	2015 Return (Gross)	7 Year Annualized (Gross)	Value of $10M (Gross)	Correlation to the S&P 500	2015 Return (Net)	7 Year Annualized (Net)	Value of $10M (Net)
Prime Long Only Unlevered (100% Long)	0.39%	38.88%	$99.6M	0.44	-1.33%	31.79%	$69.1M
Benchmark: **S&P 500 Total Return, w/ Dividends**	1.38%	15.80%	$27.9M	1.00	1.38%	15.80%	$27.9M
Prime Traditional Long/Short (125% Long, 60% Short)	3.27%	34.84%	$81.1M	0.08	2.44%	28.04%	$56.4M
Benchmark: **HFRX Equity Hedge Index**	n/a	n/a	n/a	0.78	-2.33%	2.00%	$11.5M
Prime Ultra Hedged Unlevered (100% Long, 90% Short)	4.62%	25.67%	$49.5M	-0.05	4.03%	20.35%	$36.6M
Prime Ultra Hedged 50% Cash (50% Long, 40% Short)	2.62%	16.46%	$29.1M	0.08	1.94%	13.69%	$24.5M
Benchmark: **HFRX Market Neutral Index**	n/a	n/a	n/a	0.15	5.45%	0.04%	$10.0M

Figures as of December 31, 2015

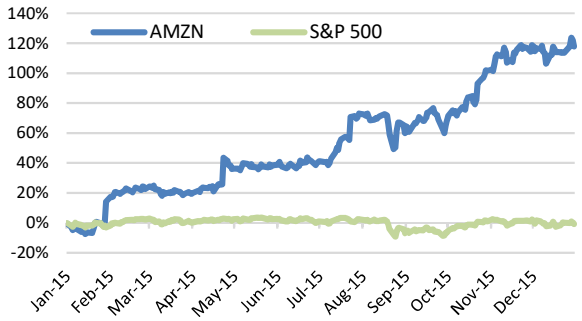
Dear Investors and Friends,

As you can see above, on a gross-of-fees basis Prime Opportunities Investment Group finished the year up +3.27% on our Traditional Long/Short product. Our Long Only Unlevered was up +.39% and our Ultra Hedged Unlevered was up +2.62%.

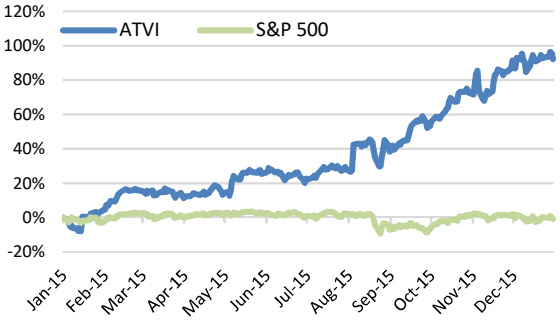
Some of the biggest winners of the year, on the long side, include Amazon (NASDAQ:AMZN), Activision Blizzard (NASDAQ:ATVI), Interactive Brokers (NASDAQ:IBKR), and T-Mobile (NASDAQ:TMUS); and, on the short side, ArcelorMittal (NYSE:MT, exited position), Staples (NASDAQ:SPLS), Bed Bath & Beyond (NASDAQ:BBBY), and Twitter (NYSE:TWTR). The fund's performance benefited from having companies in a variety of industries, as well as from our long-term anti-brick-and-mortar view, which included shorts of several big box retailers.

Top Winning Long Positions, 2015

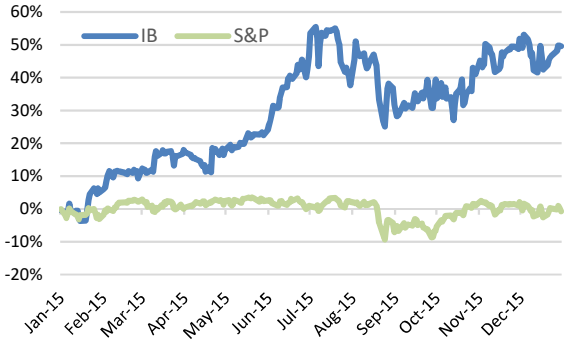
Amazon +117.78% **vs. S&P 500** -0.73%
12/31/2014 - 12/31/2015



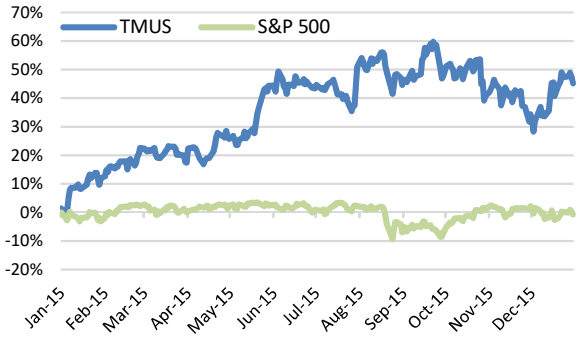
Activision Blizzard +92.11% **vs. S&P 500** -0.73%
12/31/2014 - 12/31/2015



Interactive Brokers +49.52% **vs. S&P 500** -0.73%
12/31/2014 - 12/31/2015

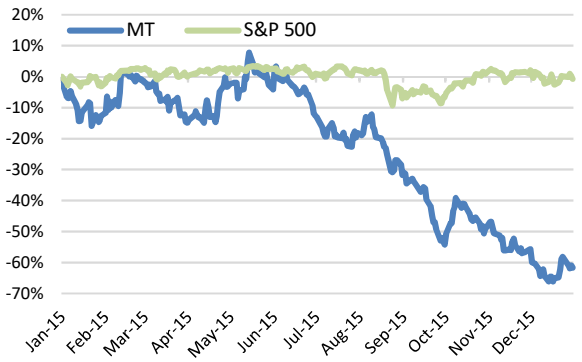


T-Mobile +45.21% **vs. S&P 500** -0.73%
12/31/2014 - 12/31/2015

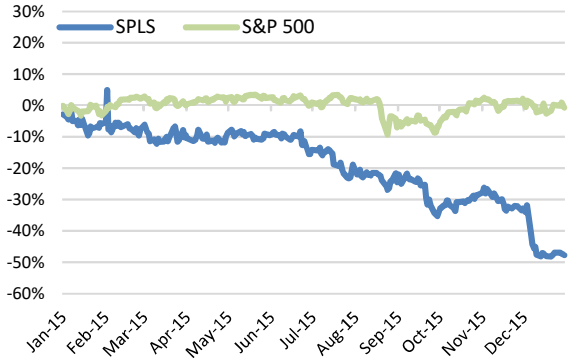


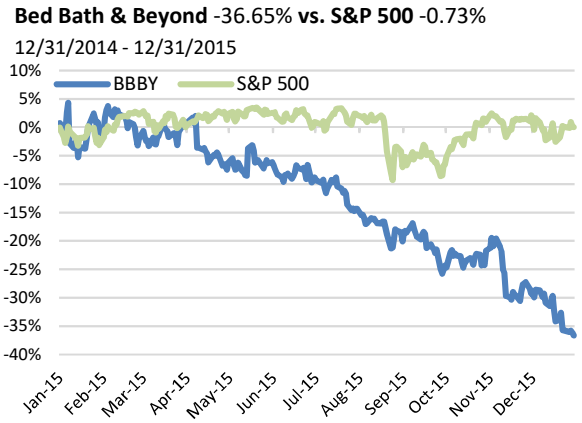
Top Winning Short Positions, 2015

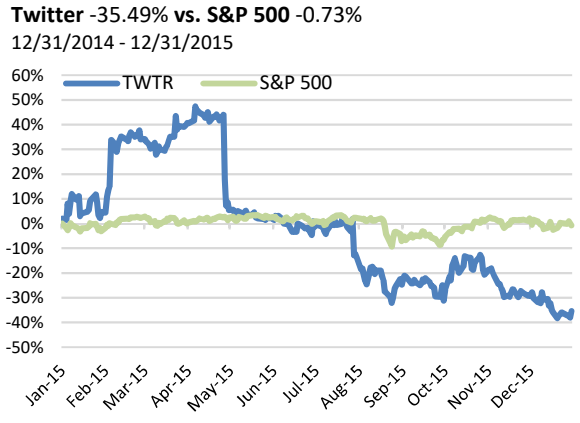
Arcelor Mittal -61.74% **vs. S&P 500** -0.73%
12/31/2014 - 12/31/2015



Staples -47.74% **vs. S&P 500** -0.73%
12/31/2014 - 12/31/2015







All in all, we had another solid year when many in the industry struggled mightily. On an overall basis, our performance record as compared to industry benchmarks has been superb, well ahead of our own aggressive goals that we laid out in our Ground Rules at inception.

In terms of performance, most funds out there would have loved to be up a little over 2%, net of fees, in 2015 and to have outperformed the S&P. But quite honestly, our level of outperformance over the past seven years, and the opportunities we have seen—and are continuing to see—have raised our ambitions above even our own initial lofty goals. Our average expectations have actually gone *up* from the perspective we had eight years ago.

We believe the opportunities we see—what the companies are worth today as compared to what we believe their true intrinsic value to be—warrant a level of outperformance above the "S&P-plus-8%" we initially targeted, and we intend to continue to pursue that kind of performance, and more, on a sustainable, long-term basis. (See more later on why we think the market's inefficiency continues to create such opportunities.)

As support for this optimistic vision, our traditional hedged product has outperformed the HFRX Equity Hedge Index by 22.45% annualized net since our inception (gross for HFR not available), and our long-only portfolio, even on an unlevered basis, has outperformed the S&P by 19.40% gross. Not only are these astounding returns in their own right, but they are also *much* higher than our initial stretch goal. And as we look at the expected market cap for our investments, compared to their current market cap, we continue to see highly mispriced assets. To us, this means phenomenal growth potential. We're not saying we'll be able to capture that kind of growth year to year—we'll look at why in a moment—but the present and future outlook are exceedingly promising and give us confidence that we will be able to bring strong and sustainable value to our investors over the long term.

As we strive to maximize our performance, we are constantly valuing and revaluing each of our positions to make sure we are including the ones that we believe will continue to be the best-

performing—i.e., have the lowest current market cap compared to what we believe they will be worth in one-, three-, and five-year intervals. Our holistic (evaluating a company from every angle), real-world business approach has allowed us not only to spot some of the best performing companies well ahead of other investors, but has also allowed us to *stay* invested for the right lengths of time in order to reap the full benefits of the opportunities. Some examples include Amazon, T-Mobile, Chipotle, Tesla and Activision.

As we look forward, we believe the value of the holdings in our long portfolio, on average, can easily double over the next three years.

To allow that value to reach maturity means taking the correct long-term view. For us, it's all about the long term.

The Short-Term View Is... Well, Shortsighted

What's the best way to lose sight of the big picture? Focus on the small one.

At Prime we believe that looking at any market investment on a one-year basis is like buying a home based on the color and condition of the exterior paint. It's a recipe for short-term enchantment and long-term regret. Stocks behave irrationally in the short term, but, if you understand the business you are investing in and your underlying premises are sound, they can yield excellent returns in the long term.

T-Mobile is a good illustration of this. A few years ago, we wrote extensively about T-Mobile and why it was tremendously undervalued. And our prediction has been borne out—but only after a roller coaster ride. If you'll recall, this stock was one of our best performers in 2013 (up 77.99%). Then, in 2014, it was down -19.92%. In 2015, however, T-Mobile rebounded and outperformed the S&P by a whopping 45.94%. In our 2013 Annual Report, we said this stock would go from $13 billion at time of acquisition to a potential of $45+ billion several years out. We are well on our way there, as the company has achieved a $38 billion market cap so far and has outperformed the S&P by 112.14% over the nearly three and half years we have held it. But it has not been a straight line by any means.

The main point I'm making is that while stocks behave irrationally in the short term, they also have an underlying long-term value that can be identified. We would not have been able to hold on to TMUS—nor many of our other positions that have proven to be home runs—during its roller-coaster ride were it not for the fact that we had an assessed value in mind when we got *into* the position.

The same holds true for Qihoo. It outperformed by 146.75% in 2013, then underperformed by -41.60% in 2014, then in 2015 outperformed by 27.88%. Look at Tesla. It's gone from $37.35 when we purchased to $234.79 as of July 31, 2016, but has had drops of 20%+ on several occasions before recovering and reaching new highs. Or take Amazon, or even Disney, which we bought at $78 billion and has risen to $163 billion—and look at the ups and downs in those companies.

They're enough to make most investors go bonkers. But for us, these short term movements—and the irrationality of the market—are the stuff dreams are made of.

A major difference between us and much of Wall Street is that we are not terrified by one-year movements. In fact, we expect them. Why? We understand the true value of these companies, we know that there is short-term irrationality in the market, and we look at longer time frames. In fact, we believe the best way to have even short-term performance is to think long term. This belief has been bolstered by the number of years we've outperformed the S&P as compared to our peers.

The Market Is Not Efficient… and That's Good!

We have been pounding the table for years about the irrationality of the market and why that is a good thing. Irrationality produces opportunities for the investor savvy enough to recognize and optimize those opportunities. This year, we are proud to introduce some new information that, in our view, offers hard evidence that validates this deeply held premise of ours.

This new research, and our analysis and interpretation of it, we believe, powerfully disproves the "Efficient Market Hypothesis" (EMH) that is taught at the highest levels of academia today. You have probably heard of EMH, but let's look at a definition of the concept so that we're all on the same page.

Investopedia explains: *The efficient market hypothesis (EMH) is an investment theory that states it is impossible to "beat the market" because stock market efficiency causes existing share prices to always incorporate and reflect all relevant information. According to the EMH, stocks always trade at their fair value on stock exchanges, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices. As such, it should be impossible to outperform the overall market through expert stock selection or market timing, and the only way an investor can possibly obtain higher returns is by purchasing riskier investments.*

If on the other hand, however, the market can be shown to be fundamentally *in*efficient, then that opens up a whole world of possibilities for investors.

This new research we've been looking at synthesizes 83 years' worth of market behavior, broken down into five-year intervals. The raw data shows us two remarkable facts, which, taken in conjunction, lead to two powerful investing premises:

1) The best-performing 10% of stocks in the S&P delivered an *annualized* return (for 83 years!) of *28.89%*, versus 9.63% for the S&P as a whole.

2) Those same best-performing stocks experienced almost the same drawdowns as the entire market did.

Here is what those two stunning facts tell us:

1) Opportunities are always abundant.

2) The market is inefficient.

Let's look at these two premises, one at a time...

Opportunities Are Always Abundant

Again, the top 10% of performers, rebalanced every five years, had an average return of 28.89% annually, over an 83-year period! By contrast, the general S&P had only a 9.63% return!

	Avg Annual Return (1927-2009)	$1 Million Invested Over a 20 Yr Period
S&P's Top 50 Stocks	28.89%	$160.1M
S&P 500	9.63%	$6.3M

So, if you could have identified the opportunities—and, of course, been patient with them instead of reacting to their short-term movements—your overall return would have been an incredible 28.89% annualized. Had you left your money in the general S&P 500, you would have realized 9.63% for the same 83-year period. (And in the perfect hedge fund scenario, where you added short positions that you knew would perform the *worst* over the five-year intervals, you would have realized an even higher annualized return: 49.24% vs. 9.63% for S&P.)

Put into monetary terms, over 20 years, $1 million invested in the top-performing ten percent would be worth $160.1 million, as opposed to $6.3 million if invested in the S&P.

What all of this proves to us is that there are *tremendous* opportunities, in the form of mispriced assets, available in the market. And not just over one or two years, but, rather, consistently over an 83-year period. This puts our minds at ease, as it shows that what Prime has done over the past 7 years—finding companies that are tremendously undervalued—is not a fluke or aberration of the market. These opportunities have existed for the past near-century, and continue to exist—if you can spot them.

And remember, this is the S&P 500 we're talking about—the biggest, most liquid, and theoretically most efficient market in the world. The disparity between the top performers and the rest of the S&P—and the opportunity this disparity represents for investors—is staggering. This is something we have been seeing since our inception. We have consistently been finding companies whose intrinsic value, we believed, was substantially higher than what their current market cap was, and watching those projections come to fruition.

The Market Is Inefficient

However, even the best investments have significant drawdowns…

5 Year Periods	Top 50 Stocks Drawdowns	S&P 500 Drawdowns
1928-1932	-75.96	-84.59
1936-1941	-44.04	-51.11
2006-2011	-42.18	-45.72
1996-2001	-34.03	-21.48
1971-1976	-30.74	-38.91
1986-1991	-27.95	-29.58
1961-1966	-23.35	-20.64
1976-1981	-22.89	-13.69
1936-1941	-19.16	-23.13
1941-1946	-19.09	-21.97
Average Drawdown	**-33.94**	**-35.08**

Extrapolating from the above data: If you (1) knew ahead of time which 50 stocks of the S&P 500 were going to be the best performing (i.e., the top 10%) over the next 5 years, and (2) rebalanced your portfolio to the *new* set of top performers every five years, you would still experience practically the *same downward movements as the whole S&P*. In other words, the top 10% of the best performers drop in value as much as the market does!

This fact has eye-opening implications. It demonstrates that the market is *highly inefficient*. How else can you explain the fact that the top 10% of stocks were down, on average, almost as much as the general S&P? We're not looking at an efficient market here, we're looking at a situation in which there has been plenty of opportunity to find investment gems, but very little clarity amongst investment managers in *identifying* which companies will do better than others.

Again—and I am repeating this for emphasis: *Going back to 1927, even if you had known ahead of time which S&P 500 stocks were going to have the best returns*, and you had the opportunity to rebalance to the 50 top-performing stocks every five years, you would still have experienced drawdowns similar to the rest of the market!

When you digest the impact of both of these data points—that the top 10% of performers, held for five-year increments, have returned 28.89% annualized over 83 years, as opposed to only 9.63% for the S&P itself *and* that the drawdowns for these top performers have been about the same as those for the general market—how could anyone argue that the market is "efficient"? If the drawdowns were the same but the overall returns were similar, you could make the argument for EMH. But when the returns are so hugely different over such a prolonged period, with similar drawdowns, any notion of an efficient market goes out the window.

Given the 83-year scope of this research, the question is no longer whether the market is efficient or not; the real question is *can your investment manager identify those inefficiencies and take advantage of them?*

Wrong Premises Lead to Unproductive Behavior

Efficient market theory leads to two types of misguided investor behavior, neither of which produces optimal results:

Some investors become short-term traders—a huge trend in the investment world today. Nowadays, the average holding period for investments is a shocking *five days*—with massive use of financial "tricks" such as short-term options, derivatives, and unsustainable leverage! Such shortsighted investment behavior is based on the idea that it's theoretically impossible to consistently find good stocks that beat market returns over a long-term period. Therefore, riskier tactics must be employed.

Other investors opt for passive strategies; portfolios that are not actively managed. For example, many people invest in indexes and ETFs. If you operate under the premise that the market is efficient, then your best bet is to shoot for the same return as the market. And why pay fees to managers if the market can't be beaten in the long run?

But since the market is clearly inefficient, what investors really need is a manager who has the eye to *find the opportunities that have always been in existence*. We have seen this borne out in our own portfolio. Our ability to find mispriced opportunities is what has led to our industry-topping performance (our company name as well). And we are thrilled that the data shows that such opportunities are not a fluke but an enduring characteristic of the market.

The data also tells us this, however: Even if you have the eye to spot great opportunities and you get your picks right most of the time, you will still experience downturns. There will be inevitable periods when you'll be down even if you pick the right stocks. Short-term downs are, in fact, the very engine that drives the long-term opportunities. That means you *must* be patient and give your opportunities a chance to bear fruit.

To sum up: Opportunities always exist for the manager who can identify them, and those opportunities must be given time to mature.

The challenge for investors is to find the eagle-eyed managers amidst a forest of competitors. You need to be able to *recognize* the manager who can recognize the opportunities. Let's look at some ways you can do that...

The Importance of Five-Year Vision

To find out if a manager is really delivering value, you cannot look at one-year results. You must look at aggregate performance of *at least* five-year periods. I, for one, have clearly stated many times that, although we at Prime are good at analyzing companies, the real reason we are in this business is because we understand the fact that irrational, short-term pricing, combined with reactive, emotional behavior in the market, creates opportunities. And we focus on finding those opportunities.

That means that although over time we can expect to have a 3-bagger, a 4-bagger, or even a 5-bagger in some cases, we must expect drawdowns to occur—almost by virtue of the stocks' being mispriced in the first place. When you really think about it, you can't have one without the other: massively mispriced securities without periods in which those stocks take irrational blows.

For that reason, using a five-year time frame to analyze managers is essential. This helps ensure you're not looking at results skewed by a fluke year in which a manager happens to get a huge outsized return on one or two stocks or on a highly levered play—*or* takes a big blow when some worthy stocks suffer temporary setbacks. Over a five-year period, those idiosyncratic bumps, and many others like them, tend to smooth out.

Anything less than five years, the sample size is too small, in our opinion. We have heard countless stories of people who have lost their shirts as a result of jumping on a one- or two-year bandwagon.

If you did look at everyone's record from a five-year perspective—which I believe a surprisingly small number of investors, or even their consultants, really do—you would get a pretty stark, but accurate understanding of managers' performance.

We have done that analysis, and, frankly, it doesn't look good for our industry as a whole, including some of the largest hedge funds in the world. When the numbers are shown on a large canvas like the one on the next page, there's nowhere to hide.

We suggest you plug any investment manager into this chart before investing with them (and if they don't have an audited track record, with Global Investment Performance Standards verification, walk away). And frankly, we believe your allocations should go to those funds that perform the best over five-plus-year periods.

How does Prime stack up when evaluating funds from a five-year perspective? The chart shows a comparison of our Traditional versus the Top 15 Long/Short funds in the world, (according to HFR), sorted by best performance. We've actually moved the lens out to seven years.

You'll see that no one is coming close to Prime's performance when you use a wide lens like this.

Prime vs. the Largest Long/Short Funds in the World

Sorted by Best Net Performance

Prime vs. HFR Top 15	7 Year Cumul. (Net)	Overall Rank	# Years Outper-formed S&P	2009	2010	2011	2012	2013	2014	2015
Prime Traditional Long/Short	**464%**	**1**	**6/7**	**41%**	**96%**	**18%**	**16%**	**57%**	**-7%**	**2%**
Value Prtnrs High Div. Stocks	189%	2	3/7	83%	26%	-12%	25%	8%	10%	-4%
Renaissance Inst. Equities	187%	3	4/7	-5%	17%	38%	11%	20%	17%	20%
Discovery Global Opportunity	182%	4	3/7	65%	17%	4%	15%	28%	-3%	0%
Bay Pond Partners	175%	5	4/7	67%	21%	-13%	21%	22%	1%	6%
Advisory Research MLP Equity	164%	6	3/7	80%	37%	13%	4%	28%	10%	-35%
Bay Resource Prtnrs Offshore	144%	7	2/7	60%	17%	-7%	9%	22%	6%	-1%
Visium Balanced Offshore	130%	8	2/7	22%	25%	2%	10%	19%	8%	6%
Lansdowne Developed Mkts	123%	9	3/7	27%	9%	-20%	18%	33%	11%	17%
Robeco BP L/S Research	93%	10	2/7	17%	8%	4%	13%	18%	7%	2%
Man GLG European Equity L/S	60%	11	2/7	19%	8%	7%	6%	7%	-5%	8%
AllianceBernstein Select US	56%	12	0/7	10%	8%	1%	7%	18%	3%	0%
Polar Capital Fund	55%	13	2/7	8%	18%	-9%	4%	29%	-9%	9%
AlphaGen Capella Fund Limited	50%	14	1/7	13%	0%	-2%	7%	19%	5%	2%
Calamos Mkt Neut. Income	41%	15	1/7	14%	5%	2%	6%	6%	2%	1%
Orbis Optimal	9%	16	0/7	10%	-4%	-2%	4%	11%	-8%	0%
Other Notable Funds										
Pershing Square	144%		3/7	41%	30%	-1%	13%	10%	37%	-21%
Berkshire Hathaway	121%		2/7	20%	13%	5%	14%	18%	8%	6%
Millennium USA	96%		2/7	17%	13%	9%	7%	14%	12%	13%
King Street Capital	65%		0/7	20%	6%	0%	9%	12%	6%	-2%
Bridgewater Pure Alpha 12%	60%		3/7	2%	27%	16%	1%	3%	2%	3%
S&P 500, Including Dividends	179%			34%	15%	2%	16%	32%	14%	1%
HFRX Equity Hedge Index	15%			13%	9%	-19%	5%	11%	1%	-2%

We know there's never a perfect comparison, but we have simply taken the top 15 largest funds in the Hedge Fund Research database (HFR) and ordered them by performance, while adding 5 other notable funds most investors are familiar with. We believe this is a fair reference basis for Prime because Prime is as liquid, if not more so, than most of these managers. Prime's portfolio has the following attributes:

As Liquid.

- $50B weighted avg. market cap.
- Only highly liquid, publicly traded stocks.
- No options or derivatives.
- Monthly liquidity and no lockup.

Lower Correlation.

- Low correlation of 0.15 vs 0.79 for the HFRX Equity Hedge Index (thru 7/2016).
- Up 17/30 months the S&P has been down since our inception, versus 2/30 for the HFRX Equity Hedge Index.

Better Performance.

- Best overall performance: 710.53% gross, 464.30% net through 2015.
- More consistent returns: outperformed the S&P 6/7 years; next best only 4/7 years.

A debate has been raging in the industry as to whether hedge fund investments still make sense or whether they should just be avoided, since the industry as a whole has not been performing well. We don't look at the question from a global yes/no perspective. We think managers and funds should be evaluated on a case-by-case basis. If you go back and read our annual reports, you will see a series of uncannily accurate assessments as to what we believed stocks would eventually be worth (as well as examples of our business logic that have turned out to be spot on).

In short, in our nearly eight-year history, we've substantially outperformed our peers. And we think that performance puts us in a unique category when it comes to choosing managers.

Another Way to Evaluate

You have seen our overall performance from a seven-plus-year perspective (above chart), and you have had the opportunity to go back and read our annual reports, white papers, and videos to get some color behind our investment decisions. We believe there is another way to evaluate a manager's performance so as to determine whether they are truly creating alpha and thereby earning the fees you are paying.

That is to employ the concept of *statistical significance.*

In order to do this, take the manager's portfolio and cut out all the "noise." Isolate their actual stock picks, then weigh them on an unlevered basis of 100%. In other words, take all their picks, proportion them out by selection, remove all their options and derivatives, and base your math on an unlevered portfolio, getting rid of a lot of the smoke and mirrors that are often used in our industry. Boil things down to actual investment picks. Make the portfolio as close as possible to the S&P for comparison purposes. (Even if the manager has lower market cap investments, or other small variances, you will still get a pretty clear picture if you look over a period of at least five years).

Then look at their performance, over five-plus years, and their standard deviation, and calculate the statistical significance of what they've accomplished. This exercise cuts through the illusions and puts everyone on a level playing field in terms of their true stock-picking ability.

When assessing our record, we think a fair question to ask is, "What is the statistical significance of someone outperforming the S&P by 19.40% gross of fees over a 7.5-plus-year period?" That's exactly what Prime's Unlevered Long Only product has done. And we believe it is legitimate to compare that product directly to the S&P, because:

- Both are unlevered
- Both are highly liquid (with Prime's $50 billion+ in weighted average market cap)
- Both are position- and sector-diversified
- Prime doesn't use any options or derivatives

Here's the basic premise: If you bought a random assortment of $50-billion-average-market-cap

companies; didn't use any leverage; remained diversified in terms of sectors, number of positions, and other factors; and stayed away from options and derivatives, there would be a high likelihood that your returns would mirror the S&P's over time. Right?

So, what are the chances of someone *out*performing the S&P by 19.40% annualized for 7.58 years, as Prime has done?

The answer: 6.2 million to 1. And that, I'm sure you'll agree, is massively significant from a statistical perspective, especially in the hedge fund industry. (To arrive at that number, we took Prime's 35.02% average annual gain since inception minus the S&P's 15.62%, arriving at an outperformance of 19.40% gross annualized. 19.40% is 1.14 standard deviations away from the S&P's historical standard deviation of 17.08% [a standard score of 12.71%]. 12.71%^7.583 years = 0.00001609% or 6.2 million to 1).

As a point of reference, Warren Buffett has been outperforming the S&P by 6% annually gross of fees over the past 30 years, but he uses 1.6x leverage, according to a study by Yale University and AQR Capital Management. We have been outperforming by *19.40%* with *no leverage*, going on our eighth year.

The reason the industry itself doesn't evaluate managers' results the way we suggest above—and why it uses so many esoteric valuation methodologies that can be skewed one way or another and can play to investors' emotions—is that with the above methodology very few managers would meet investors' criteria.

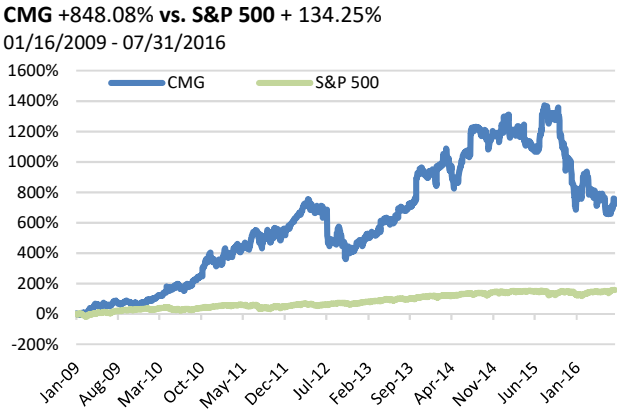
Which brings us back to the debate: Do you continue paying a lot of fees for managers who are not performing? Our view, again, is that the argument shouldn't be, "Invest in active managers or hedge funds, yes or no?" Rather, you should simply evaluate funds and managers on their proven merits.

We think our long-term numbers hold up to rigorous evaluation from any angle and show that we are providing tremendous value.

Another great way to evaluate us, though, is to look at the way we handle day-to-day decision-making within the portfolio. CMG is a good example of that.

Our Exit of CMG

As you know, CMG, for many years, was a company we were extremely enthusiastic about. In fact, we were known by some as the Chipotle Bull. And we did very well with this position. We got in at about $45 a share, but as I explained in my 2008 letter to Buffet, which I have shared in previous annual reports, "the bottom line is that I expect it to be worth a little over $400 per share in three years." This expectation was borne out, over time, to an uncannily accurate degree.

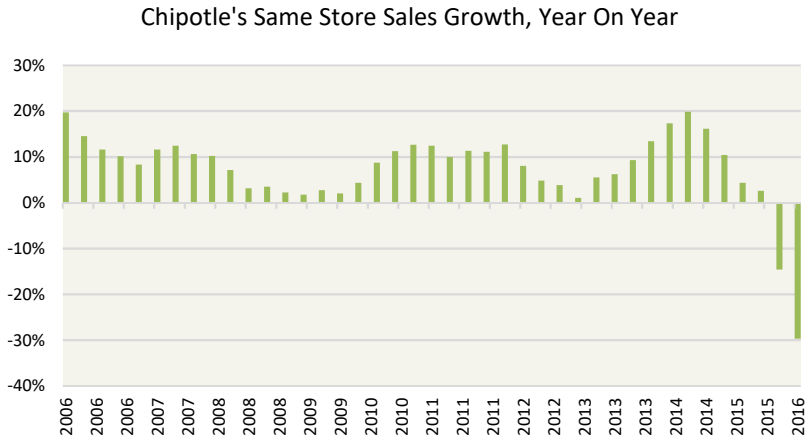


But as enthused as I was about holding CMG for all those years, I saw that the time was right to exit. We lowered our position in November of 2015, then exited fully in early January. When you see a fast food company drop 30% in year-over-year, same-store sales, it's time to get out.

As you know, in 2015, Chipotle had the infamous E. coli issue that became a PR and customer-retention nightmare for the company. Food safety was, in fact, one of the few issues we had isolated in our minds as a potential weak spot for CMG. And we were watching that issue diligently because it seemed to be a reoccurring one.

With the new dominance of social media, we knew the situation had the potential to get out of hand, legitimately or not. News—especially bad news—can now travel at a speed we have not seen before in history. And that is exactly what ended up happening in the case of Chipotle.

Social media can have impacts like NEVER before seen.



We think the stock can now actually drop another 50% and that the E. coli problem could happen again, just by the nature of Chipotle's operation. Remember, in 2015 Chipotle had multiple, multi-state outbreaks; this wasn't just one event at one location. And in our opinion, it did not handle the situation(s) effectively. And so we moved on it pretty quickly. Another E. coli contamination for Chipotle would be absolutely catastrophic, and even without another one the situation looks dire for at least some time to come.

In order to determine the true value of companies—and identify their potential traps—you must understand the strategic environment in which they operate, as well as the competitive details of their peers, competitors, products, and more. What we saw happening at CMG was exactly what we feared *could* happen. It was our advance analysis that gave us the confidence and ability to move fast when crisis struck.

The case of CMG once again demonstrates the beauty of investing only in publicly traded companies. You can get in quickly, and you can also get out quickly if you see something you don't like—from another competitor, from a macroeconomic factor, or even from internal management.

We sold CMG because we understand business, both from the customer side and the management side. Most people fail to understand the consumer psyche as it relates to reputation and safety. Even the slightest doubt about food safety is enough to cause customers to spend their discretionary dollars elsewhere. And once a company's reputation is lost, it can take years, or even decades, to rebuild. (This was one of the reasons, by the way, we did so well with shorting JC Penny. We saw that Ron Johnson was destroying—almost overnight—a reputation and identity that had taken 90 years to build, and we knew the rebuilding process would not be easy.)

It turns out we were right to exit when we did. Chipotle, after an amazing run in which it churned out year over year of fantastic numbers, reported its first actual *loss* in its history of being publicly traded. But here's the main thing. We don't view this as a minor or temporary blip from which the company will quickly recover. We believe Wall Street is actually *underestimating* the severity of Chipotle's potential problems. Remember, Chipotle also had publicized norovirus outbreaks at two of its restaurants in 2015. PR issues like this tend to be cumulative.

With that in mind, we plan to keep an eye on the company. Perhaps in the future we'll get back into it, once we see that management has a good grasp of the situation and has turned the corner—as demonstrated by solid facts, such as an increase in year-over-year, same-store sales. Patience, once again, factors in. Being patient about how long to stay *out* of an investment is just as important as being patient about how long to stay in.

The fact that we are picking the right companies, while getting in and out at the right time and trimming accordingly, may sound too good to be true, but when you look at our overall returns—35.02% annualized gross on a well-diversified, long-only, unlevered portfolio without options—you can see that we must have been very accurate in our stock selection. The same holds true for our Traditional Long Short product, which has been delivering 24.02% net vs. 1.57% for the HFRX long

short index, while our product has been just as liquid and also has a correlation of only 0.15 (vs. 0.79 for the HFRX index).

In short, we've been getting better returns, with lower correlation and more consistency. Again proving the point: outperformance is all about understanding companies, making good stock selections, and practicing patience. Not short-term "tricks."

Risk Management – Have a Conservative Mindset Going In

Almost as important as stock selection is good risk management. We have seen that, by definition, even if a manager picks all the right stocks, and is poised to have phenomenal long-term returns, he or she will inevitably have down years—as evidenced by the drawdowns we showed on the best-performing stocks. Once you really understand that, you will take a very conservative position on risk management. You will guide every decision you make toward ensuring you will still be around to enjoy the rewards, no matter what the market does in the shorter term.

Let's provide some real-world context. Each $10 million invested in our long-only product since our inception on a gross, unlevered basis would be worth $97.5M through July 31 (as opposed to $30.1 million for the S&P). That is a 35.02% gross annual return unlevered, with an outperformance of the S&P of 19.40% per year!

What is remarkable—in light of the market research showing that even the best-performing stocks come with considerable downside risk—is that even with these extraordinary upside returns, our downs have not been dramatic. Viewed on a year-by-year basis, when we *have* been down it's been by very moderate amounts. This is attributable to our risk management strategies. Every manager is going to have down years; what you want to ask is: When they *are* down, how far down do they go? Do they lose all the gains you've made? Are the downs manageable?

On an unlevered basis, our worst performance years, gross, were +.39%, and +1.06. For the long-only product with 1.5 leverage, our worst years have only been -2.24% and -1.25%. It is truly remarkable, given our top performance, and given the fluctuating nature of the market, that we haven't had more down years, and that our down years have not been far worse. The reason they haven't is because our risk management flows from a clear understanding of the market—and is set up so that we do not become reactive even during monthly, mid-, or intra-year drawdown periods. Steady as she goes. Singles and doubles win ball games, not swinging for the fence every time at bat.

Again, we're not here to say you won't get volatility—to properly get the upside appreciation, you *need* that irrationality—the question is: When you are down, is it by a reasonable amount compared to when you are up? The takeaway is to remember that a good manager will have down years and not to attribute that necessarily to bad stock selection as much as to an understanding of the market. You also want to make sure that, given the nature of the volatility, your manager is always going to act prudently and within parameters that are pre-established and objective.

Everything we do at Prime is based on our long-held belief—now supported by the 83-year data we've discussed—that the market is crazy over the short term. Our risk management flows from that philosophy. After all, even if you *know* the market is crazy, you still need to put yourself in a defensive position so as to be able to handle the emotions that kick in when down times occur. We have taken much of the guesswork out of that process.

Because we know the stock market is a treacherous place in the short term, and because we always seek sustainability, we are very conservative in our investment approach. Specifically, we don't buy any options or derivatives. We invest only in highly liquid, publicly traded equities—mostly mid- to large-cap companies. Our portfolio started and ended the year 2015 with around 25 long positions and 25 short positions, and 6-8 sectors on each side, so it was well diversified. The weighted average market cap of our positions was and remains over $50 billion. And we have enacted specific requirements so that our biggest long shall be no larger than 20% of our long portfolio, and our biggest short shall be no larger than 15%.

By operating under such strict parameters, we aim to greatly reduce idiosyncratic risk, which means the returns we get are based predominantly on our ability to understand value and pick stocks. Our goal is to limit the downside while still retaining the potential for multifold increase. That's a proposition we will gladly take any day, and have taken time and time again. And that is why, even with these stringent risk-management parameters in place—which many managers would consider "handcuffs"—we have still been able to generate industry-leading returns.

Again, I can't tell you how many investors have confessed to me that they've been burnt badly and sworn off hedge funds. And not just because of market risk; we can all understand that. They've been burned by the expectation that a hedge fund is supposed to *hedge*—i.e., go down less. So it's a major slap in the face when a hedge fund takes a real nosedive, especially after a nice period of short-term growth. This creates feelings of betrayal and often makes the investor gun-shy about ever getting back in the market again.

Much of that heartache can be averted by adopting sound investment practices, and by using an objective and transparent risk management system that avoids derivatives and has clearly defined rails.

Overall, 2015 was an important year for us as we further demonstrated that we are creating an environment where our downside is mitigated by a sustainable and *transparent* risk management approach. Our first priority has always been to minimize downside risk—in order to help our current and future investors "stay in the game" no matter what the market decides to do. Many of our peers struggled mightily throughout 2015, and some got truly battered. We did not. Much of our higher upside and lower downside—as demonstrated by our ability to outperform the S&P, even on a hedged product, 6 of the past 7 years —is traceable to the soundness of our risk management parameters. (By contrast, the HFRX index has only outperformed the S&P 1 out of those 7 years, has delivered a paltry 1.57% annualized return, and has had a correlation of .79, as opposed to our .15.)

Our Products

Which of our products is best suited to the average investor? Well, we don't believe there really is an "average investor." Investors' needs vary greatly based on financial goals, risk tolerance, and other factors unique to the individual. Every investor also has his/her own economic outlook.

At Prime, we have our own economic views as well, but we are not economists *per se*. We are not here to predict what will happen to the overall economy or to guess the market's direction over the short term; we are here to pick the right stocks and to manage the composition of the portfolio. Our job, in short, is simply to keep finding hugely undervalued companies, which we believe is a sustainable pursuit that can create ongoing value for all investors. At Prime, our mindset is not product-driven, so to speak; we are all about our stock picking.

Our investment products are a direct offspring of our investment philosophy. All products we offer are subsets of the same single core portfolio, consisting of approximately 25 carefully selected longs and 25 carefully selected shorts. The only difference between them is the amount of hedging and leverage you want to use. So, if you're on the bullish side, you can be in our long-only product, and if you're concerned about the market you can always move to a more hedged product that better fits your need.

We have three product categories, which are generally suitable to three broad investment preferences: Long Only (bulls), Half Hedged (cautiously optimistic), and Ultra Hedged (bears). But with each of these products you get the benefit of the most important thing: the right stocks. No matter what your investment outlook is, the foundation of success is being invested in the right companies.

Long Only

Our Long Only Unlevered product is best compared to the S&P 500. We've been averaging 35.02% a year in gross returns since our inception (through Jul 2016), and 28.65% net, with a correlation of only 0.48 with the S&P, which has averaged 15.62% a year since our inception. The bottom line: From a pure stock-picking and performance perspective, $10 million invested on an unlevered basis at the launch of our company would be worth $97.5 million today on a gross basis ($166.8 million on our 1.5x levered product), as opposed to $30.1 million for the S&P.

	Corr.	Alpha	Sortino (0.12%)	Sharpe (0.12%)	Avg. Ann. Gross	Val. of $10M Gross	Avg. Ann. Net	Val. of $10M Net	Net Outperf. of BM
Prime Long Only Unlevered (100% Long)	0.48	1.41%	2.68	1.39	35.02%	$97.5M	28.65%	$67.6M	13.03%
Prime Long Only (150% Long)	0.44	1.69%	2.23	1.20	44.93%	$166.8M	34.83%	$96.5M	19.21%
Benchmark (BM): **S&P 500 Total Return, w/ Dividends**	1.00	0.00%	1.95	1.11	15.62%	$30.1M	15.62%	$30.1M	

Figures as of July 31, 2016

For an apples-to-apples comparison, our unlevered long-only has outperformed the S&P by 19.40% a year (gross). This level of outperformance demonstrates that we have not simply ridden the bull market.

When looking at our Long Only product, we use 1.5x leverage, which we consider to be conservative. Plus, there is no hidden leverage from options/derivatives.

Half Hedged

Our (approximately) half-hedged product, which we call the "Traditional Long/Short," has a 65% net exposure (125% long, 60% short). It has averaged 30.2% gross returns a year, 24.0% net a year—with a market correlation of only 0.15. The HFRX Equity Hedge Index (the average of other long/short funds), on the other hand, has averaged only 1.6% a year, with a correlation of 0.79! So we are delivering higher performance with lower correlations on what we believe to be a much more sustainable basis in terms of the risk management parameters used.

This is our preferred product for most investors as it has demonstrated great upside while providing excellent protections in down months—i.e. providing a true hedge; exactly what hedge funds were designed to do.

	Corr.	Alpha	Sortino (0.12%)	Sharpe (0.12%)	Avg. Ann. Gross	Val. of $10M Gross	Avg. Ann. Net	Val. of $10M Net	Net Outperf. of BM
Prime Traditional Long/Short (125% Long, 60% Short)	0.15	1.70%	2.16	1.11	30.16%	$73.8M	24.02%	$51.2M	22.45%
Benchmark (BM): **HFRX Equity Hedge Index**	0.79	-0.36%	0.37	0.23	n/a	n/a	1.57%	$11.3M	

Figures as of July 31, 2016

Since our inception, there have been 30 months in which the S&P has been down. We've been up 17 of those months, while the HFRX Equity Hedge Index has been up only 2 of them. And what's pretty remarkable is that during the S&P's down months, the S&P averaged a -3.69% loss, while our Long/Short product averaged a *gain* of 0.85%. And a correlation of 0.15. So we really like this product because it's had exceptional returns while still providing a great hedge on the downside.

Highly Hedged

To understand the value of this product, it's important to understand exactly how market neutral products (and hedged products in general) work. To be truly market neutral, the portfolio must be split 50/50, on a cash basis, between the long book and the short book. This means that if your portfolio reflects the market, you would expect gains on the long side to be wiped out by losses on the short side during a bull market, as well as in a market crash. So it's essentially a wash.

However, if the manager demonstrates the ability to assess value and to know which longs will outperform and which shorts will underperform, then the manager can and will deliver great value. That's exactly what we've done both in down markets and up markets. (The S&P has been up 15% annually, leading us to believe that a 10 net product should be up only 1.5%, yet our 10 net Ultra Hedged 50% Cash product has been up 14.33% gross during the same time, and our 100/90 product has been up 21.57% gross per year—all while providing the most important thing: great downside protection, the reason for getting in to a highly hedged product in the first place.)

	Corr.	Alpha	Sortino (0.12%)	Sharpe (0.12%)	Avg. Ann. Gross	Val. of $10M Gross	Avg. Ann. Net	Val. of $10M Net	Net Outperf. of BM
Prime Ultra Hedged 50% Cash (50% Long, 40% Short)	0.13	0.86%	2.63	1.26	14.33%	$27.6M	11.82%	$23.3M	12.30%
Prime Ultra Hedged Unlevered (100% Long, 90% Short)	0.00	1.45%	1.74	0.91	21.55%	$44.0M	16.79%	$32.4M	17.27%
Benchmark (BM): **HFRX Market Neutral Index**	0.15	-0.11%	-0.26	-0.20	n/a	n/a	-0.48%	$9.6M	

Figures as of July 31, 2016

In the 30 months the S&P has been down since our inception, this product has been up 18 of the 30 months. During those 30 months, the S&P averaged an average loss of -3.69%, while our 10 Net product actually averaged a 1.62% *gain*.

Also, in severe down months—where the S&P experienced losses of 5% or more—we were up four out of those seven months and actually gained 0.27% on average.

We also offer our 100-over-90 version of the Ultra Hedged product, with a 10% net exposure. It has averaged 21.57% gross a year, 16.79% net, with a correlation of 0.0—again versus the HFRX Market Neutral Index which is averaging -0.48% return net of fees.

Our ultra-low net product was designed especially for times like we are in today, where there is $12.5 trillion sitting in U.S. treasuries, Japan and Germany have negative interest rates, and the world has become very risk averse. Why don't people who wish to avoid market-direction risk invest in market neutral funds? Because the average return on those vehicles, as shown on the above chart, has been *negative* since our inception 7 years ago—*a -0.48% annualized return*—as well as over the longer term! So, yes they are getting protection against downturns, but what is the point if the manager is not creating any returns? You might as well be hiding your money in a mattress.

Our 100/90 product, by contrast, has returned 21.57% gross, 16.79% net, per year, over the past 7.58 years—and that's with an actual negative correlation to the S&P, and lower correlation than even the market neutral index.

The only way to generate returns on an almost fully hedged product is to correctly assess whether companies are overvalued or undervalued. If you have money on the sideline in something like

bonds, cash, or real estate equity because you don't want to be correlated to the market, this product offers similar protection with substantially higher upside potential. I think it's a great long-term investment if you understand the product well and if you can handle the short-term volatility.

No Individual Company Matters That Much—But Here We Go

As part of our overall mission for transparency, every year we present a detailed analysis of at least one of the year's major investments. And every year I also make the following disclaimer:

It is extremely important not to pay too much attention to any one company. In fact, getting emotional about any single investment can be a distraction, a trap, and a roadblock to sound thinking. And remember, we can be in a company today and out tomorrow based on some new fact or analysis. What *is* important is to see *how* we evaluate companies, and we hope that by reading the following analysis you will gain further confidence in our ability to pick companies wisely. If you choose to read this full write-up on Tesla, do so with an interest in learning more about our thought processes, not with an attitude that any single investment makes or breaks our portfolio. It most certainly does not.

And if you choose *not* to go through all this analysis, all we can say is... we don't blame you! This is a lot to read! More importantly though, there is enough macro-level data and overall performance information elsewhere in this report, and in previous reports, to make our case without your deep-diving into the minutiae of each company. Don't feel bad about skipping the analysis part.

For our part, though, if we *are* going to present this analysis, there is only one way to do it: fully and completely. That is the nature of understanding and analyzing companies—it has to be done from every angle. We are top-down, bottom-up, and inside out. All the catchphrases apply: "We need to look into every nook and cranny." "The devil is in the details." Those details, or fundamental premise points, are what can steer a smart investor away from a phantom "opportunity" or help him or her hone in on a hugely successful idea that can pay multitudes of profits.

We will certainly not get our premises right every single time, but if we can outperform our peers by just a few percentage points, on average, per year, that will make a dramatic difference in your net worth over time. We have done that, and a good deal more, since our inception.

Now, let's have some fun and dig in!

Tesla is one of the 25 companies that meet our investing requirements in spades (but remember, we only need a handful). Tesla is complex. But that's why it serves as a beautiful case study. We love complex. The more complicated the scenario, the more mispriced the asset can be. And the more mispriced assets we hold, the better the long-term potential.

TSLA – Tesla Motors Inc

A great stock is like an orchestra; when all the pieces are playing together in tune, it makes beautiful music. And right now, that's exactly what Tesla is doing. Any way you look at it, the risk/reward formula is off the charts—*if* you know how to evaluate it properly.

How Long Have We Been Looking at Tesla?

All great investments start with a seed, or an idea or thought. That seed starts to grow, then it is tested and retested, monitored and reviewed, and re-reviewed, to make sure all your premises are covered. In the case of Tesla, this was a company I had been watching for a while.

As you may recall, we noted Tesla's potential in 2013 and wrote about it in our 2014 annual letter:

"…One example of a bottom-up read is Tesla, where it's the company's position in one of the oldest industries in the world, its infrastructure, its vision, and the product itself that grabbed us more than anything else. We read the reviews, *saw* the car, and actually drove it. We got in at its relative infancy date and its early market cap of $4.5 billion. It is now valued at $21 billion and still, we believe, a bargain over the long run." (Today it's around $30 billion.)

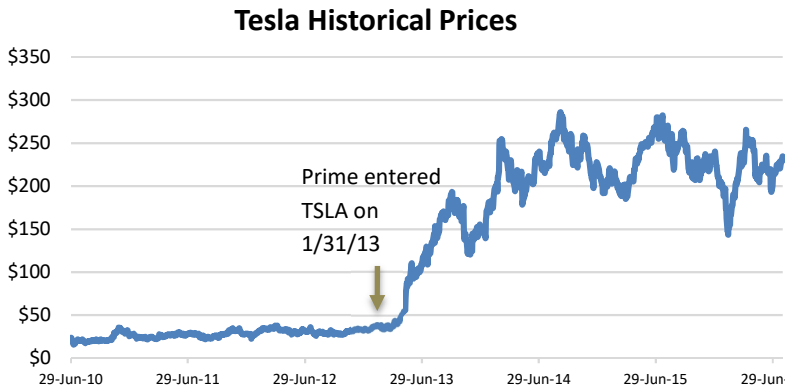
And we actually found it and started monitoring it quite a bit earlier than that. We were talking about it extensively a full seven years ago, when I commented on it in my letter to Buffett, under "Future Investment Ideas":

Excerpt, Letter to Warren Buffet, 2008

> There are cars existing and coming out that are pure electric—and they seem to be wonderful, and are right around the corner. The Tesla is one such car that boasts a faster 0-60 than most top sports cars, provides over a 240 mile range per charge (critical because previous electric cars could only get 60 to 70 miles per charge), has gotten the charge time down to approx. five hours, has absolutely no noise…, great torque, a fraction of the cost to "fuel" the car, and a reasonable price (around $90,000)—for a beautiful sports car. Moreover, the price will go down if and when it becomes mass produced or other car manufacturers increase their output of electric/hybrid cars. The point here is that they have already made the car, and this and other electric cars are not some pipe dream. The car is close to release and Tesla has stopped taking orders due to the strong demand.

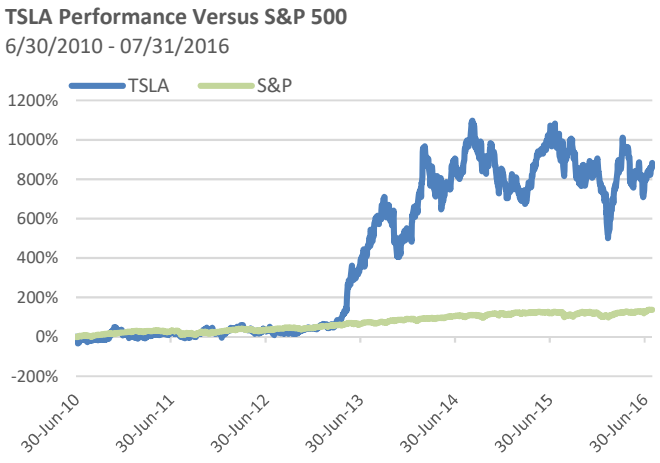
Despite having spotted the opportunity in 2008, I didn't actually make my investment until January, 2013. Remember, a big part of Prime's success stems from not only finding the right investments, but also getting in and out at the right time.

Look at when we entered and at what price!



We got in about two years after Tesla went public, and at about a $4 billion market cap—way before anyone saw this company as a rising star. What's really amazing is that we got in *not* when TSLA first went public, but right before it *took off*. We watched it, but didn't invest until we could see the car for ourselves, and, more importantly, drive it. We always maintain a healthy skepticism, but we also know that outsized returns depend on seeing an opportunity early and taking advantage of it. To do this, you must get in before the crowd does, get out at the right time, and modify your positions based on value already achieved.

A Controversial Stock? Not to Us



We got into Tesla after the Model S was rolled out. Since that time—even through the rollout of the Model X—Tesla has remained, in many ways, the same car company as it was three years ago. It has introduced only one new product since we bought it—and that was fairly recently. Most of the stock appreciation we've enjoyed has been a factor of seeing the obvious back in 2013. In retrospect, the decision to buy looks like a foregone conclusion—just as it does with many, if not most, of the investments we make. Our analysis of Tesla, however, was highly controversial at

the time. Many people were naysayers. Their arguments all seemed to boil down to, “How could you invest in a company that is losing money with each car it produces?”

So it has always gone with Tesla. If I’m being honest, the reason I have not gone into deep detail about Tesla until now is that there was so much emotion against this company that I thought it might be fruitless to try to explain our enthusiasm for it. Sometimes, the best proof is the one that comes with time. And why call attention to a third rail, especially when it represents only one of about fifty (25 long/25 short) investments we are making?

There was also a lot of fogginess around Tesla and electric cars in general, but now that fog has begun to lift a little, and I think the platform exists for much more open, objective dialogue. The most compelling reason for discussing Tesla at this point in time, though, is that the future for this stock still looks so promising.

Many of the points we will be making in this section have been thought and rethought about, and at the end of the day we will have to wait and see if we are right. We have tried to articulate many of the popular counter-arguments, too, as we have done in past reports.

We have a high degree of confidence that Tesla will go as we predict, based on the evidence we will present below. Even if we are not right about all our points, we think there is such a large margin of error between Tesla’s current market cap and what we think this stock is truly worth that this is essentially a no-brainer once all the facts are compiled. But—with the Gigafactory and Model 3 yet to come—only time will tell, and we will remain open to any new facts and arguments that may arise in the future.

Listening to the Analysts: Just One Part of the Puzzle

One indication of the negative sentiment that existed around Tesla when we bought in was that it received “sell” recommendations from many prominent analysts. You have to understand, this was at a time when you rarely saw a “sell” rating. The percentage of "sell" recommendations was extremely small—less than 1% of the 28,000 stock ratings provided by First Call/Thomson Financial as of May 2000. By contrast, approximately 74% of stock ratings were "buy" or "strong buy."

Even now, Tesla short sellers are at a record high—about 25% of Tesla shares are being shorted, according to Markit. A surprisingly low 48% of analysts have given the stock a buy rating, while 26% have recommended hold and another 26% have recommended sell, according to Bloomberg.

So what are we to make of this? Should we pay attention to the analysts or not? Well, we all know that the analysts are not always right, to put it mildly. In fact, there has been a great deal of academic research to prove that analysts do no better, on average, than dart throwers.

Since 2008, for example, analyst data supplied by Thomson Reuters and stock performance data from FactSet show that if you had invested your money each year in the ten S&P 500 stocks most recommended on Wall Street, you now would be sitting on a 61% gain. By contrast, if you had simply followed the general S&P 500, you would be up 67%. But here's the really shocking part: if you'd invested your money each year in the ten stocks with the *worst* analyst recommendations, you'd be up 180%—about three times as much.

This is not to say that you should automatically go against analysts' picks, or that *we* automatically do so. Analysts' opinions, in fact, comprise one piece of the puzzle we do look at. The point is that we do our own homework, and if a decision makes sense to us—regardless of what others think—we go with our own view of reality.

And remember this: opposition is good. In fact, if I *don't* see a strong opposing position to my stock choices, then the upside potential I seek would probably not be there. Why? *Because if everyone liked the stock, its price would be a lot higher*. So opposition is not something I'm scared of. I welcome it and have seen it with almost all of the investments I have made. Incorrect popular opinion is what *creates* the outsized opportunities. The beauty of the market is that the truth will eventually prevail.

But there's also another reason I welcome opposing opinions. They help me to better crystallize my own understandings. In short, we at Prime like to analyze everything, "positive" and "negative," and when we know we are on solid ground, we move forward.

In order for us to get excited about a company, we need to like the product it makes, its management, its industry, and its growth opportunities within its industry. We'll talk about the macro perspective in a moment. For now, let's just look at the product. Tesla, the car.

I'm a skeptic at heart. I doubt everything. I test every premise I hear. That's why I generally prefer stock investing to venture capital investing. Everything under the sun can go wrong with start-ups, from the validity of the initial idea to the reality of the end product. The premises, in short, have yet to be proven.

But when I see a product that is already out in the marketplace, it is a "proven" concept for better or worse. I can test it, buy it, research it, talk to people who own it. Then I can connect the dots going forward and take advantage of the opportunity. Or not.

That's what I did with Tesla. Before I bought the stock I actually drove the car. My brother bought a Tesla and I gathered opinions of others who did. I took note of the fact that just about everyone else who owns one consistently raved about how amazing it was. I read the press, I looked at the surveys. My personal experience, combined with the opinions of many, many other consumers and automotive experts, helped me establish one of my fundamental premises: the Tesla is special.

And it's not just the fact that this is an electric car. If you remember, Fisker Automotive came out with an electric car that I think many would argue looked even nicer than Tesla's. But *Car and Driver* and *Consumer Reports* gave it awful reviews.

When you combine the electric car concept with Tesla's bold design ambitions and an incredible CEO like Elon Musk—and then you see the car for yourself, drive it, test it, and personally validate the enthusiasm—you know you have the elements needed for takeoff. And takeoff in a huge industry with plenty of upside.

The Cold Hard Facts: The Car Itself

The Tesla Model S was introduced in June 2012 and has been competing head-to-head with established car companies, all of which have well over 50 years of experience behind them.

Even in its first iteration, the Model S...

- won major awards including the 2013 *Motor Trend* Car of the Year—it was the first COTY winner in the award's 64-year history not powered by an internal combustion engine—and the 2013 World Green Car of the Year
- was named *Automobile* magazine's 2013 Car of the Year
- rated as *Consumer Reports'* top-scoring car ever
- earned the Car of the Century distinction from *Car and Driver*
- scored a perfect 5.0 NHTSA automobile safety rating—the *highest safety rating ever* from the National Highway Traffic Safety Administration

That was all before 2016, when Tesla completely updated the design of the Model S. The latest edition of the Model S received a score of 103 from *Consumer Reports*, which was a problem only in that *Consumer Reports* ratings are scored on a scale of 1 to 100. Yes, Tesla broke the scoring system. (The magazine had to revise its scale in response to the record-breaking result.)

Perhaps the most important of all of its achievements is owner satisfaction. Some *98%* of owners in the *Consumer Reports* survey said they would buy a Model S again—more than for Mercedes, BMW, Porsche, or any other vehicle.

Consumer Reports' annual owner-satisfaction survey covered 350,000 vehicles from one to three years old. Across all vehicles, the average satisfaction rate was about 70%. Participants were asked whether they would buy the same car again, and to consider "attributes such as styling, comfort, features, cargo space, fuel economy, maintenance and repair costs, overall value, and driving dynamics."

The Tesla Model S scored well in all these categories, with 98% of owners giving a "definitely yes" answer as to whether they would purchase it again.

Keep in mind, all of the above occurred before some of the latest features were added to the car, such as the truly mind-boggling driverless Autopilot coupled with all the other over-the-air updates, which we'll discuss in a moment, and before the number of Tesla charging stations was increased.

In Britain, the reaction has been similar, according to *AutoExpress*:

> In *AutoExpress*'s 2016 Drive Power customer satisfaction survey Tesla topped seven out of ten categories and achieved an overall record-high score of 97.46%.
>
> Model S owners raved about its 17" inch display, Autopilot features, and "Ludicrous" mode.
>
> Categories topped by Model S include: best for running costs, best for performance, best for road handling, best ride quality, easiest to drive, best for practicality, and best for in-car tech.

What really makes this car unique in automotive history is its ability to be upgraded over time without the need to buy a new car. This is accomplished through *software patches and updates*. Says Elon Musk in a *L.A. Times* article, "We really designed the Model S to be a very sophisticated computer on wheels. Tesla is a software company as much as it is a hardware company. A huge part of what Tesla is, is a Silicon Valley software company. We view this the same as updating your phone or your laptop."

Topping all of this off is real-world experience and word of mouth. Tesla is not slowing down. People are just beginning to truly understand the value of this revolutionary automobile—and remember, the car and company have only really been around for six-plus years, as compared to the well over fifty-year average for most American and worldwide car companies. Tesla, *with its very first iteration of its very first model*, is already starting to eat everyone else's lunch, as the following figures show.

U.S. Sales of Large Luxury Vehicles

Model	2015 Sales	2014 Sales	% Change
Tesla Model S	**25,202**	**16,689**	**51.01%**
Audi A7	7,721	8,133	-5.07%
Audi A8	4,990	5,904	-15.48%
BMW 6-Series	8,146	8,647	-5.79%
BMW 7-Series	9,292	9,744	-4.64%
Jaguar XJ	3,611	4,329	-16.59%
Lexus LS	7,165	8,559	-16.29%
Mercedes-Benz CLS-Class	6,152	6,981	-11.88%
Mercedes-Benz S-Class	21,934	25,276	-13.22%
Porsche Panamera	4,985	5,740	-13.15%
Total	**99,198**	**100,002**	**-0.80%**

Source: Tesla

All of the above car companies are losing shares. Meanwhile, Tesla is gaining what they are losing (and this is before Tesla has even started mass-media marketing, as we will discuss).

Autopilot: A True Revolution

On a sleepy Thursday morning in mid-October, 2015, automotive history was made in classic Elon Musk style. Model S owners woke up with a radically new car in their garage. Thanks to a version 7 software upgrade, their cars now possessed a driverless feature. Yes, this incredible leap in automotive technology was accomplished via *software*. This was a surprise to everyone, and, as a business move, was pure genius. This revolutionary upgrade, "beamed" to 60,000 cars overnight, was accomplished without fanfare, and, perhaps more significantly, without regulatory red tape. Before anyone knew what was going on, bam, the cars were on the street and driving themselves.

Autopilot is the company's suite of semiautonomous tech that integrates software with cameras, radar, and ultrasonic sensors, to grant cars limited self-driving capabilities. According to USA Today, "About 60,000 of the 90,000 Model S's on the road to date have the requisite sensors pre-installed for Autopilot."

The enthusiasm for the upgrade was off the chart amongst consumers, publications, clean energy proponents—almost everyone. Now that the genie was out of the bottle, how were the regulators going to push back against it? Who was going to step out in front of all that enthusiasm and play the Grinch who tried to shut Tesla down? After all, elected officials need to get re-elected. This was a calculated and brilliant—albeit very risky—move by Elon Musk. Because if anything went wrong, it was his company on the line.

While everyone was caught up in the excitement, what were we doing at Prime? Keeping our eyes glued to the internet. On a daily basis. Why? Because our investment was on the line too.

We were looking for, and perhaps expecting, hundreds of auto accidents to be reported the next day—cars flying off cliffs, head-on collisions... But that was not what we saw. Yes, there were a few relatively minor mishaps, but there was also compelling evidence that the technology was actually *preventing* accidents. Even in its first iteration. We saw YouTube videos in which the car spotted a pedestrian coming—before the driver saw it—and in which the car sensed a swerving vehicle ahead of it in the driving rain and applied the brakes before the driver knew what was going on.

Again, yes, there have been some issues and complaints since Autopilot was released, but shockingly few considering the magnitude of what was being pioneered here. And the advantages have clearly trumped the disadvantages by a mile.

After a few days of watching this amazing development, we knew we were witnessing a revolution. Looking to the near future, we could easily imagine scenarios such as: having your car drive your kids to school while you monitor from home with a camera, or embarking on a car trip in Los Angeles and waking up the next day in Phoenix, fully rested and ready for your meetings.

Not only could driverless technology virtually eliminate impaired driving, but—as cars begin to communicate intelligently with one another—it could increase driving speeds while greatly reducing traffic jams and accidents.

That's just the tip of the iceberg. The fact that 60,000 self-driven Teslas have *already driven over a hundred million miles* is ten times more impressive than these "futuristic" scenarios. Musk says that in three years Tesla will have a car fully capable of taking you to work while you are still asleep. As if that weren't enough, "The system learns over time. The more people enable Autopilot, the more information is uploaded onto the network." (Note: This bodes well for T-Mobile and other phone companies because almost all cars in the future will need to be Internet connected—see our 2014 T-Mobile discussion.)

On January 9, 2016, Tesla rolled out another over-the-air update, adding a new "summon" feature that allows cars to self-park without the driver in the car. "Version 7.1 of our software [allows] our cars to put themselves to bed," says Musk.

In summation, Tesla Autopilot's current and future capabilities render it a genuinely revolutionary technology. Perhaps the biggest single advance since the invention of the car.

With Tesla, it's all about constant improvement. It's not only about what you see today. Tesla has demonstrated an unbelievable ability to take the first step, but what's really exciting is what it is poised to do in the future.

As Musk said in a *Fortune* piece (December 21, 2015), "I think we have all the pieces, and it's just about refining those pieces, putting them in place, and making sure they work across a huge number of environments … It's a much easier problem than people think it is."

The point is that all the pieces are in place and now it's only a process of refinement and improvement—in safety, speed, efficiency, etc. There will be problems, and things will go wrong. Elon may change vendors, systems, cameras, software, but with each step the product will get better. It's a long road to perfection, but the road has been laid, and we are well on our way down it. What Musk has already done is amazing. We have great reason to believe that what he will do in short order will be world-changing.

The Timing Couldn't Be Better for the Enhanced Safety of Driverless Technology

With traffic fatalities jumping unexpectedly in 2015—up by the highest percentage in the past 50 years—driverless technology has suddenly become all that much more critical and relevant.

Why the sudden increase in auto accidents? Lower gas prices and increased driven mileage may be one reason. But the use of smartphones to talk, text, or even watch videos while on the road, is likely another contributor, according to Warren Buffett, whose Berkshire Hathaway owns Geico, one of the largest auto insurers. One in four car crashes involves cell-phone use, according to NSC estimates,

even though most states have laws banning text messaging and hand-held cell-phone use while driving. At any given time, approximately 660,000 drivers are attempting to use their phones while behind the wheel of an automobile.

“If cars are better—and they clearly are—drivers must be worse (adjusted for mileage),” Mr. Buffett said in an email, as quoted by a *WSJ* article (September 15, 2015). The article also points out that “The upsurge in auto accidents after years of decline was an unexpected development for two of the three largest car insurers, Geico and Allstate.” And remember: distracted driving can only be expected to increase as mobile bandwidth improves and handheld technology becomes even more prevalent, making more and more online content and functionality available.

Driverless technology, even in its current state, goes a long way toward solving the problem of distracted driving. And since the technology is smart, it will only improve by leaps and bounds as it “learns” from its own collective experience and is continually refined by engineers.

While we don’t have a wealth of statistics yet, what we are seeing so far is that even the first version of Tesla’s driverless technology is not increasing accidents at all—and that’s an amazing base to work from to reach full autonomous driving. Worldwide, there is a fatality for every 60 million miles driven. The first fatality in a Tesla Autopilot car did not occur until over 130 million miles had been logged.

According to *The Economist*, “A study by the Eno Centre for Transportation, a non-profit group, estimates that if 90% of cars on American roads were autonomous, the number of accidents would fall from 5.5m a year to 1.3m, and road deaths from 32,400 to 11,300.”

Driverless technology is arriving on the scene at a perfect time to counter the dangers of smartphone use behind the wheel. In fact, Warren Buffett, while troubled by the recent upsurge in accidents, is equally concerned about the future of the car insurance industry in the face of this new technology. After all, with the improved safety of driverless cars, vastly less car insurance will be needed.

The Instrument Panel

Here’s a look at the production dashboard of a Tesla. This is probably not even close to as good as it will look in a few years, as the entire design of the car may change due to driverless technology (think bed, TV, even some excercise contraption possibly). This technology, even for Tesla, is changing with lightning speed, and it's usually Tesla that’s outdoing Tesla.

As you can see, there’s a main dashboard digital display (left) and a central 17-inch touchscreen control panel (right).

As many other car companies struggle with basic automation and good dashboard design (as we’ll discuss later), the instrument panel on the Tesla is straight out of a sci-fi movie.

Its 12.3-inch LCD electronic instrument cluster (on the left) indicates speed, power usage, charge level, estimated range, and active gear, as well as Nav directions (powered by Garmin).

The Touchscreen (on the right) is a 17-inch panel divided into four areas. A top line displays status icons and provides shortcuts to Charging, HomeLink, Driver Profiles, vehicle information, and Bluetooth. The second line provides access to several apps including Media, Nav (driven by Google Maps), Energy, Web, Camera, and Phone. The central main viewing area displays the two active apps, subdivided into upper and lower areas. At the bottom is access to various secondary controls and settings such as door locks and lights, as well as temperature controls and a secondary volume control (above condensed and adapted from Wikipedia's "Tesla Model S" article).

Again, it's as much a sophisticated computer system as it is a car.

Convenient Service and Maintenance

Make no mistake, Teslas are far from perfect, and owners have reported a range of problems from leaky sunroofs to rattling noises to issues with the drive train, touchscreen panel, and power

equipment. But that's where Tesla's superior repair service kicks in. According to an article in *Fortune*…

> In a regular car, if your water pump went out, the company wouldn't give you a new motor... [Tesla] has an Apple Store approach to service. They'll change the whole unit, give the customer a new one and then take back the problematic one, rebuild it, analyze what went wrong, learn from it, and put it into somebody else's car that needs that part.
>
> The company is known for replacing an entire electric motor within 24 hours instead of tinkering with one troublesome part on the unit for days...
>
> It's a smarter approach and it results in a lot less downtime for the owner...
>
> And while replacing an entire electric motor might seem likely a costly approach, Tesla has managed to reduce its annualized cash costs of warranty… This number has dropped from $2,033 per car in the second quarter of 2013 to $947 per unit in the second quarter of 2015—a sign that the company continues to make improvements.
>
> While some parts in the Model S are expensive to replace, many are cheaper than ones related to a combustion engine...

Consumer Reports recently rated Tesla's repair facilities as better than both dealerships and independent operators. "According to [*CR*'s] annual survey of subscribers, independent repair shops were rated higher in customer satisfaction than most franchised dealerships, with luxury automakers like Audi and Lexus rated higher than more plebeian brands. The one exception to that was Tesla's official repair shops, which outranked even independent shops for on-time repairs, costs, quality, and overall satisfaction." (*Gas2*, February 5, 2015)

Not that EV drivers spend a lot of time in repair shops. Electric technology has fewer inherent problems than internal combustion technology. For starters, electric motors produce less heat, because they have fewer moving parts, and don't rely on controlled explosions (combustion) to make things move.

Electric cars don't need multi-gear transmissions. This makes for greater efficiency and less wear, because transmissions act as a drag on the drivetrain. The lack of a transmission, exhaust, extensive lubrication system, and other complications integral to internal-combustion engines also makes electric powertrains simpler. There are fewer things that can break and fewer items that need regular servicing.

"The Tesla Model S actually requires little to no maintenance compared to gasoline-powered vehicles," according to *Clean Technica* (Sept. 27, 2013), "due to the fact that it has very few mechanical parts that can malfunction. The *only* parts that require regular replacement are windshield wipers and tires. Brake pads will require replacement as well, but not nearly as often as those in gasoline-powered vehicles, since they are used much less thanks to regenerative braking."

Gasoline propulsion systems, by contrast, contain a much longer list of components that can need replacing and that can fail…

Components that can need *replacing* include, but are not limited to:	Components that can *fail* include, but are not limited to:
• Electronic actuators to adjust various valves • Ignition system • Throttle controls • Turbochargers (some models) • Engine control unit • Transmission control unit • Oxygen sensor • Coolant pump • Fuel pump • Oil pump • Engine fan • Transmission oil cooler pump (some models)	• Transmission • Valves • Spark plugs • Crankshaft • Connecting Rod • Cylinders • Camshaft • Exhaust gas recirculation (EGR) system • Belt and pulley systems for driving the alternator, engine fan, and other parts

Source: Clean Technica

An article in *Business Insider* sums it up best: "A Tesla powertrain (i.e. battery, motor, power electronics, charger) has 18 moving parts... An ICE powertrain (i.e. engine, transmission, drivetrain) has hundreds, maybe thousands."

The battery for a base model Tesla is guaranteed for eight years or 125,000 miles (unlimited miles for its higher-end battery).

Side note: Auto parts retailers may be in trouble in the future. Not only do they have to worry about Tesla and the dramatically reduced number of parts its cars require, but they also have to worry about 3D printing, which can create *auto parts, and Amazon, which can deliver parts more efficiently. A trifecta of trouble. Some parts retailers have additional problems. O'Reilly, for example, is a relatively large company ($26 billion) in a mature, saturated market that cannot grow much further and has almost a 30 PE! I'm not saying I'm going to short ORLY today, but just as Tesla was on my radar as a long position way before I stepped into it in 2013, ORLY is on my radar screen as a potential short down the road. Stay tuned!*

The Performance

The Model S accelerates from 0-60 is less than four seconds, making it *the* most responsive car on the market, according to *Consumer Reports.* A Toyota Prius, by comparison, takes nearly 10 seconds to reach that same speed.

Tesla, on the other hand, is rapidly improving on even its current acceleration rates. The top-end Model S P85 D already had an “insane” mode capable of 0-60 in 3.1 seconds. Last year the system got an upgrade to “ludicrous” mode, which does 0-60 in a truly incomprehensible 2.8 seconds.

Only a few other production cars in the world can boast such acceleration, and all of them are either tiny, bare-bones models that hold only two people, or hugely expensive models that cost tens or hundreds of thousands of dollars more than the Tesla.

Tesla has “instant torque.” While other cars need time for their full power to kick in, the “ludicrous” Tesla Model S has all its power right there off the line. This makes the Tesla Model S the quickest production car in the world, in fact the quickest in history.

The importance of this kind of performance cannot be overstated. It is a *huge* selling point with consumers, especially those who test-drive the car. The Tesla obliterates the old myth that electric cars are sluggish, unsexy, and unresponsive. This is a performance vehicle that easily beats Porsches, Maseratis, and Jaguars off the starting line. It’s a car you *want* to drive, not just one your conscience compels you to drive.

Tesla’s Space and Comfort vs. Traditional Cars

Creating space in a Tesla has been a lot easier than it has been for gas-powered cars, thanks to Tesla’s trademark electric vehicle architecture. The lithium batteries are concealed within a remarkably thin floor-pan structure. Unlike traditional cars that have large engines taking up all the space in front of the car, Tesla’s hardware and engine are nicely tucked away, allowing the design team free play in creating space that other car makers can only envy.

That is why even the new Model 3 is going to have room for five adults "comfortably,” opening up floor space and leg-room for front passengers. All Tesla models have the design space to allow for exceptional safety, comfort, and baggage room.

My Own Case Study

This all sounds great, but sometimes a real-world perspective can bring it all home better than any theoretical or technical explanation can. With that in mind, I’d like to share a “case study.” Mine.

I recently bought a Tesla (Model X) for my wife, and we were invited to a friend's 40th birthday celebration in Solvang, California. That's a town in wine country north of Santa Barbara (if you've seen the film *Sideways*, much of it was shot there).

Strictly for the relevance of this story, I will divulge that I drive a higher-end car than a Tesla. But I wanted to take the Tesla on the trip because of all the cool features I knew it had, such as its ability to play almost any song in the world on vocal command and its amazing doors that open outwards and prompt my six-year-old to ask, "Daddy is the car going to fly?"

But the real reason I wanted to drive the Tesla was that I like to do personal research. I like to gain an intimate understanding of the companies I invest in.

As we pulled out onto the Pacific Coast Highway, I excitedly phoned Tesla customer service and asked them how the driverless technology worked. As the courteous employee—and I have to say, every Tesla employee I have come across has been exceptional—walked me through the steps, I soon realized how simple the technology was to use. It also had robust features that were quite handy, such as placing all the speed controls and settings on one easy-to-use control knob.

During the next ten minutes or so I began testing all the features and getting used to them—speeding up, slowing down, setting target speeds, changing lanes by using the turn signal, etc. There were about five times I found myself taking over control over the car. But each time, it was as a result of my panicking and failing to trust the system. When I realized the car was consistently doing the right thing, I knew I just had to get used to it and not panic so fast.

Autopilot handled the highway amazingly well, which quickly built my confidence. I was now going for prolonged stretches of time without touching the steering wheel, gas pedal, or brake pedal. The car, by the way, "notices" your passivity. When you don't touch the steering wheel for a few minutes, the instrument panel will beep slightly while muting the music, and the screen will say something like, "Please put your hand on the steering wheel to maintain autopilot mode." Another reassuring sign of the car's practical "intelligence."

I was giving the Tesla a workout, and it was passing with flying colors. You have to see this thing to believe it—the control panel, the screen showing other vehicles' locations relative to yours, the almost perfect reading of the lane, the smooth centering. The whole integrated experience. Soon I did not even *want* to hold the steering wheel anymore. I remember thinking at one point, "Wow, I can't believe other people are actually *driving* their cars. How inconvenient. How inefficient." Amazing. I was already making the shift, in my mind, to a new era of personal transportation.

Now for the real test. Autopilot on winding roads. If you've been to Solvang, you know that after you leave the PCH, the road turns windy and leads up a mountainous region. Now, I don't suggest anyone try this, because I don't think autopilot is meant to be fully used on winding roads yet, but for the sake of research, I wanted to try it.

So I embarked on the winding passage, and the car handled the turns amazingly well. There was one time when it tried to take an exit I did not want to take, but this was an easy problem to correct by just tapping the steering wheel in the other direction. In fact, the experience was such a pleasure, I thought to myself, “I’d be happy to drive anywhere within a 5-to-6-hour range.” Most of us don’t realize how much stress driving causes, because we’re so used to it. The bulk of that stress comes from having to focus so intently. It's much easier, I learned, to “oversee” a drive, as I was doing with the Tesla, than to execute every action and decision in detail. And for most long-duration trips, the bulk of the driving is on freeways, which the Tesla handled with ease.

There are so many bells and whistles on this car, it is hard to capture them all. And they’re not just for show; when you use the features, you realize how practical they are. For example, the car can be programmed to automatically elevate itself, via its suspension control, when it approaches the driveway of your house. The driver’s-side door senses what is around you and automatically opens when you approach the car and closes when you depress the gas. Once you try these features, you never want anything else. And the pace of Tesla’s advances is increasing.

All in all, the car exceeded my high expectations by a country mile. This is why personal experience can be so essential. It can tell you things no brochure or video or financial report can capture. I now knew that when people *experienced* this car it would be a turning point for them. I knew it in my bones. Would anyone really want to drive another car once they’ve tried one that can drive them to their destination refreshed, relaxed, and safer to boot?

From a Macro Perspective

A great product is only part of the picture, though. A smart investor looks at the industry as a whole and how the company fits into it.

If you look at the car industry, Toyota Motors has a $200 billion market cap, and it's trading at about eight and a quarter times earnings. That means it's making over $24 billion dollars a year *in net income*. That is a huge number. When well-managed car companies hit economies of scale and get past the initial investment phase, they can print money because the barriers to entry are so high. If you look at the top companies in the (internal combustion) car industry you have over a trillion dollars of value—all based around the same PE.

Then you have Tesla, all by itself, still at only a $30 billion market cap. That’s a recipe for great upside.

When vetting companies to invest in, Prime always looks for a "moat," or a set of separators, that makes competition from other players difficult and can allow huge profits to be sustained and to grow. Just by virtue of being a viable player in the car industry, Tesla has already achieved a moat, and a large one at that.

First of all, the car industry is a very capital-intensive business. To start a car company takes several billion dollars, and even if you had your hands on that kind of money, you'd better get the product right the first time—which is damn near impossible in and of itself. (Tesla, amazingly, has done so.)

Distribution is another challenge; retail space for autos is extremely limited. Increased bargaining power of auto parts suppliers is another challenge, as are the economies of scale enjoyed by established competitors. These reasons, among others, are exactly why you rarely see major new entrants in the car industry. In fact, in America, the most prosperous, entrepreneurial nation in the world, no entrepreneur had successfully established a car company of any kind since Walter Chrysler did it in 1925.

To compare this to another major industry, let's look briefly at the cell phone industry. In the past, substantial capital was required in order to enter this arena, but the cell phone industry is no longer capital-intensive. These days, "anyone" can start a phone company. This is happening all over India and China—and the rest of the world as well. Xiaomi, the largest phone seller in China, wasn't even around seven years ago. A small group of people got together and decided to start making phones with a lower profit margin of only around $10 per phone. Nowadays, as soon as a phone comes out, you can dissect it, source all the components, use the Google Android operating system for free, and build the phone. And it's not just Xiaomi; there is Lenovo, TCL Communications, ZTE, Micromax, Huawei, and more, all following the same game plan.

The point is, giant capital moats are getting harder and harder to find—unless they are in a dying business. The car industry, by contrast, has enormous barriers to entry. The type of competition you see in the phone industry simply does not, and cannot, exist in the auto industry.

Back to the point at hand. Tesla has already passed the point where it has overcome initial inertia—a huge hurdle—and has actually broken into the car market. The car exists. We have seen it and tested it. Tesla has built out factories and has managed to become an operating business without going under due to insolvency. This alone is a major feat. And most importantly, Tesla has built a better car than anyone else *on its first try*.

The point I am leading to is that if (1) you are in an industry with high barriers to entry, and (2) you are able to build a better product than all your competitors, and (3) *they* are all building one kind of product while you are building one that is fundamentally different (electric vs. gas), then you can eventually transfer much of the industry's existing profits from other companies to yours. And all that net income, at very low PEs, translates to vast earnings.

And that income can now come at an accelerated pace. Why? Well, the average car is held for six years, but that is with the old technology that most cars have been using for decades. But with this exciting new technology—especially the radical new driverless feature—you can expect to see a dramatic uptick in the turnover rate at which people move away from older cars. Even if I'm fractionally correct, or even if drivers wait their full six years before switching technologies, this thing

should be gangbusters. We're talking trillion dollars of market cap and well over $100 billion in net income that's out there and gettable for an extraordinary product that people really want.

Most important, for me at least, is that Tesla's success is sustainable. We've already seen that it's exceedingly hard, in general, for a new car company to enter the fray. But also, in the specific case of Tesla, existing companies don't stand much of a chance against this company and its management. Typically, today's car companies are run by CEOs sitting in luxury offices, far removed from their manufacturing plants. These appointed officers aren't even the ones who brought their respective companies to where they are today, so they haven't proven they possess the entrepreneurial know-how to take the company forward.

Elon Musk, by contrast, literally sits on the plant floor. With his exceptional work ethic, proven track record, and ingenuity—plus, now, the money behind him to do what he needs to do—I don't see anyone in the industry, or on the horizon, who can catch up to him. We'll talk about Musk a little more later.

But for now, to use an automotive metaphor, let's shift gears.

China

According to a recent CNBC article, "China has already become the largest market in the world for EV sales, with 320,000 electric vehicles, including commercial ones, sold last year."

James Chao, who tracks the Asian auto industry for the consulting firm HIS Automotive, predicts that number will continue to increase because of subsidies the Chinese government offers to encourage the sale of EVs. These start at $8500 and can often go higher.

The Chinese car market itself is huge and only getting bigger. Most American and European car companies are deriving an ever-larger portion of their profits from China. Just as we are seeing with many other industries, China is on a path to becoming the world's back yard in terms of consumer spending. In case you didn't realize how big the Chinese car market has become (and it's still shocking to me), consider this: With a population more than four times that of the United States, China became *the world's No. 1 auto market in 2015, selling 24.6 million units* as compared to 17.2 million vehicles sold in the U.S.

The problem is how to tap in to such a large and growing market. We wrote extensively in last year's annual report about an idea we call "China-proofing." That doesn't mean ignoring or avoiding China; it means investing in companies that are strategically positioned to either take advantage of the growing Chinese market, or at least avoid getting hammered by it. China is the "elephant in the room" in the 21st century, and any company not factoring China into its competitive positioning is missing the boat in a huge way.

As investors, we look at China-proofing in a couple of different ways. One is the way we discussed in last year's report. That means to be in companies that will not get eaten up by China's advantages—for example, its vast labor force of 1.3 billion educated, hard-working people willing to work for a fraction of the costs of other countries. We don't want to be in companies where China can re-create their product a little more cheaply, thereby eating up a larger and larger market share over time.

The competitive advantage other countries *used* to have is that they would import from China and sell into their local markets. Now, with China's vast growth and wealth, not only does it have the ability to reach outside markets on its own, but it also has a massive domestic consumer base as well. So we like to be in companies that have a wide moat against this new reality.

But we also like to be in companies—this is our second way of looking at China-proofing—that can actually GROW into China. (One example of this is Activision, as China has recently opened up its domestic market to game consoles, and the Chinese are very active gamers.) This is not necessarily an easy thing to do. Most countries prefer local producers, and China is certainly no exception. It doesn't really want American companies to succeed within its borders, especially if it believes them to be taking away potential business from local companies. We have seen, time and again, how China uses its clout to give advantage to its own companies.

That's not to say American companies cannot do well in China. They can. But it's the quantity or extent of penetration that is critical. That's because the market opportunity is so vast, especially now that China is opening up and modernizing so rapidly. Every edge you can get matters, right now, and can make the difference between being moderately successful and ridiculously successful.

What advantage does Tesla have in China? Well, it's a matter of life or death. Literally.

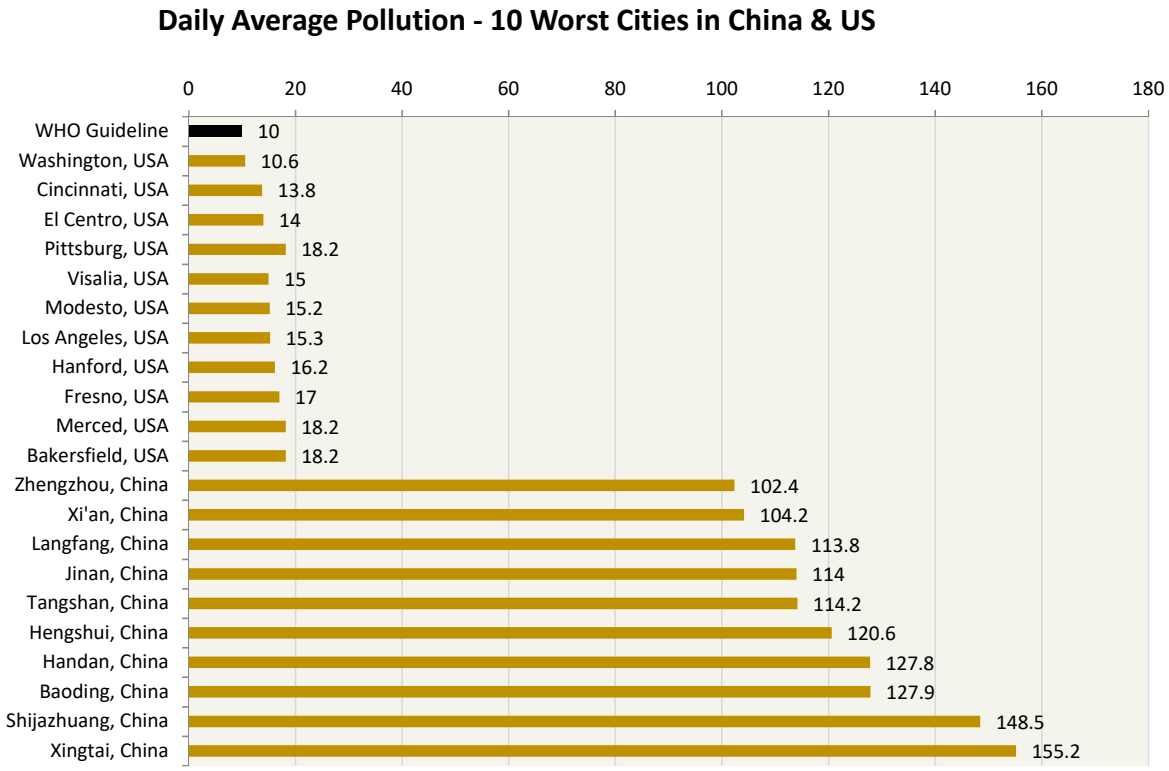
Air Pollution in China

An extensive study concluded in 2013 showed the link between air pollution and life expectancy in China. According to an article in the *New York Times* about the study, "Outdoor air pollution contributes to the deaths of an estimated 1.6 million people in China every year, or about 4,400 people a day." Airborne pollution in China may have shortened the lives of 500 million Chinese by a collective 2.5 billion years.

To put it in even starker terms, air pollution causes people in northern China to live an average of 5.5 years less than even their southern Chinese counterparts; forget about comparing them to the rest of the world. And the consequences and severity of this problem have only gotten worse since 2013, due to continued industrialization and modernization in China.

Just to show you the urgency of the situation: The air pollution scale for all countries stops at 250 (micrograms per cubic meter). Beijing has seen readings of 500 or above. Shanghai had a 600+ "airpocalypse" this past winter. No one in North America or Europe has experienced anything comparable, except in the middle of a forest fire or a volcanic eruption.

Here's a chart comparing the ten most-polluted Chinese cities with the ten in America.



Sources: Chinese Ministry of Environmental Protection, American Lung Association and WHO.
Simon Denyer and Richard Johnson/The Washington Post.

As you can see, even the worst American cities would be in tip-top shape compared to Chinese cities. All of the above Chinese cities have over *ten times* the level of PM2.5 the WHO (World Health Organization) considers safe.

This is not just a Chinese problem. *Financial Times* (September 8, 2016) states that in 2013, an estimated 5.5 million lives were lost globally due to air-pollution-related causes. About 90 percent of these deaths occurred in developing/low-income countries where children under 5 are sixty times more likely to fall victim to air pollution than they are in wealthier countries. Such deaths are costing the global economy about $5.1 trillion per year. And remember, exposure to bad air increases the likelihood of developing a wide range of other medical issues.

The upshot of all this is that when it comes to Tesla cars, China and Hong Kong are a wide open market. And their governments support this. As a necessity. The Chinese people are literally dying for clean air.

None of this has been lost on Elon Musk. He recognizes both the long-term need for China to drastically reduce its overall pollution and the shorter-term need of Chinese individuals to reduce their level of smog intake immediately…

Tesla Offers an Immediate Solution

That's why the air filtration system on the Model S, and now the Model X, is able to reduce the level of contamination in the car's internal air from "extremely dangerous" to "undetectable" in less than two minutes. Yes, wow. Tesla says its filter is 100 times more effective than those on other cars and will remove 99.97% of particulate exhaust pollution, as well as allergens and bacteria. Tesla designed its filtration system to meet the tough HEPA standards of filtration systems used in hospitals and spacecraft. Says Tesla, "We wanted to ensure that it captured fine particulate matter and gaseous pollutants, as well as bacteria, viruses, pollen and mold spores."

This filter is so good, Tesla says that it can withstand a *military grade bioweapon attack*. In fact, Tesla recently conducted a test of its Bioweapon Defense Mode, and the results were pretty impressive.

"To begin the test, they threw a Model X into a large bubble and pumped it full of PM2.5 contaminants (particles smaller than 2.5 microns), which are widely considered to be the most dangerous class because they lodge themselves so deeply into our lungs. They filled the bubble to levels roughly 18 times the 'unhealthy' index, or roughly four times the 'hazardous' index. Within two minutes of activating the Bioweapon Defense Mode, the air levels inside the cabin were safe to breathe. Within four minutes, PM2.5 levels were so low that they dropped under the threshold of detection. And here's the kicker: the air outside the vehicle was being scrubbed too, with contamination levels dropping 40% during Tesla's 12 minute test." (*Snapmunk*, May 17, 2016)

Tesla management has the foresight to give the people not just what they want, but what they need.

Elon Musk sees the huge market potential in China and other emerging car markets. He also sees the dire situations in those places and wants to address it. According to a *Forbes* article (April 2, 2016), Musk recently described Hong Kong, the gateway to China, as a "beacon city for electric vehicles," and said that the city will have "the highest percentage of electric vehicles of any city in the world."

The latest Tesla car currently available in Hong Kong is the Model S, and it's already one of the most popular cars in the city since it started to arrive there in July 2014. In the above-mentioned *Forbes* article, Locky Law, the Tesla owner representative for an organization called Charged Hong Kong estimates that when the Model 3 arrives, 50 to 70% of new car sales in Hong Kong will be EVs, and almost all of them will be Teslas.

The Chinese government is putting forth a short-term, a mid-term, and a long-term plan for EV adoption. “The Hong Kong Government has shown a strong support of electric vehicle adoption by its initiatives to install charging stations throughout the city, and enact policies that favor purchasers of electric cars, including a registration tax waiver” (*Teslarati*, January 5, 2016). Exemptions from registration taxes save Model S owners about HK$382,500 ($49,300). By contrast, the levy on a BMW 320i carries an *added* cost of HK$206,300, or about 38% of the sticker price.

Elon Musk said he thinks Asia will be the “biggest area of expansion” for Tesla in the next several years. His company plans a massive increase in Supercharger stations to accommodate that expected expansion. (He has also pointed out that most of China’s people live along the coast. Therefore, the giant inland space could be used to install solar panels. “You can easily power all of China with solar [energy],” he has said. Musk, as you may know, is also chairman of SolarCity, a solar energy company.)

Restrictions and Regulations

Worldwide, governments are offering incentives for buying EVs and putting harsher restrictions on gas-powered vehicles. We see this in the U.S. as well. Internal combustion engines now face increasingly challenging state and federal regulations for emissions and fuel efficiency, and owners and manufacturers face stiffer penalties for failing to abide by these regulations. In addition to the federal and state subsidies already being offered, the Obama administration has proposed $4 billion in spending to support driverless technology over the next decade.

Carmakers face deadlines for reducing nitrogen oxide emissions (NOx) in the US and for increasing fuel efficiency and decreasing carbon dioxide (CO_2) in the EU. This makes big changes unavoidable for the traditional car industry. Regulators and environmentalists, and others, have been trying to make gas cars cleaner for decades, but with the advent of electric cars, regulators are stepping up their efforts. According to ft.com, "By the end of the decade, the US, the EU and China will have brought in rules that it will be impossible for car manufacturers to comply with unless they embrace these new technologies."

As a result, carmakers have even more ground to make up to hit the next round of targets.

All of this change will make gas-based car costs skyrocket, bringing more consumers and money into Tesla, and making Tesla cars more cost effective vs. their petroleum-based brethren. Now with diesel taking a hit from the Volkswagen scandal that saw 11 million cars being tweaked to cheat their emissions control, the pressure is on even more... and it all benefits Tesla.

Automakers are looking to move away from diesel altogether, due to increased regulations.

A Henry Ford-Like Vision: The Model 3

The whole idea behind Elon Musk's Tesla was to start with a high-end car and then work down. The ultimate goal has always been to make a mass-produced car that's affordable to all, thereby fulfilling Musk's ultimate goal of transforming the world landscape for electric cars. Once you understand his grand vision, you can build your premises about Tesla's future more accurately.

One of our big premises has always been that if Musk can build a high-end performance vehicle, then he can pretty easily build a lighter-end version of that car. After all, if you can do calculus, you can probably do simple multiplication too. And in our view, if Musk can indeed build an amazing, industry-defying, low-end electric car, the world will absolutely be Tesla's oyster. The significance of this is impossible to overstate.

The big question was could he do it? Specifically: Could Elon Musk actually build a good low-end car for $35,000? If so, the sky was the limit.

Tesla recently unveiled the $35,000 Model 3. And it looks better than expected and is packed with more features than promised. The potential ripple effects from this development are staggering.

What Tesla basically did was to take all the componentry, along with the electronic backbone, of the Model S, which starts at around $70,000 for the base model, and give it to the Model 3. The Model 3 has the same engine concept, as well as all the same internal technology that goes into the Model S. It even has driverless technology. Think about it: The proprietary development of the componentry and software is already a sunk cost, it's been proven to actually work, and it's the heart of the new car. Hence, Musk rolled out the Model 3 with almost all the bells and whistles of the Model S. He even went so far as to thank all those who had previously bought a Model S for making this possible.

Here are some of the features and benefits you'll get in the Model 3:

- A charge range of at least 215 miles
- Industry-topping safety ratings
- Access to Tesla's "Supercharger" network of fast-recharging stations
- A zero-to-60 time of "under six seconds"
- Ability to seat five large adults comfortably
- The all-important Autopilot technology

To sum up, Model 3 will be a better car than many that are much more costly. Says Elon Musk, "You will not be able to buy a better car, any better car, for less than that." And don't worry, any

temporary issues with the car's features will be easily fixed—remember, this is the same technology as the Model S, and most of those bugs have had time to work themselves out.

Think about the pricing implications. Tesla sells the Model S for about $100,000, on average. The Model 3 will sticker for *$35,000*, before tax credits. This precipitous difference in price will have massive ramifications that we believe have not been vetted out properly either from a profit-potential perspective or a social change perspective.

Now, let's talk about the potential ripple effects of this car and why I have had my eye on this prize since the day I first got into Tesla three and a half years ago. It starts with simple, back-of-the-envelope calculations that jump off the page.

Not only will Model 3 be the best car for the price—and, in my opinion, way beyond—but there is an additional factor that can have exponential effects.

Sit down for this one.

A Tesla for Less Than the Cost of Mobile Phone Service?!

At a $35K price tag, the gas savings on this car in many parts of the world will be *more than the lease payments* —essentially giving you the car for free, or at least for an *extremely* affordable price! Many owners, when factoring their current costs, will actually be *paid* to drive the best car on the road.

Let me explain. First let's have a look at a lease offer from the BMW 3-series. As a piece in *Jalopnik* (January 14, 2015) points out, you can drive a BMW for as little at $309/month for 39 months. If we look a little closer, we see that this payment is based on an MSRP of $35,300.00. A lease payment is determined mostly by the purchase price over the residual value. So, what if the purchase price on a $35,000 Tesla Model 3 were further reduced by $7500 in EV tax credits? Now we have a Model 3 with a purchase price of $27,500. Let's also say the Tesla can maintain the same 60% residual value as the BMW.

I actually think it can do better than that, what with its driverless technology, its greatly reduced number of moving parts, etc., but let's just say it *matches* the BMW. So just taking it proportionately (at its $27,500 purchase price), you would get payments of approximately $240 per month.

The second step in figuring the cost of ownership is to deduct the gas payments on a car, which averaged about $140.13 per month last year in the U.S., even taking into account the tremendously low price of oil right now. That brings the cost down to $101 per month for the Tesla.

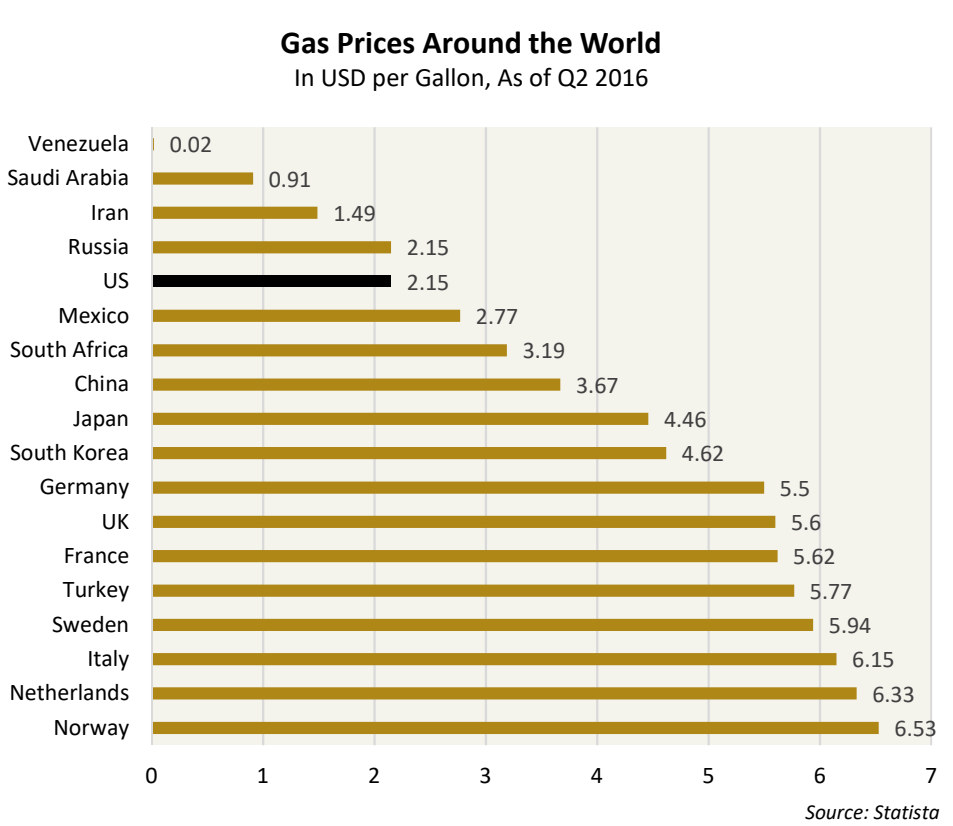
Now let's add back $40 for electricity used per month, a pretty conservative estimate, and you end up with a net monthly payment of $141! In Europe, where gas costs are generally 2.6 times more than in the United States, all things being equal, your $141 goes down to *$-64.20* per month—you are essentially *getting paid to drive a Tesla*. In China, where gas costs are about 71% higher than in

the U.S., your cost is approximately $20 a month! (We're using simple calculations to estimate payment savings. Some analysts suggest the payments would be even lower; some say higher.)

Now, just to keep things in perspective: Even with no gas-payment savings, I think the car, with all its features (pollution reduction, safety, technology features, speed, range, driverless tech), will be heads-and-tails better than any $35,000 car out there and will win huge market share on that basis alone. But with payments, in the United States, amounting to $141 per month, factoring in gas savings, it's a no-brainer.

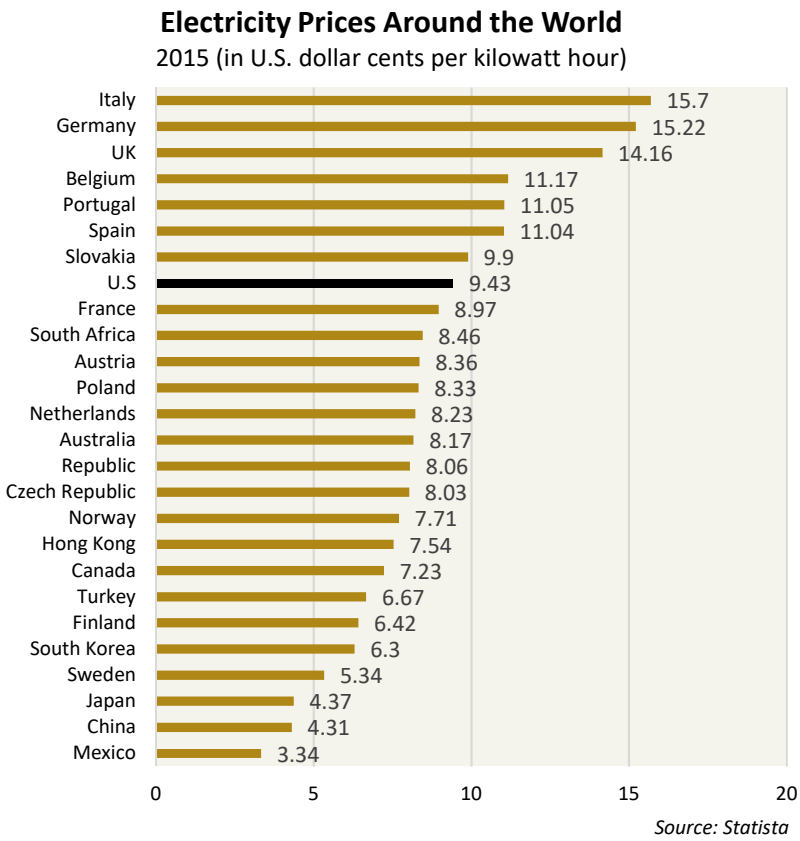
But let's continue with the analysis.

You can see that the United States has about the *lowest* gas prices in the world. And the higher the price of gas, the greater the savings with a Tesla. So globally, consumers will save even more.



The numbers, when you look around the globe, are mind-boggling. Tesla simply takes the money you *would have been paying for gas* and converts it into your lease payment.

Now let's look at the electricity-cost side of the equation. We used $40 as our example for the United States. The U.S. is actually in the middle of the pack in terms of electricity costs; many countries are much lower.



Twelve of Europe's biggest utilities companies had to reduce the value of their assets by over 30 billion Euros in 2015. Worldwide, energy and electricity prices are getting cheaper and cheaper, for a variety of reasons.

But, all in all, even if electricity costs come in at a fair amount more than $40 a month, it doesn't move the equation much. And with solar panels, wind, and battery storage technologies being rolled out by none other than Elon Musk—along with other sustainable technologies—I would expect electricity prices to stay where they are, or, more likely, go down.

Another consideration: With much cheaper energy costs for the Tesla, people will drive more than they currently do—further increasing the savings. Many family plane trips, for example, will be out the window due to the reduced costs of driving and to the fact that roads trips will be a much more appealing option when the car drives itself. High-mileage users like cab and Uber drivers, heavy business travelers, delivery people, and others will have an even higher impetus to buy the cars.

And we haven't even mentioned the potential reduction in insurance costs. Tesla already has the highest safety ranking of any car ever tested, and Autopilot is only in its infancy. When features such as auto warnings, auto stop, and smart re-routing become even more refined, there will certainly be a continued reduction in accidents for Teslas, which will bring the cost of insurance down.

But not to lose the forest for the trees, even when looked at from a worst-case perspective—zero gas savings—the Model 3, and all the other Tesla cars, will be dominant vehicles due to their coolness, reliability, speed, technology, and overall performance.

Throw in the gas savings and there should be smoke coming out of your ears.

Presales Going Wild

Now you can see why Tesla Model 3—even before all the features of the car have been revealed (Elon likes to under-promise and surprise)—is getting so many pre-orders, at $1000 each. Tesla has taken in about 400,000 orders and counting, to the tune of $400 million.

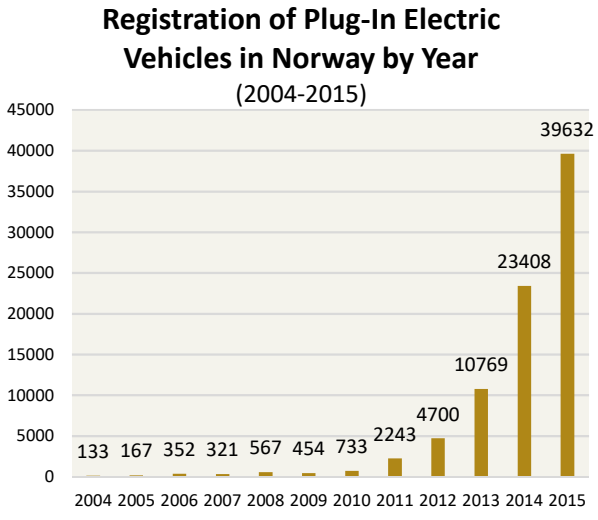
And I think Tesla and Elon Musk are still underestimating the potential. The staggering pre-sales of the Tesla Model 3 electric car seem to have caught everyone by surprise, including Musk himself.

This leads us to the topic of growth, and that is what really turns into profit. It's one thing to have a great new concept or product—but when that concept or product is in an industry that has a huge market (understatement), then all this enthusiasm is warranted.

Growth Potential

We've talked about all the benefits of electric cars, and Teslas in particular. The question then becomes, "How big is the car market and how much of it can turn electric?"

First, some perspective on size. There are over one billion cars on the road today, and last year about 72 million cars were sold worldwide. In the United States alone last year, the value of new cars sold was greater than the value of all housing sold. This is an industry with trillions of dollars in annual revenue that employs over 240,000 workers in the U.S. alone.

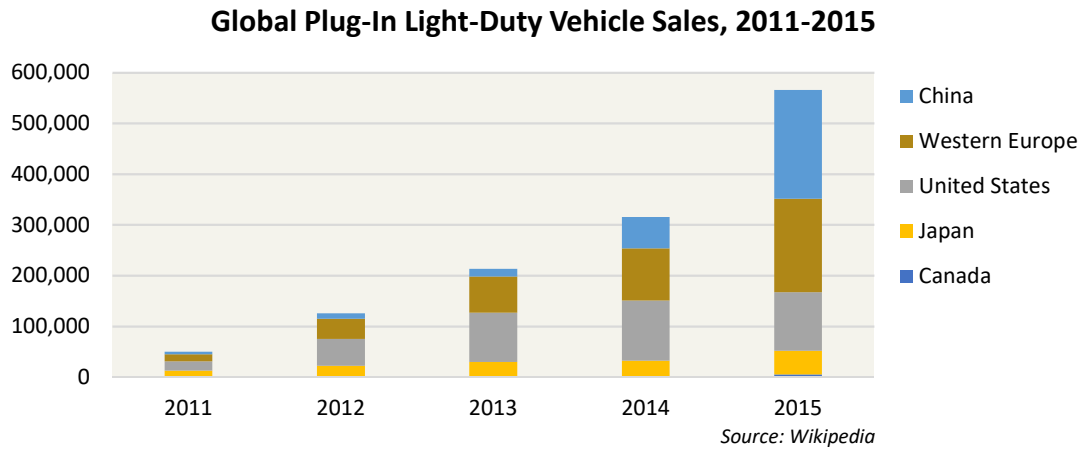


Source: Wikipedia

In terms of how big the *electric* car market, as a percentage, can get, let's look at some countries' penetration rates. Norway currently has the highest, with 18.5% of all new car registrations during the second quarter of last year being EVs, according to data from research firm IHS. Hong Kong's penetration was 5.6% for that period, according to Charged Hong Kong's data, putting that city in a tie for second-highest with the Netherlands.

As the case of Norway shows, penetration can change quickly. The above shows just q2 of 2015. By December, the rate had reached 22.4%, way up from 13.8% in 2014. The highest-ever monthly market share for EVs occurred in the March 2016 period—with a whopping with one in three passenger cars registered in Norway being a plug-in electric car (33.5%). As you can see, this is an incredibly fast-growing market as governments get behind EVs and the cars improve. It's also a market whose growth will *accelerate rapidly* as the number of charging stations multiplies, mileage ranges increase, and people see their neighbors and family members going electric.

Tesla is the number one seller of electric cars in Norway. In fact, as of December, 2015, Tesla was the best-selling car overall in Norway. And that is with a $100,000 vehicle. A $100,000 car is much different from a $35,000 car (not to mention the addition of the high-end Model X now as well). And the market *is* growing tremendously fast, right now. Not just in Norway, but all around the world.



All of this growth has been occurring without the availability, affordability, or deep consumer knowledge of the Tesla automobile—it's a new car, priced very high in its current version, and on back order around the world. And again, all of this growth is *before* the $35,000 Tesla Model 3 has even been introduced to the market. Imagine how the market will grow with the right car at the right price, more charging stations, government backing, etc.

How much of the car market is Tesla eventually going after? After Model 3, Tesla is already planning on making an even more affordable car. Elon Musk: "I'm super excited about being able to produce a car that most people can afford. And there will be future cars that are even more affordable down the road. But with something like the Model 3, it's designed such that roughly half of people will be able to afford the car. Then, with fourth generation and smaller cars and whatnot, we'll ultimately be in the position where everyone will be able to afford the car" (source: *WealthDaily*, April 27, 2016). Tesla doesn't *need* to accomplish this goal in order to be wildly successful, but if it does, that's all the more gravy.

What's important to realize is that Musk is going for the whole kit and kaboodle. And I, for one, don't question his ability to achieve it.

In January, he announced plans for "at least a few million [cars] a year" by 2025. But I think he underestimates the demand. Analysts predicted approximately 20,000 to 100,000 Model 3s to be ordered in the first *year.* But even with a $1,000 down payment just to order the car, and one-year expected wait times, Tesla surpassed that number in *24 hours*. Even Musk seems to be shocked. He openly admitted that the blockbuster reservation numbers will require a change of plans: "Definitely going to need to rethink production planning."

With 72 million cars being bought per year worldwide, I wouldn't be surprised if the number of Tesla pre-orders hits well above 1 million even before the car is released. And remember, most of the world's population is not even aware of this car yet. This is not a situation where demand will wane. In fact, my bet is that the car's momentum will continue to build well after the initial excitement wears off. This is a pretty safe bet, given all the premises I've been outlining.

My "home research" bears out my optimism, at least anecdotally. On a test basis, I have spoken to four people about the Model 3 and all of them have either put in an order or say they will. (One was an Uber driver, one was a friend, one was a valet parking guy, and one was a guy who came to upgrade the gas meter at my house.) When people learn about the car, they want it.

Here's one more point: In 2015, Jefferies conducted a survey of Model S owners and discovered that nearly *70% had previously owned a car that cost less than $60,000* (*Business Insider*). Tesla is not only moving people up, it's moving them up by leaps and bounds. So if lower end consumers are willing to make the leap to the $80,000 range just to get a Model S, imagine what their enthusiasm will be for getting a Tesla for *the same price* as mid-range cars. Ludicrous.

In 2012, Musk agreed to what seemed to be almost impossible milestones... for others. Although he was given until 2022 to meet the goals, he's hit half of them in only three years. His top goal is $43.2 billion in market cap. That makes him highly optimistic. But I would be even more so if I were him, now that I have studied the whole situation.

And Now, Let's Hear from the Other Side

As you know, at Prime we're all about finding the widest moat that will not only give us tremendous upside, but will also help limit our downside. That's the essence of true value investing. It's not a question of whether a company will be successful over the next year or so; it's question of whether it has a substantial enough moat to outperform over the next five to ten-plus years, and in a big way.

So let's take our analysis further to see what else sets Tesla apart from existing and future competitors. To do that we need to look, respectfully, at the concerns and opinions of our peers who might prefer to short Tesla. We want to know what *everybody* is thinking, because the more points of

view we consider, the higher our chances of nailing the right valuation for the company—which leads to exceptional returns as well as the ability to get in at the right time, get out at the right time, and modify the position properly; a formula that has consistently set Prime apart.

This is usually one of the most interesting parts of any analysis—weighing the other points of view and dissecting them for contradictions or missed premises. As we have noted in past annual reports, reality will prevail in the end. And whoever gets the analysis more correct will make the most money. It's that simple. Nothing emotional about it.

So… What is standing in Tesla's way? What are people worried about? What do the naysayers say?

Let's start by going back to the beginning, when we were receiving a lot of resistance to our pro-Tesla stance. We'll look at some of the major concerns we were hearing when we first bought in, then we'll look at some of the concerns we're hearing today.

What They Were Saying Back Then

Here are some of the main arguments we heard against Tesla a few years ago…

"States are opposing the sale of Teslas."

There was a lot of talk about how Tesla had an uphill battle because many states were considering banning their sales. And several states, including Colorado, Virginia, Arizona, Texas, and New Jersey, did in fact jump on that bandwagon. Most of the opposition to Tesla came from traditional car dealerships. These folks liked their cushy, protected business model and didn't welcome the fact that Tesla was selling its cars through Tesla-owned dealerships and directly to the consumer.

> ***Our View:*** Almost nothing can stop "an idea whose time has come," and Tesla's success is not dependent on any one state.
>
> **A. Politicians are politicians, and they want to be on the winning side with consumers.** Elected officials may miss the boat for a short period of time, failing to understand the power of a movement, but they quickly learn the truth and change their positions. That is exactly what happened to the few legislators who got swayed by the lobbyists and tried to oppose Tesla sales. They got a mouthful, an earful, and an eyeful from their constituents. And they just as quickly changed their stance.
>
> **B. It didn't really matter if states did oppose.** Tesla was, and is, oversubscribed. No single state can stop its progress. If anything, the opposition only makes the car seem more enticing to many. Consumers in the states that initially tried banning the car could easily have a Tesla shipped directly to them, or buy one out of state and drive it home. When it

comes to making a purchase of this magnitude, people are willing to be inconvenienced.

"Tesla has underbody problems."

Starting in the second half of 2013, there were a few well-publicized fires in Tesla vehicles. These occurred when the cars struck a hard piece of debris on the road, which pierced the underbody and caused the battery to ignite.

Our View: If Tesla could build the best, most technologically advanced car, it could surely fix the underbody issue, which was relatively simple. Teslas are still safer than gas cars. And the underbody issue has, in fact, been resolved.

A. Most people don't know this, but Tesla's underbody problem was a result of a conflict between Tesla and Toyota engineers. The conflict originated when the two companies still had a partnership, before Toyota decided to sell out of its shares and pursue hydrogen fuel cell cars instead (a whimsical idea, for many reasons, including the fact that there are only twelve hydrogen fuel stations in the United States… but I digress). The Toyota engineers, when they were working with Tesla, argued that the underbody of the car needed no protection layer and that to install one would just add extra weight. The Tesla engineers, and Elon Musk, argued that the underbody *should* have protection, and strong protection. So they had to compromise. They added a plate, but it was thin. Well, guess what? Thin didn't work. Tesla was right.

B. Even *with* the underbody problem, Teslas were safer than gas cars. As Elon Musk correctly pointed out on Tesla's website, "The odds of fire in a Model S, at roughly 1 in 8,000 vehicles, are five times lower than those of an average gasoline car and, when a fire does occur, the actual combustion potential is comparatively small."

C. Tesla quickly fixed the problem. Tesla provided an over-the-air software update that increased the vehicle's ground clearance at highway speeds. It then added a titanium plate and aluminum shields to its new models and promised to retrofit old models for free. There are now videos online of solid concrete blocks being crushed beneath Teslas. Problem solved. Better still, the world saw the willingness and ability of Tesla to make the world's safest car even safer. (As a side note, I did sell off more than half of my Tesla shares after the third fire or so—because I could. Even though I knew Tesla would fix the issue, I thought another fire could easily happen over the next month or two and there might be some panic-selling on Wall Street. So I got out for a short while, then got back in again. As a result, we didn't miss the upside—December was a great month for Tesla—but we protected our investors in the event that the problem took a little longer to fix.)

"There isn't enough demand."

There was a perception that, although most people thought electric cars were a good idea, the public wasn't ready to adopt them on a wide-scale basis yet, due to performance issues and lack of "sex appeal." Driving an electric car seemed like a sacrifice, kind of like installing a waterless toilet.

> ***Our View:*** Demand is brisk and growing fast. If you can get a high-performing vehicle with tons of extremely cool extras, including Autopilot and a space-age dashboard, who in the world would not want an electric car? Especially when that price point comes down dramatically, as it will with the Model 3. 'Nough said.

"There aren't enough charging stations."

Naysayers claimed the charging infrastructure wasn't in place yet for electric cars to really take off as a viable alternative to gas engines.

> ***Our View:*** Not a problem for most consumers, and the number of charging stations is rapidly increasing.
>
> **A. Unlike with gas cars, every house is a fueling station.** The main charging of electric vehicles takes place at home. Early on, Tesla required inspection of homes' 240-volt outlets, but soon realized there was no need for this. Homeowners proved more than eager to get their outlets upgraded on their own. For most people's driving patterns, home charging is enough; they use an external station only occasionally, if at all.
>
> **B. Tesla has installed its own charging stations** all over the United States and the rest of the world in major markets—and is planning to double the number over the next year. Charging stations, in my view—especially with other vendors coming online to sell this service—will not be a problem. Also note: AAA roadside assistance now comes with a battery charger for electric cars, giving you approximately 50 miles on half an hour of charging. Expect the speed and volume of charging services to increase rapidly over time, as consumer demand increases and technologies rapidly improve.

"Tesla won't be able to overcome consumers' 'range anxiety.'"

One of the major negative perceptions about electric cars was that their range, on a single charge, was too limited.

Our View: The issue has largely been resolved.

A. The per-charge range of a Tesla, even in its early iteration (230 or 265 miles, depending on choice of battery), is more than sufficient for most drivers. Only 600,000 Americans are classified as "mega-commuters" who travel at least 50 miles to get to the office. That means 99.5% of all drivers have a commute of *less* than 50 miles. Even for most mega-commuters, the range of a Tesla should easily cover a back-and-forth commute (recharging at the office is also a growing option). The percentage of the population that regularly requires a longer range than Tesla now offers is so small that it won't really reduce the market. The range anxiety problem, compared to what it was at Tesla's inception, is almost non-existent.

B. Teslas are rapidly increasing in range. In April of 2016, the EPA announced that the new Model S 90D was capable of getting 302 miles on a charge, a new record for EVs. Factoring in the upgrade, Teslas can now go as far on a charge as many gas cars can go on a full tank. Musk recently announced that he estimates Tesla will be offering a 600-mile range by 2017, and sees a 745-mile range following not long after.

As you can see, we have come a long way from where we were three years ago. Now that these major hurdles have been overcome to most people's satisfaction, Tesla has been established as a reputable, tier 1 competitor in the car industry with full legitimacy. This was quite a speed bump to get over. And remember, the fact that there *were* perceived hurdles to overcome was what allowed us to take advantage of the $4 billion market cap and enjoy its sevenfold increase to today.

What They Are Saying Now

But before we round out our argument about Tesla's worth, let's look at some of the arguments we're hearing today. Tesla remains controversial. But most of today's arguments have shifted from *whether* Tesla will become successful to *how* successful it can become. People in general are no longer worried about the viability of Tesla; the new million-dollar question is what Tesla will be worth in the future.

"Automakers entering the EV market will eat into Tesla's market share."

The biggest argument against Tesla has become this: Now that electric cars are proliferating, and are a proven concept, every car company is going to jump into the race and will knock down Tesla's profit margin, replicate its technology, and eat into its market share, or at least cap its value where it is today.

Our View:

A. We think competition is actually good for Tesla. And so does Elon Musk. In short, he *wants* it. "I encourage more participation by whoever it is to create electric vehicles," Musk said in an interview earlier this year.

He has put his money where his mouth is, in grand fashion. While Apple, Samsung, and other technology companies are spending *hundreds of millions of dollars* on seemingly insignificant patents, Elon Musk has *given Tesla's patents away*. For free. On June 13, 2014, Seeker.com reported, "Electric carmaker Tesla announced it was giving up its patents to 'the open source movement,' to help spur electric vehicle technology. The unusual move comes with Tesla enjoying huge success, but against a backdrop of multiplying legal squabbles among technology firms over patents."

Musk deflected the shock and praise resulting from his action, saying, "What we are doing is a modest thing. You want to be innovating so fast that you invalidate your prior patents, in terms of what really matters. It's the velocity of innovation that matters."

The reason Elon gave up the patents before the rollout of the Model 3 was twofold:

1) I believe he really does want to help the planet. He has said, "I don't think people quite appreciate the gravity of what is going on [with regard to global warming] or just how much inertia the climate has."

2) To help the EV industry, and therefore his business, grow. This is smart thinking, in my opinion. By sharing Tesla's patents:

- More people will use electric cars, thus fully retiring the old stigma of electric cars as being slow, impractical, and dorky.
- The industry will increase the availability of recharging stations and share the cost of building them by creating a common infrastructure.
- Tesla can create appetite for, and help the growth of, its own battery-producing Gigafactory, which will sell batteries to other car manufacturers as well.

"Competitors will replicate Tesla's technology."

Our View: What people don't realize is that it is MUCH more difficult for other companies to replicate what Tesla is doing than anyone imagines. It's hard for old-school car companies, because they have an uncomfortable relationship with high technology, and it's also hard for tech companies, because they don't understand the auto industry very well. From the outset, Tesla has had one foot firmly planted in each industry, giving it a double moat. Tesla is both

a large-scale car manufacturer and a leading tech company. It has already married these difficult-to-reconcile components.

There are a number of reasons why existing companies can't copy Tesla, which we'll explore one by one.

A. Car companies can't keep up with the rate of technology change. Car companies are now truly tech companies, whether they recognize it or not. One of the major problems in the auto industry is the rate of speed at which technologies can change. Traditionally, an average redesign cycle for vehicles has been about three to five years, while a tech company updates its systems multiple times over the course of a single year. Now we're now looking at a major turn cycle every two years for automobiles. If things were static, it would be easy to catch up—but the pace of innovation coming out of Tesla continues to increase at a faster and faster rate.

B. Even after decades of being in business, the differences between car companies are still huge—showing it's not easy to catch up, or even to replicate technology. Even *without* advanced computer technologies, Japanese and German manufacturers have been soundly beating American car companies in the quality game *for decades.* American car companies could not even figure out how to competitively build vehicles whose basic designs have been around for years. U.S. product quality was consistently—I hate to say it, but it's an obvious fact—inferior as compared to that of Germany and Japan.

Over the past six years, annual report cards from *Consumer Reports* indicate that domestic automakers are sitting among the bottom of the pack in terms of reliability and satisfaction ratings. Out of a score of 100, Ford ranks the highest, with an unimpressive average score of 63.1 over that time period, with GM averaging 56.1 and Chrysler averaging an abysmal 48.

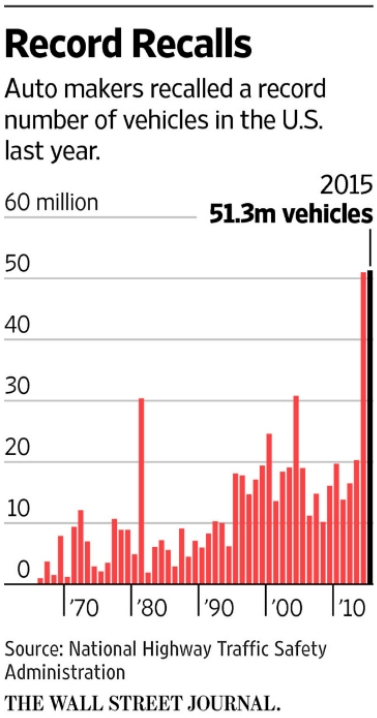
As a new entrant in the field, Tesla has the advantage of starting fresh with consumers. And its customer satisfaction ratings, as we reported earlier, are in the stratosphere for both product and service.

C. Legends in the business still have manufacturing/quality problems. In the U.S., which has traditionally had the most advanced technology, car makers are still struggling to mass-produce great cars. You can see that in the overall satisfaction scores above, as well as in the number of recalls that are still occurring today for a variety of manufacturers. Many of these manufacturers aren't faring well in *Consumer Reports*, with the percentage of recommended vehicles from each company often dipping below 50%.

Recalls are proving to be a thorny issue and are showing that U.S. car manufacturers are having a challenge even getting their existing technology right. Automakers recalled a record 51.26 million vehicles in the U.S. in 2015. That total topped the 50.99 million vehicles

recalled in 2014. And in case you thought this was only a recent blip on the radar, you can see that recalls have been increasing over the past several decades...

I don't point this out to bash anyone—running a successful car company is *exceedingly* difficult—but to show that the premises analysts are using to steer investors away from Tesla are flawed.



D. Technology problems are on the increase for car companies. Other car companies can't even get the dashboard right, forget about making cutting-edge technology that all works together seamlessly as in the Tesla—even though Tesla has had far fewer years to get it right.

Dashboard Woes
The dashboard is the brains of a car's operations. New Age cars simply cannot function properly and elegantly without a solid dashboard managing all of the technology. The dashboard is vital for safety, for customer satisfaction, and for providing a gateway to futuristic features such as driverless technologies.

A dashboard would seem to be a pretty easy thing to nail down, but that has not proven to be the case for the traditional car-makers. Car companies have been trying to get their dashboards right since before Tesla was founded, and they are still struggling mightily today—while Tesla has driven circles around them. For example, all Tesla screens can be reconfigured by touch, drag, and drop. That technology is not even available on many *computers* yet.

Technology problems in general continue to plague the industry...

Bad Tech Erodes Consumer Confidence
A February 24, 2016 press release from J.D. Power states, "Problems with technology continue to cause declines in owner satisfaction with long-term vehicle dependability, according to the *J.D. Power 2016 U.S. Vehicle Dependability Study*^{SM} (VDS). The study shows that problems with vehicle audio, communication, entertainment, and navigation (ACEN) systems now account for 20% of all customer-reported problems. Furthermore, ACEN is now the most problematic area on most vehicles, and is the apparent cause of a 3% year-over-year decline in customer satisfaction with vehicle dependability.

"The decline in reliability coupled with a record number of vehicle recalls and safety-related complaints affect consumer confidence," said Renee Stephens, a J.D. Power executive.

Hence, the 400,000 pre-orders of Tesla's Model 3 as opposed to the 20,000 first-year annual sales expected for the GM Volt. Buyers are not stupid.

Again, U.S. car companies have been scrambling for decades to remain competitive. And that is with relatively simple, stable technology. The new tech is a faster moving target than ever before because, for one reason, Tesla is constantly doing over-the-air updates to its software. Consumers go to sleep at night with one technology and literally wake up in the morning with a better one.

Connectivity Issues

Integrating consumer-end technology in cars is a continuing problem for car companies. J.D. Power's June 2015 survey of new car buyers found the greatest complaints involved vehicle connectivity systems. Voice recognition and Bluetooth integration were top concerns.

The trailblazer in this endeavor was Alan Mulally of Ford, who bravely sought to transform the industry even before Tesla started. "When Alan Mulally unveiled the Ford Sync infotainment system nearly eight years ago," says an article in *Advertising Age* (December 16, 2014), "no other automaker had anything like it. And no one had ever heard of an iPhone.

"But Mr. Mulally's push to put Ford Motor Co. on the leading edge of in-car technology later backfired with a glitchy, confusing upgrade to Sync known as MyFord Touch, and now Ford is toning down that aspiration as it works to undo the damage."

Consumer Reports memorably declared in 2012 that the MyFord Touch system "stinks."

Now, in 2016, Ford is burying the MyFord Touch name and is being forced to partner with outside vendors. The end result will not be the sort of revolutionary and differentiated technology Mulally sought to make Ford stand out from the crowd.

And it's not just Ford. *Consumer Reports* and J.D. Power report the majority of automakers' systems are deterring and frustrating customers. Meanwhile, 60% of Chinese consumers report that they will buy a different car just for connectivity and tech-automation reasons.

What to do?

Car companies certainly did not *want* to give up control of the biggest differentiator of their brand, but now they are throwing their hands up and relying on tech companies for leadership and guidance. Their last and best hopes may be Apple's CarPlay and Android Auto, which have only recently been installed by auto makers.

Which brings us to our next point.

“Car companies will join forces with tech companies to compete.”

If the car companies can’t compete with Tesla on their own, they will join with tech companies to do so. And in doing so they will beat Tesla.

Our View: Again, easier said than done.

A. Tech and auto companies do not partner comfortably. As we saw in the case of Tesla and Toyota fighting over the underbody, trying to “share” the build-out of an electric car is inefficient and uncomfortable… to say the least. These days it is hard enough to get one company going in the right direction, but to try to do that with two or more companies, each with its own technology, biases, and approach to integration, is like trying to train a cat and a dog to be doubles partners in tennis. The issues are compounded when the companies are from two different industries.

Recently, Ford’s Executive VP of Global Marketing, Sales, and Service said of these new partnerships, “There are significant challenges that remain. And probably the most important one is the ability for the car industry to work with and partner with non-car industry software companies to really build their capabilities on the vehicle itself.”

B. Tesla’s driverless technology is miles ahead of the competition. Problems with driverless integration are similar to those with dashboard technology—but on steroids. Driverless functioning needs to be a seamlessly integrated technology that encompasses all parts of the car, from the sound system to the engine to the suspension to the braking system to the sensors. For the same reasons automakers failed with the dashboard, they will likely fail even harder with the autopilot.

Let’s see what is already happening.

Recently *Car and Driver* tested the world's top four semi-autonomous cars—**Nissan**'s 2015 Infiniti Q50S, **Daimler**'s 2015 Mercedes-Benz S65 AMG, **BMW**'s 2016 750i xDrive, and **Tesla**'s 2015 Model S P85D—to see which one had the best hands-free driving.

"Our main focus," according to *Car and Driver*, "was automatic lane keeping: how well these four early semi-autonomous cars guide you safely and securely while relying on their electronic wits instead of the driver's hands, eyes, and judgment.

“The route was a 50-mile stretch of Michigan roads including 30 miles of freeway driving, and the other 20 miles were allotted to rural and city driving. Michigan roads in particular ‘present a daunting challenge to hands-free driving because of their abysmal repair standards.’”

The Winner
“Tesla's Model S was the stand-out winner among the four vehicles tested,” *Car and Driver*

reported. The magazine had plenty of praise for the vehicle's Autopilot system: “The Tesla's Autosteer performance can be distinguished from our other contenders …this car identifies the exact center of your lane of travel and holds that course with minimal deviation. This system rises well above parlor-trick status to beg your use in daily driving.

“Also to Tesla's credit, this is the only car capable of hands-free lane changes. You simply use the turn signal the normal way and the Model S glides smoothly into the next lane after verifying that there's space to do so safely.”

Bottom line, after all its testing, *Car and Driver* concluded that Tesla's Model S Autopilot technology “lives in a class of one." And the software was *only four months old* at the time.

C. Tesla has a distinct advantage in the driverless arena: experience and data. Every day, the fleet of Model S and X Teslas is driving more than three million miles. That means that in just one day, Tesla's cars travel about *twice the distance Google's cars have traveled in the entire history of their self-driving car project.* Tesla is gleaning vastly more data than its competitors in the race for the true *s*elf-driving car. Each day that data pool increases with the number of Teslas hitting the road. With the Model 3, and the continued growth of S and X, it's hard to imagine how others (such as Apple and Google) will catch up.

This growing body of experience and data not only helps with Tesla’s internal R&D, it also gives the company a competitive advantage with regulators and governments. In order for regulators to be comfortable approving a fully autonomous car, they're going to want to see a vast amount of data, maybe billions of miles’ worth. They’ll want to view this data in a wide range of circumstances, in many countries all around the world, with varying rules of the road, and varying types of behavior from drivers and pedestrians.

“Technical issues and delayed development/release times show Tesla is biting off more than it can chew.”

Tesla is already getting slammed in the press for technical glitches, and its Model 3 is going to take much longer than anticipated to work out the kinks and go into mass-production on a wide scale.

Our View: Yes, Tesla has had a few problems, but they are minuscule when viewed against the company’s ambitious design goals and phenomenal successes. If it takes some extra time for the company to get fully ramped up to its ambitious plans regarding the Model 3, that’s a minor speed bump relative to the company’s growth potential.

A. **Tesla has shown it can solve its problems.** What’s important is not that Tesla has had some problems—those are inevitable, especially when your design and technology goals are so far ahead of the curve—but that it has had fewer of them as time goes on, has solved them efficiently, and has learned from them.

The vertically lifting falcon-wing doors of the Model X are a good example of this. Tesla had to sue the German auto-parts maker, Hoerbiger, for allegedly misrepresenting its ability to design the complicated part and for failing to live up to the product specifications. But Musk has learned his lessons from previous production cycles. He is simplifying the componentry for the Model 3 and adding further vertical integration…

B. **Vertical integration of parts further separates Tesla from the competition**. Musk has developed the ability to manufacture most of the needed parts within his own factory. He knows that out of the thousands of parts needed to build a car, if even one or two are missing, the car cannot be completed. "It's very important for us to have the ability to produce almost any part on the car at will because it alleviates risk with suppliers," he says. This added capability will speed up delivery times for an aggressive ramp-up.

C. Suppliers are now scrambling to work with Tesla. At first, many manufacturers did not believe Tesla's numbers, in terms of how many parts it said it wanted, and couldn't meet the expectations fast enough when Tesla turned out to be correct. Now, parts manufacturers can see that Tesla is a big, legitimate company with hundreds of thousands of cars on order. And they want to be the suppliers.

But even if, in a worst-case scenario, the Model 3 takes an extra year to build, that is no big deal in the grand scheme of things. For the record, though, I think Musk has learned so much that his cars will actually be delivered *ahead of time*, and at an accelerating pace going forward. He's achieved the crazy feat of building the best luxury car in the world—in electric format, no less, and with driverless technology. Therefore, common sense says he will be able to figure out how to ramp up production of a car he's already producing. Let's not forget that in the last quarter of 2015, 17,400 Teslas were put into consumers' hands. And once you build one beautifully functioning car and are able to deliver it—overcoming thousands of obstacles in the process—then ramping up becomes a relatively easy problem to solve.

"The end of electric car subsidies will cause Tesla to lose its edge."

In the U.S. the current electric car subsidies from the government will expire six months after Tesla reaches the 200,000-car mark. In many people's minds, this will eliminate one of the company's main competitive advantages, especially against gas-powered vehicles.

Our View: The subsidies don't matter as much as people think they do, and by the time they expire, Tesla's momentum will be strong enough to easily compensate for their absence.

A. The car is so far above and beyond other cars, it doesn't even need subsidies in order to sell. Tesla is the best car around, by objective, third-party standards. It is already competing with the best combustion cars money can buy—and beating them hands down. Remember that this is the first non-gas-powered car to win the coveted Car of the Year award from *Car and Driver*, along with a trunk-load of other awards.

B. The gas savings alone on the Model 3 will be almost equivalent to the lease payments of the car, as discussed above**.** You are getting the car almost for free, even without the subsidies factored in. The subsidies are nice, but non-essential for competitive purposes.

C. California and many other states have additional subsidies. California's is $2,500. Then there are other "zero-emission vehicle" (ZEV) credits. ZEV credits are a mandate dreamed up by the California Air Resources Board (CARB), which requires the manufacturing and sale of a certain number of "zero emission" cars per year. Tesla's Model S generates four credits per unit sold. To make a long story short, this means *the company can sell $20,000 in ZEV credits to other manufacturers* for each Model S sold—a cost borne by purchasers of other cars.

D. Remember that gas-powered cars are *currently* "subsidized." As Elon Musk has tweeted, "all gasoline cars are heavily subsidized via oil company tax credits and unpaid public health costs." As EVs continue to become more prevalent and environmental concerns continue to grow, the momentum for combustion cars will die down and regulators will be pressured to tack even stiffer penalties onto the pollution causers than they have in the past.

E. Now, let's look at those EV subsidies themselves. First of all, in the U.S, the current subsidy doesn't stop until two full quarters after Tesla hits the 200,000-car mark. By the time Elon Musk reaches 200,000 cars, his production machine will be humming—and in the following six months he can and will produce a large number of cars that will still qualify for the full subsidy. And, as he has calmly suggested in a tweet, he plans to maximize that opportunity by perhaps not selling his 200,000th car until he can ramp up to take full advantage of the six-month grace period.

Secondly, even after the first six-month period, the federal subsidy only drops by half for another six months…then by another half for the next six months, before reaching zero. All in all, it adds up to 18 months of continued subsidies after selling the 200,000th car. So, there is plenty of time for Tesla to fully milk the subsidy. And that assumes the subsidy actually *will* expire. Remember, Congress is known for extending popular legislation.

The wave of environmental legislation is getting stronger, especially in other countries. So if and when the U.S. subsidies run out, other countries will be there to pick up the slack. Even Germany, the kingpin of the combustion car industry (Mercedes, BMW, Volkswagen, Porsche, Audi, etc.) is talking about providing a subsidy for electric cars—to improve the air and to make sure that their stalwart combustion-carmakers get a kick in the pants to help them compete with Tesla. So, if U.S. subsidies wane, much of the world, including even Germany now, is seeing the light and will provide new ones.

In other words, I wouldn't worry about subsidies being needed for Tesla to compete with combustion engine cars. Subsidies are great, and they helped Tesla get through its incubation phase, but in the end they're just a small piece of a much bigger puzzle.

Management and Cash Further Separate Tesla from the Pack

Management

Tesla's biggest differentiator, I would argue, boils down to one thing—management. This is true for all great companies. What we at Prime look for is a great product in a great and growing industry—but it absolutely must be run by great management. Most of the investments that have paid off handsomely for us in the past have hit this kind of trifecta.

The premise that other manufacturers will catch up to Tesla in swift order is flawed because it doesn't take into consideration the quality of Tesla management. Elon Musk is one of those exceptional visionaries who also has keen real-world know-how. Although conventional wisdom might suggest that competitive edges crumble over time, history tells us that when you have truly exceptional thinkers at the helm, the schism between their companies and others can actually *increase* over time... as long as the luminary remains in place. Look at Larry Page of Google, Steve Jobs, Jeff Bezos, Bill Gates, Howard Schultz...

Elon Musk is a truly exceptional person with a proven history. He founded two successful Internet companies during the dotcom era (the latter of which, PayPal, sold to eBay for $1.5 billion). And now he has become one of the most successful startup founders of the past two decades. In addition to his work with Tesla, he is the chairman of SolarCity and chief executive of SpaceX.

At only 44-years old, Musk has built an astonishing business empire; the three companies he leads are worth almost $50 billion combined.

Elon was able to buck the odds and not only build a good electric car, but one of the best cars on the road. On top of that, he has built the best auto parts technology—a feat completely independent of his car-design success.

But he's also a hands-on director. Musk gets involved in everything. In addition to serving as CEO, Musk was Tesla's product architect. He moved the company's design studio to Los Angeles and obsessed over small details like the Model S's light switches and door handles, while two teams of engineers worked in shifts around the clock.

Musk's conviction in Tesla is evidenced by the fact that he has been taking no salary as CEO (except the minimum wage for his company). He made $37,584 last year. Yes, you read that right. And that was only because he had to meet California minimum wage laws. And he has not accepted

that salary for ten years. Rather, he has invested continual sweat equity in the success of the company. Show me another car CEO who has done that.

Though we are excited about the moat Musk has already built, we are even more excited about the moat he has yet to build. The evidence suggests that Elon is a guy who is just getting started and that what we have seen so far is probably just the tip of his iceberg. To have pulled off what he already has with Tesla—when everyone thought he was crazy at the start—is proof positive of the type of individual we are dealing with.

By contrast—not to put anyone down, but for analysis' sake—look at most of his peers at the other car companies. Their accomplishments pale beside Elon's. He built the most revolutionary car *ever*. And did it at such a high quality level it was named Car of the Century. He built the best driverless technology on the market, and did it in a stealthy way that shocked the industry. He rose to the top of the high-end car market immediately, and is now proceeding to demolish the middle market. And he is already planning a $20,000 electric vehicle. At about half the cost of the existing Model 3, every driver will actually get *paid* to drive this car, when gas savings are factored in. And again I expect it will be the best car for the money. After all, Musk thought of, and built, a state-of-the-art Gigafactory in short order. And it's already producing product. He's even looking toward electric airplanes next.

Management's vision is often the most underrated aspect of any company by investors and analysts.

Cash

Emerging from the cost-cutting consciousness of its initial $3.5 billion in total market cap, Tesla now has a $32 billion market cap and can easily raise a few billion in cash—multiples of its original operating budget—without affecting current shareholder value much at all, thanks to the high valuations that Tesla shares are currently enjoying. With an influx of working capital, Elon will now be able to compete without a hand tied behind his back.

Two More Substantial "Edges"

Two additional factors that give Tesla a leg up on the competition:

Untapped Marketing Potential

We've looked at some of the concerns that swirled about Tesla when it was starting out and some of the concerns that surround it today. My bet is that just as the old concerns failed to hold water, so will the new ones. Not because I say so, but because of the facts I've been outlining.

All of these concerns, new and old, are really about one thing: Tesla's ability to successfully compete, over the long run, in an industry dominated by giants with vastly more experience than Tesla. Here's one final consideration that should help put what Tesla has been doing into

perspective. Car manufacturers are the biggest advertisers in the world. Current global automakers are burning more than $8 billion per year in advertising.

Tesla spends only a tiny fraction of what the other automakers spend. For example, in 2014, GM spent $5.2 billion on marketing, while Tesla spent less than 1 percent of that: $48.9 *million*. And Tesla has not yet gotten into television advertising.

That's right; Tesla has created its brand value without TV advertising. The market for its product has been created almost entirely by word of mouth and proven value. In the rest of the industry, brand loyalty is relatively low in spite of $8 billion in annual advertising. Tesla, on the other hand, spends very little on marketing and yet has enormous aspirational value, not only in the USA, Canada, and Europe, but even in countries like Thailand, Malaysia, South Africa, and India, where Tesla has not yet sold a single car. People across the globe are salivating to own the car.

Poised to Dominate the Mid-Priced Market

Tesla has already built a high-end car. Now it is poised to attack the lower end.

This high-end market Tesla has established gives it the credibility and brand appeal to go after the lower markets. Almost all other car companies that have gone into lower markets have created a new brand so as not to diminish their high-end brand. Tesla, on the other hand, is actually *using* the high-end brand to drive the lower end. This creates a huge trust buy-in for the lower end Tesla Model 3 and future Tesla cars that will get rolled out.

As with everything else, the proof is in the pudding. Let's look at what Tesla is currently doing both on the low end and the high end.

The table below shows what the Tesla Model 3, *after one week of selling reservations*, was poised to do to the lower-end market and its effect on the high-end market (Mercedes, Porsche, BMW, etc.). As you can see, Tesla is killing it on both the low and the high end.

Rank	Model	2015 Unit Sales	Average price
10	Hyundai Sonata	173,751	$17k - $23k
9	Ford Focus	180,287	$16k - $23k
8	Chevrolet Cruze	193,680	$17k - $21k
7	Hyundai Elantra	209,830	$22k - $26k
6	Ford Fusion	255,143	$18k - $22k
5	Honda Civic	277,538	$22k - $29k
4	Nissan Altima	283,372	$22k - $28k
3	Honda Accord	294,935	$17k - $20k
2	Toyota Corolla	306,693	$17k - $20k
1	Toyota Camry	361,111	$21k - $28k
	Tesla Model 3	**276,000**	**$35k - $42k**
	Mercedes C-Class	86,080	$35k - $45k

Sources: Car and Driver and Car.com

Quite stunning. And it's just the beginning.

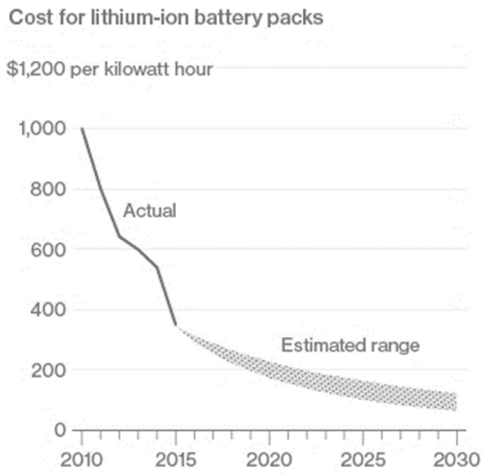
What about all the other great manufacturers? The Toyota Prius has been the only really viable, high-quality, electric-type car for many years now. It has had a huge head start and great success, and is manufactured by the leading car manufacturer in terms of current value. Yet it began losing huge market share to Tesla even before the roll out of the Model 3. Prius sales were down nearly 11% last year and the car sold only 184,794 units in the U.S. in 2015. Tesla's vastly more expensive vehicles were a main culprit. And now look at those presales of the Model 3.

Last but Not Least, the Gigafactory

Adding to Tesla's already huge competitive advantage is a monumental initiative we have only touched upon so far. That's the Gigafactory. While the car industry is spending $8 billion dollars a year on advertising, Musk is using the bulk of his company's money to help build Gigafactories.

What is the Gigafactory? It is an absolutely massive manufacturing plant designed to produce enough batteries to fuel Tesla's goal of making 500,000 electric cars per year by 2020. It is also anticipated to lower the cost of auto batteries through economies of scale. "The biggest leverage we have in making electric vehicles more affordable for everyone is reducing battery cost," says Tesla CTO JB Straubel. Dan Dolev, an analyst with Jefferies, recently predicted that the Gigafactory's huge production capacity will help cut the cost of Tesla's batteries in half.

Presently, batteries make up about a third of the cost of an electric car. As battery prices drop—due not only to the natural evolution of the product, but also to the Gigafactory and to other companies getting into the battery business—this will lower the cost of electric cars.



Source: Bloomberg Energy Finance

Just to give you a little scale perspective, Gigafactory will be the world's second-largest building by usable space, and the world's *largest building by physical area*. According to Tesla, the factory will be up to 10 million square feet and will employ 6,500 people.

And if size alone were not impressive enough, Tesla, once again, is out ahead of the curve by anticipating its own future needs. Tesla may expand and potentially double the size of Gigafactory 1. In June 2015, the company announced it had exercised its option to buy 1,864 acres of land adjacent to the original 1,000-acre site.

Gigafactory 1 is already producing Powerwall products (see below) in its completed section and plans to move into auto battery production by the end of 2016. According to an article on CNET.com, by the time the plant is fully up and running, it will be producing more lithium ion batteries per year than the rest of the world combined produced in 2013.

Gigafactory will also be supplying the EV industry as a whole with batteries. This will be good for the EV revolution, while creating a whole new profit center for Tesla. The company will be making money on its competitors' cars as well as its own. A true win/win scenario.

And in case you're concerned about whether there will be enough raw materials to produce all these car batteries, current estimates, show that, "Through 2030, battery packs will require less than 1 percent of the known reserves of lithium, nickel, manganese, and copper. They'll require 4 percent of the world's cobalt. After 2030, new battery chemistries will probably shift to other source materials, making packs lighter, smaller, and cheaper" (*Bloomberg*, February 25, 2016).

Gigafactory gives Tesla a massive competitive advantage just for its car business alone. But the true impact of the Gigafactory can be appreciated only when you frame it against Musk's stated vision for

the whole company: "The goal has not been: Let's make cars. The goal has been: We need to accelerate the advent of sustainable energy."

According to Tesla CTO Straubel, that's why Musk is pitching and manufacturing home battery packs. "If we can create huge demand for batteries," Straubel says, it will create "this virtuous cycle of reducing prices further." Thus Tesla has started two lines of home energy storage products called Powerpacks and Powerwalls.

"The issue with existing [home] batteries," says Musk, "is that they suck. They're expensive. They're unreliable. They're stinky. Ugly. Bad in every way." The idea is to pair the new Tesla products with solar panels—either on the rooftops of homes or in large-scale solar farms—allowing consumers to store energy during the day, when the sun is shining, and use it at night for free, instead of drawing energy from power plants that produce greenhouse gases.

How big is the market potential for this idea?

Musk thinks Powerpacks and similar products just might be the key to solving the problem of global warming. He uses Boulder, CO as an example, and explains that if that city, with a population 103,000, "bought a mere 10,000 Powerpacks and paired them with solar panels, it could eliminate its dependence on conventional power plants entirely."

The U.S. could do the same with only 160 million units of the product. Then Musk offers even higher figures: "900 million Powerpacks, with solar panels," he says, "would allow us to decommission all the world's carbon-emitting power plants; 2 billion would wean the world off gasoline, heating oil, and cooking gas as well."

The market in Unites States alone is potentially massive, but other countries—with their frighteningly high pollution levels and inadequate electrical infrastructure—have an even higher incentive to use the battery packs.

Musk is hell bent on making the Gigafactory a huge success. And if early indications are anything to consider, Tesla is well on its way. Case in point, Gigafactory is ahead of schedule in terms of its construction timeline. And Musk describes demand for his firm's batteries as "crazy off-the-hook." In fact, he is already realizing that one Gigafactory will not be enough to fuel burgeoning demand. "We're going to need probably, like, ten or twenty of these things," he says.

To my mind, the Gigafactory is a major indicator that Musk is not only able to think *way* outside the box, but is able to deliver on that vision here in the real world, and to do so efficiently. The fact that he is actually building the Gigafactory, *and that it is ahead of schedule*, may be the most amazing thing I've ever seen in business. (We can take this as evidence that he will be on track for car and battery production as well.) When was the last time you heard of any new and complicated project—not to mention something so physically huge—moving along *ahead* of schedule?

Tesla, the Investment

So why the heck did we do all of this analysis? Well, here is where the performance of the car and the company tie back to the performance of the investment—and to the performance of the investment manager you choose.

How does Tesla stand up as an investment in the long side of a portfolio?

I don't see how you can come to any conclusion except that the potential growth of Tesla over the next one, three, five, and ten years—and perhaps beyond—is staggering. And remember: as an investor, you have to recognize potential *before* it is fulfilled. Wall Street has a herd mentality and only truly believes in an opportunity once its value has already been proven. A smart investor looks at what the evidence suggests is likely to happen in the years to come and invests accordingly.

Again, Toyota motors has a market cap of $200 billion—at 8.25x earnings. It is highly profitable and is *netting* $24 billion per year. And that's just one company. Without a Gigafactory. That shows you the breadth and size of this industry.

Now you have Tesla, at only a $30 billion market cap, *feasting* on the competition. And its presales of the Model 3 suggest it has only been on the appetizer course. With its ultra-cool technology, environmental cachet, speed, safety, comfort, cost savings, and dominance in the driverless car revolution, there seems to be nothing stopping Tesla from taking over a huge chunk of this 70-million-car-per-year industry.

And remember… the billions of the cars on the road today get turned over every twenty years. Tesla can not only gain substantial market share, but can also increase the *pace* of the turnover in the industry through the aspirational value of its cars. When people see and drive this thing, believe me, they are going to want to turn in their clunky gas hogs sooner rather than later.

And all this can be done with much higher profit margins than previous automakers have enjoyed. Why? Because: 1) Tesla started later and has much lower legacy costs (pensions, etc.) than those of the fifty-plus-year-old companies. 2) Tesla is building from scratch so it can set up its operation much more efficiently than its competitors—look at its 500,000-car location in Fremont. 3) Building at such scale, with only three car models to worry about, gives Tesla an additional advantage in terms of efficiency and economies of scale.

And, of course, Tesla doesn't need much of an advertising budget.

If you look at Tesla's most recent quarterly financial statements, you'll see that it makes a gross profit margin of 21.64 percent (source: *Ycharts*). That margin is already higher than GM's, Ford's, and Toyota's (source: *Ycharts*).

Tesla just announced that it is moving its 500,000-car per year target up from 2020 to 2018. The new target for 2020? Closer to a cool 1 million.

And people are worried about what? The car not being produced fast enough? A few months of being up or down $500K? A small issue with the functioning of a new feature? Something tells me folks are just missing the mark on this opportunity… as often happens in the stock market.

Seeing Through the Negativity and Confusion

When it comes to stocks, I am highly skeptical, and that is a good trait for evaluating investments. But there comes a time when too much skepticism can cause you to miss out on a blazing opportunity that is right under your nose. When I first heard the ambitions Elon Musk had for Tesla, I, too, thought “I’ll believe it when I see it.” But now I do. See it, that is.

The important thing, from an investment perspective, is to be critical-minded but not to be swayed by unwarranted negativity. Don’t let minor hiccups such as a production glitch or a critical press review here and there sway you. The press likes to focus on problems and blow them out of proportion. If the Tesla’s satisfaction rate goes from 99% to 98%, you can bet you’ll see headlines like, “Number of Dissatisfied Tesla Owners Doubles.” But there’s no reason to panic if you have a clear view of the big picture.

When the story came out that *Consumer Reports* was retracting its recommendation of the Tesla after discovering some new issues through its customer surveys, TSLA’s shares got clobbered for a week. But those who reacted negatively missed the point, in my opinion. The survey was finding problems on advanced features that other car companies *weren’t even trying yet*. And remember, Tesla was a new car company, and it was showing that it could get its problems fixed.

The crucial point was that customer satisfaction for the brand remained just as high as it was before the magazine’s retraction. *Consumer Reports* admitted, "Despite the problems, our data show that Tesla owner satisfaction is still very high: Ninety-seven percent of owners said they would definitely buy their car again." Shares of TSLA soon took off again.

So, What Is Tesla Worth?

All right, I think we have reached the point where we have asked, and answered, almost all of the questions I have heard raised about the Tesla. My analysis is now on the table. I hope it helps you understand how we view this company, but more importantly, I hope it helps you understand the thought process we use when analyzing investments in general.

So what do I think Tesla is worth?

For the sake of our current and future investors, I won't answer that question directly. But I will tell you that I believe we are only seeing the tip of the Elon Musk iceberg. Given all the facts I've shared with you—and the unbelievably wide gap between Tesla's current value and what I believe its true value to be—I'm not sure it really matters *exactly* how much I think it's worth.

But I didn't ask you to read these 30+ pages to leave you hanging on my valuation, so I will go far as to say that, in my opinion, even at a $100 billion market cap—over three times its current market cap—Tesla would still be a strong buy.

Is that an outrageous statement? Not at all. I believe it's backed up by the facts and figures we've seen. How people are coming to different conclusions is beyond my ability to grasp.

But still, let's temper this a little bit…

1) Remember, Tesla is poised to win on so many fronts that we don't have to be right about all of our predictions. Our margin of error is so wide you can sail the QE2 through it. This is exactly the kind of investment that has allowed us to perform as well as we have over the years.

2) If we are wrong, and the situation on the ground starts shaping up differently from our analysis, in any major and unexpected way, then we will revise our position accordingly, just as we have done many times in the past and most recently with Chipotle (see above). Remember, the importance of this analysis was not to look at Tesla per se, but to show you our thought process in general. We believe we've proven ourselves capable of synthesizing what is happening to our investments in real time and make adjustments on the fly.

And please remember, Tesla is just one of our 25 long positions that we feel strongly about.

And on the Short Side: IBM

Well… I told you we'd be taking the "scenic route" through Tesla. For those of you who stuck with me all the way through, congratulations. For those of you who decided to take a detour and skip ahead, welcome back.

It's time for us to shift from a long look at one of our longs to a short(er) look at one of our shorts.

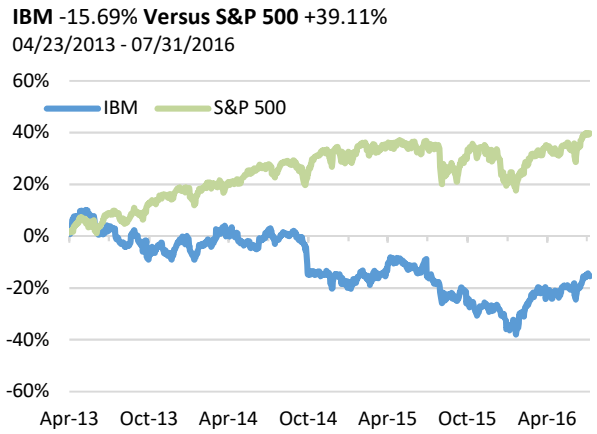
Although we are true value players, IBM has been our biggest short for almost three years now… And we are glad it has been. IBM has been down 23% since new CEO Virginia Rometty took over

(Oct 2012 through July 2016), vs. 51% up for the S&P. The year 2015 was no different, as the stock dropped -14.22%.

As we have said many times, we like investing long in companies where management is doing exactly what we would be doing if we were them, and, conversely, we like to *short* companies where the circumstances seem so dire that we believe there are really no good options. Even IBM's former CEO Samuel J. Palmisano seemed to see the writing on the wall for IBM when he resigned in 2011 to pursue other business interests. He got out at the company's peak.

New CEO Rometty, conversely, seems not to have a full grasp of things, as evidenced by the number of inaccurate predictions she has made about the nature of the company and how she thinks IBM will turn around. It's one thing to understand what you've gotten yourself into and to be able to deal with it, it's another to be unable or unwilling to see the predicament. The company has already revised its profit expectations twice since late 2014.

So far, Prime has had its finger squarely on the pulse of the IBM situation. We got into this short position when IBM was at $190.51, and now it's at $160.62 (as of July 31).



Many are now jumping on the IBM bandwagon as a long position because its price has dropped, but we think IBM's troubles are just starting. We believe there is more descent to come. The story here is not only that IBM has failed, but that we expect it to continue to fail over the next few years.

We look at the IBM situation as sort of a two-phase story. Phase 1 can be summed up as: *A major transition has started, and it's time to short IBM*. That was our assessment of the situation when we first got it in.

Phase 2 can be summed up as: *Once the transition has happened, it will continue unabated, putting a tighter and tighter noose around IBM*. Phase 2 is kicking in now. It is a growth and continuation of Phase 1.

IBM was in trouble a few years ago; it's still in trouble now and shows no real signs of turning the ship around.

Phase 1

IBM *used* to make its money by being *the* dominant tech vendor in the game, essentially owning an organization's technology infrastructure—the backbone of a company's operations. Big Blue had dominance on three powerful fronts. It would (1) sell you the hardware, (2) sell you the software, and (3) service the contract yearly. Each year it would raise its prices 6 to 8 percent. And there was nothing you could do about it. Like death and taxes. Numerous client surveys gave bad reviews to the company because of such practices, but nonetheless, IBM was able to print money hand over fist for years. Its amazing capability and business execution made it one of the largest companies in the world. Nobody could stop or penetrate the IBM machine. Anytime a credible competitor would emerge on the horizon, IBM would either emulate what it did or buy it out. IBM's integration and control of hardware, software, and maintenance provided a turnkey solution that created barriers to entry that were almost impenetrable. As a result, for decades, Big Blue was the only game in town.

Then cloud computing came along. Cloud computing essentially made proprietary hardware obsolete, which opened the door to a huge number of software makers who no longer had to work with IBM. Suddenly, it became possible to assemble a small group of software engineers—in the United States, China, Russia, India, or anywhere else in the world—and recreate practically any software, and sell it for ten cents on the dollar. Often this software was superior to the product that "inspired it" because it was constantly updated, incorporating the latest tweaks. And, being cloud based, the software was also better suited to today's workforce, which is dynamic, virtual, and often away from the office, so it needs ready access to work materials; anywhere, anytime.

What made these smaller software vendors fail previously was that they needed to gain scale, reliability and credibility—quickly. This was a herculean task, and one that kept IBM's software the only choice for most companies. But the advent of cloud infrastructure changed all that.

Other software vendors now had a platform to stand on that was reliable and allowed them to break into the field dominated by IBM. An infrastructure backbone now existed to create a gaping hole in IBM's integrated system. This was the unwinding of the software side of IBM's domination. This new backbone (the cloud) also allowed a new industry, Software as a Service (SaaS), to mushroom.

The final straw to make IBM's house of stone tumble was that with software stored on the cloud, and much less in-house hardware required, you no longer needed those hefty servicing and maintenance contracts that were a huge part of IBM's profit machine. If you didn't need someone to implement and manage your hardware (it's now on the cloud), you could now pick and choose from a variety of software vendors, and *change* vendors very easily as well. And you didn't need long-term service contracts to make all this stuff work together. You could scale up or down with ease as

your company grew, all without the need to contract with a big vendor to manage employees, servers, and proprietary software. The days were numbered for IBM's old model.

We believed that once IBM lost its foothold in any one of its three big areas, then, like a string of beads coming undone, it would eventually lose the hardware game, the software game, *and* the servicing game. On the software side, which has been the bulk of income generation for IBM in recent years, the company would have two choices: (a) compete with cloud-based software and its multitude of cheaper vendors, and thus be forced to drop its prices by 90%, or (b) hold a steady course... and slowly get fried by analysts and customers. A slow death or a slow death.

Please understand, I'm not badmouthing IBM. It was a brilliant and dominant player for a long time. But the ascent is what makes the fall. Without the advent of cloud computing, IBM would have kept chugging right along. But now, with the cloud, you could have any software running on a solid operating environment independent of a company's hardware or office building. It was obvious (to us) that IBM's entire business underpinning had changed, and that not many analysts were fully aware of this. When there is a kink in the armor that is not spotted and evaluated quickly, this can create a major gap between the current market cap and the long-term intrinsic value of a company. In the case of IBM, we felt the company was now highly overvalued and that various stages of its collapse over the next 5-10 years would create tremendous opportunity for us as a short position.

Our initial theory has proven itself out. We have done exceptionally well with this position, but what's really interesting to us is that we expect this success to continue. Phase 1, you see, had some natural "brakes" built into it, and we see those brakes falling away as the future unfolds. By "brakes" I mean that the majority of CTOs were reluctant to move to the cloud at first. Why? Because there was a perception that the cloud was not safe or reliable enough. IT professionals, in general, were hesitant not only about buying cloud-based software, but also about moving their own servers onto the cloud. To do so, they not only had to overcome the initial stigma and inertia, but also take a major personal risk. If something went wrong, after all, it might cost them their jobs. On the other hand, if they were successful at moving to the cloud, they would be rendering themselves and their team members less vital within the company. They would essentially be giving up their bread and butter. Lose/lose. Not exactly a compelling proposition.

Still, the cloud was inevitable, because it allowed software to be sold at a fraction of the price and improved the product as well. And it allowed companies to shed proprietary hardware that was slow, cost money, and took up space.

Phase 2

Once the ball got rolling with cloud adoption, we believed it would only pick up speed. For some time we have been projecting that IBM's decline would actually continue over time—and even accelerate—which in turn would cause a further and faster deterioration of IBM's standing and stock price. It's not just a matter of IBM becoming one of the many now—which alone should contribute

substantially to its decline in profitability—we think the company is actually handicapped in this new space and that its ability to keep pace will prove to be severely limited.

In short, we think IBM will be heading down a steep cliff of descent over its next three-year chapter.

Now that cloud-based systems have proven to be faster, cheaper, more reliable, more scalable, and safer in terms of data security, the rate of cloud adoption is accelerating. As recently as two years ago, CTOs were in the mode I described above—reluctant to move to the cloud because of concerns about security, downtime, and control of data. But now they are being pressured by their bosses to adapt. CEOs, once out of their depths in technology matters, are stepping in to *demand* cloud computing. The “pro” arguments for the cloud have become so deafening that CTOs can no longer drag their feet.

Also working to expedite IBM's downfall is the fact that its long-term contracts are expiring. Most service and software contracts for the big tech players like IBM have been for four to seven years. (No one wanted to renegotiate with IBM each year.) The length of these contracts has served to mask the speed of cloud adoption. If IBM has already seen major declines in its profits, those declines will only increase as more of its legacy contracts come up for renewal. It stands to reason that many of IBM’s corporate customers are eagerly exploring their cloud options right now and waiting for their contracts with IBM to expire.

This is not just theory; you can see it happening now. Revenues don't lie. IBM has now had 17 straight quarters of declining revenues (50 billion dollars lost over the past four years), despite scrambling to maintain its relevance, buying up other companies, and doing anything in its power not to lose ground.

The first beads have been falling off the string... and now the rest are going to fall. As if IBM’s financial woes weren’t bad enough, the SEC is now looking into how IBM is reporting revenue in transactions that took place in the U.S., U.K., and Ireland (maybe revenues *can* lie a little bit). I have no idea whether this investigation will lead anywhere; it doesn’t even matter—the point is that things seem to be getting worse for IBM at a stepped-up pace, just as we have been predicting.

The big story is not just that we saw this happening long before others and took advantage of it, but that we see this trend *extending into the future*. Although everyone recognizes that IBM has declined, what most people don't understand is that it's now in full avalanche mode.

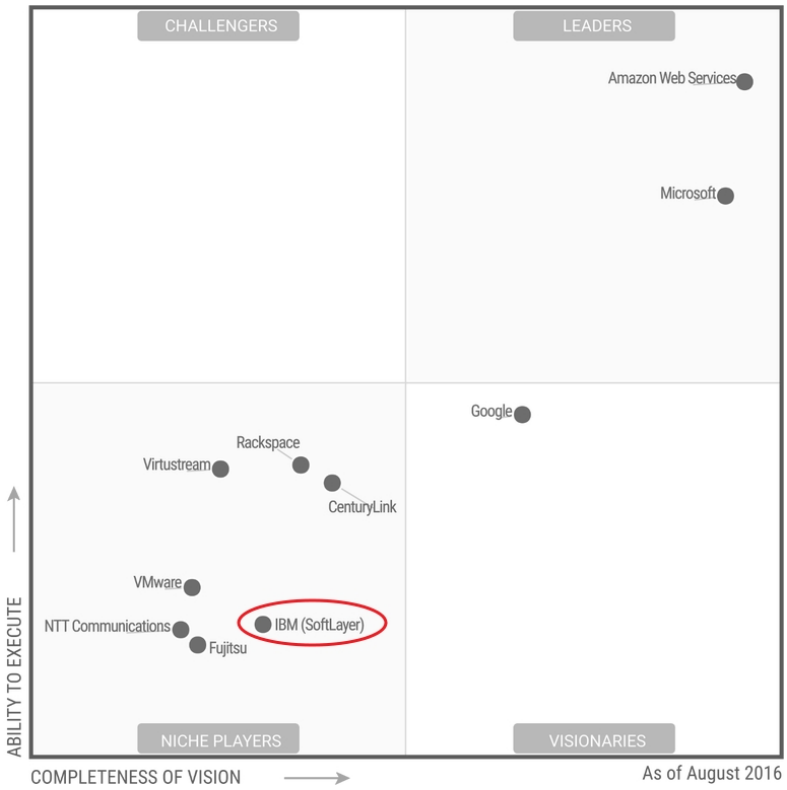
Let's look at how the competitive forces are playing out against IBM and why we expect, for the immediate future, that the pace of its decline will not slow.

Massive Growth in Cloud Infrastructure

The most important concept in cloud computing these days is "hyperscale." To support their websites and services, Amazon, Microsoft, and Google have all built a ton of computing infrastructure, and they're way ahead of IBM.

Synergy Research Group Inc. estimates that the market for cloud services will increase from $14.9 billion in 2014 to $27.4 billion in 2016, according to a *WSJ* article of January 28, 2016. That's almost a doubling in two years. Over half of that revenue comes from "infrastructure as a service" (IaaS).

For six years running, Gartner's Magic Quadrant report has found AWS to be the clear leader in IaaS, with IBM described as a "niche player," as shown below (chart source: SiliconANGLE).



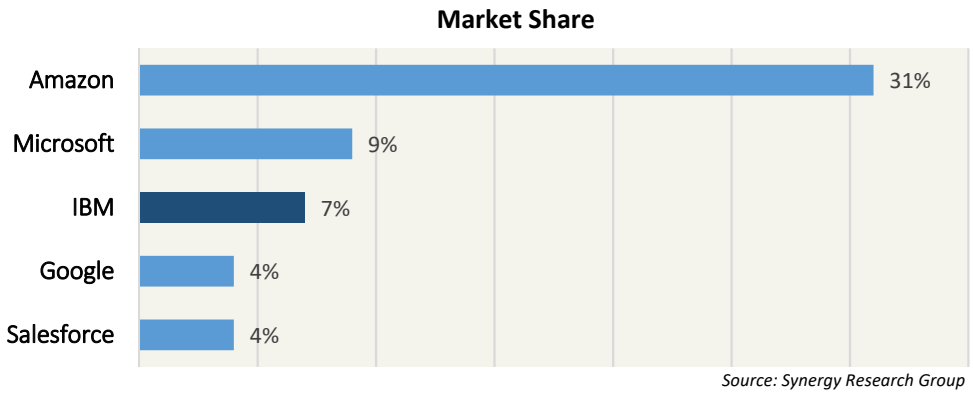
Amazon Web Services, as of Q3, 2015, had 44% of the market. Microsoft had only 9%, IBM's 4.8%, and Google's 3.8%. AWS, by the way, currently has more than ten times the computing power in use than the next 14 cloud companies combined.

Below is a chart showing the massive growth rates of cloud infrastructure. And every percentage point taken away from traditional IT structures comes out of IBM's hide far more than any other company's. You can see that IBM is trying to compete in this new paradigm, but is not really

succeeding, even though it had years of advance technology knowledge and a world of assets and resources behind it. It has done too little, too late. Google entered late but is growing fast, and the field of competition is broadening with Oracle, HP, and even companies like Salesforce jumping on the bandwagon.

Cloud Infrastructure Services Worldwide Market Share and Revenue Growth

Q4 2015 (IaaS, Paas, Private & Hybrid Combined)



Source: Synergy Research Group

The profit margins are growing much thinner, the competition much more intense. There's no room for a bloated player in this game; you have to stay lean. Amazon is hitting its above numbers even though it has dropped prices on AWS services 51 times!

Don't assume IBM is going to quickly catch up in this industry... Just in case you didn't know, Amazon beat out IBM for a large government contract in early 2013. The CIA awarded a contract to AWS worth up to $600 million over a period of up to 10 years. The reason IBM lost to the book-seller? IBM did not have the sophistication to handle the complexity of tasks the CIA needed managed, and Amazon did, as you can see in the below chart provided by the CIA.

	Amazon	IBM
Technical/Management		
-- *Technical Approach (Demo)*	Very Good	Marginal
-- *Technical Approach (Written)*	Exceptional	Very Good
-- *Service Level Agreements*	Very Good	Satisfactory
-- *Management Approach*	Satisfactory	Very Good
Past Performance (confidence)	High	Moderate
Security	Pass	Pass
Proposed Price	[deleted]	[deleted]
Evaluated Price	$148.06 million	$93.9 million
Guaranteed Minimum	[deleted]	[deleted]
Overall Proposal Risk	Low	High

Source: US Government Accountability Office

Looks like domination by AWS almost across the board.

Long story short, IBM did not demonstrate an ability to compete when it had first mover advantage, and does not demonstrate that ability when playing from behind. The problem is that while adoption of the cloud is getting faster and faster—devouring ever-bigger pieces of IBM's existing business and infrastructure—the scale of separation may only continue to worsen.

Adoption Happening Faster

In February, 2016 International Data Corporation (IDC) released a survey finding that "58% of companies planned to use Web-based, on-demand computing services, including both public services such as Amazon Web Services and private cloud-like facilities, for more than two applications" (*WSJ*, May 24, 2016). This is up a whopping 24% from just 14 months earlier.

The reason? Easier access, better software, speed, price, and expandability. A compelling all-around proposition. Again, the pace of adoption is accelerating and IBM is far behind pole position.

Even the largest and most innovative companies with the most resources are jumping on the bandwagon. General Electric, for example, just announced it is going to move more of its internal operating software to the cloud. Netflix unplugged its last data center at the end of last summer. GE is going from 34 on-site data centers down to four, reports the January 28 *WSJ* article cited earlier. "Those four data centers will only hold what we value most secretly—everything else is going to AWS," said Jim Fowler, CIO of GE.

According to the same article, "GE… plans to migrate over 9,000 workloads into AWS over the next three years." And this is across all GE businesses! At GE Oil & Gas, for example, over half of the core applications have already been migrated to the cloud and are running on AWS today.

And why are companies doing this? Well, to get good services for literally ten cents on the dollar. Is that an exaggeration? No. When researching cloud-based software for CRM (customer relationship management), for example, I found well over 200 companies offering great CRM software for less than a tenth of the price that used to be offered by the majors, like IBM. On one site alone—http://www.softwareadvice.com/crmt—there are over 375 different web-based CRM software products that are user rated. Most of this software did not exist three to five years ago, when IBM ruled the software world.

IDC.com states, "IDC expects that cloud software will grow to surpass $112.8 billion by 2019, at a compound annual growth rate (CAGR) of 18.3%. SaaS delivery will significantly outpace traditional software product delivery, growing nearly five times faster" than the rest of the market and taking a bigger and bigger chunk of traditional software's market share.

Here's an example of the time and money savings companies can realize. Not long ago, GE itself was internally running a configurator application for its sales team that cost $62,000 to run and resulted in $600,000 in orders. It took twenty days to make changes to the software. "After switching to AWS, that same app runs for $6,000 and we can deploy code in less than 2 minutes," said Fowler. "This is where we're going" (*WSJ* article, above).

So, from $60K to $6K in operating costs. Perhaps even more significantly for business operations, changes went from taking 20 days to taking 2 minutes. This is anecdotal evidence showing not only the *degree* of change the cloud revolution is bringing but also the kind of traction cloud technology is gaining. The problem for IBM, again, is that it is nowhere near the front of the pack in this new game. And, yet some people still want to believe that IBM will somehow transform and catch up.

Separation Growing Greater

AWS sales rose to $2.6 billion in the first quarter of 2016, up about a billion dollars from the same period in 2015. Amazon Web Services already has over 1 million business customers, ranging from the smallest to the largest of companies.

And as the dollars get bigger, the competition only gets stiffer. Microsoft's database program, SQL Server 2016, for example, is now designed to streamline the transfer of data to its Azure cloud service.

Amazon is also moving at breakneck speed and aims to simplify its migration processes even further. Since the beginning of the year, more than 1,000 databases from hundreds of companies have used an early version of its migration service.

AWS is bigger than Amazon.com was at ten years old, and growing at a faster rate. The most noteworthy fact, in my view, is that the pace of innovation continues to accelerate. AWS announced 722 significant new features and services in 2015, a 40% increase over 2014.

Jeff Bezos said, "AWS is already good enough today to attract more than 1 million customers, and the service is only going to get better from here. ...Over time, it's likely that most companies will choose not to run their own data centers, opting for the cloud instead."

Says AWS vice president Adam Selipsky, "You can clearly see that we're now getting into the meat of enterprise adoption of the cloud."

What Is IBM Doing? Giving Us Watson

So, what is Big Blue doing in response to all of this rapid change?

Not enough. Look at its staffing patterns for example. IBM's global headcount at the start of 2016 was 377,757 full-time employees! What's more amazing than those sheer numbers is that, even with all of the company's obvious challenges, its headcount is down less than 1% from 2014 (379,592).

IBM is a large ship in the wrong waters, going in the wrong direction.

By contrast, Amazon—which we got into seven years ago, before many saw its full potential—has 268,900 employees *across its entire operation*, with many of these working in manpower-heavy areas like fulfillment, retailing, and food delivery. Microsoft has 114,000 employees across its huge organization that includes Microsoft Windows, Word, Excel, Powerpoint, SQL server, etc. Even Apple, with four times IBM's market cap, has fewer than a third as many people as IBM.

And IBM doesn't appear to be getting great "bang" for its employee bucks, either. Cisco, by comparison, takes in more than three times more revenue per employee than Big Blue.

Meanwhile, IBM's major new offering seems to be Watson, a computer system it developed to answer questions on *Jeopardy*. IBM is using this system to develop business solutions in the arena of "cognitive computing," which in theory can emulate human intelligence. This is IBM's last and best hope of reversing the rapid decline in its stock price and creating some optimism that Big Blue can remain differentiated and dominant.

The problem is that no matter how good something sounds in theory, it has to make real world sense—and dollars. And thus far, IBM's "cognitive solutions" have added little to its bottom line. Although Watson famously won Jeopardy in 2011 (five years ago, an eon in the tech world), it is still estimated to bring in only $200 million—yes, million—of IBM's almost $82 billion in revenue for 2015, according to Toni Sacconaghi of Sanford Bernstein (*Fortune*, February 29, 2016). That is a paltry .24% of IBM's revenues. With so much time and money spent marketing and celebrating this great technology, for it to be achieving only .24% of revenue speaks volumes about its ability to produce future income. Even on the small scale it's operating on, its momentum has been muted. Morgan Stanley analyst Katy Huberty noted that Watson's strength is in a sub-segment of IBM's software solutions that showed flat revenue last year (source: above *Fortune* article).

Even if the software gets to the point where it can become practically applicable, I argue that IBM's first mover advantage is almost entirely gone. Even on a strictly computational level, Watson may not be the baddest boy in the ring. Google DeepMind's AI answer to Watson is AlphaGo. In a million-dollar match, and against all apparent odds, this program recently defeated Korean grandmaster Lee Sedol at the ancient Chinese board game of Go, a game known to be more complex than chess by orders of magnitude. My money's on Google in that fight.

Amazon, for its part, has created practical analytic tools that have earned it accolades in the Gartner Magic Quadrant report referenced above. AWS's suite of real-world artificial intelligence applications is busily overtaking IBM's "cognitive solutions" division.

Even Salesforce.com, a relatively new entrant to SaaS, has announced it is adding an AI called "Einstein" to its sales management system. Salesforce's launch of Einstein explains why the company has bought half a dozen AI companies over the past two years. Microsoft is expanding its AI too.

New competitors are popping up every day, eliminating any head start IBM may have had, should it ever successfully monetize its system. Clearly, the cognitive solutions idea is not going to be IBM's savior. From our point of view, it looks more like "smokeware" designed to mask the real issues facing IBM. As evidence for this, a February 29, 2016 *Fortune* article notes that IBM has been extremely closemouthed about Watson's actual performance in the market, despite the company's public pledge for greater financial transparency.

Competition is fierce from around the globe. There are big stakes at play, and IBM no longer has the advantage simply by dint of being Big Blue. The situation for IBM seemed bad three years ago; it looks to remain bad, and likely get worse, for all the reasons I've outlined above.

IBM's predicament is one that I frankly wouldn't know how to solve if I were running the company. And that's exactly what we like to see on the short side—oversized companies that are too big to be bought, too big to buy other companies that can move the needle, too big to change directions; companies with outdated management facing severe pressures from nimbler competitors. While many investors are still inclined to think, "Hey, it's Big Blue; it'll find a way to come back," we are inclined to look objectively at the fundamental premises and conclude that IBM will decline steadily over the next few years.

Dave & Busters (PLAY)

In case you might be concerned that we at Prime hold positions for too long, and thus miss out on new opportunities, let's end our analysis with some insight into a fun new investment.

Have you heard the tagline, "Eat, Drink, Play, and Watch"? Sounds like fun… and it is. That's Dave & Busters, a chain of 30,000-plus-square-foot entertainment centers for adults and kids with arcade, sports bar, and full restaurant.

Who's our new Chipotle? PLAY.

As most of you know, we found an amazing opportunity in the food industry some years ago in Chipotle, and accurately predicted that it would grow fivefold. And although we got out of it entirely in January 2016, as discussed earlier, we did amazingly well with Chipotle over the seven years we held it.

Since getting into Chipotle, we have seen many other food companies come and go and have not really liked any of them. Not only have we stayed away from them, but we actually shorted YUM, for reasons we won't get into now.

It takes many, many facets to line up correctly in order to make a great restaurant play, and we now think we have found one in PLAY. It may not work out exactly as well as Chipotle—we will have to wait and see—but we really like it.

How Is PLAY Like Chipotle? Let Us Count the Ways

Let's look at some of the traits and similarities that give PLAY an amazing upside much like we saw in Chipotle almost seven years ago:

No franchises. PLAY has no franchises in the United States or Canada. Its stores are 100% company-owned. As we said with Chipotle, there is nothing wrong with franchising, but when the opportunity is great, you want to keep it all, if possible. It's all about monetization. Not only is product consistency and quality control easier to maintain "in house," but also the income to be made over time is substantially greater.

Relatively Recent IPO. Dave & Buster's is still early in its growth journey. At Prime we know the truly great opportunities arise when you see a clear path to success at a relatively early stage and connect the dots.

Strong Same Store Sales growth. Not only does PLAY boast a shocking $11 million of annual revenue per store on average, but it is also seeing S.S.S. growth of an average of 7.43% over the last eight quarters. It has outpaced the Knapp-Track casual dining index in each of the last 17 quarters!

Low store count with huge growth potential. We love situations where the present number of stores is limited and the potential growth is substantially underestimated—by the market and even by the company's management. PLAY has only 81 stores. And they are all over the United States, proving D&B's can succeed in many markets.

D&B's is starting to monetize its growth potential, with 18 signed leases and three new stores under construction. The management of PLAY believes it can grow to over 200 stores. I think that is substantially underestimating its potential. To give you some context, Chuck E. Cheese's, which caters only to kids, runs over 600 locations. We believe there is especially great potential in smaller, less metropolitan cities where there are many passionate sports fans but there's not a lot for people to do. Starting from a base of only 81 stores in the entire U.S., with expanding margins to be gained from economies of scale, the future looks rosy for the growth of the company—and the stock.

Great diversification across many areas. PLAY is all about diversification, on many levels. For starters, it has a highly diversified user base. It's not only for kids and their amusement, but for

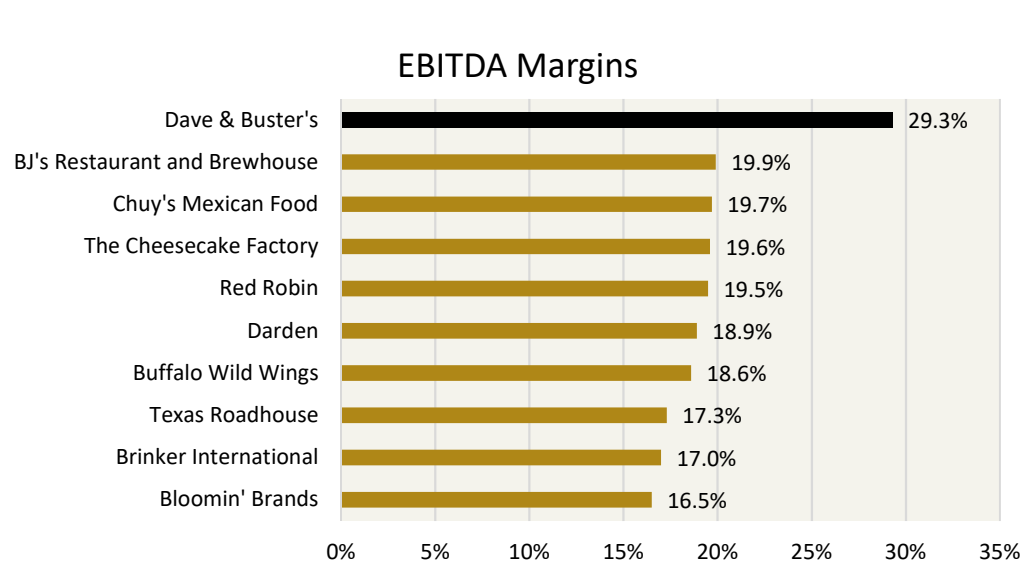
adults who gather to watch football and other sports. It also serves as an evening entertainment venue for drinking and socializing among adults.

As we saw above, Dave & Buster's is geographically diversified throughout the U.S., so its appeal is not limited by regional tastes or geography. It is even diversified time-wise. Steve King, CEO of D&B's, said, in a Q2 2015 Earnings Conference call, "We experienced sales gains across day parts, days of the week, weekend and geographies, demonstrating the power of our Eat Drink Play and Watch brand positioning" (source: *Seeking Alpha*, September 8, 2015). Super Bowl weekend is actually a *below average* weekend for D&B's—which demonstrates great diversity in its revenue stream, reduced volatility, and a solid and sustainable earnings base.

And its incredible $11 million average per store comes from a diversified, extremely high-margin, and differentiated product offering.

High margins. Even on an overall basis, PLAY has extremely high margins compared to other restaurant players. This is not surprising when you note that 53% of its revenue comes from amusements/games, a source that carries huge 88% gross profit margins.

And look at its EBITDA margins.



Source: Dave & Buster's

That's really impressive.

Average year one cash-on-cash returns: 45.1% since FY 2008. Wow.

International growth potential, but also China-proof. As you know, we love businesses that can expand globally and that are also "China proof." They give us great upside, and, perhaps more importantly, limit our downside. We love domestic food companies that are immune to China's

advantages and can actually expand *into* China. Dave & Buster's certainly has that potential. It also has the wide potential to expand into many global markets. PLAY, in fact, just announced its first expansion efforts outside North America, with a deal to start opening locations in the Middle East. Its first non-U.S. store is expected to open in Dubai in 2017.

Some Other Favorable Characteristics

Dave & Buster's has many other traits that give it a strong and sustainable tailwind.

First of all, being strongly identified with sports puts it in an amazing market. Sports' fan bases, not only in the United States but around the world, have been growing for decades. The sports market is becoming less male-dominated and now includes enthusiastic women and families. When it comes to sports, many people will always prefer watching events in group settings, with friends.

Fans flock to local eating and drinking venues to watch televised baseball, basketball, soccer, tennis, golf, UFC, and NASCAR racing, not to mention, of course, football—both college and NFL. Fantasy sports leagues are taking off—football, basketball, baseball. And in many cases you can even bet on the fantasy players. All of this adds up to more interest in watching each and every game, because every player counts, regardless of the game's importance.

D&B's continues to test new technologies and in-store programming to elevate its sports viewing experience. One example is the Tunity technology which allows viewers to listen to audio for any of the numerous giant TV screens by using their personal phone or a speaker box at their table.

In 2015, PLAY improved its guest satisfaction scores in each of its identified areas of guest enjoyment: food and beverage quality, games play, sports viewing, and staff attentiveness. This shows that the company actively strives to improve the customer experience.

Continued innovation is another big plus of Dave & Buster's: 35% of total food sales consists of items that were introduced only within the last four years.

Dave & Buster's has a unique business concept, with first mover advantage. Just as Chipotle was based on high quality at low prices, PLAY is based on mixing adult and child entertainment in a one-of-a-kind environment. The plan is for all future stores to be 25,000-45,000 square feet, though some may be larger or smaller if local market/economic conditions dictate. How many 30,000+ square-foot restaurants do you know?

Because of D&B's unique proposition, and the public's ever-increasing thirst for sports, even those D&B's stores located in malls—an area most retailers have been shying away from of late—are doing well. In fact, Dave & Buster's is poised to take great advantage of the recent decline in big box retail stores. The company wants to more than double its size in the next four years. At the same time, many excellent, oversized retail spaces, often in prime locations, are becoming available at just the right time.

Most importantly, for us, as investors: this is a product that we use and can understand. We can understand the food business—and we especially love and understand the sports market.

Right now, Dave & Buster's is a gourmet feast for investors, one that has certainly earned a spot in our long portfolio. We think it has huge growth potential and will be one of those companies you look back on in five years and say, "Wow, that was an easy one." Of course, as always, we will keep an eye on this stock and if we see any major trouble on its long-term horizon, we will adjust our position accordingly. But at the moment PLAY has the earmarks of a potential home run.

In Conclusion

So… we know this has been a lengthy document, and we thank you for reading it. We've now spent many years—and we're glad we have—explaining to our investors how we operate, how we think, and how we've grown. We've covered our macro perspective on the world economy in our inception document, "Sound Investing in Uncertain Times"; we've deep-dived into how we operate and analyze companies, as well as how we manage risk, in our previous annual reports; we've outlined our investing philosophy and our principles in "Ground Rules"; and now, with this year's report, we have presented some truly forward-thinking information and insight that we believe will prove itself timeless for investors.

The reason we go into such extensive detail in these reports and papers is to reflect the kind of detailed analysis we do when picking stocks. Our hope is that by better understanding our thought processes and our logic, you will gain confidence in us as managers.

If you read all of our reports over the years, you'll see that we're getting a strong majority of our picks right across a wide range of sectors. What's the explanation for this? A sound investment approach, one that is based neither on quick-fix financial gimmickry nor "buy and hold forever" passivity. Prime is all about (1) having the vision to find companies that are currently mispriced in relation to their long-term value, (2) employing the wisdom and patience to allow that true value to materialize, and (3) recognizing when that value has been attained and adjusting accordingly.

Our advice to you as investors is fairly simple: Be conservative, have clearly defined risk management parameters, and be patient. Don't expect too much too fast, and work only with managers who take a logical, sustainable, long-term view—with the performance to back it up.

Thank you for investing with Prime. We look forward to building a prosperous future of sustainable long-term wealth together. See you next year.

Pouya Yadegar
Chief Investment Officer

October 15, 2016

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Returns for Prime's Ultra Hedged Levered portfolio reflect the performance of the Prime Opportunities Long/Short Composite. Returns for subset products "Traditional Long/Short", "Ultra Hedged Unlevered", "Ultra Hedged 50% Cash Unlevered", "Long-only", "Unlevered Long-Only" are illustrated net of fees and subject to a high water mark, and do not include cash or cash equivalents. Actual long exposure of the Prime Opportunities Long/Short Composite used for all products, with the following maximums: Ultra Hedged Unlevered and Long-Only Unlevered: 100% long exposure; Ultra Hedged 50% Cash Unlevered: 50% long exposure; Traditional Long/Short: 125% long exposure. Actual net exposures of the Prime Opportunities Long/Short Composite used for all Long/Short products with the following exception: Returns for Traditional

Long/Short are illustrated using actual net exposures of the Prime Opportunities Long/Short Composite through July 2010, with 125% long exposure and 60% short exposure thereafter; the Prime Opportunities Long/Short Composite first surpassed 125% long exposure in July 2010. Floor for all products: 0% short exposure. Gross returns for subset products were calculated on a monthly basis using figures from the Composite as follows: ((Product long exposure / Composite long exposure) * Composite long contribution)) + ((Product short exposure / Composite short exposure) * Composite short contribution)). Net returns of subset products represent actual fees of the Prime Opportunities Long/Short Composite product, and were calculated using the Prime Opportunities Long/Short Composite gross return to net return ratio. "Long-only performance" as illustrated in this report represents the long only stock performance of the Prime Opportunities Long/Short Composite. Returns were reduced by a simulated incentive fee of 20% of all profits, charged quarterly through 12/31/13, represent actual fees of the Prime Opportunities Long/Short Composite through 12/31/14, and represent actual product fees thereafter.

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REPORT NOTES: Source for 83-year study referred to beginning on page 5: "Even God Would Get Fired as an Active Investor." Alpha Architect, LLC. Accessed February 21, 2016. http://blog.alphaarchitect.com/2016/02/02/even-god-would-get-fired-as-an-active-investor. This report is prepared for the exclusive use of Prime partners, subscribers to this report and other individuals who Prime has determined should receive this report. This report may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Prime. You agree you are using this report and the Prime subscription services at your own risk and liability. Neither Prime, nor any director, officer, employee, or agent of Prime, accepts any liability whatsoever for any direct, indirect, consequential, moral, incidental, collateral or special damages or losses of any kind, including, without limitation, those damages arising from any decision made or action taken by you in reliance on the content of this report, or those damages resulting from loss of use, data or profits, whether from the use of or inability to use any content or software obtained from third parties required to obtain access to the content, or any other cause, even if Prime is advised of the possibility of such damages or losses and even if caused by any act, omission or negligence of Prime or its directors, officers, employees, or agents and even if any of them has been apprised of the likelihood of such damages occurring. If you have received this report in error, or no longer wish to receive this report, you may ask to have your contact information removed from our distribution list by emailing clientservices@primeopp.com.