap by then of 6 to 7B USD. Obviously, it is highly uncertain at what adjusted EBITDA multiple Veritiv will trade by then, but for this calculation let's assume that there will be a time that Veritiv trades at 12.5 times adjusted EBITDA. And that corresponds to a stock price CAGR of 14 to 15% over the next 20 years.

The global packaging market

The global packaging market is expected to show a steady growth and reach a global revenue of around 1 trillion USD by 2020. Packaging has become an integral part of a products lifecycle and has outgrown its traditional usage limited to protection. Sustainability, environmental concerns and the demand to keep the product quality high has brought a major shift in the packaging industry making it smart and active. Internet of Things (IoT), nano technology, biotechnology, bio-based plastics and many such technological and product innovations have propelled the growth of global packaging market. The growing e-commerce and online retailing fueling the growth of paper board packaging market. Flexible packaging is anticipated to grow in the food and beverage industry by improving the barrier layers and more non-reactive packaging.

The global packaging market is also expected to show an upward trend with companies opting for green packaging solutions. Recently, McDonald's announced to source 100-percent of its fibre-based packaging requirement from recycled or certified sources by the end of 2020. Coca-Cola is one major name looking to also address the negative connotations of packaging in plastic with the development of its 100% bioplastic Plant Bottle 2.0. The soft drinks multinational plans to have completed a global switchover to these by 2020.

Food and beverages packaging industry is estimated to be the largest market in terms of application. The market expected to grow owing to the rising demand for packed foods, frozen foods, packed beverages etc. High awareness and concerns over the state of packaged food and beverages has boosted the growth of foods and beverages packaging market. Innovations in digital printing, technological advancement in smart and active packaging has brought major

shift in the product range available in the market. Pharmaceuticals market will also witness an augmented growth with growing lifestyle diseases and strict government rules for packaging of medicines.

The Asia Pacific region is expected to be the fastest growing market as all developing countries fall into this region such as India, China, Japan and Korea. Developing countries lead this market owing to its economic development, open market, improvement in standard of living, industrialization etc. North America is estimated to be the largest market with growing demand for packed and frozen foods. The demand for packaging is based on different trends adopted in different regions. In emerging economies investment in housing and construction, growing retail outlets and demand in cosmetics sectors are factors that have fueled the growth of this market. In developed countries the trends of smaller households, smaller and convenient packaging and growing men population attracted towards beauty and health products are factors that have powered the growth of this market.

The rise of online retail has been one consumer shift that is responsible for much of the recent growth in the board packaging market, an application where it is the dominant format. Emerging markets such as China and India shop online as frequently as more developed countries, and consumers increasingly prefer digital shopping over physical retail experiences. This provides several key aspects of board packaging that are changing. For example 30–40% of online purchases are returned, meaning that their packaging must be easily opened and resealed. In the future, e-commerce will likely see even further focus on tailoring board packaging to maximize the end-user experience.

The Veritiv packaging business

Veritiv works directly with customers to identify and implement packaging solutions that deliver in both form and function. Their packaging specialists are experts at discovering untapped efficiencies in designing, sourcing, and delivering standard and custom packaging processes for customers across a range of industries – including consumer packaged goods, fulfillment, food processing, retail, and manufacturing (slide 19 of the strategy & optimization presentation).

Veritiv packaging solutions are not restricted to one particular substrate – they evaluate every project with a material-neutral approach. They have long-standing relationships with box plants, sheet plants, and other international material sources, providing them with access to a wide range of material inputs. Their packaging solutions span across food-grade packaging, industrial packaging, point-of-sale displays, and shipping supplies. Their exclusive TUFflex™ line of packaging essentials delivers enduring performance, maximum efficiency, and unmatched value. They also sell and distribute single function and fully automated packaging equipment. In addition, they offer assembly and fulfillment services, such as kitting – which help customers manage seasonal spikes, new market testing, and promotions.

Packaging optimization extends through their Veritiv Packaging Design Network, where an experienced team of designers, engineers, and marketers provide in-house expertise for custom improvements in cost and waste reduction, logistics, structural and graphical integrity, and testing processes.

Key question, of course, is: are they able to execute on their commitments and to deliver? And the answer to that question, I believe, is a convincing “yes”. On October 18, 2017, Veritiv has been named a 2016 Nestlé North America Procurement “Supplier of the Year.” This prestigious award is designed to recognize and formally acknowledge suppliers who exemplify outstanding performance and execution in the key areas of innovation, customer service, operations, quality, cost, and value creation.

In order to achieve this award, suppliers must exceed Nestlé’s high standards in performance as assessed via a rigorous business review process. Veritiv not only achieved the highest scoring in the business review process but also successfully executed several innovative ideas leading to value creation for both Nestlé and Veritiv. The Veritiv team was specifically recognized for their dedication and support in the design and management of Nestlé’s corporate marketing paper program. Veritiv’s support in driving chain of custody, minimizing risk management and delivering cost savings has shown a strong business impact for Nestlé and will continue to grow in other areas of the organization. What this basically means is that Veritiv not only outperforms their competitors. They crush them. No competition in sight!

Risks

For a comprehensive risk assessment, please look at section 1A of the Form 10-K. The top 3 risks:

1. The industry-wide decline in demand for paper and related products could have a material adverse effect on their financial condition and results of operations. Assessment. The industry-wide decrease in demand for paper and related products in key markets Veritiv serves is a fact. This

trend is expected to continue. I am convinced that the growth in the packaging segment will offset future losses in the print business.

2. The loss of any of their significant customers could adversely affect their financial condition. Assessment. Their ten largest customers generated approximately 9% of their consolidated net sales for the year ended December 31, 2016, and their largest customer accounted for approximately 3% of our consolidated net sales in that same period. The loss of significant customers could affect their financial condition, but with minor impact. And new customers in the packaging segment will offset these losses, I believe.
3. Risks relating to the Spin-off and Merger. They may not realize the anticipated synergies, cost savings and growth opportunities from the Merger. Assessment. The risk over here is that, even if they are able to integrate the xpedx and Unisource businesses successfully, this integration may not result in the realization of the full benefits of the growth opportunities and cost savings and other synergies that they currently expect from this integration within the anticipated time frame. Up until now, Veritiv has consistently exceeded synergy guidance and I believe they will continue to do so. There might be a delay in fully realizing anticipated synergies, but eventually they will.

Comments

Glenn Tongue

PORTFOLIO MANAGER AT [DEERHEAVEN CAPITAL MANAGEMENT](#)

JUL 01, 2018

Thanks for the write up. Is there amazon risk here?

Peter Coenen

DIRECTOR AT [THE VALUE FIRM BV](#)

JUL 02, 2018

Your question is astute. In general you could argue that if Jeff Bezos sets eye on any industry, all companies in that industry are “under pressure”. The question is if Amazon will set eye on the Veritiv packaging business. In my thesis I outlined the very high barriers to entry and my best guess is that Amazon will hunt for industries and companies that better fit its current “web services & customer empowerment” strategy and with easier barriers to entry. The future of Veritiv lies in the “packaging design and supply chain optimization business” and that is, I believe, a completely different ball game.

And it is a game that will be very hard to replicate. Most people underestimate how hard it is to become the Nestlé North America Procurement “Supplier of the Year”. As described in the thesis Veritiv achieved this award in 2016. In the latest annual report of Amazon, there is this nice story about how hard it is to learn to do a perfect free-standing handstand. And the same holds for the Veritiv business. It’s not easy to replicate. Here is the little story:

“A close friend recently decided to learn to do a perfect free-standing handstand. No leaning against a wall. Not for just a few seconds. Instagram good. She decided to start her journey by taking a handstand workshop at her yoga studio. She then practiced for a while but wasn’t getting the results she wanted. So, she hired a handstand coach. Yes, I know what you’re thinking, but evidently this is an actual thing that exists. In the very first lesson, the coach gave her some wonderful advice. “Most people,” he said, “think that if they work hard, they should be able to master a handstand in about two weeks. The reality is that it takes about six months of daily practice. If you think you should be able to do it in two weeks, you’re just going to end up quitting.”

But if Amazon decides anyhow to enter this business, the best way to make a huge leap is to buy Veritiv. And that would make Veritiv a very compelling acquisition target.

Let me take this opportunity to give you an idea where Veritiv is going and I will do that by describing the developments in their new Mississauga facility, one of their largest design centers in North America.

In the past, packaging was often considered a last-minute process before products went to market. It was part of shipping, plain and simple. Nowadays, leading brands are leveraging packaging and supply-chain efficiencies as a competitive advantage. By making packaging part of the product development process and implementing strategic improvements throughout the supply chain, businesses around the world are boosting their top and bottom lines through strategic packaging. And Veritiv aims to be at the forefront to help these businesses thrive.

Their new Mississauga facility—part of Veritiv’s network of 14 DCs across Canada and one of their largest in North America—is making it easier than ever for customers to solve their most pressing packaging and business challenges. The new DC—housing approximately 410,000 square feet of warehouse space and another 42,000 square feet of office space—gives Veritiv customers access to packaging and facility supply products and services, along with paper and print offerings, from one of the largest inventories in the country, all sourced from best-in-class suppliers. While this facility’s massive inventory is impressive, its real differentiating value lies in the packaging experts, sales representatives and customer support specialists who collaborate with customers to develop and implement innovative packaging solutions.

The new Mississauga facility is the birthplace of new ideas and innovations, where Veritiv works with client businesses to understand their goals and objectives then align the right experts to develop an effective solution.

- Veritiv’s corrugated specialists evaluate a customer’s current packaging to provide guidance for more effective design and sourcing strategies.
- Packaging equipment specialists perform on-site surveys and help deploy automated packaging equipment that can help speed up the process and reduce labor requirements.
- Creative and structural designers improve packaging design to protect products, promote the brand, entice buyers and create a positive unboxing experience.
- Unit Load Containment Specialists identify ways to help reduce breakage, damage and loss so more products get into the hands of consumers.

All of these professionals, and many more like them, frequent the hallways at Veritiv's Mississauga facility, providing customers with a central source for hands-on guidance and personal service. Each customer's products, goals and resources are different, so Veritiv believes each packaging solution should be too. Rather than selecting from a limited assortment of materials, Veritiv packaging designers take a material-neutral approach. This involves researching a wide array of conventional and emerging substrates—from essential corrugated and progressive PaperFoam to recycled PET (polyethylene terephthalate) and everything in-between—to find the right solution for each package.

Moreover, Veritiv's team of design engineers, equipment technicians and supply chain experts work with customers to identify and resolve operational inefficiencies by analyzing every detail of their packaging operations—from sourcing and manufacturing to delivery and unboxing. Veritiv then collaborates with the customer to develop packaging, processes and ideas that boost efficiency and cut costs, while protecting their products and elevating their brand. This strategic approach is helping deliver new benefits to customers as they work to capture market share in a growing economy. Veritiv's holistic approach to packaging design and supply chain optimization helps businesses across Canada unlock efficiencies, significantly improve profitability and evolve as they grow.

Notably, if not entirely surprisingly, it is the robust rate of growth in the packaging part of the business that has Jason Alderman, Veritiv's regional vice-president, excited about the future prospect for Veritiv's new Canadian headquarters. "Our packaging business has been growing since we have opened the new Mississauga facility," Alderman relates, "and we are expecting this growth to continue in the future." As Alderman points out, Veritiv's new Mississauga DC has everything in place to benefit from this expected growth in the packaging business—much of it closely tied to the ongoing boom in the fast-growing e-commerce industry across major North American markets.

"It's great that we were able to combine all of Veritiv's business segments in the GTA region under one roof," Alderman points out, "alongside our customer service and sales team." Along with traditional end-of-line equipment offerings such as stretch wrappers, shrink tunnels, case rectors and taping machines, Veritiv's Mississauga DC also supplies commodity-type packaging products such as packaging tapes, corrugated boxes, folding cartons and bottles—offering many of its customers one-stop-shop convenience backed up by impeccable service support capabilities. Employing close to 1,000 people at 14 strategically-located DCs across Canada, Veritiv serves a vast and growing customer base of manufacturing and industrial clients with clockwork JIT (just-in-time) reliability, according to Alderman.

"We also provide a growing number of custom packaging solutions," Alderman adds. "For example, we supply one of our baking industry clients with some specialty widgets that are used solely for applying icing onto a cake, which we source strictly for that customer. That's the kind of custom packaging solution that Veritiv is keen to tap into on a greater basis. We are working hard to increase our offerings of unique solutions that are not your basic off-the-shelf product offerings." According to Alderman, the booming e-commerce business will provide many additional new growth opportunities for Veritiv to move into that direction in the future, as well as increase the sheer volume of corrugated packaging, tapes, pallet wrap and many other key packaging supplies widely used by online distributors to protect their shipments. "We have the space and we have an inventory management system that is second to none," Alderman asserts. "So even though we have already established good relationship with many leading e-commerce players over the last five to six years, there are plenty of additional opportunities ahead for further growth," he adds.

With online food sales growing at a brisk pace, Alderman sees the food-and-beverage sector as an example of one important source of further packaging innovation and advancement for Veritiv. "Food manufacturers are continuing to look for bold new ways to distinguish themselves from competition on the shelves," he says, "which results in new technologies coming online all the time to support that trend. As we strive to keep up with the latest from a contact packaging perspective, what makes that food look good, what promotes better shelf-life, and all the other things that go into getting a product off the processing line onto a store-shelf in the most appealing packaging solution," he states.

Contrary to popular belief, Alderman contends that major retailers have not eased up in pressing their vendors and suppliers to continue to reduce the amount and the weight of packaging sent to their retail outlets in recent years. "Helping manufacturers improve their supply chain to protect their product with less packaging is one of Veritiv's core strengths that we are very proud to have," states Alderman, while acknowledging that a significant increase in the amount of products purchased online in the future, especially food, will drive overall demand growth for more packaging.

"There is no getting away from the fact that as consumers continue to buy more products online, there will be a greater need for packaging to make sure their purchases arrive to their homes safe and sound," Alderman reasons. According to Alderman, Veritiv is currently going through a comprehensive company-wide IT systems upgrade that will significantly enhance its supply chain efficiencies and data acquisition capabilities. "We are still going through a process of internal integration of our assets and brand recognition, and while we are still finding out who we are as Veritiv, we know that we have a fantastic customer base. "It is our job to cultivate that base beyond just the procurement side of the business to provide solutions and services that will enhance their marketing and product development activities and efforts. "It certainly is an evolution for Veritiv." Alderman sums up, "but evolving as a company is the only way to be able to attract new customers in the future to support our growing business and market ambitions. "And our new Mississauga facility is a good example of how we are planning for the future."

Portfolio Manager

\$10M - \$50M HEDGE FUND

JUL 02, 2018

Given its position in the value-chain I do believe Veritiv has every right to exist, but am unsure how its vendors will allow it to become substantially more profitable.

Peter Coenen

DIRECTOR AT THE VALUE FIRM BV

JUL 02, 2018

It's fascinating. Obviously, and that's the way capitalism works, if the vendors are able to compete with the Veritiv solutions, they will. But as I pointed out in the answer to the previous question, it's not easy to compete with the holistic approach of the Veritiv solutions in the packaging business. Most of the vendors try to sell a product based upon price, and I would argue that there is more to it than just that.

And sure. Don't take my word for it. Feel free to disagree. Have a look at the Veritiv customer and partner testimonials @ <https://www.veritivcorp.com/testimonials#>.

Veritiv has total solutions for their customers in packaging, from concept to deliver. Today they do extensive work developing concepts and designing packaging for their customers. They have in house capabilities around structural and graphic design to meet branding, marketing and product needs. It's a total solution for a customer with multiple materials in any given box. In addition to their specialty packaging, they also have a broad array of standard packaging and they source both the standard and the specialty often times from the same suppliers.

They have extensive relationships with the markets largest suppliers across most categories. They are of the size and scale that they have their own private label offering as part of their standard packaging line-up. So when a customer comes to them, they can provide the full array, both from a standard packaging as well as from specialty packaging. They also have the ability to deliver, on multiple service fronts, with their packaging customers. They have broad reach and they have the ability to provide value added services, that many of their customers ask for today.

I am excited about their competitive position. They are an industry leader today. They are one of the few that have the capabilities to provide an end-to-end packaging solution nationally to their customers.

Vice President

\$500M - \$1B HEDGE FUND

JUL 04, 2018

Thanks for sharing the interesting and unique idea!

Portfolio Manager

\$100M - \$500M HEDGE FUND

JUL 06, 2018

Thanks for the idea Peter. How do you get 3.5x EV/adjusted EBITDA?

Peter Coenen

DIRECTOR AT THE VALUE FIRM BV

JUL 06, 2018

Thanks for asking. Veritiv is not trading @ 3.5 times EV/adjusted EBITDA. Veritiv is trading @ 3.5 times adjusted EBITDA. Sorry for the misunderstanding.

During their fourth quarter and fiscal year 2017 financial results update, Veritiv announced that the 2018 adjusted EBITDA is expected to be 180-190M USD and the 2018 free cash flow is expected to be at least 30M USD. Market cap of 631M USD

divided by adjusted EBITDA of 180M USD equals 3.5. And it helps, I believe, to have a look at their Appendix of this presentation for an explanation of their Non-GAAP Financial Measures, like adjusted EBITDA.

This is a company getting ready for optimization and long-term growth. I just love free cash flow, and I am more than happy to read that Veritiv is ready to generate free cash flow of at least \$30m in 2018. The leadership team has shown before that they have the ability and courage to execute, and I do believe they will be able meet their 2018 free cash flow target.

Joe Cook
PARTNER AT [APOLLO FUND, LP](#)
JUL 10, 2018

The margins are terrible. I think you make the business position sound too impressive. 10-K says, "The packaging, facility solutions, paper and publishing distribution industry is highly competitive, with numerous regional and local competitors, and is a mature industry characterized by slowing growth or, in the case of paper, declining net sales." I find it odd that management wants to focus on improving "adjusted" EBITDA. The implication is that the charges & adjustments will not be ending soon and valuation is worse than you suggest. The stock has moved sideways for 4 years since Klarman bought it. What am I missing?

Peter Coenen
DIRECTOR AT [THE VALUE FIRM BV](#)
JUL 11, 2018

Great question. You're absolutely right when you state that the margins are terrible. This is by no means a classic Buffett stock, with high margins and high return on capital. I have a hard time finding classic Buffett stocks trading at attractive prices.

There seems to be a disconnect between the description of the competitive landscape in the 10-K and the assessment of their competitive positioning in their strategy & optimization presentation. By the way, I hardly know of any industry in the U.S. that is not highly competitive. One of the few exceptions that I know of, might be a company called Verisign, with their almost legal monopoly on the domain name registration business.

Let's have a closer look at the Veritiv competitive landscape in each of the reportable segments (strategy & optimization presentation)

- Packaging. Veritiv is an industry leader. Limited competition providing total packaging solution. Small regional competitors provide standard packaging.
- Services. Veritiv has great access to customers. Generally fragmented markets - some with one or two large competitors. Limited competition across multiple offerings (i.e. few if any E2E solutions)
- Facility Solutions. Veritiv is an industry leader. Many small local competitors.
- Print. Veritiv is an industry leader. Regional and local competitors lack scale and supply chain capabilities.
- Publishing/Print Management. Veritiv is an industry leader. Three regional competitors. National printers backward integrating.

Veritiv is the market leader in all of their segments and there is no one in the industry offering the full suite of products that Veritiv does. Veritiv believes that their competitive advantages include over 1,800 sales and marketing professionals and the breadth of their selection of quality products, including high-quality private brands. The breadth of products distributed and services offered, the diversity of the types of customers served, and their broad geographic footprint in the U.S., Canada and Mexico buffer the impact of regional economic declines while also providing a network to readily serve national accounts.

Veritiv's strategy is to invest in the higher growth, higher margin segments packaging & services, to protect the leading market positions in print & publishing and facility solutions, and optimize (post integration activities 2018 – 2020) the supply chain, support (back office) services and working capital. And I believe that Veritiv has the leadership team in place to execute on their plans and improve margins. Since the merger, Veritiv reported many operational and financial successes, but where they are today is by no means a resting spot.

You state that you find it odd that management wants to focus on improving "adjusted" EBITDA: the implication is that the charges & adjustments will not be ending soon and valuation is worse than suggested. I do not like EBITDA and the "horrors" of adjusted EBITDA at all. But fact of life is that it has become a popular indicator of financial performance. My focus is on the free cash flow. It will be interesting to see if they will be able to generate their 30m USD free cash flow in 2018.

The future of Veritiv, I believe, is in the packaging & services business. Let's just listen what CEO Mary Laschinger had to say during the strategy & optimization update. "We are really excited about our competitive position. We are an industry leader today. We are one of the few that have the capabilities to provide an end-to-end packaging solution nationally to our customers. There is limited competition. We are excited about what we can do with our packaging business and we will expect that we will be able to grow at least at GDP type levels, perhaps even better."

I do not believe that I make the business position sound too impressive. I mentioned before that Veritiv has been named a 2016 Nestlé North America Procurement "Supplier of the Year." And as of recently Veritiv has earned recognition in the John Deere Achieving Excellence Program as a Partner-level supplier for 2017 and was inducted into the 15-year Supplier Hall of Fame. Veritiv was selected for the honor in recognition of its dedication to providing products and service of outstanding quality as well as its commitment to continuous improvement.

[Peter Coenen](#)
DIRECTOR AT [THE VALUE FIRM BV](#)
SEP 25, 2018

[Glenn Tongue](#)

In addition to the first question by Glenn on the Amazon risk, the following.

On 19 September 2018, Veritiv announced that the company has officially joined the Amazon Packaging Support and Supplier Network (APASS). Amazon designed the APASS program to help sellers, merchants, and manufacturers obtain certification of their products as Frustration Free Packaging (FFP), Ships-in-Own-Container (SIOC), and Prep-Free Packaging (PFP).

APASS certification enables Veritiv to provide package-testing services in compliance with Amazon's certified test methods directly to sellers, merchants, and manufacturers. Veritiv will bring additional value by helping sellers design innovative yet functional packaging that is intended to not only meet Amazon's strict standards but also create efficiencies through lower damage and improved material sourcing.

"Amazon sets a high standard for its APASS program, but Veritiv meets the criteria," said Matt Reddington, Director of Sourcing and Product Management for Veritiv. "We are pleased to be part of a program where we can leverage our expertise and networks to provide Amazon vendors with quality, sustainable packaging that not only supports the arrival of their products intact and undamaged, but gives their customers a good unpacking experience."

Through its Global Design, Testing, Sourcing, and Logistics Services, Veritiv offers a globally integrated team of artists, engineers, and project managers capable of delivering services such as: in-house package design and prototyping, ISTA certified testing, material analysis, and international sourcing of packaging materials. The company's creative design network offers full service structural design, graphic design, and performance validation testing to deliver innovative, material neutral solutions to domestic and global customers.

The Veritiv Leadership Team

9 October 2018

Mary A. Laschinger. Chairman and Chief Executive.

Mary Laschinger is Chairman of the Board and Chief Executive Officer of Veritiv Corporation (NYSE: VRTV), a leading North American distribution solutions company. Previously, Ms. Laschinger served as Senior Vice President of International Paper Company from 2007 to June 2014, and as President of the xpedx distribution business from January 2010 to June 2014. Ms. Laschinger also served as President of the Europe, Middle East, Africa, and Russia business at International Paper; Vice President and General Manager of International Paper's Wood Products and Pulp businesses, as well as in other senior management roles in sales, marketing, manufacturing, and supply chain at International Paper. Prior to joining International Paper in 1992, Ms. Laschinger held various positions in sales, marketing, and supply chain at James River Corporation and Kimberly-Clark Corporation.

Ms. Laschinger is a member of the Board of Directors of the Federal Reserve Bank of Atlanta, where she serves on the Audit Committee. Ms. Laschinger is also a member of the Board of Directors for Kellogg Company, where she chairs the Compensation & Talent Management Committee and serves on the Executive and Nominating & Governance Committees.

She also serves on the Executive Committee of the Metro Atlanta Chamber of Commerce and is a former lead Director of Ilim Group, Russia's largest pulp and paper company. Ms. Laschinger holds a bachelor's degree in business from the University of Wisconsin and an MBA from the University of Connecticut. Ms. Laschinger has also completed postgraduate studies in executive management at the Kellogg School of Management at Northwestern University.



MARY A. LASCHINGER
Chairman of the Board
and Chief
Executive Officer



STEPHEN J. SMITH
Senior Vice President and
Chief Financial Officer



THOMAS S. LAZZARO
Senior Vice President,
Field Sales and
Operations



JOHN G. BISCANTI
Group Vice President,
Publishing and Print
Management



CHARLES B. HENRY
Senior Vice President,
Corporate Services



MARK W. HIANIK
Senior Vice President,
General Counsel and
Corporate Secretary



BARRY R. NELSON
Senior Vice President,
Facility Solutions



ELIZABETH A. PATRICK
Senior Vice President
and Chief Human
Resources Officer



TRACY L. PEARSON
Senior Vice President,
Packaging



DANIEL J. WATKOSKE
Senior Vice President,
Print and Veritiv Services

Update on Veritiv

Most important takeaways from the Q3 2018 results (Nov 6, 2018):

- Improved revenues driven by top line growth in their Packaging segment.
- Consolidated adjusted EBITDA up nearly 20% year-over-year, driven by both revenue growth as well as lower operating expenses. For the full year 2018, Veritiv expects adjusted EBITDA to be within the range of 180 to 190 million USD, to improve in 2019.
- Veritiv updates their guidance for 2018 free cash flow from previous stated level of 30 million USD to be near zero, largely driven by higher than anticipated accounts receivables, as a result of both their growth in the Packaging segment and process related challenges for their integration activities.

The growth on both revenues and adjusted EBITDA is satisfying and the lowering of the 2018 expected free cash flow to near zero is disappointing. The stock declined more than 20%, which is by the way great news for the Veritiv believers, as they can now buy stock at better prices.

Predicting and managing free cash flow during the transition phase where Veritiv is in right now is very, very hard and perhaps they were better off not giving guidance on the 2018 free cash flow.

2018, as previously stated, has been a complex year due to the combination of system's conversions, warehouse consolidation, and warehouse management system installation. These three programs are putting short term pressures on processes and cost and as a result of that, on free cash flow.

The good news is that operating system conversion will be substantially completed by yearend. If management succeeds with their integration activities and lowering operating costs and if the Packaging segment continues to grow I expect Veritiv to become at least a 10 times adjusted EBITDA company in terms of market capitalization, which is the equivalent of approximately 2B USD market cap. In the long run, the market cap potential is, I believe, substantially higher.

This presentation and the information contained herein are for educational and informational purposes only and do not constitute, and should not be construed as, an offer to sell, or a solicitation of an offer to buy, any securities or related financial instruments. Responses to any inquiry that may involve the rendering of personalized investment advice or effecting or attempting to effect transactions in securities will not be made absent compliance with applicable laws or regulations (including broker dealer, investment adviser or applicable agent or representative registration requirements), or applicable exemptions or exclusions therefrom. The Value Firm® makes no representation, and it should not be assumed, that past investment performance is an indication of future results. Moreover, wherever there is the potential for profit there is also the possibility of loss.

Debenhams

British department store group Debenhams went into administration, 10 April 2020, for the second time in 12 months, seeking to protect itself from legal action by creditors during the coronavirus crisis that could have pushed it into liquidation.

With Britain in lockdown during the pandemic, Debenhams' 142 UK stores are closed, while the majority of its 22,000 workers are being paid under the government's furlough scheme. It continues to trade online.

Last year the debt-laden company was taken over by its lenders, and this time the management said the business needed the protection that the administration procedure provides, as some creditors were threatening legal action that could push the business into liquidation. The creditors are likely to be suppliers who have not been paid for stock they have provided.

Debenhams said administrators from FRP Advisory would work with the existing management team to get the UK business into a position to re-open and trade from as many stores as possible when restrictions are lifted by the government.



The retailer has been battling the effects of £600m of debt, tough competition and the downturn on the high street.

Stefaan Vansteenkiste, the chief executive, said he was working with landlords and pension trustees and "striving to protect jobs and reopen as many Debenhams stores as we can, as soon as this is possible."

Was it foreseeable that Debenhams was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to Debenhams, meaning that there were too many identifiable signs of possible financial distress.

A year earlier, in 2019, the Algorithm assigned a 10 rating to Debenhams, and in 2018 a 3 rating. Moody's downgraded Debenhams ratings to Ca, which is the equivalent of a 10 rating, already in April 2019.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
6	Medium risk	Good company with a moderate risk of financial distress.
5	Low risk ++	Good company, with still a low, but slightly more risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.
3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

As stated earlier, I try to calibrate the algorithm by using credit ratings. Let's have a look at some new Fitch Credit Ratings:

	The Value Firm®		Fitch
Verizon	1	A-	3
BASF	2	A	3
BP Plc	3	A-	3
AmerisourceBergen	6	A-	3
Xilinx	1	A-	3
Acea	4	BBB+	4
Exelon	5	BBB	4
Williams Companies	5	BBB-	5
CIFI Holdings	3	BB	6
Meinian	2	BB-	7

The Value Firm® Risk Rating for Meinian is substantially lower than the Fitch Credit Rating, and, I believe, for a good reason.

Meinian is a China-based preventive health examination services provider. And although its business operation was interrupted significantly by the coronavirus outbreak and the majority of its centres were closed in 1Q20, leading to a decline in revenue of more than 50%, most of the medical centers resumed normal operations from April 2020.

Secondly, Alibaba became a investor in Meinian in November 2019 and plays a strategic role. Cooperation with Alibaba in e-commerce can help Meinian expand its individual-customer base. For example, Meinian can use Alibaba's online platforms to divert traffic to its medical centres and promote its check-up packages. Alibaba will also cooperate with Meinian on IT system upgrades to streamline the check-up process and provide comprehensive pre and post check-up services.

As far as the lower ratings are concerned, ratings 1 to 3, you could argue that these ratings represent “moat ratings”. The lower the rating, the better “the moat”. As far as I know, there is only one company that provides “moat ratings”, and that is Morningstar. The Value Firm® Moat Rating is comparable. It represents a company's sustainable competitive advantage. A company with an economic moat can fend off competition and earn high returns on capital.

If you are interested in these risk ratings, let me know. Right now, I am looking for a “launching customer”, who will benefit tremendously from being the launching customer. E-mail: peter@thevaluefirm.com.

Prospective customers include other rating agencies (Moody's, Standard & Poor's, Fitch, Graydon), endowments, pension funds, accountancy firms, institutional investors, hedge funds, family offices, banks and insurance companies.

Software release management

Current release: Risk Rating Algorithm 28042020.

Date	Software changes	New bankruptcy data footprints
29042020	-	Foresight Energy
07052020	-	-
14052020	-	Debenhams

Thanks for reading!
14 May 2020.

This presentation and the information contained herein are for educational and informational purposes only and do not constitute, and should not be construed as, an offer to sell, or a solicitation of an offer to buy, any securities or related financial instruments. Responses to any inquiry that may involve the rendering of personalized investment advice or effecting or attempting to effect transactions in securities will not be made absent compliance with applicable laws or regulations (including broker dealer, investment adviser or applicable agent or representative registration requirements), or applicable exemptions or exclusions therefrom. The Value Firm® makes no representation, and it should not be assumed, that past investment performance is an indication of future results. Moreover, wherever there is the potential for profit there is also the possibility of loss.

Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Destination Maternity

Destination Maternity- which operates Motherhood Maternity, A Pea in the Pod, and its namesake brand – filed for bankruptcy on October 21 2019, with plans to shutter 183 US stores. While Destination Maternity has attributed sales declines to factors like lowered foot traffic and increased competition from e-commerce, it has also routinely mentioned “demographics and other macroeconomic factors” that include “fluctuations in pregnancy rates and birth rates” in forward-looking statements on earnings calls.

US birthrates hit a record 32-year low in 2018 after dropping 2% from 2017, according to the Centers for Disease Control and Prevention. Over the past two years, the dip has negatively impacted a variety of companies, from Toys R Us and Babies R Us to consumer-packaged-goods companies like Kimberly-Clark and Procter & Gamble that sell diapers and other products for babies.



“While competition from online retailers and other widely discussed factors may have had some role to play, Destination Maternity’s declining net sales in recent years have tracked fairly closely with the sharp decline in births in the United States,” Lyman Stone, an advisor at Demographic Intelligence advisor, said in a statement.

“Infant and maternity products are the canary in the coal mine,” Stone said. “In a few years, we can expect to see weakness in the earnings reports for products aimed at older children, and, eventually, universities will face serious enrollment declines. From there, a smaller prime-age population will present challenges to many sectors of the economy, ranging from retail, to housing, to historically robust sectors like healthcare.”

Destination Maternity has had five CEOs in the past 5 years.

Was it foreseeable that Destination Maternity was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to Destination Maternity, meaning that there were too many identifiable signs of possible financial distress.

Stockholders Equity shrunk in 5 years from 126M USD to 27M USD in 2018. The company did not generate any substantial free cash flow at all over a 5 year period.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
6	Medium risk	Good company with a moderate risk of financial distress.
5	Low risk ++	Good company, with still a low, but slightly more risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.
3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

After Thomas Cook, McClatchy, Pier 1, McDermott and Flybe, Destination Maternity is the sixth example of a company rated 10 by the Risk rating Algorithm before it filed for Chapter 11.

Another method of assessing the results of the risk rating algorithm is to compare the ratings with the results of the credit rating agencies, like Standard & Poor's, Moody's and Fitch.

In the attachment you will find the interpretation of their ratings in relation to The Value Firm® Risk Ratings. And keep in mind that these Credit Rating Companies evaluate the associated risks through a completely different lens.

Here are some new results. On the left you will find the Fitch Credit Rating and on the right The Value Firm® Risk Rating.

Company	Fitch	The Value Firm®	
	2020	2019	2020
Adani Transmission	5	3	4
Meritor	7	6	5
PT Bumi Serpong Dam	7	6	5
WPX Energy	5	7	8
Lennar	5	6	5
Martin Marietta Mater	4	5	5
ThyssenKrupp AG	7	7	10
TalkTalk Telecom Grou	7	3	4
Qurate Retail	6	5	5
eBay	4	3	4
Eneva SA	2	6	5
Gran Tierra	8	6	4
PT Tower Bersuma	2	6	4
Thermo Fisher	4	6	5
Waste Connections	4	4	4
Teva Pharmaceutical	7	6	7
Harsco Corp	6	3	2
Texas Instruments	3	1	1
Michael Kors / Capri H	7	3	2
Emeco Holdings	6	7	5
Mondelez	4	6	5
Renault	7	7	5
Boeing	3	4	10

Boeing. If Boeing were a normal company, it could be facing questions about bankruptcy after losing billions of dollars over the grounding of the 737 Max. But is it too big to fail?

The company has been losing money since its biggest selling plane, the 737 MAX, was grounded. And it's had to borrow billions of dollars from major banks.

Boeing recently called for a \$60 billion bailout in access to public and private liquidity, including loan guarantees, for the struggling U.S. aerospace manufacturing industry, which now faces huge losses from the coronavirus pandemic.

ThyssenKrupp. ThyssenKrupp's CEO scrapped the German industrial group's dividend, warned of deeper losses and asked investors for yet more patience over its turnaround. After four profit warnings and two failed attempts to restructure since July 2018, ThyssenKrupp is also aiming to slash 6000 jobs and looking for new owners of businesses where it is clear it cannot catch up with rivals.

Recently, Kone withdrew from talks to buy ThyssenKrupp elevator business. The primary reason for withdrawing from the tendering process is the poor financial situation of ThyssenKrupp. Kone, for example, could have lost its 2.5 billion euro downpayment in the worst-case scenario of bankruptcy.

Remember that Risk Ratings are statements of opinion and not a statement of facts. I will continue evaluating bankruptcies and credit ratings to find out if The Value Firm® Risk Rating Algorithm makes sense.

20 March 2020.

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Diamond Offshore Drilling

*The word “bankrupt” derives from **banco rotto**, the practice in midieval Italy of smashing the benches that merchants sold their goods from if they did not pay their debts, to force them to stop trading.*

Diamond Offshore Drilling Inc., the rig contractor controlled by Loews Corp., filed for bankruptcy on 27 April 2020, amid an unprecedented crash in crude prices that’s wrecking demand for oil exploration at sea.

Conditions worsened “precipitously in recent months,” the company said, citing a price war between OPEC and Russia and the Covid-19 pandemic.



In a statement posted on Diamond Offshore’s website, Edwards outlined that, through the Chapter 11, the business intends to restructure its balance sheet to achieve a more “sustainable debt level” to reposition it for “long-term success”.

Was it foreseeable that Diamond Offshore Drilling was close to financial distress, just by looking at their financial statements? And the answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to Diamond Offshore Drilling, meaning that there were too many identifiable signs of possible financial distress. This 10 rating was previously reported, several weeks before Diamond Offshore filed for bankruptcy, in [my write up on General Electric](#).

Score	Meaning
10	Very high risk + Too many identifiable signs of possible financial distress.
9	Very high risk Many identifiable signs of possible financial distress.
8	High risk Companies with elevated vulnerability to financial distress.
7	Medium risk + Companies, already more susceptible to the unexpected.
6	Medium risk Good company with a moderate risk of financial distress.
5	Low risk ++ Good company, with still a low, but slightly more risk.
4	Low risk + High quality company, with still a low, but slightly more risk.
3	Low risk High quality company, with a low risk of financial distress.
2	Very low risk + High quality company with a very low risk of financial distress.
1	Very low risk High quality company with almost zero risk of financial distress.

The Value Firm® Risk Rating Algorithm is solely based upon historical financials. And that’s very different from what the Credit Rating Agencies (Fitch, Moody’s and Standard & Poor’s) actually do. These credit ratings are often based upon forward looking business developments, and at first sight you might think that the latter is the best approach.

Well. You know the old saying: “predicting is difficult, especially when it comes to the future.” Even these well skilled credit rating professionals often underestimate the limitations of their foresight. The better approach, I believe, is to use both credit ratings and risk ratings.

One of the unique features of this algorithm is that for the higher risk ratings, the Risk Rating Algorithm tries to identify unusual risk profiles (“potential bankruptcy data footprints”) and then, in combination with other parameters, assign a risk rating to that company. A few months ago, I wrote that as time passes by and more bankruptcies become available, there is opportunity to make the algorithm smarter, case by case.

So here we are. Is the algorithm indeed already “smarter”? As a result of the Covid 19 pandemic, there already were many, many bankruptcies in 2020. Most of them were identified by the algorithm without adding an additional “bankruptcy data footprint”, and that is, I believe, how you can measure if the algorithm is indeed becoming smarter, or more intelligent, if you will.

70% of the 20 companies in the list below, companies that recently went bankrupt or are currently seriously considering going into bankruptcy were rated “very high risk+”, that is, a 10 rating. The other 30% needed an additional “bankruptcy data footprint” to be identified as a 10 rating and to ensure that in the future similar “bankruptcy data footprints” will be identified as very high risk.

Software release management

Current release: Risk Rating Algorithm 28042020.

Bankruptcy case	Software changes	New bankruptcy data footprints
Laura Ashley	-	-
LSC Communications	-	-
Foresight Energy	-	x
Diamand Offshore Dr.	-	-
Debenhams	-	x
Yuma Energy	-	-
Frontier Communications	-	x
BroadVision Inc.	-	-
Carbo Ceramics	-	-
J.C. Penny	-	-
Hertz	-	x
Melinta Therapeutics	-	-
Speedcast	-	x
Insys Therapeutics	-	-
Stage Stores	-	-
Chesapeake	-	-
Intelsat	-	-
Ultra Petroleum	-	-
Virgin Australia	-	-
Avianca	-	x

Don’t expect an algorithm that is able to rate 100% of the bankruptcy cases correct. Hopefully, by the end of the year, we will reach the target of 85%.

These “company specific bankruptcy data footprints” only affect the 9 and 10 ratings. As far as the 1 to 8 ratings are concerned, I am more than happy as they are right now and don’t expect any further improvements will be necessary. Thus far, I am more than happy with the overall results of the Risk Rating Algorithm.

If you are interested in these risk ratings, let me know. Right now, I am looking for a “launching customer”, who will benefit tremendously from being the launching customer. E-mail: peter@thevaluefirm.com.

Prospective customers include other rating agencies (Moody’s, Standard & Poor’s, Fitch, Graydon), endowments, pension funds, accountancy firms, institutional investors, hedge funds, family offices, banks and insurance companies.

Thanks for reading!
21 May 2020.

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Flybe

Thursday, March 5th, 2020. The largest domestic airline in the United Kingdom, Flybe, has ceased all operations, entering into the British equivalent of bankruptcy effective immediately, with all its flights being grounded and passengers being warned not to even try going to the airport unless they have flights lined up with another airline. The airline's more than 2000 staff now face an uncertain future with all flights cancelled, and the entire fleet of more than 60 aircraft grounded.

Flybe had a tumultuous decade after its 2010 IPO. It was bought and bailed out a year ago by a consortium called Connect Airways, comprising Virgin Atlantic, Stobart Aviation and Cyrus Capital Partners. The airline reportedly failed in a last minute attempt to secure emergency funding, seeking a £100 million loan from the U.K. Government which was ultimately rejected. Flybe has been on the brink too many times, but it was the coronavirus outbreak that ultimately killed it.



Was it foreseeable that Flybe was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to Flybe, meaning that there were too many identifiable signs of possible financial distress.

Although revenues grew, according to their 2018 financial statements, operating income and net income were negative. And the company wasn't able to generate any free cash flow at all over the last 5 years.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
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After Thomas Cook, McClatchy, Pier 1 and McDermott, Flybe is the fifth example of a company rated 10 by the Risk Rating Algorithm before it filed for Chapter 11.

Let's have some more "rating fun". Another method of assessing the results of the risk rating algorithm is to compare the ratings with the results of the credit rating agencies, like **Standard & Poor's**, **Moody's** and **Fitch**.

In the attachment you will find the interpretation of their ratings in relation to **The Value Firm® Risk Ratings**. And keep in mind that these Credit Rating Companies evaluate the associated risks through a completely different lens.

Here are the results. On the left you will find the Fitch Credit Rating and on the right The Value Firm® Risk Rating.

Company	Fitch	The Value Firm®
Adani Transmission	5	3
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WPX Energy	5	7
Lennar	5	6
Martin Marietta Material	4	5
ThyssenKrupp AG	7	7
TalkTalk Telecom Group	7	3
Qurate Retail	6	5
eBay	4	3
Eneva SA	2	6
Gran Tierra	8	6
PT Tower Bersama	2	6
Thermo Fisher	4	6
Waste Connections	4	4
Teva Pharmaceutical	7	6
Harsco Corp	6	3
Texas Instruments	3	1
Michael Kors	7	3
Emeco Holdings	6	7
Mondelez	4	6
Ohio Valley	5	6
Renault	7	7

The outcome of the **Fitch Ratings** and **The Value Firm® Risk Ratings** shows e.g. Adani Transmission as a high quality company with a low risk of financial distress and medium grade obligations with slightly more than moderate credit risk.

Another example is Gran Tierra. The rating results show that Gran Tierra is a good company with moderate risk of financial distress, but their obligations are speculative and subject to high credit risk.

The question arises why Fitch believes that their obligations are subject to high credit risk. You can find their assessment [over here](#).

Their Key Rating Drivers are:

- Modest Production Growth
- Improved Reserve Base
- Higher Leverage Profile
- Effective Cost Producer
- Stable Cash Flow Profile

The only driver that potentially indicates a high credit risk is the higher leverage profile. And it's true that their long-term debt increased from \$197 million in 2016 to \$697 million in 2019. But given their current cash position of \$103 million and a stockholder's equity of \$1032 million, I would argue that that's not a reason to doubt their credit risk.

And there is a free cash flow potential over the next five years of approximately \$1.1 billion for 1P reserves and \$1.8 billion for 2P reserves.

But then again, any rating must be construed solely as a statement of opinion and not a statement of fact. Recently, oil prices suffered an historic collapse after Saudi Arabia shocked the market by launching a price war against onetime ally Russia. US oil prices crashed as much as 34%. That's the only reason I can think of, but you won't find that in the Fitch assessment. Anyhow. I'm not an expert on the business of oil.

I will continue evaluating bankruptcies and credit ratings the upcoming months. For now, I am not too unhappy with the results. Hopefully, it turns out to be a very powerful risk rating algorithm.

11 March 2020.

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Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

Attachment

Rating			S&P	Moody's	Fitch	Credit Risk
10	Very high risk +	Too many identifiable signs of possible financial distress.	CC	Ca	CC, C	Near Default. Obligations are highly speculative.
9	Very high risk	Many identifiable signs of possible financial distress.	CCC+, CCC, CCC-	Caa1, Caa2, Caa3	CCC+, CCC, CCC-	Obligations are of poor standing and subject to very high credit risk.
8	High risk	Companies with elevated vulnerability to financial distress.	B+, B, B-	B1, B2, B3	B+, B, B-	Obligations are speculative and are subject to high credit risk.
7	Medium risk +	Companies, already more susceptible to the unexpected.	BB-	Ba3	BB-	Obligations are speculative and subject to substantial credit risk.
6	Medium risk	Good company with a moderate risk of financial distress.	BB+, BB	Ba1, Ba2	BB+, BB	Obligations are speculative and subject to substantial credit risk. Likely to fulfill obligations.
5	Low risk ++	Good company, with still a low, but slightly more risk.	BBB-	Baa3	BBB-	Obligations of medium-grade and subject to slightly more than moderate credit risk and as such possess certain speculative characteristics.
4	Low risk +	High quality company, with still a low, but slightly more risk.	BBB+, BBB	Baa1, Baa2	BBB+, BBB	Obligations of medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics.
3	Low risk	High quality company, with a low risk of financial distress.	A+, A, A-	A1, A2, A3	A+, A, A-	Obligations of upper-medium grade and are subject to low credit risk.
2	Very low risk +	High quality company with a very low risk of financial distress.	AA+, AA, AA-	Aa1, Aa2, Aa3	AA+, AA, AA-	Obligations of high quality and are subject to very low credit risk.
1	Very low risk	High quality company with almost zero risk of financial distress.	AAA	Aaa	AAA	Obligations of the highest quality, subject to the lowest level of credit risk.

Foresight Energy

On 10 March 2020, coal mining company Foresight Energy LP, already reeling as power plants shift to cheaper and cleaner sources of energy, filed for bankruptcy protection, saying the global economic slowdown caused by the coronavirus epidemic helped push it over the edge.

Foresight operates Mach Mine in northeast Williamson County near Corinth. It also operates the Sugar Camp mining complex in Franklin County near Macedonia. These two mines are among the most productive underground mines in the United States.



Their restructuring plan, which allows the company to stay in business, would cut debt by about \$1 billion by swapping \$1.33 billion of debt for equity. The plan would leave Foresight with just \$225 million in new secured debt.

Was it foreseeable that Foresight Energy was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, ultimately assigned a 10 rating to Foresight Energy, meaning that there were too many identifiable signs of possible financial distress.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
6	Medium risk	Good company with a moderate risk of financial distress.
5	Low risk ++	Good company, with still a low, but slightly more risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.
3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

From an investment perspective, you better stay away from the red ratings, be cautious with the yellow ones, and you're best of focusing on the green ratings. The lower, the better. For "short sellers", paradise might be found in the higher ratings.

The success of the algorithm, and especially the success of the red ratings, depends on the ability of the algorithm to learn from bankruptcy cases. If a bankruptcy situation is at first sight not identified as a red rating by the algorithm, a "bankruptcy data footprint" will be identified and then added to the algorithm, so ultimately the company will be rated as "high risk". Foresight Energy is such an example, and the next time a similar company showing such a specific risk profile will be identified as "high risk".

An interesting question at this point would be: do you have examples of companies identified by the algorithm as a high risk company, solely based upon the "bankruptcy data footprint" of another company. And the answer to that question is "yes". Whiting Petroleum, reported as a 10 rating a few weeks ago, actually was identified as a high risk company, by the "bankruptcy data footprint" of Kona Grill, a company that owns and operates restaurants in several states in the United States.

Talking about bankruptcies... Mark Cohen, former Sears Canada CEO, expects thousands of retail businesses to likely file for bankruptcy. Former Macy's CEO Terry Lundgren says that retail stores with strong balance sheets probably will survive the coronavirus pandemic. It will be interesting to watch in terms of risk ratings.

Previously I showed you a comparison between the Moody's Credit Ratings and The Value Firm® Risk Ratings. These results were used to further calibrate the algorithm. I made quite some improvements in the yellow and green ratings. This time we'll have a look at 30 Fitch Credit Ratings.

	The Value Firm®	Fitch
Texas Instruments	1	A+ 3
Electricite de France	6	A- 3
Rockwell Automation	2	A 3
Stanley Black & Decker's	3	A- 3
Toyota Motor Corp	4	A+ 3
MPLX	4	BBB- 4
Marathon Petroleum	2	BBB- 4
Pioneer National Resources	2	BBB 4
Kawasan Industries	10	BBB 4
Continental AG	2	BBB 4
Campbell Soup	6	BBB 4
Xiaomi	2	BBB 4
Xylem	2	BBB 4
PerkinElmer	3	BBB 4
American Tower	2	BBB+ 4
Ecopetrol	2	BBB- 5
KION Group	4	BBB- 5
Expedia Group	2	BBB- 5
Infrastrutture Wireless Italia	2	BBB- 5
Flex Ltd	5	BBB- 5
EP Energy	6	BBB- 5
Grupo KUO	4	BB 6
Grupo Elektra	4	BB+ 6
GVC Holding	3	BB 6
Sunoco	6	BB 6
Light S.A.	5	BB- 7
Hilong Holding	6	B 8
Tutor Perini	10	B+ 8
Tata Motors	4	B 8
Virgin Australia	9	CCC-/D 9

The algorithm assigned a 10 rating to Kawasan Industries, meaning that there are too many identifiable signs of possible financial distress, not identified as such by Fitch. But you have to be careful over here. Kawasan

Industries is an industrial estate developer in Indonesia, and the algorithm is not exactly fit for financials, insurance companies and real estate related businesses.

Fitch identified Tata Motors as a high credit risk company, where the algorithm assigned a more conservative risk "4" rating. It's not about being right or wrong. These ratings are "just" opinions, looking at these companies from a different angle.

The algorithm assigned a 10 rating to Tutor Perini (TUT), meaning that there are too many identifiable signs of possible financial distress. It's interesting to read why Fitch affirms Tutor Perini at 'B+', but revised its outlook to negative. You can find it [over here](#). The negative outlook reflects the vulnerability of TUT's profitability due to the cyclical nature of the engineering and construction (E&C) industry, as well as the company's limited margins and uneven project cash flows.

Most of TUT's key contracts are considered essential though, and it's expected that the company will be able to continue executing on backlog throughout 2020. The 10 rating in this case may be well overdone.

The algorithm can easily rate 1000 companies a day, and that means that it has the potential to rate the entire stock market universe, financials excluded, once every quarter.

More info: peter@thevaluefirm.com

Software configuration release management

Current release: Risk Rating Algorithm 28042020.

Weekly Update 29042020:

- Software Changes: -
- New data patterns: Foresight Energy bankruptcy data footprint

This presentation and the information contained herein are for educational and informational purposes only and do not constitute, and should not be construed as, an offer to sell, or a solicitation of an offer to buy, any securities or related financial instruments. Responses to any inquiry that may involve the rendering of personalized investment advice or effecting or attempting to effect transactions in securities will not be made absent compliance with applicable laws or regulations (including broker dealer, investment adviser or applicable agent or representative registration requirements), or applicable exemptions or exclusions therefrom. The Value Firm® makes no representation, and it should not be assumed, that past investment performance is an indication of future results. Moreover, wherever there is the potential for profit there is also the possibility of loss.

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General Electric

Accounting “detective” Harry Markopolos believes General Electric is engaged in accounting fraud so big that it will soon be forced into bankruptcy. He argues that General Electric utilizes many of the same accounting tricks as Enron did, so much so that they’ve taken to calling this the “GENron” case. Former Enron CFO Andy Fastow talks about General Electric as “a slow motion train wreck”.

The Value Firm® Risk Rating Algorithm assigned a 10 rating to General Electric, meaning that the company has too many signs of possible financial distress.

You can find the 175 pages Markopolos report [over here](#) (and if not, send me an e-mail, and I will send it to you).



Interestingly enough, recently, Moody's Investors Service ("Moody's") assigned a Baa1 credit rating. The planned sale of a portion of General Electric shares in Baker Hughes did not affect this rating.

On a scale from 1 to 10, you can compare a Baa1 rating to a “4” rating, meaning that its obligations are of medium grade and subject to moderate credit risk (see attachment). So here we have a huge disconnect between the result of The Value Firm® Risk Rating Algorithm, a “10”, and Moody’s Credit Rating, a “4”.

To get a better understanding of how many “huge disconnects” there actually are, I decided to test 138 company ratings. Here are the results. On the left you will find the company name, then The Value Firm® Risk Rating, and finally Moody’s Credit Rating (source: markets.businessinsider.com) and the corresponding number, according to the overview in the attachment.

	The Value Firm®	Moody's
Microsoft Corporation	2	Aaa 1
Johnson & Johnson	2	Aaa 1
Exxon Mobil Corporation	4	Aaa 1
Apple Inc.	1	Aa1 2
Automatic Data Processing	1	Aa3 2
Visa Inc	2	Aa3 2
Procter & Gamble Co	2	Aa3 2
Chevron Corporation	3	Aa2 2
Walmart Inc	3	Aa2 2
Nestle SA	3	Aa3 2
Costco Wholesale Corporation	4	Aa3 2
3M Co	1	A1 3
British American Tobacco	1	A3 3
NVIDIA Corporation	1	A3 3
Coca-Cola Co	2	A1 3
Intel Corporation	2	A1 3
Cisco Systems, Inc.	2	A1 3
LVMH Moët Hennessy Louis Vuitton	2	A1 3
Amazon.com, Inc.	2	A2 3
Snap-on Incorporated	2	A2 3
Swisscom AG	2	A2 3
Applied Materials, Inc.	2	A3 3
Xilinx, Inc.	2	A3 3
Caterpillar Inc.	2	A3 3
ASML Holding NV	2	A3 3
Baidu Inc	2	A3 3
Gilead Sciences, Inc.	2	A3 3
BASF SE	3	A2 3
QUALCOMM, Inc.	3	A2 3
Abbott Laboratories	3	A3 3
Air Liquide SA	3	A3 3
OMV AG	3	A3 3
Comcast Corporation	3	A3 3
Schneider Electric SE	3	A3 3
UnitedHealth Group Inc	3	A3 3
Siemens AG	4	A1 3
American Express Company	4	A3 3
Bouygues SA	4	A3 3
VERBUND AG	4	A3 3
Deutsche Wohnen SE	4	A3 3
Bayerische Motoren Werke AG	5	A1 3
Volvo AB	5	A3 3
Daimler AG	5	A3 3
Deutsche Post AG	5	A3 3
Nissan Motor Co Ltd	5	A3 3
Vinci SA	5	A3 3
Engie SA	6	A3 3
Volkswagen AG	6	A3 3
Amgen, Inc.	1	Baa1 4

KLA Corp	1	Baa1	4
Starbucks Corporation	1	Baa1	4
Verizon Communications Inc.	1	Baa1	4
Biogen Inc	2	Baa1	4
Electronic Arts Inc.	2	Baa1	4
Maxim Integrated Products Inc.	2	Baa1	4
Continental AG	2	Baa1	4
eBay Inc	2	Baa1	4
Givaudan S.A.	2	Baa1	4
Wolters Kluwer	2	Baa1	4
Elisa Oyj	2	Baa2	4
HP Inc	2	Baa2	4
Tate & Lyle PLC	2	Baa2	4
Anglo American plc	2	Baa2	4
Verisk Analytics, Inc.	2	Baa2	4
Adecco Group AG	3	Baa1	4
Danone SA	3	Baa1	4
Enagas SA	3	Baa1	4
Eni SpA (ADR)	3	Baa1	4
Heineken N.V.	3	Baa1	4
Merck KGaA	3	Baa1	4
UPM-Kymmene Corporation	3	Baa1	4
Pernod Ricard SA	3	Baa1	4
Telekom Austria AG	3	Baa1	4
Telia Company AB	3	Baa1	4
Castellum AB	3	Baa2	4
BAE Systems plc	3	Baa2	4
Kerry Group PLC	3	Baa2	4
Solvay SA	3	Baa2	4
Centrica PLC	4	Baa1	4
Orange SA (ADR)	4	Baa1	4
United Utilities Group PLC	4	Baa1	4
Bayer AG	4	Baa1	4
AZA SpA	4	Baa2	4
Fiserv Inc	4	Baa2	4
Publicis Groupe SA	4	Baa2	4
Severn Trent Plc	4	Baa2	4
Snam SpA	4	Baa2	4
Endesa SA	4	Baa2	4
Fortum Oyj	4	Baa2	4
Kingfisher plc	4	Baa2	4
WM Morrison Supermarkets PLC	4	Baa2	4
Deutsche Telekom AG	5	Baa1	4
Repsol SA	5	Baa1	4
E.ON SE	5	Baa2	4
Enel S.p.A.	5	Baa2	4
LafargeHolcim Ltd	5	Baa2	4
Iberdrola SA	6	Baa1	4
Veolia Environnement SA	6	Baa1	4
Autodesk, Inc.	6	Baa2	4
Lanxess AG	6	Baa2	4
Naturgy Energy Group SA	6	Baa2	4
Rolls-Royce Holding PLC	6	Baa2	4

General Electric Company	10	Baa1	4
Micron Technology, Inc.	1	Baa3	5
STMicroelectronics NV	2	Baa3	5
Steel Dynamics, Inc.	2	Baa3	5
FLIR Systems, Inc.	3	Baa3	5
Marks and Spencer Group Plc	3	Baa3	5
Stora Enso OYJ	3	Baa3	5
Western Digital Corp	3	Baa3	5
Imperial Brands PLC	3	Baa3	5
Methanex Corporation	3	Baa3	5
Fresenius SE & Co KGaA	4	Baa3	5
HeidelbergCement AG	4	Baa3	5
Ceconomy AG	5	Baa3	5
Deutsche Lufthansa AG	5	Baa3	5
MTU Aero Engines AG	5	Baa3	5
Suedzucker AG	5	Baa3	5
RWE AG	6	Baa3	5
Tesco PLC	6	Baa3	5
Citrix Systems, Inc.	1	Ba1	6
Open Text Corp	2	Ba2	6
Wienerberger AG	3	Ba1	6
Atlantia SpA	5	Ba2	6
Leonardo SpA	6	Ba1	6
TUI AG	5	Ba3	7
Central Garden & Pet Co	3	B1	8
Mobile Mini Inc	4	B2	8
Outokumpu Oyj	5	B1	8
PGS ASA	8	B3	8
SGL Carbon SE	10	B2	8
Diamond Offshore Drilling Inc	10	B3	8
Mattel Inc	10	B3	8
Heidelberger Druckmaschinen AG	10	Caa1	9
Obrascon Huarte Lain SA	10	Caa1	9
Scientific Games Corp	10	Caa1	9
Transocean LTD	10	Caa2	9

To be of “investment grade”, a company must be rated 6 or lower. A risk rating between 8 and 10 is highly speculative. And what about a 7 rating? It depends.

If you look at the “investment grade” companies, risk rating between 1 and 6, you will find 4 cases, up for discussion: General Electric, Central Garden & Pet, Mobile Mini and Outokumpu Oyj. For the other 134 ratings, it’s obviously clear whether or not we are dealing with an “investment grade” company.

You could argue that, from the perspective of making an investment decision, The Value Firm® Risk Ratings and Moody’s Credit Ratings lead to the same insight in almost 98% of the cases. Please be advised never to make an investment decision solely based upon a rating. A rating is “just” an additional check, if you will.

Moreover, if you decide that you won't invest at all in a "red rated company", whether it was assigned by The Value Firm® Risk Rating or Moody's Credit Rating, there are no cases for discussion at all. I find that mind boggling!

The Value Firm® Risk Rating Algorithm is just "software on a laptop" with access to the web. That's it. Are we witnessing the world's first Fintech Risk Rating Agency over here?

Finally, let's go back to General Electric. The company admits it is having a tough time. Since its peak at almost \$33 in July 2016, the stock is down approximately 80%. But will they go bankrupt? Nobody knows for sure.

How impressive the 175 page Markopolos report may seem, there is always reason to practice caution. It reminds me in a way of the Bill Ackman 342 slide presentation on Herbalife, he gave at the Sohn Conference in 2012, stating that it was a predatory pyramid scheme destined to fail. Well, in the end Herbalife did just fine.

28 March 2020.
peter@thevaluefirm.com

Post scriptum. This piece was written prior to the outbreak of the corona virus. These are exceptionally uncertain and uncomfortable times. Nobody knows what's going to happen. Anyhow, it is assumed the world will go back to business as usual soon (months).

My thoughts and prayers are with all out there suffering from the virus and with all these wonderful health care workers. Take care.

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Rating			S&P	Moody's	Fitch	Credit Risk
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9	Very high risk	Many identifiable signs of possible financial distress.	CCC+, CCC, CCC-	Caa1, Caa2, Caa3	CCC+, CCC, CCC-	Obligations are of poor standing. Subject to very high credit risk.
8	High risk	Companies with elevated vulnerability to financial distress.	B+, B, B-	B1, B2, B3	B+, B, B-	Obligations are speculative. Subject to high credit risk.
7	Medium risk +	Companies, already more susceptible to the unexpected.	BB-	Ba3	BB-	Obligations are speculative. Subject to more than substantial credit risk.
6	Medium risk	Good company with a moderate risk of financial distress.	BB+, BB	Ba1, Ba2	BB+, BB	Obligations are speculative. Subject to substantial credit risk.
5	Low risk ++	Good company, with still a low, but slightly more risk.	BBB-	Baa3	BBB-	Obligations of medium-grade. Subject to more than moderate credit risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.	BBB+, BBB	Baa1, Baa2	BBB+, BBB	Obligations of medium-grade. Subject to moderate credit risk.
3	Low risk	High quality company, with a low risk of financial distress.	A+, A, A-	A1, A2, A3	A+, A, A-	Obligations of upper-medium grade. Subject to low credit risk.
2	Very low risk +	High quality company with a very low risk of financial distress.	AA+, AA, AA-	Aa1, Aa2, Aa3	AA+, AA, AA-	Obligations of high quality. Subject to very low credit risk.
1	Very low risk	High quality company with almost zero risk of financial distress.	AAA	Aaa	AAA	Obligations of the highest quality. Subject to the lowest level of credit risk.

Intelsat

*The word “bankrupt” derives from **banco rotto**, the practice in midieval Italy of smashing the benches that merchants sold their goods from if they did not pay their debts, to force them to stop trading.*

On May 13, 2020, satellite operator Intelsat, which launched the world's first commercial communications satellite Intelsat 1 in 1965, filed for Chapter 11 bankruptcy in order to ease a multibillion-dollar debt and join an FCC spectrum clearing program.

Intelsat notes that its current plan involves no changes to the day-to-day operation of the company, or any reduction in headcount. The company also said that it has secured \$1 billion in committed new financing, which will come in the form of debtor-in-position funds, subject to court approval.



The company also says it'll be continuing to launch new satellites, building out its ground network and adding new services as it goes through the process, and that its goal is to get through the restructuring “as quickly as possible.”

Was it foreseeable that Intelsat was close to financial distress, just by looking at their financial statements? And the answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to Intelsat, meaning that there were too many identifiable signs of possible financial distress.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
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3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

One of the unique features of this algorithm is that for the higher risk ratings, the Risk Rating Algorithm tries to identify unusual risk profiles (“potential bankruptcy data footprints”) and then, in combination with other parameters, assign a risk rating to that company.

Last week I showed you that 70% of the latest 20 companies in the bankruptcy list by then, companies that recently went bankrupt or were seriously considering going into bankruptcy were rated “very high risk+”, that is, a 10 rating. The other 30% needed an additional “bankruptcy data footprint” to be identified as a 10 rating and to ensure that in the future similar “bankruptcy data footprints” will be identified as very high risk.

This week, 7 new companies were added and all of them were identified as a 10 rating, without adding a new “bankruptcy data footprint”. This means that out of the latest 20 companies, only 3 needed an additional footprint. In other words, 85% of the “bankruptcies” were rated correctly by the algorithm. I do have my doubts if these levels are sustainable in the long run, but for now, I am more than happy with it.

Please be careful with the interpretation of this 85%. Read it carefully once again, if you will. This does NOT mean that “a 10 rated company” has a 85% chance of going bankrupt!

Software release management

Current release: Risk Rating Algorithm 28042020.

Bankruptcy case	Software changes	New bankruptcy data footprints
Laura Ashley	-	-
LSC Communications	-	-
Foresight Energy	-	X
Diamond Offshore Dr.	-	-
Debenhams	-	X
Yuma Energy	-	-
Frontier Communications	-	X
BroadVision Inc.	-	-
Carbo Ceramics	-	-
J.C. Penny	-	-
Hertz	-	X
Melinta Therapeutics	-	-
Speedcast	-	X
Insys Therapeutics	-	-
Stage Stores	-	-
Chesapeake	-	-
Intelsat	-	-
Ultra Petroleum	-	-
Virgin Australia	-	-
Avianca	-	X
Mallinckrodt	-	-
Centric Brands	-	-
Internap	-	-
Quorum Health	-	-
Akorn	-	-
Hornbeck Offshore	-	-
Tuesday Morning	-	-

If you are interested in these risk ratings, let me know. Right now, I am looking for a “launching customer”, who will benefit tremendously from being the launching customer. E-mail: peter@thevaluefirm.com.

Prospective customers include other rating agencies (Moody’s, Standard & Poor’s, Fitch, Graydon), endowments, pension funds, accountancy firms, institutional investors, hedge funds, family offices, banks and insurance companies.

Thanks for reading!
28 May 2020.

Post scriptum. I will continue updating you on these bankruptcies and risk ratings in August once again. My annual Investor Letter will be published 1 July 2020.

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Laura Ashley

22 April 2020. British fashion and housewares brand Laura Ashley announced plans to file for administration, the United Kingdom's equivalent of bankruptcy, as efforts to obtain an emergency loan to keep the company afloat were halted by the coronavirus outbreak.

The announcement could affect more than 150 British stores and 2,700 employees.

Laura Ashley branded products are available in the United States at stores including Marshall's, JCPenney, HomeGoods, Neimans Last Call and Macy's Backstage.



The Guardian reported that "Discussions with stakeholders have been ongoing and the directors are in advanced discussions for the provision of third-party debt funding. However, based on the company's revised cash flow forecasts and the increased uncertainty facing the group, the company expects that it will not be in a position to draw down additional funds from third-party lenders in a timely manner sufficient to support working capital requirements.

MUI Asia Limited, the investment company that controls Laura Ashley, has confirmed that it is unable to provide financial support in the required timeframe."

Was it foreseeable that Laura Ashley was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to Laura Ashley, meaning that there were too many identifiable signs of possible financial distress.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
6	Medium risk	Good company with a moderate risk of financial distress.
5	Low risk ++	Good company, with still a low, but slightly more risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.
3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

There is no such thing as investing without risk. We all know that. But there is definitely a distinction between a low risk investment and a high risk investment. And to pinpoint that distinction, the algorithm assigns risk ratings to companies, based upon their historical financials.

One of the unique characteristics of this algorithm is that it is calibrated by using the actual credit ratings of credit rating agencies (Moody's, Standard & Poor's and Fitch) and by studying actual bankruptcy cases.

The high risk ratings are partly based upon "pattern recognition". It's my experience that in almost every bankruptcy case, and I studied many, you can identify "suspicious data patterns", or perhaps the better phrase for that is "bankruptcy data footprints".

The idea is that the more "bankruptcy data footprints" are added to the algorithm, the better the high risk ratings will become. In the example of Laura Ashley, the algorithm assigned a 10 rating, without adding a new "bankruptcy data footprint" to the algorithm. And that tells me that there is already a lot of value in this algorithm.

In their announcement to file for administration, Laura Ashley refers to the coronavirus outbreak. Well... In 2019, based upon the historical financials up until 2018, the algorithm assigned a 10 rating, meaning that the company was already in deep trouble by then. In 2018, the algorithm did not find any signs of potential financial distress. Here are the historical Laura Ashley risk ratings:

2016	2017	2018	2019	2020
2	2	4	10	10

That's it for now.

Are you worried about this corona crash and what might happen next? Or perhaps even afraid? Howard Marks is: [LINK.](#)

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LSC Communications

On April 13, 2020, magazine and book printing powerhouse LSC Communications filed for Chapter 11 Bankruptcy Protection. The company accumulated approximately \$900 million in debt; no positive operating income, net income or operational cash flow at all.

LSC is continuing constructive discussions with its lenders regarding strategic alternatives and the terms of a potential financial restructuring plan. LSC has received commitments for \$100 million in debtor-in-possession financing from certain of its revolving lenders, subject to the satisfaction of certain closing conditions. Following court approval, this financing, combined with cash on hand and generated through its ongoing operations, is expected to be sufficient to support the Company's operational and restructuring needs.



The company now has "sufficient liquidity to continue operating its business," which should have several publishers across the U.S. breathing a sigh of relief. LSC is the largest book printer in the country, and also boasts a sizable clientele of magazines.

Was it foreseeable that LSC Communications was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to LSC Communications, meaning that there were too many identifiable signs of possible financial distress.

A year earlier, in 2019, the Risk Rating Algorithm assigned a 6 rating to LSC Communications, meaning only a moderate risk of financial distress.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
6	Medium risk	Good company with a moderate risk of financial distress.
5	Low risk ++	Good company, with still a low, but slightly more risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.
3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

The algorithm helps identifying risks in a timely manner, hopefully way before these risks manifest themselves.

Here are the main ingredients of this Risk Rating Algorithm:

- Fundamental Warren Buffett type of criteria are used to identify the high quality, low risk companies.
- Insights of Schilit, Sloan, Altman, Beneish and others are used to identify risk, especially the higher risk ratings.
- Credit ratings of Moody's, Fitch and Standard & Poor's are used for calibrating the risk ratings even further.
- Identifying, if possible, "suspicious data patterns" in actual bankruptcy cases and use these "company specific bankruptcy data footprints" as reference for assigning the highest risk ratings and by that identifying the group of companies with a high degree of bankruptcy exposure.

The idea is that the more "bankruptcy data footprints" are added to the algorithm, the better the high risk ratings will become. In the example of LSC Communications, the "bankruptcy data footprint" of FTD Companies served as a reference for the high risk rating of LSC Communications. I don't know of any algorithm out there, that is able to do just that, as of yet.

The ultimate goal is to build up a certain “mass of bankruptcy intelligence”, that you hope for will act as a reference for identifying future high risk ratings. Up until now 76 bankruptcy cases were evaluated and approximately 50% led to new “bankruptcy data footprints”. 24 more to go to reach the target of 100 bankruptcies.

Now let’s have a look at 30 new Fitch ratings, compare them with The Value Firm® Risk Ratings, and see if there are adjustments to be made to the algorithm:

	The Value Firm®	Fitch
Companhio Energetica	3	AAA 1
Progressive Corp	2	AA 2
Intel	2	A+ 3
TE Connectivity	2	A- 3
CK Hutchison	4	A- 3
Enel	4	A- 3
Beijing Gas	6	A 3
NVR Inc	1	BBB+ 4
Agilent	2	BBB+ 4
D.R. Horton	2	BBB 4
Agrico Eagle Mines	2	BBB 4
Seagate Technology	1	BBB- 5
Continental Resources	2	BBB- 5
NXP Semiconductor	2	BBB- 5
Marvell Technology	3	BBB- 5
Sunrise Communications	4	BBB- 5
Williams Companies	5	BBB- 5
Avnet	6	BBB- 5
Western Digital	2	BB+ 6
MTN Group	2	BB 6
Klabi S.A.	4	BB+ 6
Centurylink Inc	4	BB 6
Alcoa	4	BB+ 6
Embraer	4	BB+ 6
Transalta Corporations	5	BB+ 6
Arconic	6	BB+ 6
Minor International	5	B 8
Kaisa Group Holdings	6	B 8
Tenneco	7	B+ 8
SM Energy	10	C 10

I am very happy to see that both the Fitch Credit Rating and The Value Firm® Risk Rating identified SM Energy as a very high risk company, with too many signs of possible financial distress. You can find the Fitch comments [over here](#).

I don’t see any reason at all to make adjustments to the algorithm and I just accept that there are differences of opinion on some of the ratings. Actually, these differences are, I believe, reason to reassess, in depth, the specific company risk.

Although the algorithm was initially designed for publically traded companies, I am quite sure that it can be put to good use for private companies as well.

If you are interested in these risk ratings, let me know. Right now, I am looking for a “launching customer”, who will benefit tremendously from being the launching customer. E-mail: peter@thevaluefirm.com.

Prospective customers include other rating agencies (Moody’s, Standard & Poor’s, Fitch, Graydon), endowments, pension funds, accountancy firms, institutional investors, hedge funds, banks and insurance companies.

Software release management

Current release: Risk Rating Algorithm 28042020.

Date	Software changes	New bankruptcy data footprints
29042020	-	Foresight Energy
07052020	-	-

Thanks for reading!
7 May 2020.

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Attachment

Rating			S&P	Moody's	Fitch	Credit Risk
10	Very high risk +	Too many identifiable signs of possible financial distress.	CC	Ca	CC, C	Near Default. Obligations are highly speculative.
9	Very high risk	Many identifiable signs of possible financial distress.	CCC+, CCC, CCC-	Caa1, Caa2, Caa3	CCC+, CCC, CCC-	Obligations are of poor standing. Subject to very high credit risk.
8	High risk	Companies with elevated vulnerability to financial distress.	B+, B, B-	B1, B2, B3	B+, B, B-	Obligations are speculative. Subject to high credit risk.
7	Medium risk +	Companies, already more susceptible to the unexpected.	BB-	Ba3	BB-	Obligations are speculative. Subject to more than substantial credit risk.
6	Medium risk	Good company with a moderate risk of financial distress.	BB+, BB	Ba1, Ba2	BB+, BB	Obligations are speculative. Subject to substantial credit risk.
5	Low risk ++	Good company, with still a low, but slightly more risk.	BBB-	Baa3	BBB-	Obligations of medium-grade. Subject to more than moderate credit risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.	BBB+, BBB	Baa1, Baa2	BBB+, BBB	Obligations of medium-grade. Subject to moderate credit risk.
3	Low risk	High quality company, with a low risk of financial distress.	A+, A, A-	A1, A2, A3	A+, A, A-	Obligations of upper-medium grade. Subject to low credit risk.
2	Very low risk +	High quality company with a very low risk of financial distress.	AA+, AA, AA-	Aa1, Aa2, Aa3	AA+, AA, AA-	Obligations of high quality. Subject to very low credit risk.
1	Very low risk	High quality company with almost zero risk of financial distress.	AAA	Aaa	AAA	Obligations of the highest quality. Subject to the lowest level of credit risk.

McClatchy

McClatchy Co., the second-largest U.S. newspaper group by circulation, filed for bankruptcy protection, a move that comes as the nation's newspaper industry is struggling to cope with a sharp decline in print advertising and the challenges of building a robust digital business.

The bankruptcy will end 163 years of family control of America's second largest local news company and hand it to creditors who have expressed support for independent journalism.



The Chapter 11 filing will allow McClatchy to restructure its debts and, it hopes, shed much of its pension obligations. Under a plan outlined in its filing to a federal bankruptcy court, about 55 percent of its debt would be eliminated as the news organization tries to reposition for a digital future.

The likely new owners, if the court accepts the plan, would be led by hedge fund Chatham Asset Management LLC. They would operate McClatchy as a privately held company. More than 7 million shares of both publicly available and protected family-owned stock would be canceled.

Was it foreseeable that McClatchy was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to McClatchy, meaning that there were too many identifiable signs of possible financial distress.

Over the last 4 years the company experienced declining revenues and negative net income. Over the last 2 years stockholders equity turned negative. Much of the larger loss was due to a write-down in the assets of the company, as well as restructuring expenses and

severance charges. But even without those charges and other special items, the company would have reported a net loss of \$34.2 million in the first nine months of the year.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
6	Medium risk	Good company with a moderate risk of financial distress.
5	Low risk ++	Good company, with still a low, but slightly more risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.
3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

14 February 2020.

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McDermott

U.S. oilfield services provider McDermott International filed for prepackaged bankruptcy protection under Chapter 11 on 21 January 2020. The company struggled with the debt taken on from its takeover of Chicago Bridge & Iron in 2018 in an all-stock deal valued at around \$6 billion including nearly \$4 billion in debt.

McDermott specializes in building and installing large, expensive items like oil platforms and natural gas plants, a business that's under pressure as low energy prices discourage new construction. McDermott's total debt stood at \$9.86 billion as of Nov. 4, 2019.

MCDERMOTT

McDermott has informed that it has the support of more than two-thirds of all its funded debt creditors for a restructuring transaction that will equitize nearly all the company's funded debt, eliminating over \$4.6 billion of debt.

As part of the restructuring transaction, subsidiaries of McDermott have entered into a share and asset purchase agreement with a joint partnership between The Chatterjee Group and Rhône Group pursuant to which the joint partnership will serve as the "stalking-horse bidder" in a court-supervised sale process for Lummus Technology.

Was it foreseeable that McDermott was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to McDermott, meaning that there were too many identifiable signs of possible financial distress.

The debt overloaded company wasn't able to generate positive pretax income, net income, operational cash flow or free cash flow, according to their 2018 financial statements.

Score	Meaning
10	Very high risk + Too many identifiable signs of possible financial distress.
9	Very high risk Many identifiable signs of possible financial distress.
8	High risk Companies with elevated vulnerability to financial distress.
7	Medium risk + Companies, already more susceptible to the unexpected.
6	Medium risk Good company with a moderate risk of financial distress.
5	Low risk ++ Good company, with still a low, but slightly more risk.
4	Low risk + High quality company, with still a low, but slightly more risk.
3	Low risk High quality company, with a low risk of financial distress.
2	Very low risk + High quality company with a very low risk of financial distress.
1	Very low risk High quality company with almost zero risk of financial distress.

After Thomas Cook, McClatchy and Pier 1, McDermott is the fourth example of a company rated 10 by the Risk rating Algorithm before it filed for Chapter 11.

I will continue evaluating bankruptcies the upcoming months and let's see if the algorithm indeed has predictive bankruptcy detection value.

4 March 2020.

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Pier 1

Home furnishings chain Pier 1 filed for bankruptcy and plans to sell the company, just over a month after announcing hundreds of store closures and warning about its ability to stay in business amid increased competition.

Once wildly popular for its inexpensive, imported pillows and rattan chairs, the home furnishings chain struggled to compete against Home Goods, Etsy and giants like Amazon and Walmart.

Pier 1 announced in a statement that it was starting voluntary Chapter 11 bankruptcy proceedings to “facilitate an orderly sale process” as it continues discussions with multiple potential buyers.



“Today’s actions are intended to provide Pier 1 with additional time and financial flexibility as we now work to unlock additional value for our stakeholders through a sale of the Company,” said CEO Robert Riesbeck. “We are moving ahead in this process with the support of our lenders and are pleased with the initial interest as we engage in discussions with potential buyers.”

Was it foreseeable that Pier 1 was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to Pier 1, meaning that there were too many identifiable signs of possible financial distress.

Declining revenues and operating income, net income and operational cash flow all turning negative in 2019.

Score	Meaning	
10	Very high risk +	Too many identifiable signs of possible financial distress.
9	Very high risk	Many identifiable signs of possible financial distress.
8	High risk	Companies with elevated vulnerability to financial distress.
7	Medium risk +	Companies, already more susceptible to the unexpected.
6	Medium risk	Good company with a moderate risk of financial distress.
5	Low risk ++	Good company, with still a low, but slightly more risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.
3	Low risk	High quality company, with a low risk of financial distress.
2	Very low risk +	High quality company with a very low risk of financial distress.
1	Very low risk	High quality company with almost zero risk of financial distress.

26 february 2020..

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Thomas Cook

Today, the world's oldest travel firm Thomas Cook (TCG.L) collapsed, stranding hundreds of thousands of holidaymakers around the globe and sparking the largest peacetime repatriation effort in British history.

Was it foreseeable that Thomas Cook was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.



If you study “forensic accounting”, you will learn that fraud and bankruptcy models may serve as important tools in analyzing the financial information presented by companies. Along with the earnings management ratios, quality of earnings and quality of revenue (Schilit 2003), more elaborate models and metrics (Altman 1968 and 2005, Dechow, Sloan and Sweeney 1996, Sloan 1996, Beneish 1999, and Dechow, Ge, Larson, and Sloan 2007, and Robinson 2007) may serve as a veritable arsenal of techniques for detecting financial problems within companies.

This is by no means “easy stuff”, and I am certainly not a certified forensic accountant. But that doesn't mean that you can't apply these models and insights. I tend to believe that I do know how to value good businesses (which most people unfortunately don't), and I can apply that knowledge to identify bad businesses.

What happens if you combine these value investing insights with the group of shenanigans & bankruptcy models? Well, you get some interesting results.

The newly developed risk rating model assigned a score of 10, meaning very high risk, to Thomas Cook, based upon the historic 5 year financials of the company. Fully auditable.

There is still a lot of work to do, but the simple fact that **The Value Firm® Risk Rating Agency** assigned the score of 10 to a company that, unfortunately, went bankrupt, is hopeful and promising.

The purpose of these risk ratings is to provide investors with a simple system of graduation by which “the probability of financial distress of a company within 2 years” may be gauged.

Risk Rating	Meaning	
10	Very high risk +	Too many signs of possible financial distress
9	Very high risk	Many signs of possible financial distress
8	High risk +	Elevated vulnerability to financial distress
7	High risk	Real possibility of financial distress.
6	Medium risk ++	Medium possibility of financial distress
5	Medium risk +	Elevated vulnerability, more susceptible to “the unexpected”
4	Medium risk	Low expectation of financial distress
3	Low risk ++	High quality companies, but more vulnerable
2	Low risk +	High quality companies, but slightly more vulnerable
1	Low risk	Companies of exceptional high quality

I believe it is a mistake to think that you can predict a bankruptcy. It is “just” a risk rating, indicating a probability that financial distress might happen within 2 years from now.

If some kind of stunning acrobat act is rated as “very high risk”, that doesn't mean the acrobat will fail for sure. The same holds for companies and businesses.

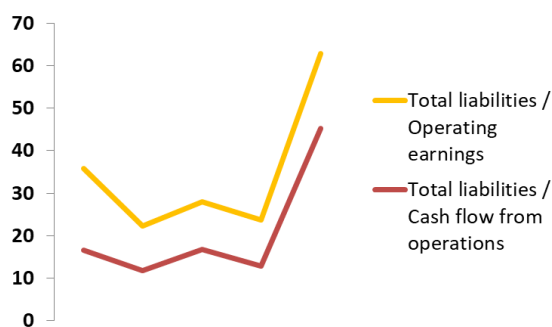
The models and insights I use are well documented and actually, you can find all of them on the web. The “new thing” is that I came up with this balancing act of identifying the models and ratios that really matter. In fact, there are so many ratios, that if you try to apply them all, you will most certainly fail.

I do use Altman, Beneish and Schilit, and I don't use Dechow and Sloan (for now). When you try to implement these models, there are still some choices to be made. E.g. do you use the 5 ratio or 8 ratio Beneish model. And what about your benchmark for "financial distress: -1.78 or -2.22?

Same for Altman and Schilit. You can "exactly" copy the classic definitions, or you might want to make some adjustments. And as said earlier, I added value investing insights as well.

Every new bankruptcy situation will add some new insights and hopefully the model will improve over the years, just by studying those. And there won't be a shortage of case studies.

Here you find the results of two Thomas Cook debt ratios that, I believe, reveal something:



The upcoming weekend the Autumn 2019 Edition on Intelligent Cloning will be released. Until then, the best!

Peter

23 September 2019.

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Whiting Petroleum

Whiting Petroleum becomes the first major shale bankruptcy and becomes the first publicly traded casualty of crashing crude oil prices.

Reuters.Com reports that numerous shale oil and gas producers, faced with burdensome debt loads, have cut spending aggressively as oil prices have plunged by about two-thirds this year with the coronavirus pandemic slamming fuel demand and Russia and Saudi Arabia flooding markets with extra crude.



Whiting said it had more than \$585 million of cash on its balance sheet and will continue to operate its business in line with commercial commitments. The company also said it would honor financial obligations during the restructuring without any "need for additional financing."

Was it foreseeable that Whiting Petroleum was close to financial distress, just by looking at their financial statements? The answer to that question is, I believe, yes.

The newly developed Risk Rating Algorithm, as described in the Winter 2020 Edition on Intelligent Cloning, assigned a 10 rating to Whiting Petroleum, meaning that there were too many identifiable signs of possible financial distress.

Score	Meaning
10	Very high risk + Too many identifiable signs of possible financial distress.
9	Very high risk Many identifiable signs of possible financial distress.
8	High risk Companies with elevated vulnerability to financial distress.
7	Medium risk + Companies, already more susceptible to the unexpected.
6	Medium risk Good company with a moderate risk of financial distress.
5	Low risk ++ Good company, with still a low, but slightly more risk.
4	Low risk + High quality company, with still a low, but slightly more risk.
3	Low risk High quality company, with a low risk of financial distress.
2	Very low risk + High quality company with a very low risk of financial distress.
1	Very low risk High quality company with almost zero risk of financial distress.

The Risk Rating Algorithm looks from the perspective of historical financial statements for "accounting irregularities", or "suspicious data patterns" if you will, e.g. by looking at the earnings management ratios, quality of earnings and quality of revenues (Schilit), but also more elaborate models and metrics (Altman, Sloan, Sweeney and Beneish).

The testing, fine tuning and calibrating of the algorithm, e.g. by studying bankruptcies is, I believe, far advanced. I will continue the testing and fine tuning, but for now let's have a look at the results, as we put the algorithm to work in France (at least 500M Euro sales).

Christian Dior SA	1
Hermes International SCA	1
Bureau Veritas SA	1
Ubisoft Entertainment SA	1
Kaufman & Broad SA	1
Metropole Television SA	1
LVMH Moet Hennessy Louis Vuitton SE	2
Safran SA	2
Atos SE	2
Kering SA	2
Elior Group SA	2
Ipsen SA	2
Trigano SA	2
Somfy SA	2
Sartorius Stedim Biotech SA	2
Devoteam SA	2
L'Oreal SA	3
Sodexo SA	3
SEB SA	3
Dassault Systemes SE	3

Derichebourg SA	3
Television Francaise 1 SA	3
Synergie SE	3
Alten SA	3
Elis SA	3
Worldline SA	3
Akwel SA	3
Societe B I C SA	3
Compagnie de Saint Gobain SA	4
Bouygues SA	4
Danone SA	4
Schneider Electric SE	4
Air Liquide SA	4
Eiffage SA	4
Capgemini SE	4
Publicis Groupe SA	4
EssilorLuxottica SA	4
Pernod Ricard SA	4
Arkema SA	4
Ald SA	4
Lagardere SCA	4
Legrand SA	4
Xpo Logistics Europe SA	4
Teleperformance SE	4
Sopra Steria Group	4
Nexity SA	4
Rubis SCA	4
Eurofins Scientific SE	4
Tarkett SA	4
Accor SA	4
Amundi SA	4
BioMerieux SA	4
LISI SA	4
Manitou BF SA	4
Eutelsat Communications SA	4
Quadient SA	4
Electricite de Strasbourg SA	4
Virbac SA	4
Mersen SA	4
Guerbet SA	4
Manutan International SA	4
SMCP SA	4
Plastiques du Val de Loire SA	4
Hexaom SA	4
Groupe Guillin SA	4
Seche Environnement SA	4
Aeroports de Paris SA	4
Compagnie des Alpes SA	4
Remy Cointreau	4
Total SA	4
Carrefour SA	5

Vinci SA	5
Air France KLM SA	5
Veolia Environnement SA	5
Valeo SA	5
Faurecia SE	5
Suez SA	5
Vivendi SA	5
Colas SA	5
Compagnie Plastic Omnium SA	5
Nexans SA	5
Spie SA	5
Burelle SA	5
Fnac Darty SA	5
Savencia SA	5
Imerys SA	5
Unibel SA	5
Vicat SA	5
Altran Technologies SA	5
Bonduelle SA	5
Ramsay Generale De Sante SA	5
Ipsos SA	5
Jacquet Metal Service SA	5
Vilmorin & Cie SA	5
Samse SA	5
Id Logistics Sas	5
GL Events SA	5
EXEL Industries SA	5
Solocal Group SA	5
Fleury Michon SA	5
Damartex SA	5
SRP Groupe SA	5
Haulotte Group SA	5
JCDecaux SA	5
Klepierre SA	5
Compagnie Plastic Omnium SA	5
Sanofi SA	5
Engie SA	6
Airbus SE	6
Renault SA	6
SCOR SE	6
Rexel SA	6
Bollere SE	6
Dassault Aviation SA	6
Eramet SA	6
April SA	6
Coface SA	6
Electricite de France SA	7
Casino Guichard Perrachon SA	7
Fonciere Euris SA	7
Rallye SA	7
Korian SA	7

Antalis SA	7
Getlink SE	7
Latecoere SA	7
Exacompta Clairefontaine SA	7
Herige SA	8
Technicolor SA	9
Pierre et Vacances SA	9
Vallourec SA	10
Orchestra Premaman SA	10

A final remark on the two 10 ratings, Vallourec and Orchestra Premaman:

- Vallourec's debt is rated by credit rating agency Standard & Poor's. The Long-term credit rating is CCC+, which is the equivalent of very high credit risk.
- Orchestra-Prémaman faces insolvency. The French childrenswear retailer, one of the largest in Europe, has asked for safeguard procedure to restructure its business and avoid an eventual Chapter 11.

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Everybody makes mistakes now and then. If you find any, let me know: peter@thevaluefirm.com. Always do your own research!

6 April 2020.
peter@thevaluefirm.com

Attachment

Rating			S&P	Moody's	Fitch	Credit Risk
10	Very high risk +	Too many identifiable signs of possible financial distress.	CC	Ca	CC, C	Near Default. Obligations are highly speculative.
9	Very high risk	Many identifiable signs of possible financial distress.	CCC+, CCC, CCC-	Caa1, Caa2, Caa3	CCC+, CCC, CCC-	Obligations are of poor standing. Subject to very high credit risk.
8	High risk	Companies with elevated vulnerability to financial distress.	B+, B, B-	B1, B2, B3	B+, B, B-	Obligations are speculative. Subject to high credit risk.
7	Medium risk +	Companies, already more susceptible to the unexpected.	BB-	Ba3	BB-	Obligations are speculative. Subject to more than substantial credit risk.
6	Medium risk	Good company with a moderate risk of financial distress.	BB+, BB	Ba1, Ba2	BB+, BB	Obligations are speculative. Subject to substantial credit risk.
5	Low risk ++	Good company, with still a low, but slightly more risk.	BBB-	Baa3	BBB-	Obligations of medium-grade. Subject to more than moderate credit risk.
4	Low risk +	High quality company, with still a low, but slightly more risk.	BBB+, BBB	Baa1, Baa2	BBB+, BBB	Obligations of medium-grade. Subject to moderate credit risk.
3	Low risk	High quality company, with a low risk of financial distress.	A+, A, A-	A1, A2, A3	A+, A, A-	Obligations of upper-medium grade. Subject to low credit risk.
2	Very low risk +	High quality company with a very low risk of financial distress.	AA+, AA, AA-	Aa1, Aa2, Aa3	AA+, AA, AA-	Obligations of high quality. Subject to very low credit risk.
1	Very low risk	High quality company with almost zero risk of financial distress.	AAA	Aaa	AAA	Obligations of the highest quality. Subject to the lowest level of credit risk.