

VANTOR INVESTMENT CLUB

Investment Report

Date: May 7, 2017
Investment: General Motors Company Stock (NYSE:GM) and Warrants (NYSE:GM.WS.B)
Type of Investment: Long Exposure / Medium Business Strength / Undervalued
Recommendation: Buy stock now at \$34/share and warrants if stock declines to ~\$27

General Motors (“GM”) traces its roots back to 1904 and it overtook Ford to become the world’s best selling carmaker in the 1920s. GM got the leg up by marketing its different brands and models to multiple customer segments, whereas Ford focused on efficiently manufacturing only one car, the Model T. GM’s position as the world’s largest carmaker ended in 2008, when it was overtaken by Toyota, perhaps due to Toyota’s decentralized, team-based assembling methods that used a more collaborative approach with suppliers. GM lost US market share to Toyota and others at a gradual rate of about 0.6 percentage points per year from 1964 to 2014.

During 2016, GM sold 3M of the ~18M cars sold in the US vs. Ford’s 2.5M and Toyota’s 2.45M¹. While GM is still the biggest in the US, it was the 3rd biggest by global retail sales with 10M, behind Toyota with 10.2B and Volkswagen with 10.3B. All this market share talk brings about a bigger question: could a major innovation cause a sudden loss of market share over a short period of time?

Barriers to Innovation Reduce Risk of Market Share Loss

Today, most conventional carmakers try to emulate the success of the multi-segment marketing and efficient manufacturing that made GM and Toyota successful in the past. As a result, carmakers can be seen as mass marketers and assemblers, and while innovation is important, it must be balanced against the following: a) R&D costs; b) marketability, will consumers notice the difference? will they even care?; c) scale, can the new technology be used for many models or just a few; d) convincing suppliers to make the parts (~70% of the value of a car comprises of parts from independent suppliers²); e) reconfiguring equipment and retraining employees; f) testing and regulatory requirements; g) potential legal liabilities; and h) the risk of competitors using your innovation to produce something similar.

Despite the barriers, spending on innovation still occurs (GM spent \$8.1B on R&D in 2016 vs. Ford’s \$7.3B) but Sergio Marchionne, the well-respected CEO of Fiat Chrysler, seethed that the escalating costs of new products were “driving me nuts” and he believes that carmakers waste billions on duplicating efforts in developing new technology³. If Marchionne’s sentiment gains traction, the risk of a sudden loss in market share due to a technological shift will be even further reduced.

Since we are talking about innovation we cannot ignore Tesla, which is run by a brilliant visionary who seems to be more driven by altruism than by profit. But, Tesla will not enforce any of its patents and it is small with only 84K cars produced in 2016 vs. GM’s sales of 10M. Tesla is admittedly growing incredibly fast as its production increased 64% in 2016 (vs. GM’s 0.5% growth of vehicles sold) and it expects to reach a 2018 production capacity of 500K, which is only 0.54% of 2016’s global vehicle sales and if it were to impact GM’s global sales pro-rata immediately, my estimate of GM’s intrinsic value would only drop 3%. This could easily be underestimating Tesla, and the impact of market share erosion in general will be tough to predict, hence GM will not be able to command a very heavy weight in our portfolio (max 10%).

Why not buy Tesla? Tesla’s enterprise value (the market value of all stock and net debt) is \$57B, about the same as GM’s automotive operations and given the difference in 2016 sales, it seems likely that too much optimism built into its price. In the case of GM, I have modelled that GM’s cars sold stay flat going forward and that starting in 10 years, after-tax operating profit grows at 1%/year thereafter. These assumptions imply long-term market share loss if car sales increase in the future (ride-sharing will be discussed later). The assumptions in this “flat” scenario result in an intrinsic value of \$39/share, which should compound at 10-13%/year.

The New GM: Less Downside Risk in a Weak Economy

Heavy pension and debt burdens combined with a poor economy led GM to file for bankruptcy in mid-2009. It re-emerged as the current form of GM with a much less risky capital structure. Here’s some of the changes that occurred from 2007 to 2016: i) GM’s automotive operations reduced debt from \$39B to \$11B (GM has cash and securities of \$22B, giving it a strong balance sheet); ii) GM’s US pension obligations are down from \$49B to \$16B; iii) To break-even, GM’s US operations required 16M industry-wide cars to be sold in the US, now only 11M are required. The new GM is more profitable and more resilient than its predecessor.

Car sales have grown 7 years in a row and an upcoming downturn is indicated by declines in the value of cars coming off lease, high dealer inventory levels and

1. <http://www.goodcarbadcar.net/2017/01/usa-2016-auto-brand-sales-results-rankings.html>

2. From “A Profile of the Automobile and Motor Vehicle Industry”, 2014

3. <https://www.nytimes.com/2015/05/24/business/detroits-chief-instigator.html>

carmakers giving the highest discounts since 2009. What would happen in the event of another recession? I believe that if the U.S. industry were to follow the same annual rate of decline and growth from 2005, when auto sales hit their last cyclical peak, to 2015, thereby capturing both the decline and recovery from the great recession, the intrinsic value of the stock would be \$26. This downside of 22% in an extreme scenario coupled with a 15% upside and the 10-13% annual compounding in a flat scenario indicates a favourable return profile.

What about ride-sharing and autonomous driving? Let's look at the trends that could decrease car demand and their offsetting factors: 1) trend: lower car ownership due to ride-sharing, offset: the usage of remaining cars will increase if overall miles driven remains constant, causing cars to be replaced faster; 2) trend: pooling decreases overall miles driven, offset: no passengers between stops; 3) cars can drive more miles before being replaced because of autonomous driving and better technology, offset: the cost of vehicle ownership would decline, making cars more economical. In addition, trends such as global population and economic growth should support long-term vehicle demand. The future is very tough to call, but there are balancing forces that would soften the blow from ride-sharing and autonomous driving. GM is hedging its bets as it bought 9% of Lyft and acquired Cruise, an autonomous driving tech company, in 2016.

Segments: Automotive Operations and Finance Business

Let's take a step back and quickly discuss the nature of GM's business. GM divides its automotive business into different regions, namely North America (74% of 2016 automotive revenue and 101% of automotive pre-tax operating profit), South America (4% and -3%) and international (21% and 10%), which comprises of Africa, Asia and the Middle East⁴. The impact of GM's European operations is excluded from the percentages above as GM sold its European business this year in a transaction that, according to my model, benefitted the valuation.

GM's automotive operations record revenue when a vehicle is delivered to one of the 13.4K independently owned dealers that are authorized to sell GM products (Ford has 11.5K dealers globally). Dealers can use GM Financial to finance their purchases, as can consumers. Basically, GM Financial is like Ally and for additional details on the auto lending business model, please refer to the Ally report. GM sold its European finance division for 80% of its book value and as such, I used the same figure to value GM Financial's remaining operations. A quick note on GM Financial: its credit profile seems to have strengthened over time by lending relatively more to customers with higher credit scores.

Dependability and Capable Management

Ford is perhaps the best comparable to GM due to the US market comprising about 45% of both their 2016 vehicles sold. I have not done a deep dive into Ford, but according to J.D. Power, GM has ranked above the industry average in the last 3 years in terms of dependability (defined as problems per 100 vehicles of 3yr old models), whereas Ford has consistently ranked below. If we were to assume that their finance businesses are worth 80% of book value, then GM's and Ford's automotive businesses are both trading at ~13x 2016's after-tax operating profit.

Mary Barra, GM's CEO since early 2014, is an engineer and has spent her entire career with GM. Barra has previously held leadership positions in supply chain, HR and manufacturing, giving her a deep understanding of GM's business. Buffett, Mohnish Pabrai (another great investor) and competitors have praised Barra. To be clear, I am not discounting the leadership of Ford, which actually conducted itself the best during the great recession, but am merely pointing out that GM seems to have capable leadership.

Other Risks and Recommendation

In addition to the long-term risk of share erosion and the shorter-term risk of cyclically high auto sales addressed earlier, other risks include that of increased gas prices and a lawsuit liability. Gas prices impact vehicle demand and the risk of increased gas prices is somewhat built into the great recession scenario described earlier as US gasoline prices hit a high of about \$4/gallon in July 2008, vs. today's price of \$2.3. I believe the 22% downside built into the great recession scenario is acceptable, and since that scenario includes high gas prices, I believe the risk of high gas prices is also acceptable. The major legal risk GM faces is due to lawsuits related to an ignition switch failure, which could cost up to \$10B⁵ and if this were to occur, I estimate that GM's stock would be worth \$36, still 7% above the market price.

I believe a 5% initial position to GM's stock balances GM's favourable return profile with its risks. If GM's price were to decline to about \$27, we could increase our exposure via a ~2.5% allocation to GM's warrants, which would exaggerate the upside and downside of the stock, but would offer a more favourable return profile at that lower price. Why not just buy the warrants now? The warrants currently have an upside of 26% in our "flat" scenario and a downside of 50% in our recession scenario plus they do not participate in GM's 4.6% dividend yield. But at a share price of \$27, the upside/downside becomes +130%/-5% vs. +44%/-1% for the stock.

Disclosure: I, Ashvin Moorjani, do not yet hold GM.

4. The percentages do not sum to 100% because of shared revenues and expenses

5. <https://www.nytimes.com/aponline/2017/04/24/us/politics/ap-us-supreme-court-gm-ignition-switch.html>