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New Rec: Group 1 Auto	(GPI: \$61.68)	Sept. 4, 2017
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Position: Buy **Target: \$84.00**

	1Q17a	2Q17a	3Q17e	4Q17e	2017e	2018e	2019e
Revs (\$m)	2,519	2,672	2,699	3,470	11,360	12,840	10,925
EBITDA (\$m)	92	107	94	153	446	522	408
EPS \$	1.52	1.87	1.50	2.81	7.70	9.45	6.48
Y/Y Gr	-4%	-17%	-23%	44%	2%	23%	-31%
P/E	n/m	n/m	n/m	n/m	8.0	6.5	9.5
Cons EPS	n/m	n/m	1.92	1.78	7.09	7.36	7.11

Shares Out: 20.9m

Market Cap: \$1.3B

FYE: Dec.

To speak with the analyst on this name, please email research@offwallstreet.com, or call 617 868 7880.

Concept:

1. Post Hurricane Harvey, replacement demand, from damaged vehicles, which most observers may be underestimating, could significantly boost GPI's financial results.
2. GPI's recent weakness in energy geographies, resulting in high inventories, could quickly become an advantage. Also, Parts & Services (P&S), growing off-lease returns, acquisitions and operational improvements should provide tailwinds above and beyond Harvey.
3. Longer term, new vehicle sales are unlikely to collapse as many have feared.
4. GPI's stock provides a compelling risk-reward with 36% upside from our initiation price and only about 20% downside.

Summary: Group 1 Automotive (GPI) is the third largest auto dealership group in the U.S., and has uniquely concentrated geographic exposure to Texas (particularly Houston), the U.K., Oklahoma, and the Southern portion of the U.S. Given that the Houston Metro Area alone generates 17% of GPI's new vehicle sales, Harvey should act as a meaningful positive catalyst for GPI's stock. We began research on GPI a few weeks prior to Hurricane Harvey reaching Houston, and had been visiting GPI dealerships in Houston just before Harvey struck. We thought that GPI shares were attractive even prior to Harvey, but they seem even more compelling now, given GPI's opportunity to replace many of the vehicles damaged by Harvey. We estimate that the financial boost from Harvey replacement vehicles could enable GPI's 2018 EPS to beat current consensus by over 25%. We also think that the financial improvement from Harvey replacement demand should improve the recent negative sentiment around GPI's stock, which already seems to be happening over the last few trading days.

GPI's profitable and growing Parts & Service (P&S) business gives the company significant financial stability and a meaningful earnings tailwind. Gross profit from the P&S business is 44% of total gross profits and covers 95% of the company's fixed costs and P&S selling expenses. Finance and Insurance (F&I) is also very profitable and generates 26% of GPI's gross profits. New vehicle sales are the most volatile business line, but only generate 19% of the company's gross profits.

We estimate that the impact of Hurricane Harvey is a meaningful positive for GPI, and could drive sales of 97,000 new and used vehicles for GPI to replace damaged vehicles. This estimate is based on 30% of Houston's vehicles being damaged and GPI having 9%-10% market share to replace damaged vehicles, the same as its typical Houston share. We think that there could be upside to GPI's replacement share as well as for vehicles damaged outside of the Houston Metro Area. The positive impact from replacing vehicles should start by 4Q17 and likely should last for a few quarters. We provide a sensitivity table in Exhibit 6 for the key assumptions.

GPI should benefit from several profit tailwinds above and beyond Harvey vehicle replacements. Spurred by Harvey's impact, the weakness that GPI has seen in its energy-dependent markets like Texas and Oklahoma could become a strength due to the size of its inventory. GPI should also benefit in the long term and perhaps even near term from a rebounding and growing Brazilian auto market. The highly profitable P&S business should continue to grow, but likely at a slower CAGR than the 9%-10% at which it has grown revenues and profits over the last five years. Future P&S growth should be driven by a growing fleet of 0-5 year old vehicles, the trend to longer warranty lengths, an increase in mechanic labor rates, and a growing number of accidents caused by distracted drivers. The expected surge in off-lease vehicle returns should not only benefit the P&S business but should also boost GPI's used car business.

As was previously discussed in our 7/12/17 AXL buy recommendation initiation report, we think it is unlikely that U.S. new vehicle sales will collapse, as many have feared. Based on our analysis, we think the probability of a 15%+ downturn is low. A typical cyclical downturn would trough at around 15m vehicles sold, and a typical peak would be over 20m. Historical population-adjusted average auto sales are 17.6m, so 2016's sales of 17.5m do not look above normal by this measure, and peaks almost always overshoot the average. We looked at several common measures for "normal" auto demand, and, by most measures, recent sales do not seem extended. Miles traveled analysis shows that at least 17.6m vehicles should be sold, and population-adjusted auto sales averaged over 18.5m for both the 10-year period and the 25-year period before the Financial Crisis in 2008. Analysis of average vehicle spending as a percent of GDP implies normal demand of ~18.5m vehicles per year, while scrappage analysis implies that normal demand should be around 19m-20m. The aging of the vehicle fleet should support auto sales over the next several years, and aging accelerated during the Great Recession, when sales fell almost 40%, so that the percentage of vehicles over 11 years old increased from 36% to 48% from 2008 to 2016. Given our estimate of "normal" auto demand and considering the aging fleet, our base case forecast is for auto sales to fall 3% in 2017, 4% in 2018 and another 5% in 2019 to a trough of 15.5m, which seems conservative.

GPI's stock provides a compelling risk-reward, with 36% upside to our target and only about 20% downside. Our target price is \$84 and is based on 10.5x our 2018-2019 average EPS, lower than GPI's historical average forward multiple of 11x-12x. We think that GPI's stock downside is likely only to around \$49, which is around the lowest price that the stock has traded over about the last five years.

Background:

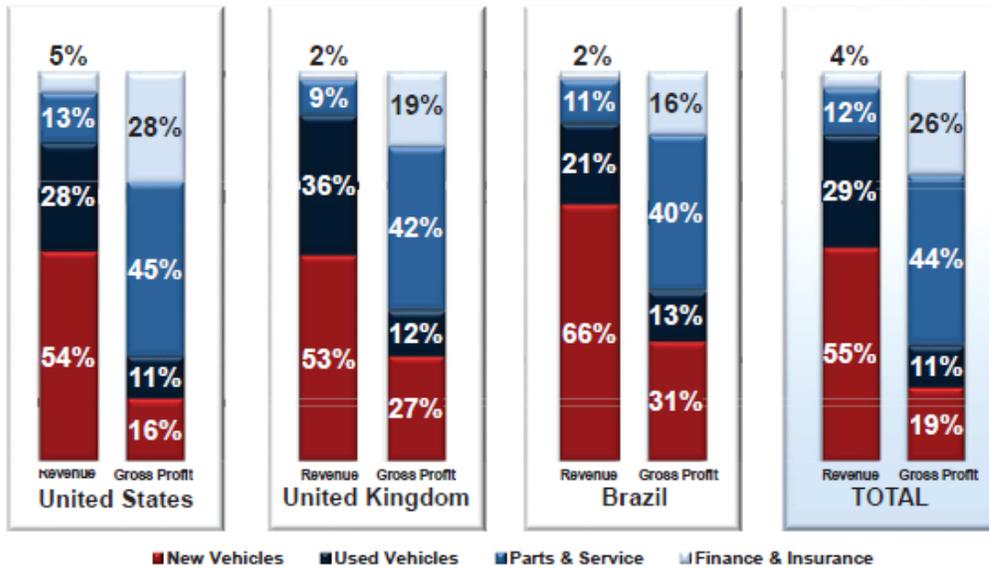
Group 1 Auto (GPI) is the third largest auto dealership group in the U.S. after AutoNation and Penske. The company went public with its October 1997 IPO and has grown significantly since then. GPI owns and operates 171 auto dealerships with 224 franchises, as some dealerships have multiple brands located together at the same dealership location. It also owns and operates 47 collision centers globally, a business that has expanded meaningfully over the last few years.

GPI's primary business lines are new vehicle sales, used vehicle sales, finance and insurance (F&I) and parts and service (P&S). GPI operates in three countries: the United States with 76% of new vehicle sales, followed by the United Kingdom with 19% and Brazil with 5%. As shown in Exhibit 1, new vehicle sales generates 55% of GPI's revenues but only 19% of gross profits. P&S generates 44% of gross profits and provides significant financial stability to GPI across times of varying economic conditions. In fact, P&S gross profit covers about 95% of the company's overall fixed costs and P&S selling expenses, which gives GPI a much lower profit breakeven point in terms of new and used vehicle sales. This enabled GPI to remain profitable even during the most challenging economic times such as during the 2008-09 Great Recession. Used vehicle sales generate 29% of revenues and 11% of gross profit. Used vehicle sales have a higher gross profit margin than new vehicle sales, but have a lower dollar profit per unit sold. F&I is GPI's highest margin product and generates 26% of gross profit with only 4% of revenues. As seen in Exhibit 1, the business mix varies modestly by country, with the international operations depending more on new and used vehicles sales than the U.S.

Exhibit 1: GPI's 2Q17 Revenue and Gross Profit by Business Line

Business Mix Comp – 2Q17

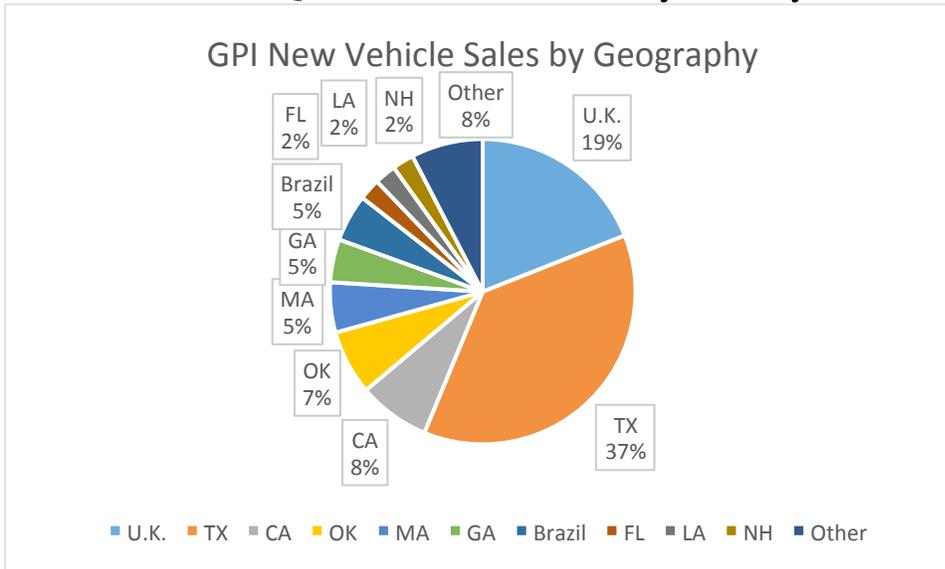
GF1



Source: GPI 2Q17 presentation

GPI’s U.S. operations are concentrated primarily in the South with some exposure to California, the Boston area (MA & NH) and Mid-Atlantic (NJ & MD). Exhibit 2 shows the company’s new vehicles sales by country or U.S. state for 2Q17.

Exhibit 2: GPI’s 2Q17 New Vehicle Sales by Country or State

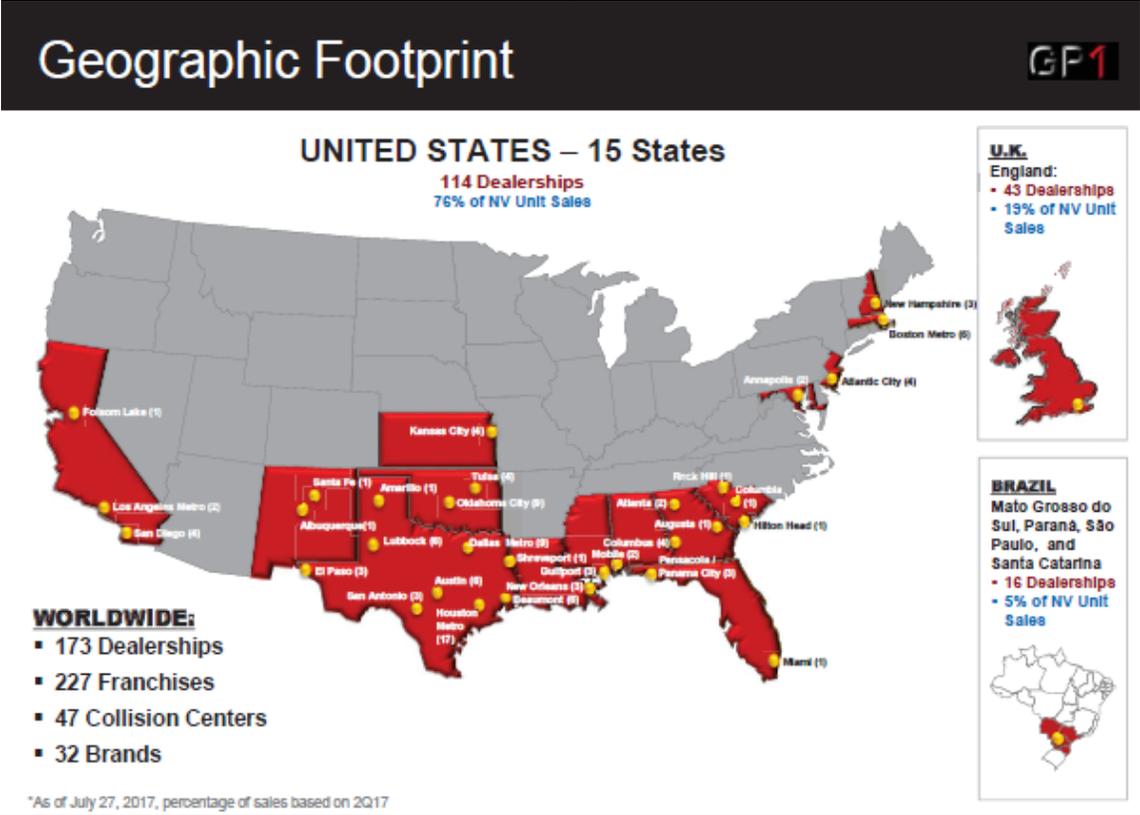


Source: GPI 2Q17 presentation

GPI is especially dependent on Texas with 37% of total new vehicle sales. Within Texas, about 46% of TX sales are in the Houston Metro area. In fact, Houston represents 17% of GPI’s total new vehicle sales. GPI’s over

concentration on oil-dependent states like Texas and Oklahoma have depressed new vehicle sales over about the last six quarters. However, the recent weakness in Texas has been primarily around the broader Houston area, with other areas in the state performing better. Exhibit 3 shows a slide from GPI's 2Q17 presentation, which shows how many dealerships the company has by city or state.

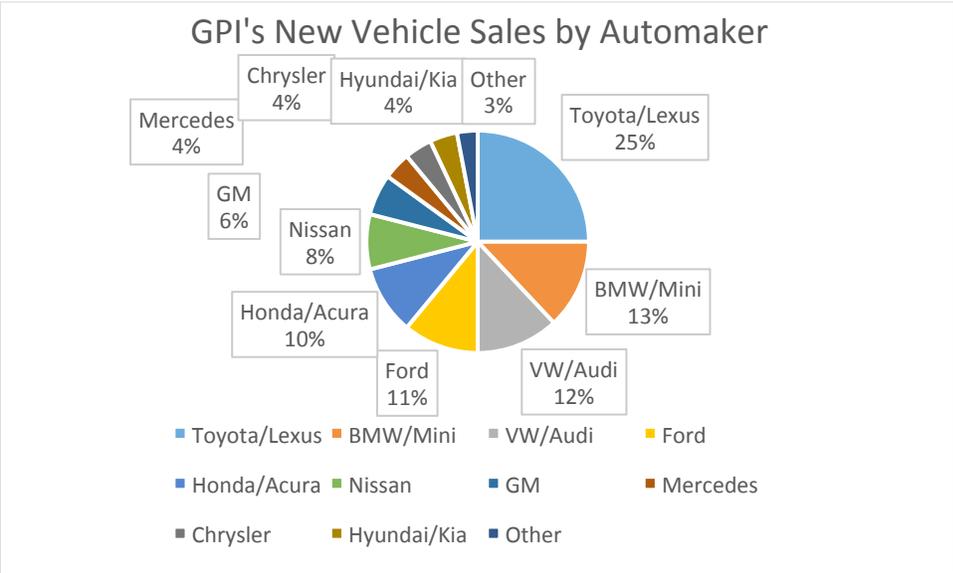
Exhibit 3: GPI's Number of Dealerships by State or City



Source: GPI 2Q17 presentation

GPI has an attractive mix of brands, with most of its new vehicle sales coming from import brands. The company also has a meaningful exposure to European and Asian luxury brands. Exhibit 4 shows GPI's new vehicle sales by automaker/brand.

Exhibit 4: GPI's 2Q17 New Vehicle Sales by Automaker/Brand



Source: GPI 2Q17 presentation

Discussion:

1. Post Hurricane Harvey, replacement demand, from damaged vehicles, which most observers may be underestimating, could significantly boost GPI's financial results.

After Harvey's devastation across parts of the Gulf Coast, GPI will likely experience a significant boost in sales replacing vehicles that were flooded or otherwise damaged from Harvey. Houston was by far the largest metro area hit by Harvey, and it experienced the brunt of the rainfall and flooding. We estimate that GPI has about a 9%-10% market share in the Houston Metro Area. We estimate as shown in Exhibit 5 that GPI will likely replace about 97,000 vehicles in the Houston area because of Harvey damage.

Exhibit 5: OWS Estimate of Houston Harvey-Damaged Vehicles & GPI Sales

Estimate of Houston Vehicles Damaged by Hurrigan Harvey		
		<u>Source</u>
Vehicles registered in Harris County (m)	3,549,586	TX DMV
Estimate of % of vehicles damaged	30%	Reports of flooding
Number of damaged vehicles	1,064,876	
Estimates of GPI's market share in Houston		
GPI dealerships in Houston metro area	17	GPI 2Q17 presentation
Total dealerships in Houston metro area	175	Houston Auto Dealer Association (HADA)
GPI's % of total dealerships	10%	
Total GPI new vehicle sales in 2016	172,053	GPI 10-K
% of GPI sales in Houston metro area	18%	GPI 4Q16 presentation
GPI new vehicle sales in Houston	30,970	
Total new vehicle sales in Houston	340,000	Est. based on Houston Chronicle article
GPI market share in Houston	9%	
GPI's # of potential replacement sales	96,996	

Source: OWS, TX DMV, GPI presentations, GPI 10-K, Houston Chronicle & other sources.

The calculations in Exhibit 5 start with the 3.55m vehicles that are registered in Harris County according to the Texas DMV. We estimated that roughly 30% of vehicles are flooded or heavily damaged based on reports that approximately 30% of Houston was flooded from Harvey. It is unclear if all of these vehicles will be scrapped or if some can be repaired. GPI's market share was estimated from two perspectives. First, GPI owns 17 dealerships in the Houston Metro Area out of 175 total franchised dealerships, according to the Houston Auto Dealer Association (HADA), which implies that GPI has about 9%-10% share if all dealerships average a similar number of sales (i.e., GPI's dealerships are neither more productive nor larger than the average Houston dealership). Estimates of GPI's total new vehicle sales in Houston and an estimate for the Houston market total new vehicle sales for 2016 were used to cross-check the 9%-10% market share estimate, which seemed consistent from each approach. Lastly, applying a 9% share to the 1.06m vehicles that we estimate need to be replaced, results in our estimate for roughly 97,000 replacement sales for GPI. We used new vehicle sales data to estimate GPI's market share for both new and used vehicles because data for new vehicle sales is more widely available. However, it is possible that GPI's used vehicle sales market share in Houston could be lower than 9% given the presence of dealerships solely selling used vehicles. The 97,000 replacement sales estimate for GPI includes both new and used vehicle sales.

These sales are likely to take place over the next 3-4 quarters from just the Houston damage. The timing of the sales would likely depend on the speed at which affected consumers receive insurance checks and the availability of

undamaged new and used vehicles in the Houston area. We acknowledge that Exhibit 5 shows our best efforts estimates using the data we could quickly collect, but that the actual results could differ materially from our estimates above.

In addition to the Harris County damage, there were fifty other neighboring counties that also reported flooding, so these counties should generate incremental replacement demand. GPI has six dealerships in Beaumont, TX, which also experienced significant flooding. Beaumont, TX has 84K vehicles registered, and its county (Jefferson) has 220K vehicles registered. GPI also has nine dealerships in Dallas, six in Austin and three in San Antonio. It does not appear that these dealerships experienced significant damage. It is unclear how much replacement demand GPI will get from neighboring counties, but it will likely be meaningful.

Cox Automotive recently gave an estimate of 500K flooded vehicles on Wednesday, which was double a previous estimate we saw of 250K vehicles that came out Monday morning. Please note that our estimate is roughly double the Cox estimate. The Cox estimate is an estimate that has been widely repeated in the media. GPI’s stock should have significant upside even if our replacement vehicle estimate proves too high and Cox’s 500K flooded vehicles proves more accurate. Exhibit 6 shows our estimate of GPI’s gross profit sensitivity to the number of vehicles replaced from Harvey overall and GPI’s market share for the replacements. In this analysis we implicitly assume a 50%/50% mix of new vehicles vs. used vehicles sold and use the average gross profit per vehicle sold shown later in Exhibit 7 using data from GPI’s 2Q17 presentation. Given the surge in demand for vehicles after Harvey, it is likely that the gross profit per vehicle sold will increase, especially for used vehicles. Also, this analysis does not factor in F&I (finance and insurance) profits, so the gross profit generated could be almost double what is shown in Exhibit 6 if all vehicles sold also generate the average F&I profit per vehicle of \$1,663.

Exhibit 6: GPI’s Gross Profit Sensitivity by Vehicles Replaced and Market Share

GPI Gross Profit Sensitivity to Harvey Replacement Estimates									
Gross Profit (\$m)		# of Vehicles Replaced by Harvey (000s)							
		400	500	600	700	800	900	1,000	1,100
GPI Market Share	6%	40	50	60	70	80	90	100	110
	7%	47	59	70	82	94	105	117	129
	8%	54	67	80	94	107	120	134	147
	9%	60	75	90	105	120	136	151	166
	10%	67	84	100	117	134	151	167	184
	11%	74	92	110	129	147	166	184	202
	12%	80	100	120	141	161	181	201	221

Note: Assumes \$1,674 GP/vehicle & does not include F&I profit

Source: OWS analysis and GPI 2Q17 presentation

Important issues that may impact the number of vehicles replaced, the speed with which flooded vehicles are replaced and the mix of new vs. used vehicles relate to insurance coverage for the flooded vehicles. Car insurance policies generally only cover vehicle damage from flooding if the policy has comprehensive insurance. This is often required by a lender if the vehicle was leased or purchased using a loan, which represents the majority of vehicle purchases. The New York Times reported that approximately 100,000 vehicle insurance claims had already been submitted as of Thursday 8/31/17. Multiple insurance companies advertise vehicle replacement, which means that the insurance company will cover the cost of the comparable replacement vehicle even if the value of the damaged vehicle was lower than the replacement cost due to depreciation. Many of the damaged vehicles not covered by comprehensive insurance will likely still need to be replaced. Our understanding is that assistance for any vehicles not covered by insurance, and even any gap between the insurance claim paid and the replacement cost, may be available through the disasterassistance.gov program already initiated last week, and supplemented by additional FEMA programs that should be implemented soon, as was done after Katrina. A Hurricane Harvey Federal relief aid package is currently reported to total \$5.9B, according to the Wall Street Journal.

We also compared Harvey replacement estimates to reports from Hurricanes Sandy and Katrina. Hurricane Sandy reportedly caused about 250K vehicles in NJ and NY to be scrapped. Katrina reportedly caused about 200K vehicles to be scrapped in New Orleans. Harris County has almost ten times the population of New Orleans. Also, approximately half of New Orleans residents appear not to have owned cars prior to Katrina. This is very different from Houston, which is a very vehicle-dependent city with high vehicle ownership. In fact, Harris County has 4.6m residents and 3.3m residents at least 18 years old. Given its 3.55m registered vehicles, Houston has more than 1 registered vehicle for every adult resident. New Orleans was reported to be 80% flooded from Katrina and resulted in approximately half of the registered vehicles being flooded. Before Katrina hit, there was an evacuation plan, and reportedly 1.0-1.5m residents evacuated Southern Louisiana. However, in the case of Harvey, there was not an evacuation order given by the mayor, so a much smaller percentage of residents evacuated before the storm hit.

While it is unclear how many of the over 1m vehicles that we estimate have been flooded will need to be entirely scrapped, it seems likely to be the majority or even the vast majority. Texas issues “Certificates of Destruction” when the cost of repairing a damaged vehicle is well above the value of the vehicle prior to the damage. Mold concerns and vehicle computer/CPU damage will likely mean that

most of the flooded vehicles will be issued a “Certificate of Destruction.” Our research suggests that vehicles with a “Certificate of Destruction” can no longer be legally used or registered in Texas. In fact, we learned that the VIN number is circulated nationwide in databases of vehicles that can never be registered in any state, as the damaged vehicle is no longer considered to be a vehicle, but rather just a collection of parts. It is extremely difficult, but not entirely impossible, to reverse a “Certificate of Destruction” once it has been issued for a vehicle. Insurance companies who pay out claims on a vehicle appear to have the power to unilaterally issue a “Certificate of Destruction.” Given health concerns about mold in humid Gulf Coast Texas, we understand that certificates of destruction will likely be issued fairly liberally for flooded cars.

While assessing the benefits of the replacement demand from Harvey, it is also important to assess costs of Harvey to GPI. According to GPI’s 10-K, the company’s “auto physical damage insurance coverage is composed of a \$10.0m per occurrence company deductible with an annual maximum aggregate deductible of \$30.0m with no maximum payout.” Hurricane Harvey appears likely to be considered a single occurrence despite the multiple days of rain across the different geographies, so we expect that \$10m is the maximum cost to GPI for vehicle damage. It is less clear if lost revenues or profits from lost service days are insured for reimbursement with business interruption insurance for the days the dealerships were closed, but we assume this is not covered. Importantly, because of the Harvey business disruption, we have not been able to speak with GPI’s investor relations team to discuss these issues.

In the analysis below in Exhibit 7, we show the number of new and used vehicle sales required to offset the maximum \$10m deductible is about 6,000 vehicles. We note that this represents the worst-case scenario for the deductible, as GPI may have been fortunate and not have suffered \$10m in vehicle damage. Reportedly, both AutoNation and GPI moved vehicles from lots in Harvey’s path to higher ground to prevent flooding to the extent possible. However, we are assuming the worst in this regard, but note that GPI should earn far more from replacement car sales than its deductible will cost.

Exhibit 7: OWS Insurance Deductible Breakeven Analysis

GPI Insurance Deductible Breakeven Analysis	
Insurance deductible per occurrence	\$ 10,000,000
Gross Profit per new vehicle sold	\$ 1,851
Gross Profit per used vehicle sold	\$ 1,496
Average gross profit per vehicle sold	\$ 1,674
Breakeven # of vehicle to cover max deductible	5,976
Note: Does not include F&I gross profit	

Source: OWS, TX DMV, GPI presentations, GPI 10-K, Houston Chronicle & other sources.

Importantly, this analysis excludes the F&I (finance and insurance) gross profit, which averaged \$1,663 per retail vehicle sold during 1H17. With this additional profit, the breakeven replacement volume could be cut in half to only 3,000 vehicles.

The mix of replacement vehicles should be very good. Houston and Texas have a higher mix of trucks than the U.S. as a whole, which averaged 58% nationwide for 1H17. Therefore, the mix of trucks for the Texas replacement vehicles will likely be above 70% trucks, which should further boost GPI's margin. Many passenger car owners who suffered from vehicle flooding with a car that sits low to the ground are likely to consider purchasing a replacement truck with higher ground clearance. A truck would also increase the utility and versatility of the vehicle in a future natural disaster or emergency.

Lastly, given Houston's history of frequent and significant flooding, not all replacement demand should be considered entirely non-recurring. Not much more than a year ago, Houston suffered from the Tax Day Flood in April 2016, which damaged many vehicles. In the year before, parts of Houston suffered from the Memorial Day floods. In fact, Houston's Meyerland neighborhood has flooded in each of the last three years in a row, as discussed in the Wall Street Journal article "Flooded Again, a Houston Neighborhood Faces a Wrenching Choice." Prior to this, Hurricane Rita caused Houston to evacuate shortly after Katrina flooded New Orleans in 2005, and Rita's Houston evacuation caused 107 deaths. Before that Allison in 2001 damaged 95,000 vehicles, and 73,000 houses according to Harris County Flood Control District (HCFCD). Total property damage was estimated to be about \$5B. The population of Harris County grew about 35% since Allison hit. Looking further back in history, there were 16 major floods in the first century after Houston's founding in 1836, some of which had water depth of over 40 feet. Houston's flooding may even become more frequent in the future. The National

Oceanic and Atmospheric Administration reports that in the since 2010 there have been 21 storms causing at least \$1B in damage, which at this pace by the end of this decade will be three times or more the nine \$1B+ (adjusted for inflation) storms during the decade of the 1980s. The Houston flooding has become so frequent recently that many residents are considering leaving the Houston area. Houston's hardpan clay and flat ground significantly increase flooding because the water cannot be absorbed into the ground nearly as well as with more porous soil.

2. GPI's recent weakness in energy geographies, which has resulted in high inventories, could quickly become an advantage. Also, Parts & Services (P&S), growing off-lease returns, acquisitions and operational improvements should provide tailwinds above and beyond Harvey.

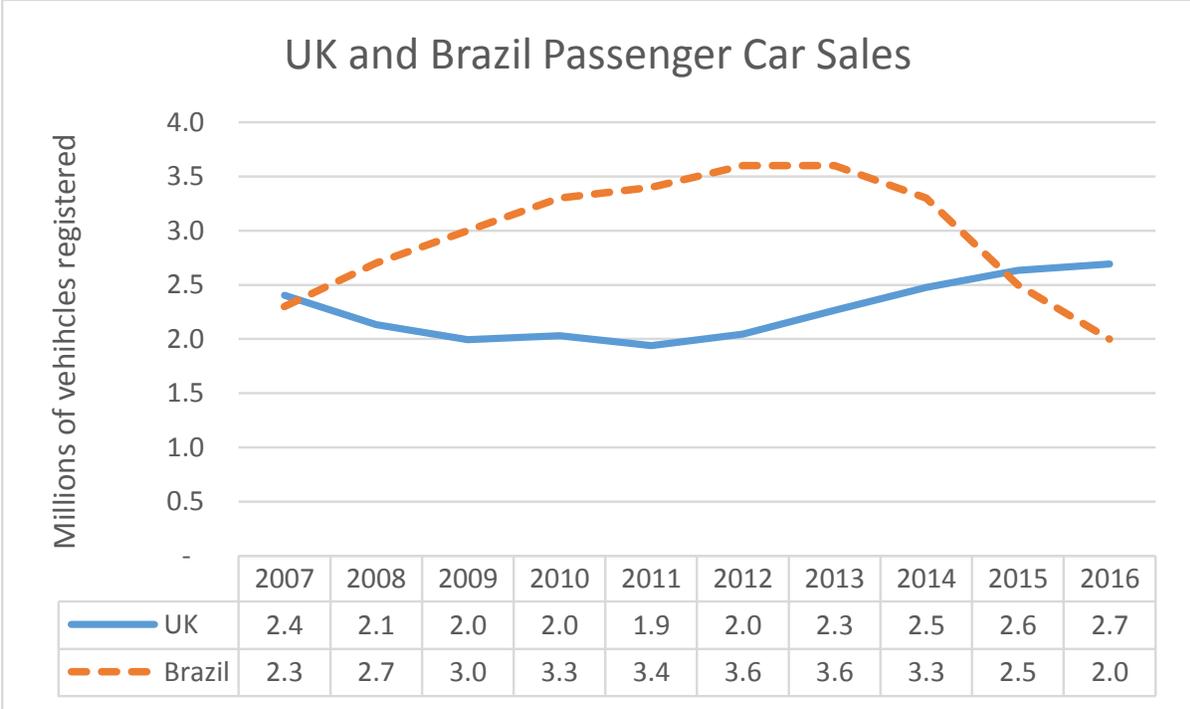
GPI's stock has traded at a discount to other publicly traded auto dealership group peers in part because GPI has significant geographic exposure to the depressed energy-dependent markets of Houston and Oklahoma and to Brazil, which is still grappling with a recession related to an economic and political crisis that started in 2015. We think that these weaknesses are likely to become advantages.

GPI appears to be especially well positioned to sell Hurricane Harvey replacement vehicles because of its significant presence in Houston with 17 dealerships but also because of its network of many dealerships within a few hundred miles of Houston. Houston is near the center of GPI's Southern U.S. presence with many dealerships across Texas as well as neighboring Louisiana and Oklahoma. Because Oklahoma has been an energy-dependent market with depressed sales over the last 18 months, GPI has significant inventory of undamaged vehicles in Oklahoma that it could easily relocate to Houston and the Gulf Coast regions flooded by Harvey. This advantage should even enable GPI to achieve a Houston market share above its 9%-10% used in our estimates of GPI's expected replacement sales. We note that independent Houston dealerships (i.e., not part of a regional or national company with dispersed dealerships across several markets) with damaged inventory will find it more challenging than GPI to get undamaged new and especially used vehicles to the Houston market in a cost-effective manner. This should enable GPI to capture more than its typical share of the market for replacement demand.

Brazil is another region that has been depressed for GPI. Exhibit 8 shows that the two international regions for GPI, Brazil and the UK, have experienced almost the opposite trends over the last decade. Brazil auto sales grew fairly steadily from 2007 to 2012 despite the Financial Crisis impacting the U.S. and Europe starting in 2008. However, since 2013, Brazil's auto sales have fallen each year and are down ~45% from the peak of 3.6m vehicles sold. Brazil is showing

some signs of a turnaround, with industry vehicles sales rising 4.3% YoY in 1H17. GPI’s revenues from Brazil were up 5% in 1H17 compared to 1H16, and profitability improved from a \$126m loss to an \$806m profit. The UK experienced moderately falling sales from 2007 to 2011 while Brazil’s sales were growing, but UK passenger vehicle sales have risen each year since then. The Brexit vote and other issues created some volatility in auto sales during 2H16, and UK auto sales were down 1.3% for 1H17. We expect for Brazil to be a source of growth for GPI over the long term, and likely even over the nearer term and the UK to be a moderate drag over the next 1-2 years. We note that GPI management did a good job managing the severe sales decline in Brazil. GPI has been focused on cost reductions and dealership acquisitions, which enable the current structure to experience operating leverage from greater scale.

Exhibit 8: Passenger Vehicle Sales in UK and Brazil by Year



Source: OWS, ACEA, Brazil ANFAVEA, Statista

Parts & Service (P&S) provide significant stability to GPI and also should provide a multi-year tailwind for profitability. P&S gross profit is ~44% of total gross profit and is significant enough to cover about 95% of GPI’s fixed costs and P&S selling expenses. GPI’s P&S stability and profitability is one of the primary reasons why GPI was able to remain profitable in every quarter of the Great Recession on an adjusted net income basis (albeit barely profitable in 4Q08). P&S revenues and gross profit have grown in each year over the past decade except for 2009. P&S revenues have grown at a 9.2% CAGR from 2011-2016, while gross profits have grown at nearly a 10% CAGR. GPI has been able to increase its gross

margin almost every year during that time. In addition to generating profits, P&S also generates significant FCF.

There are several factors driving the growth in P&S. P&S revenues are generated by warranty work, recalls, customer pay, collision, wholesale and internal reconditioning of used vehicles. Warranty work is primarily driven by the number of 0-5 year old vehicles in the fleet as these relatively new vehicles are most likely to be covered by the factory warranty or an extended warranty. Even with our forecast for a 3% decline in U.S. new vehicle sales in 2017 and another 4% decline in 2018, the fleet of 0-5 year old vehicles will continue to grow, which should provide a boost to P&S. Moreover, there has been a trend towards longer automaker warranty lengths and GPI being able to sell more extended warranties. An example of a longer automaker warranty is the Nissan Titan increasing its basic warranty from 3 years/36,000 miles to 5 years/100,000 miles for the 2017 model year. If GM, Ford, Chrysler and Toyota follow Nissan's move to a longer truck warranty, that could be especially good for dealerships such as GPI's for P&S, as pickup trucks tend to be worked harder and often require more warranty work. In addition, GPI has become more successful in selling more extended warranties for the new and used vehicles it sales. Such extended warranties increase the future P&S revenues for those vehicles.

P&S revenues have also grown due to an increase in mechanic labor rates, which have increased by as much as 10% annually for the last three years. There has been significant competition to attract and retain the best mechanics, which has spurred the labor rates higher. Skilled mechanics are in demand because they can significantly boost P&S profits, as warranty billing is driven by the number of hours that the automaker allows for each type of job based on average speed for fixing the problem. However, the best mechanics are often able to do the work in significantly less time. For example, if an automaker will pay 4.2 hours for a job, but the best mechanics can complete the work in less than 2 hours, the mechanic can significantly improve the P&S margin. Master mechanics are also critical to inspect and determine which used vehicles are the best prospects to be certified pre-owned (CPO) vehicles and fetch higher prices. GPI and the other large dealership groups should have a meaningful advantage in attracting and retaining the best mechanics because they can offer better job security, better work environments and more attractive work options than smaller independent dealerships. For instance, if the Nissan dealership for which a mechanic works is experiencing slower sales and slower P&S, the best mechanics from that dealership could be transferred to another GPI group dealership that is busier in the same market to make the best use of master mechanic talents.

The surge in off-lease returns should boost not only GPI's future P&S, because it often sells extended warranties when it re-sells these lease returns, but

also it should help its used car business. The number of off-lease vehicles returns is expected to increase from an already high 3.5m vehicles in 2017 to about 4m in 2018 and around 4.5m in 2019. These lease return vehicles should be a significant boon to GPI's used car sales business as they will provide a strong supply of late model low mileage used vehicles. Many of these vehicles can become certified pre-owned (CPO) and be given extended warranties, which allows GPI to command a higher price and get more future P&S business. In addition, many of the customers returning their leased vehicles will be on the market for another new vehicle to lease or own. The surging lease returns should be a significant tailwind for GPI's used car business, new car business, P&S business as well as F&I through new financing and extended warranties. Our understanding is that leasing penetration increased in 2014-15 in part because of the increase in pick-up truck leasing, and due to the emergence of low monthly payment short-term (2-3 year) leases for pick-up trucks in 2014/15 driving higher conversion of sedan-to-pick-up and owner-to-lessee customers.

Another trend that should provide a tailwind for GPI's P&S business is the increase in automobile accidents that seems to be primarily caused by higher driver distraction from smart phone usage. After consistently falling for several years because of better vehicle safety features, vehicle fatalities in automobile crashes have increased every year but one since 2010 (and that one year, 2013, was only a 0.29% drop) in Texas according to the Texas Department of Transportation. We think that driver distraction from smart phone usage while driving is likely the culprit for the increase in traffic fatalities and is likely significantly increasing the non-fatal vehicle accidents as well. Reliable data on non-fatal accidents is more challenging to find as many fender-bender accidents are never reported to authorities to avoid rising auto insurance rates and points taken off of a driving record. We think vehicle accidents will continue to trend up for several years until a much more significant portion of vehicles are autonomous (self-driving) with software that drives much more safely than the average driver. GPI has increased its number of collision centers from 38 in December 2014 to 47 as of July 2017, a 24% increase.

Another growth avenue for GPI is dealership acquisitions. GPI targets acquisitions that management thinks can generate at least 10% after tax DCF returns. GPI's year-to-date 2017 acquisitions have annual revenues of \$435m while its 2016 acquisitions had annual revenues of \$660m. The recent peak of acquisitions was in 2014 when the acquired dealerships had annual revenues of \$910m. GPI's 2016 acquisitions were entirely in UK and Brazil, and the YTD 2017 acquisitions have also been predominantly in the UK in terms of size of revenues. GPI and other publicly traded dealership groups have a long runway for acquisitions since the six publicly traded dealership groups (ABG, SAH, GPI, AN, PAG, and LAD) have only about 7% of all auto dealerships in the US. This is

even after these companies grew their number of dealership locations by 17% over the last four years. With its acquisitions, GPI has opportunities to spread its best practices to help increase operational efficiency and gain improved scale.

One of the reasons why we think GPI will continue to do fairly well with customer retention and attraction is because GPI dealerships try to treat their customers fairly. In fact, we understand that GPI has business policies in place to prevent customer price gouging. For example, we heard that GPI limits its finance commission to around \$1,200-\$1,800 while some other dealers charge up to \$4,000 to customers for financing.

In summary, we think the surge in off-lease vehicles, the growing 0-5 year old fleet, the trend of longer warranties and the expected rebound in Brazil will all provide meaningful profit tailwinds to GPI above and beyond the positive Hurricane Harvey replacement impact.

3. Longer term, new vehicle sales are unlikely to collapse, as many have feared.

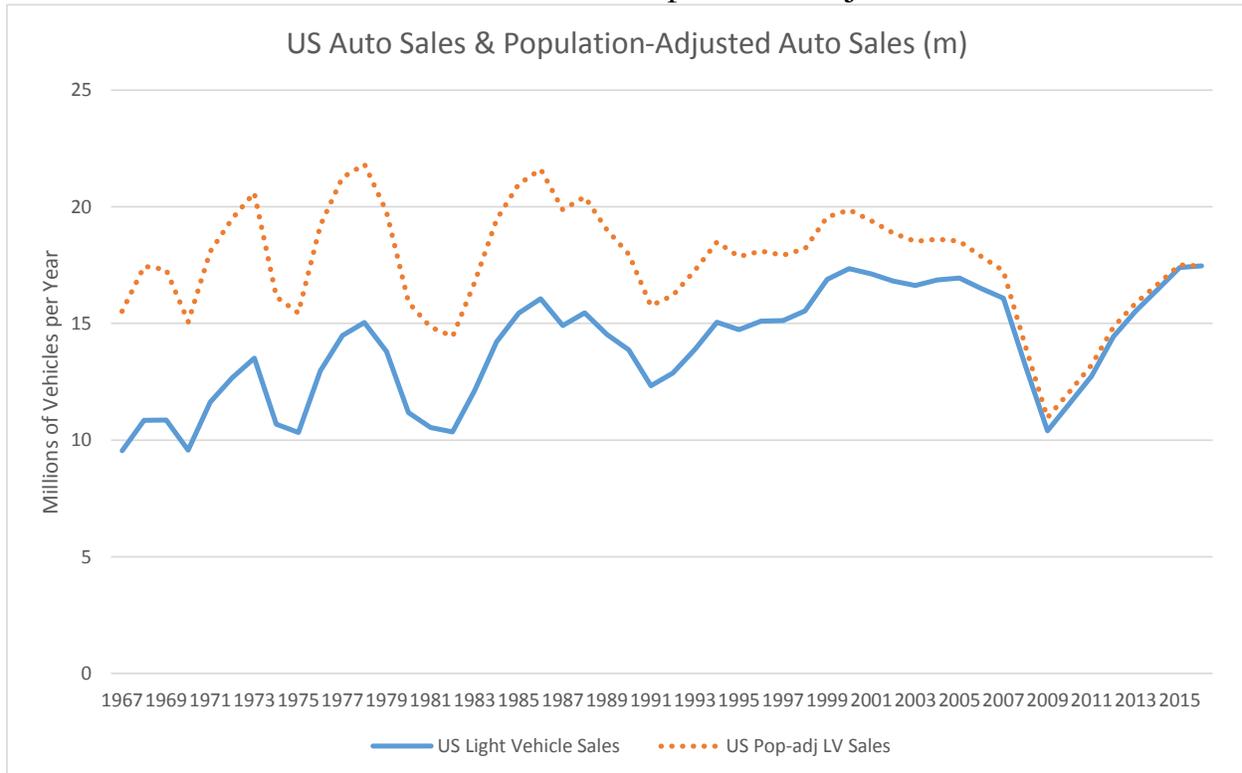
As we discussed in a similar section in our 7/12/17 AXL Buy Recommendation initiation report, overall U.S. new vehicle sales seem unlikely to fall as much as many fear and the passenger car vs. light truck mix of vehicles should continue to strengthen as long as gasoline prices remain below \$3.50/gallon.

We think that a cyclical downturn similar to the 2008-2009 Great Recession, while possible, seems unlikely. We analyzed historical auto sales and aspects of “normal” auto demand from several different angles. We also reviewed several perspectives and forecasts for auto sales to understand all of the points and arguments that are being raised to support the various forecasts. Our best assessment is that a cyclical downturn is possible or even likely (and may already be underway with the -2.7% year-to-date drop in U.S. auto sales through August), but the magnitude of the sales drop is likely to be more modest than many fear. As we need to have a base-case scenario for our financial model, our base-case scenario for U.S. auto sales is for a 3% decline in 2017 (slightly worse than the 2.7% year-to-date drop through August), followed by a 4% decline in 2018 and then another 5% decline in 2019 to ~15.5m vehicles being sold. The impact of replacement demand from Harvey could provide upside to our 2018 sales estimate. Even in this declining backdrop nationwide, GPI is likely to have new car sales rise meaningfully in 4Q17 and well into 2018 given the positive impact of replacement demand from Hurricane Harvey damaged cars, as described in the first section. Also, the energy geographies of OK and coastal TX have already caused GPI to experience depressed new car sales over the last several quarters that should make any future decline less painful in 2019.

The discussion and data below are meant to help inform clients and help each client form his/her own perspective on likely future new vehicle sales as well as to show why we think U.S. auto sales seem unlikely to fall to the 13m or worse that some investors fear.

First, Exhibit 9 shows fifty years of historical U.S. auto sales by year since 1967 and the corresponding population-adjusted auto sales. For the population adjustment, each year's auto sales are scaled up for the U.S. population of 323m as of 2016.

Exhibit 9: Historical U.S. Auto Sales and Population-Adjusted Auto Sales



Source: WardsAuto, U.S. Census, OWS

Exhibit 9 shows how dramatic the decline in auto sales was during the 2008-09 Great Recession, when auto sales fell from a peak of 16.95m in 2005 to a low of 10.40m in 2009, a cumulative drop of 39%. With the population adjustment, the 2005 peak would have been 18.5m and the 2009 trough would have been 11.0m. We note that the population-adjusted troughs in auto sales have historically been near 15m, which has happened five times over fifty years. The only lower trough was the 11.0m trough in 2009, which shows how extreme that decline was. The population-adjusted peaks have often been at or above 20m, with the highest two being 21.8m in 1978 and 21.6m in 1986, with four other years (six total) above 20m. With the Great Recession as the only exception, population-adjusted auto sales have been between 14.4m and 21.8m over the last fifty years. In fact, the

17.5m vehicle sales in 2016 are *below* the population-adjusted average of 17.6m, so 2016 does not look like a typical peak when auto sales overshoot the “normal” demand.

Exhibit 10 shows an analysis of all of the automotive downturns in the U.S. since 1967. The most recent downturn of 39% during the Great Recession was the worst peak-to-trough decline in U.S. auto sales over the last fifty years. In fact, the Great Recession was the worst decline since the Great Depression’s declines in 1930-32 of 71% and in 1938 of 45%. The average peak-to-trough drop since 1967 is 19.5% including the Great Recession and 16.4% excluding it. A 19.5% drop in this cycle from the 17.5m vehicle sales in 2016 would be 14.1m. However, for a variety of reasons including pent up demand and the fact that 2016 vehicle sales did not overshoot normal demand and was actually below average population-adjusted sales, we think it is unlikely for the next cyclical trough to fall as low as 14m. To put 14m into perspective, the actual average auto sales per year during 1976-79 were over 14m, and the U.S. population has grown almost 50% since then.

Exhibit 10: U.S. Automotive Recessions Since 1900

US Automotive Recessions Since 1967		
US auto recessions	Drop in auto sales	True Recession?
1970	-11.9%	Y
1974-75	-23.6%	Y
1979-82	-31.1%	Y
1987	-7.2%	
1989-91	-20.2%	Y
2001-03	-4.1%	Y
2006-09	-38.6%	Y
Avg. Auto Sales Decline	-19.5% Peak to Trough	
Avg. Decline Excl. Great Recession	-16.4% Peak to Trough	
Avg. annual decline	-7.9% Annual	
Median annual decline	-5.8% Annual	

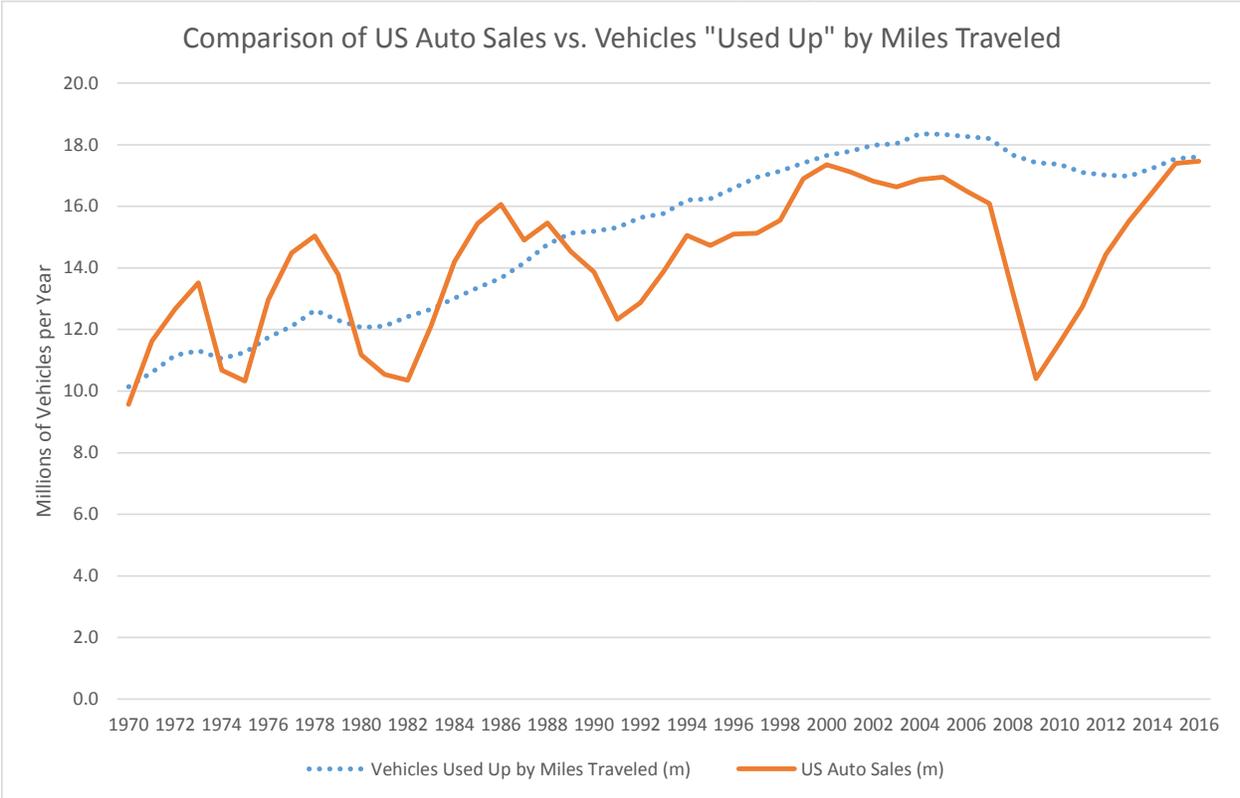
Source: WardsAuto, The National Bureau of Economic Research (NBER), OWS

An important driver of “normal” vehicle demand is how much the current fleet of vehicles is being used. The Federal Reserve tracks total vehicle miles traveled in the U.S. Typically, miles traveled increases each year. The only exceptions to this since 1970 were the years around the Great Recession starting in 2008 and a few years around the mid-to-late 1970s. In 2016, American’s drove nearly 3.2 trillion miles. One can translate miles traveled to how many vehicles are “used up” by that mileage by dividing by the average life of a vehicle in miles. While we found various estimates for a typical useful life of a vehicle in years and in miles, we found that most estimates fall in the range of 150,000-200,000 miles.

Based on this range, the equivalent number of new vehicles “used up” by the miles driven during 2016 is 15.8m-21.1m, with an average of 18.5m. Note that 17.5m new vehicles were sold in 2016, so it is likely that sales of new vehicles in 2016—which many are considering to be a peak year for auto sales—did not even fully replenish the equivalent number of vehicles used up by driving that year.

In Exhibit 11, we analyzed the equivalent number of vehicles used up by the miles driven each year and compared this to actual new vehicle sales. In this analysis, we assumed an average vehicle life of 180,000 miles in 2016 and about 110,000 miles in 1970 with a linear increase each year because of better vehicle quality. Exhibit 3 shows that auto sales bounced around the line for vehicles used up by mileage each year during the first two decades. However, since then auto sales have been below the usage line and fell especially below the line during the Great Recession. The vehicle fleet has an approximate amount of future mileage available to be driven (at least economically). When new cars are purchased, they replenish or add to the future available mileage. However, when not enough new vehicles are purchased, the future available mileage falls. One way of interpreting the large gap between vehicles used up and new vehicles sold during the Great Recession is that significant pent-up demand formed and likely still exists that helped auto sales rebound sharply from the trough and likely will continue to support auto sales over the next several years.

Exhibit 11: U.S. Auto Sales vs. Vehicles “Used Up” by Miles Traveled



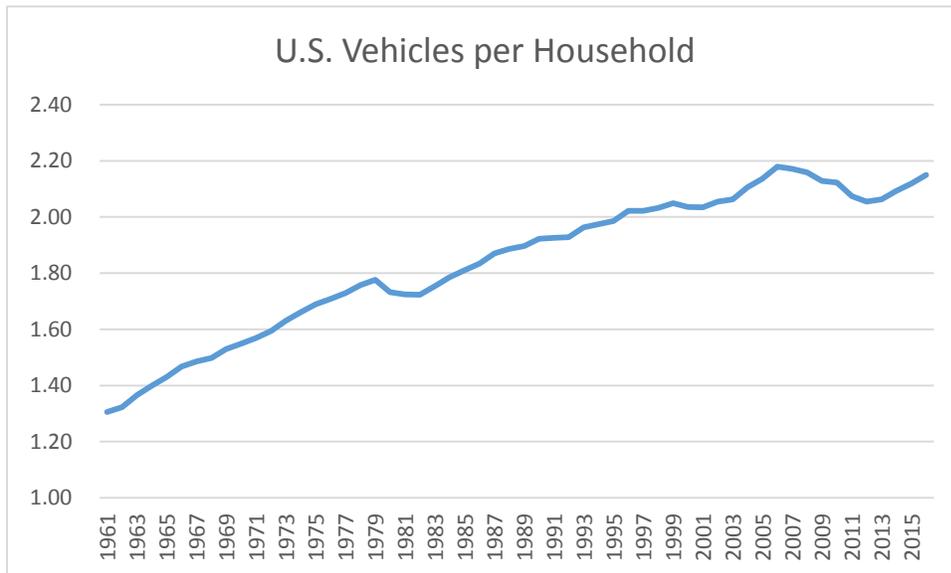
Source: WardsAuto, Federal Reserve, U.S. Federal Highway Administration, OWS

The aging of the vehicle fleet is consistent with the ideas expressed about Exhibit 11. The significant drop in auto sales during the Great Recession caused acceleration in the aging of the U.S. vehicle fleet. From 2008 to 2016 the percentage of vehicles over 11 years old increased from 36% to 48%. Older and higher mileage vehicles become uneconomical to continue to repair beyond a certain point (e.g., replacement parts excluding labor cost ~7x the corresponding part of a new vehicle), so the aging of the fleet should drive demand to help support new vehicle sales over the next few to several years.

Other data points also indicate that normal auto demand is likely above the 17.5m vehicles sold in 2016. For example, during the nine-year period before the Great Recession from 1999-2007, vehicle sales averaged 16.8m per year, with each year having sales above 16m. We note that these vehicles are now 10-18 years old. On a population-adjusted basis, the average auto sales were 18.7m per year for this period. Looking back for an even longer time period, the population-adjusted average sales were 18.6m per year for the 25-year period from 1983-2007. It seems hard to argue that 2016's auto sales of 17.5m is "unsustainably high" when it is actually 1.1m units below the average for the 25 years prior to the Great Recession.

To make this argument, one would need to explain what has fundamentally changed since the Great Recession to drive down normal auto demand significantly and sustainably. The sharing economy and rise of Uber and similar car sharing services seems like a compelling change that could depress normal auto demand. However, so far at least, the data do not seem to support this theory. In particular, we would expect the rise of Uber and similar sharing services to decrease the vehicles per household. However, the U.S. vehicles per household actually rose each year from 2012-2016 from 2.06 to 2.15 as shown in Exhibit 12 and is approaching the previous peak of 2.18 in 2006. Therefore, the decline in vehicles per household from 2007-2011 seems to have been almost entirely driven by the economy and cyclical factors rather than a secular shift to vehicle sharing that structurally lowers auto demand. The same data could also be used to undermine the potential argument that auto sales should fall because Millennials do not like or want to own vehicles.

Exhibit 12: U.S. Vehicles per Household Continues to Rise



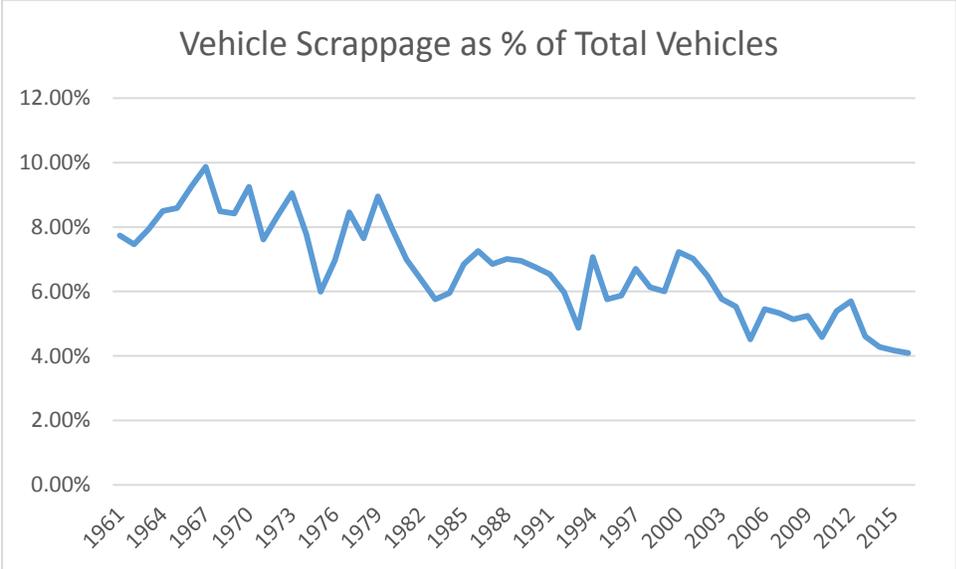
Source: Polk, IHS, U.S. Census, OWS

Another common approach of estimating normal U.S. auto demand is average vehicle spending as a percent of GDP. This analysis would imply normal demand of ~18.5m new vehicles per year.

Another way to estimate normal auto demand is by scrappage analysis, which looks at two components of auto demand: 1) Replacement demand from vehicles being scrapped, and 2) Growth in the vehicle fleet from a rising population and higher number of vehicles per household. The scrappage rate is the percent of the entire vehicle fleet that is scrapped in a given year. As shown in Exhibit 13, the scrappage rate has fallen over time as vehicle quality and durability have improved. However, during 2003-2012 the scrap rate seemed to stabilize at an average of 5.3%. The reciprocal of the scrappage rate is a good estimate of the average vehicle life in years. With the 5.3% scrap rate, the average vehicle life would be 19 years. Over the last four years the scrap rate has fallen to new lows and was 4.1% in 2016, which implies an average vehicle life of almost 25 years, which seems materially higher than we would expect. We expect the record high age of the vehicle fleet (with 48% of vehicles said to be over 11 years old) will eventually force the scrap rate to rebound to 5%, which would imply an average vehicle life of 20 years. With a 5% scrap rate, replacement demand would be about 14m vehicles per year based on the U.S. fleet size of 270m vehicles in 2016. With the roughly 5m-6m vehicles from growing the vehicle fleet, normal demand should be around 19m-20m vehicles per year. If the record high age of the vehicle fleet causes the scrap rate to rebound above 5% for a few years, there could be upside to vehicle demand above 20m. Hurricane Harvey's damage will likely increase scrappage by roughly 1m vehicles overall, which would increase the scrap rate by 0.4% points. Significant automotive technology upgrades such as autonomous driving, in car entertainment, blue tooth and even fuel economy boosting

technologies could lead to technological obsolescence which could further increase the scrap rate and potentially boost auto sales.

Exhibit 13: Annual Vehicle Scrap Rates



Source: Polk, IHS, OWS

There has been much analyst and investor concern for at least the last 2-3 years over an imminent and significant cyclical auto industry downturn. Reasons for worry cited include: 1) The long length of the current recovery, 2) A “tsunami” of off lease vehicles hitting the market, 3) Falling vehicle residual values, 4) Auto credit concerns, 5) Rising and high incentives, and 5) Rising interest rates. Some of these issues are worthy of notice and could lead to a temporary softening of auto demand. However, the level of anxiety over a downturn is likely overdone, particularly in light of the normal auto demand analyses just discussed. We further discuss each of these factors below.

First, while the auto recovery at seven straight years of rising sales may seem “long in the tooth,” we note that the recovery started from an unusually low level of 10.4m vehicles sold in 2009. Also, the average consumer seems to be in relatively good financial health. According to a recent Barron’s article, household net worth is 37% higher than it was at the housing peak, with 30% of net worth in stocks. Also, mortgage debt service payments recently were just 4.4% of disposable income, the lowest in decades. The relative health and wealth of consumers and the relative frugality since the Great Recession should mean that, without a negative economic shock, a significant consumer retrenchment in auto demand seems unlikely. Rising home values could again allow consumers to use their home equity to purchase big-ticket items like a new vehicle. In fact, home equity lines are often the most cost-effective and tax-efficient ways to finance a vehicle purchase.

The penetration of leasing has increased over the last few years, which has resulted in a rising number of off lease vehicles, and this should continue for the next few years. The flood of off-lease vehicles has caused vehicle residual values to fall according to the NADA Used Vehicle Price Index. An important point that seems to be overlooked is that the vehicles coming off lease will likely result in new vehicle sales (or new leases). Therefore, up to 3.5m-4.5m per year in new vehicle demand could be driven by people returning their off-lease vehicles, and, then, needing another vehicle. As many people lease rather than buy specifically so they can get a new vehicle every few years without the hassle of selling or trading in a vehicle, we would expect a majority of the vehicles coming off lease to generate new vehicle sales or leases.

The off-lease vehicles going into the used vehicle market will likely continue to make used vehicle prices fall over the next few years, especially for passenger cars. However, this seems largely expected and has been discussed by analysts. As used vehicle prices further decline, new vehicle sales could be impacted by some potential new vehicle purchasers opting instead for a less expensive used vehicle. Falling residual values should also encourage people to scrap the oldest and least valuable cars because the cost of upgrading to a newer used car has fallen. Falling used vehicle prices may actually increase the number of vehicles that consumers choose to own, which would benefit vehicles per household. Overall, we expect the large number of vehicles coming off lease to have only a modest net impact on new auto sales. Moreover, as discussed in the previous section, off lease vehicles are an additional benefit to GPI because they supply late model and generally high quality and low mileage vehicles for its used car inventory. These are also the vehicles most likely to be reconditioned and thoroughly inspected to become Certified Pre-Owned (CPO) vehicles, which sell for higher prices.

An important related point is that falling residual values should not cause the off-lease consumers to suffer any negative equity in their vehicles. Instead, any negative equity or residual value decrease is borne by the finance company, not the lessee, so the lessee has a clean slate from which to make a new vehicle transaction. Also, the falling residual values are generally happening only for passenger cars, not the light trucks (pick ups, SUVs and CUVs), which provides a richer vehicle mix for GPI. In addition, given Hurricane Harvey's impact of increasing demand for undamaged used vehicles, residual values for even the used cars on GPI's lots within a few hundred miles of the Houston area should benefit from at least temporary strengthening.

Concerns regarding auto credit have also generated significant headlines. Much of this concern is focused on the subprime auto market. However, subprime

lending impacts only about 10% of *new* vehicle purchases. The vast majority of subprime auto lending is for *used* vehicles. Therefore, GPI's used vehicle business rather than its new vehicle sales would likely be impacted by a pull back in subprime lending. The issues in auto subprime lending could be contributing to the falling residual values of used vehicles, particularly passenger cars. Auto lending outside of subprime seems to be fairly healthy, and lending has been shifting away from subprime. Banks have generally continued to grow auto loans, but at a decelerating pace. Delinquency rates continue at generally low levels. Overall, we think that auto credit concerns do not seem likely to cause a meaningful decrease in new auto sales, but could impact used vehicle sales more. Also, we note that the automakers' captive auto finance companies still have significant levers to support auto sales.

There are also concerns about the high and rising level of incentives. Incentives certainly have risen the last few years. However, average vehicle transaction prices have also risen, and the incentive environment does not look as generous as in the past. We note that automakers (particularly the Detroit 3) have historically shown creativity with incentives, such as GM's "Employee Pricing" as part of its campaign to "Keep America Rolling" after the 9/11/01 terrorist attacks. Overall, we think that automakers still have levers to support auto sales with higher and creative incentive programs, especially given that the Detroit automakers are significantly more financially healthy and profitable than they were going into the Great Recession.

Lastly, rising interest rates could become a drag on auto sales because rising rates translate into higher monthly car payments for consumers. However, rates remain at historically low levels, so a modest increase from here should not have a significant negative impact on auto sales. Also, it is important to note that rising rates typically coincide with improving economic conditions, so the improvement in the economy could more than offset the impact of rising rates and could even drive an increase in auto sales.

Possibly the best way of thinking about future new vehicle sales is estimating "normal" auto demand and then thinking about positive or negative economic developments that could cause sales to deviate positively or negatively from this normal demand. Some observers may be relying too heavily on the most recent severe cycle during the Great Recession and ignoring the positive factors that could cause new vehicle sales to remain close to recent levels or potentially even grow beyond 17.5m. In particular, because of the much older U.S. vehicle fleet now compared to before the Great Recession (i.e., 48% instead of 36% of vehicles 11+ years old), we think that a similarly severe economic shock as occurred during the Great Recession may be required to push auto sales down to even 12m-13m, compared to the 11.0m population-adjusted trough experienced in

2009. A more typical economic cycle would likely trough around 15m-16m annual auto sales. We also note that there is a possibility that auto sales could grow beyond the 17.5m of 2016 (perhaps after a slightly down year in 2017). This upside scenario does not seem to be getting much consideration now when multiple analysts are generating headlines with much more dire predictions regarding forecasted auto sales.

Our base-case auto sales forecast for our GPI financial model reflects our assessment of the probabilities of various outcomes. We tried to use a forecast with a roughly 50% chance that sales could be better and a roughly 50% chance that sales could be worse. This thinking and assessment of the data and analyses presented in this section led to our base-case scenario for U.S. auto sales of a 3% decline in 2017, another 4% decline in 2018 and then a 5% decline in 2019 to 15.4m vehicles being sold. As mentioned before, even in this declining backdrop nationwide, GPI is likely to have new car sales rise meaningfully in 4Q17 and well into 2018 given the positive impact of replacement demand from Hurricane Harvey damaged cars as described in the first section. Also, the energy geographies of OK and coastal TX have already caused GPI to experience depressed new car sales over the last several quarters that should make any future decline less painful in 2019. These two issues will likely cause GPI's new vehicle sales to deviate significantly from what happens nationwide.

There has been a significant divergence within the auto industry between the performance of trucks (including pickups, SUVs, CUVs and vans) and passenger cars (e.g., sedans, sports cars, luxury cars, etc.). In particular, U.S. truck sales are up 3.3% year-to-date through August despite passenger car sales falling 11.3%, leading to overall U.S. auto sales down 2.7% year-to-date. Retail sales are down about 1%, but fleet sales to rental car companies are down much more. Because most fleet sales are passenger cars rather than trucks, the drop-in fleet sales is further driving the divergence between cars and trucks. While GPI participates in a minor way in fleet sales, it makes only a token profit on sales to rental car companies that pass through GPI as an agent for the sale. The profitability of retail sales to regular consumers is much higher than for a fleet sale. Therefore, the decline in fleet sales has not hurt GPI's profitability much.

In addition, residual values of trucks have increased for several months despite residual values of cars falling for several months. AutoNation recently explained the diverging used vehicle price trends of cars dropping and trucks rising by saying: "there's a lot of late-model stuff coming off lease and the issue is, more than anything, is it's the wrong mix because the installed capacity 3, 4 years ago was heavily weighted towards cars, and that's where the marketplace was pushed even though there was already a strong migration towards trucks. Therefore, you have a mismatch between what the market wants to buy [trucks] and what's

coming back to market [cars] and there will be some residual value pressures there [for cars].” This divergence between cars and trucks has and should continue to provide a mix tailwind to GPI.

There are several reasons why demand for trucks (including CUVs) has done better than demand for cars. Drivers typically prefer SUVs/CUVs over sedans because of the higher seating position, greater versatility, seating flexibility and cargo space in SUVs/CUVs. Drivers also prefer 4WD/AWD (particularly in snowy climates), which is far more commonly available in SUVs/CUVs, as well as the rugged styling and option to go off-roading or tow. The only main drawbacks to an SUV/CUV compared to a sedan are typically worse fuel economy, higher rollover risk and usually higher price. CUVs are typically even more popular than truck-based SUVs because the CUVs offer more comfortable ride and handling. As an example of the trend from cars to CUVs, the Honda CR-V now outsells the Honda Civic. As a result of the move from cars to trucks, truck production has grown from 55% of vehicles in 2012 to 62% of vehicles in 2016, with IHS forecasting this to grow further to 66% by 2020.

In summary, for all of the reasons explained in this section, we think that the significant fears about new vehicle sales collapsing that have depressed GPI’s share price are unlikely to be realized, which can create the opportunity for significant upside.

4. GPI’s stock provides a compelling risk-reward with a possible 36% upside and only about 20% downside.

GPI’s stock looks attractive on both an absolute basis and relative to peers. We initially became interested in GPI’s stock when it was around \$60 towards the end of July. We became even more interested in the stock as it fell towards and below \$55. Now with the tailwind of Harvey replacement demand, the shares seem to have a compelling risk-reward at the current price of \$61.68.

GPI trades at a discount to its peers, as shown in Exhibit 14. Even after the stock price run-up over the last few days, GPI trades at under 9x P/E and at a discount to all peers shown except ABG. GPI’s 8.9% FCF yield (reciprocal of P/FCF shown) is almost double that of the average peer. GPI also has the second highest dividend yield.

Exhibit 13: GPI Comparison with Peers

Ticker	Company Name	Market Cap	P/E	P/E FY1	P/E FY2	P/FCF	Dividend Yld %
GPI	GROUP 1 AUTOMOTIVE INC	1,286	8.4	8.7	8.4	11.2	1.5
LAD	LITHIA MOTORS INC-CL A	2,716	13.5	12.7	11.7	25.0	1.0
PAG	PENSKE AUTOMOTIVE GROUP INC	3,708	10.4	10.0	9.5	15.2	2.8
SAH	SONIC AUTOMOTIVE INC-CLASS A	816	10.6	10.0	9.5	NM	1.1
ABG	ASBURY AUTOMOTIVE GROUP	1,133	8.7	8.6	8.3	9.1	-
CRMT	AMERICA'S CAR-MART INC	298	15.2	13.1	11.4	51.4	-
KMX	CARMAX INC	12,483	19.5	18.4	17.1	NM	-
AN	AUTONATION INC	4,572	12.1	12.8	11.8	20.0	-
Average		3,376.7	12.3	11.8	11.0	22.0	0.8

Source: Bloomberg's RV function.

GPI is committed to returning significant cash back to shareholders. GPI's share count has fallen 22% in the last three years due to share repurchases, while the dividend has increase 41%.

Our 2-year price target for GPI is \$84, which gives about 36% upside. Our price target is based on 10.5x our 2018-2019 average EPS. GPI's stock has averaged around an 11x-12x forward P/E multiple. We note that our \$84 target price is only 8.9x our 2018 EPS estimate. We think that the downside to GPI's stock is likely 20% to \$49, which is near the lowest price that GPI's stock has traded at over about the last five years. We note that there is greater than usual uncertainty regarding the timing of our forecast, because of the extraordinary conditions, and because we have not yet spoken with the company. Given this situation and the uncertainty of the timing of the Harvey replacement demand, we have not included our usual detailed quarterly income statement in our Financial Projections section. This detail will be provided in a later report when we have more clarity.

GPI has experienced strong growth over the last five years, with revenue growing at a 12.4% CAGR from 2011-2016, GAAP EPS growing at a 14.0% CAGR, and adjusted EPS growing at a 15.4% CAGR. We note that currency rates have recently pressured GPI's results, with the strengthening of the US\$ causing lower translation from GBP and BRL revenues and profits. However, the strength of the US\$ relative to the GBP and BRL has eased over the last several months. The US\$ weakened from nearly \$1.20/GBP in early 2017 to around \$1.30/GBP, giving GPI roughly an 8% better revenue and profit translation rate. This impact has been smaller for the Brazilian Real, but the UK generates almost four times the profits for GPI, so this currency impact is the most important.

5. There are a number of risks to an investment in GPI's shares.

One risk for GPI is that interest rates could rise meaningfully which could simultaneously increase GPI's cost of debt, including for its inventory, while also depressing customer demand for its new and used vehicles given the higher monthly payments from higher interest rates.

Another risk is that GPI could grow through acquisitions but pay too high a price for the dealerships that it acquires. This could cause a significant drain on cash and cause future goodwill impairment charges.

A third risk is that GPI's international operations could suffer from large foreign exchange rate changes or other macroeconomic factors that could hurt GPI's profits as they are translated into US\$. The UK Brexit vote and Brazilian crisis are two examples of situations that could cause difficulties for GPI's international operations.

A long-term risk for GPI is that consumers stop wanting to own or lease vehicles directly and opt instead to use vehicles owned by large "shared economy" fleets. With franchise agreements with automakers, even the sale of vehicles to fleets such as rental car companies pass through a dealership, but the profit margin on fleet sales is significantly lower than for sales to consumers.

6. Recent results.

GPI reported disappointing 2Q17 results, with EPS of \$1.87, below consensus EPS of \$2.00 and down 13% YoY. Continued weakness in the energy-dependent states of Texas and Oklahoma contributed to the disappointing results. High U.S. vehicle inventories, higher incentives, falling passenger car residual values, lack of operating leverage, and a softening market in the U.K. put pressure on margins. Houston's new vehicle sales had shown some stability in May, but dropped 24% in June, with the magnitude of the drop surprising management.

Revenues for 2Q17 were down 4% YoY, but down 2% with constant currency. SG&A as a percent of gross profit was 73.5%, well above last year's 72.2%. Looking at each business line, gross profit per new vehicle retail unit fell slightly from \$1,859 to \$1,833, but it would have increased slightly with constant currency. Gross profit per used vehicle retail unit fell 4% YoY from \$1,465 to \$1,403, with currency driving some of the decline. P&S continued to grow, with warranty driving nearly 16% same store revenue growth, collision up 5%, and customer pay and wholesale each up about 2% YoY. F&I gross profit per retail unit rose 40% in Brazil and 4% in the U.S. for 1H17 relative to 2016, but was down 1% in the UK (all in local currencies). GPI's new vehicle gross profits per retail unit including F&I rose 4.5% from \$3,539 to \$3,698, while the equivalent metric for used vehicles fell 1.7% to \$2,947. For 1H17 total gross profit fell 1.4% but only 0.1% in constant currency while net income fell 9.6%.

7. Financial Projections

Annual Projections (\$MM)	2014	2015a	2016a	2017e	2018e	2019e
New Vehicle Retail Sales	5,741.6	6,001.3	6,046.1	6,348.4	7,300.7	5,986.5
Used Vehicle Retail Sales	2,324.9	2,639.0	2,757.7	2,895.6	3,329.9	2,730.5
Used Vehicle Wholesale Sales	379.1	397.3	401.9	375.0	350.0	400.0
Parts & Service Sales	1,125.7	1,186.2	1,261.3	1,299.1	1,351.1	1,391.6
Finance & Insurance	366.6	408.8	420.7	441.7	508.0	416.6
Total Revenue	9,937.9	10,632.6	10,887.7	11,359.9	12,839.7	10,925.3
COGS	8,489.9	9,098.5	9,292.5	9,695.9	11,002.4	9,268.5
Gross Profit	1,448.0	1,534.1	1,595.2	1,664.0	1,837.3	1,656.8
SG&A	1,062.0	1,120.8	1,170.8	1,217.6	1,315.0	1,249.3
D&A	42.3	47.2	51.2	54.3	57.0	58.7
Asset Impairments	41.5	87.6	32.8	-	-	-
Income from Operations	302.2	278.5	340.4	392.1	465.3	348.8
Other Expense	137.7	96.2	112.8	119.6	123.2	133.0
Pretax Income	164.5	182.3	227.6	272.5	342.1	215.8
Taxes	71.4	88.2	90.3	114.5	154.0	90.6
Tax Rate	43%	48%	40%	42%	45%	42%
Net Income	93.1	94.1	137.3	158.1	188.2	125.2
Average Diluted Shares	23.4	23.2	21.2	20.5	19.9	19.3
EPS	3.60	3.90	6.67	7.70	9.45	6.48
Y/Y % Change		2015	2016	2017e	2018e	2019e
New Vehicle Retail Sales		5%	1%	5%	15%	-18%
Used Vehicle Retail Sales		14%	4%	5%	15%	-18%
Used Vehicle Wholesale Sales		5%	1%	-7%	-7%	14%
Parts & Service Sales		5%	6%	3%	4%	3%
Finance & Insurance		12%	3%	5%	15%	-18%
Total Revenue		7%	2%	4%	13%	-15%
COGS		7%	2%	4%	13%	-16%
Gross Profit		6%	4%	4%	10%	-10%
SG&A		6%	4%	4%	8%	-5%
D&A		12%	8%	6%	5%	3%
Income from Operations		-8%	22%	15%	19%	-25%
Other Expense		-30%	17%	6%	3%	8%
Pretax Income		11%	25%	20%	26%	-37%
Net Income		1%	46%	15%	19%	-33%
Average Diluted Shares		-1%	-9%	-3%	-3%	-3%
EPS		8%	71%	15%	23%	-31%
As a % of Revenue		2015	2016	2017e	2018e	2019e
New Vehicle Retail Sales		56%	56%	56%	57%	55%
Used Vehicle Retail Sales		25%	25%	25%	26%	25%
Used Vehicle Wholesale Sales		4%	4%	3%	3%	4%
Parts & Service Sales		11%	12%	11%	11%	13%
Finance & Insurance		4%	4%	4%	4%	4%
Total Revenue		100%	100%	100%	100%	100%
COGS		86%	85%	85%	86%	85%
Gross Profit		14%	15%	15%	14%	15%
SG&A		11%	11%	11%	10%	11%
Income from Operations		2.6%	3.1%	3.5%	3.6%	3.2%
Pretax Income		1.7%	2.1%	2.4%	2.7%	2.0%
Net Income		0.9%	1.3%	1.4%	1.5%	1.1%