

Nothing is as
painful to the
human mind as
**great and
sudden
change.**

*-Mary Shelley,
Frankenstein*



Nothing is as painful to the human mind as a great and sudden change.

While the great changes now occurring in the auto industry may appear sudden, the truth is that transportation has been evolving for centuries.

During the course of my presentation, I'm going to discuss some of these changes. Some are happening fast. Others will take time to play out. We think it's this difference in expectations that creates opportunities amidst change.

But first, a few examples.



In 1955, the Lincoln division of Ford Motor Company designed and built a futuristic concept car called the Lincoln Futura.



The Aston Martin DB5 was first used by James Bond in Goldfinger (1964).



The original Knight Rider featured a sweet Pontiac Firebird Trans Am as the Knight Industries Two Thousand (KITT).



And of course, the DeLorean time machine took us back to the future in 1985.



Since then, things have started to get weird.



And expectations for change may have gotten a bit out of control.



HORSE SHIT

For the cases when bullshit is not expressive enough

When we begin to see such a dramatic shift in expectations, we are tempted to call BS! Or when BS is maybe not strong enough.....

Transportation will change. And the auto supply chain will look materially different in the future than it does today. But this will not happen overnight as Mr. Market appears to suggest. As a result, we are finding bargains throughout the auto industry today.



A forecast in 1894 envisioned
nine feet of manure
on the streets of London by the mid-1940s.

This is not the first time we have experienced a material change in how we move around the world.

During the 'Great Horse Manure Crisis of 1894,' large cities, totally dependent upon thousands of horses for transportation, were literally drowning in horse manure.

However, necessity is the mother of invention. And the invention in this case was Henry Ford's automobile. Bottom Line. We adapt. The auto industry will adapt as well.

But before we get too far, let me step back and outline the key points I'd like to make.



Agenda

- A little bit about us
- A little bit more about auto auctions
- An overview of our investment thesis
 - This is a very good business.
 - The pending spin is an obvious, short-term catalyst.
 - Perhaps not so obvious, is why management is sticking around at RemainCo.
- Putting it all together



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My name is Chris Pavese and I'm a value investor. I have not had an *ounce* of outperformance in almost ten years.

{This is where you say, "Hi Chris!"}

About Broyhill

Broyhill Asset Management is a boutique investment firm, initially established as a family office in 1980 and guided by a disciplined value orientation.

Located in the foothills of North Carolina's Blue Ridge Mountains, we operate outside of the fray and invest with a rational, objective, long-term perspective.

14

I'm the CIO at Broyhill Asset Management, a boutique investment firm, initially established as a family office in 1980 and guided by a disciplined value orientation.

Our Approach

Invest with a margin of safety

Risk management begins with putting a margin of safety at the heart of the investment process.

Make fewer, better decisions

Exceptional returns are created by concentrated portfolios based on rigorous research and common sense.

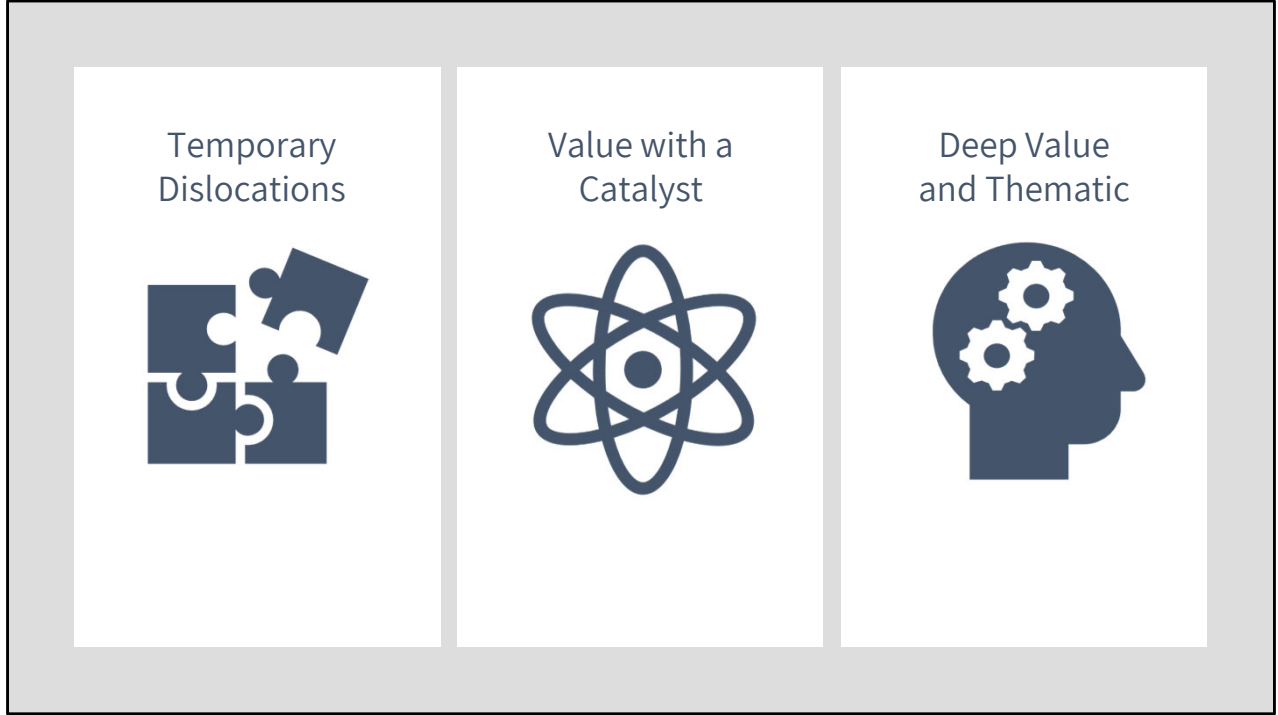
Profit from patience

Dry powder provides today's buffer and tomorrow's opportunity. Wise investors bet big when they have the odds; the rest of the time, they do nothing.

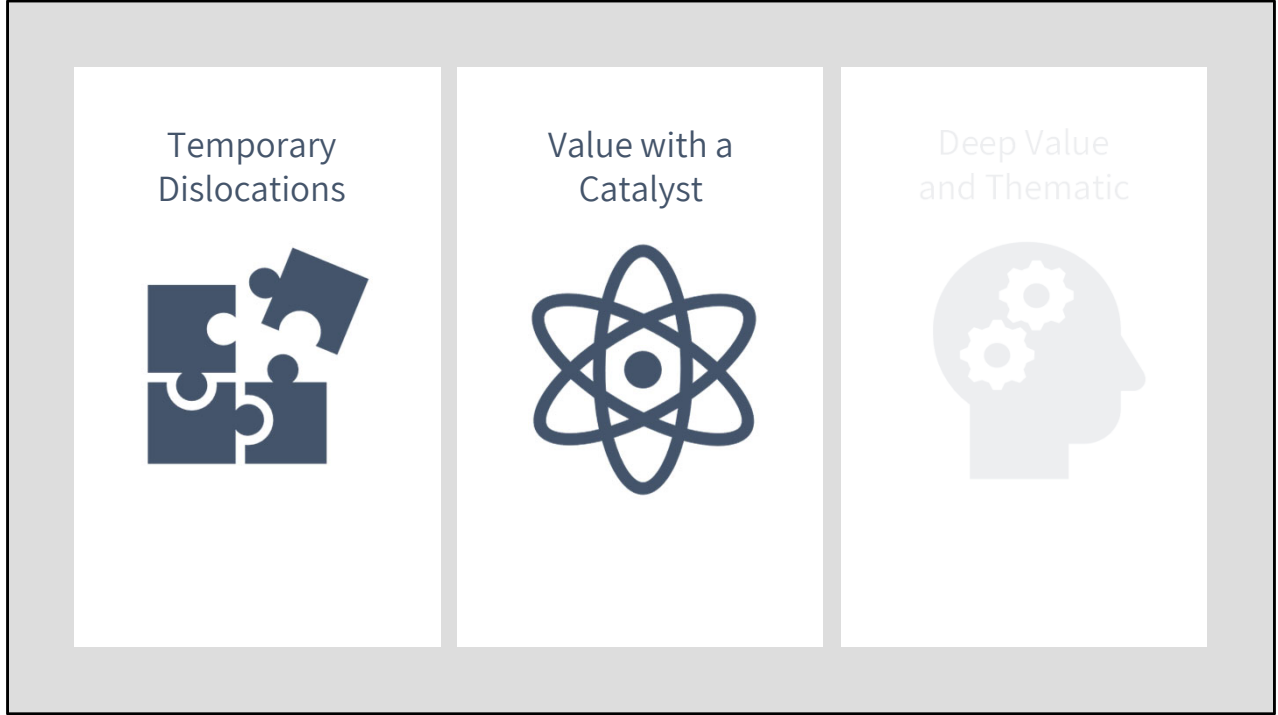
15

Our approach can be boiled down to three key tenets:

1. Invest with a margin of safety.
2. Make fewer, better decisions.
3. Profit from patience.



Historically, our investments have fallen into one of three categories:



I'd like to discuss an opportunity that checks two of these boxes.



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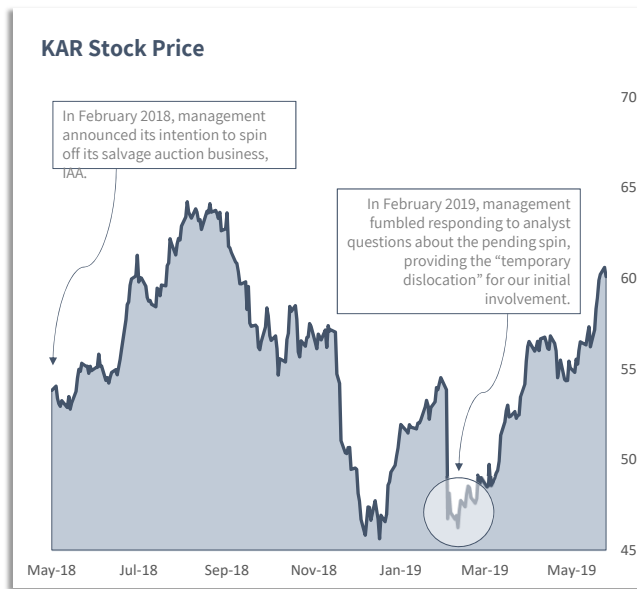


KAR Auction Services is a holding company for two high quality auction businesses that operate in attractive duopolies. In 2018, KAR facilitated the sale of ~ 6 million used and salvage vehicles.

- The first segment we'll discuss today is Insurance Auto Auctions or IAA. IAA is the second largest provider of salvage auctions services. These vehicles are typically older, damaged vehicles that are largely sold by insurance companies. IAA and Copart represent ~ 80% of the market.
- The second segment we'll discuss today is ADESA. ADESA is the second largest provider of used vehicle auction services. Vehicles at these auctions are typically purchased by dealerships. The industry is highly consolidated with ADESA and Manheim (a subsidiary of Cox) representing ~ 70% of the North American market.
- KAR also provides floorplan financing to dealerships through a wholly-owned subsidiary called AFC. AFC earns a majority of its revenue from fees on short-term loans. Since this is a relatively small piece of the business – less than 10% of sales – in the interest of time, we are going to focus on the economics of both auction businesses today.

Key Statistics

Ticker	KAR
Price	\$60
Shares Outstanding	133.8
Market Cap	\$8.1B
Net Debt	\$2.4B
Enterprise Value	\$11.5B



In February 2018, management announced its intention to spin off its salvage auction business, IAA. We think this is the catalyst to unlock significant near-term upside.

In February 2019, management fumbled responding to analyst questions about the pending spin, providing the "temporary dislocation" for our initial involvement.



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Investment Thesis

- **This is a good business** with attractive industry dynamics - high margins and low capital intensity generate strong, recurring free cash flow and high returns on capital.
- **Pending spin-off** of IAA should unlock significant market value in the salvage auction business which trades at a ridiculously large discount to Copart.
- While the undervaluation of IAA is largely appreciated by the street, we think the real story here is uncovered by **following management incentives**.

Our investment thesis can be boiled down to three simple points:

- 1) This is a good business.
- 2) The pending spin should unlock significant value.
- 3) Management actions signal long term upside in the used auction business.



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This is a good
business

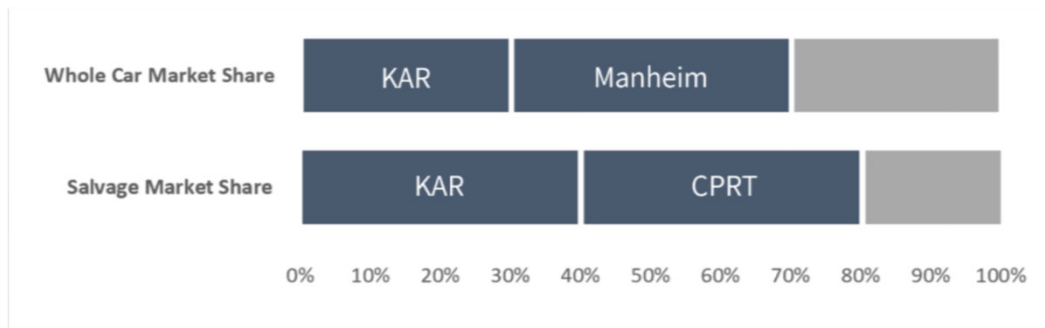
- KAR runs two separate and distinct auto auction businesses with a **number two position in both oligopolies.**
- The industry boasts **high barrier to entry** - zoning requirements make entry into this business very difficult.
- The auction business is a **fee-based model** with minimal working capital requirements, low capital intensity and strong cash flow.

Auto auctions benefit from attractive industry dynamics characterized by:

- Attractive oligopolies with no other major competitors.
- High barrier to entry, with strong network effects.
- A fee-based business model with no inventory risk.

This is a good business

KAR runs two auto auction businesses with a number two position in both oligopolies. There are no other major competitors besides KAR & its main competitor (Manheim in whole cars, Copart in salvage) in both segments.



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This is a good business

The industry boasts high barrier to entry – strict zoning requirements and big real estate footprints restrain new competition.

Restrictive zoning laws favor incumbents and limit supply growth. Auctions with the most bidders attract the most sellers – i.e. KAR benefits from strong network effects.



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Restrictive zoning laws favor incumbents and limit supply growth. Auctions with the most bidders attract the most sellers – i.e. KAR benefits from strong network effects.

This is a good business

KAR operates a simple, fee-based business model.

Like EBAY, KAR has no inventory risk, which means the business has minimal working capital requirements, low capital intensity and strong, recurring cash flow.



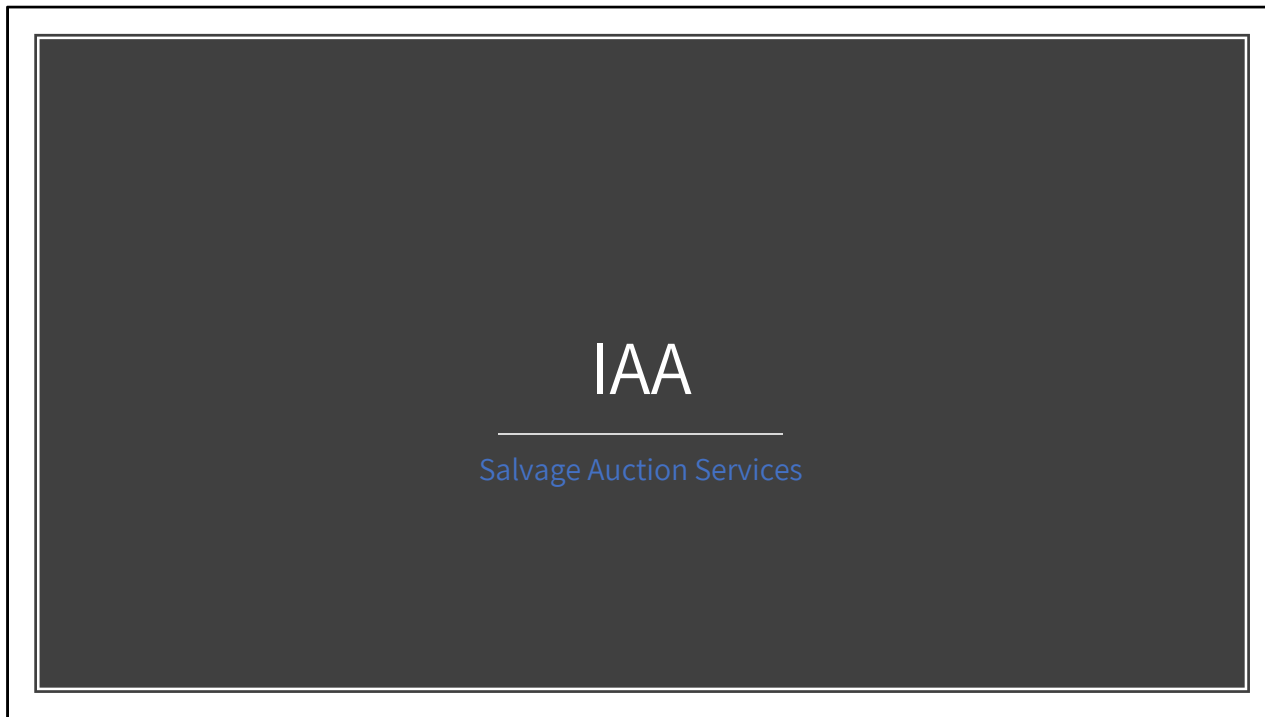
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The salvage auction business is widely recognized as a good business, so I'll try to move through this section relatively quickly.



"Think of us like the local sewer system. We're a utility. Nothing can get rid of us."

"Two of the biggest businesses in the world are car manufacturers and insurance companies. If insurance companies don't write insurance policies on cars, then they're out of business. If manufacturers don't make cars, then they're out of business. They're always gonna make cars, and they're always gonna insure them."

"We're the guy in between. As long as we've got the land in the right place to put the cars on, we can't fail. We are like the septic tanks of the sewer system. You can't have the system without us."

- Junk to Gold, Willis Johnson

This is a quote from Willis Johnson founder of Copart comparing the salvage business to the local sewer system. "We are a utility. Nothing can get rid of us."



The salvage auction industry operates as an effective oligopoly.

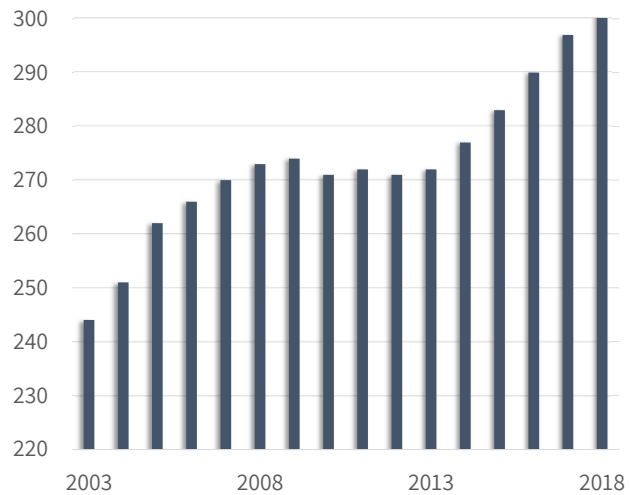
Copart and IAA account for approximately 80% of the market.

This is a recession proof business with several structural tailwinds.

The salvage auction industry operates as an effective oligopoly. Copart and IAA account for approximately 80% of the market. This is a recession proof business with several structural tailwinds. Let's take a quick look at a few of them.

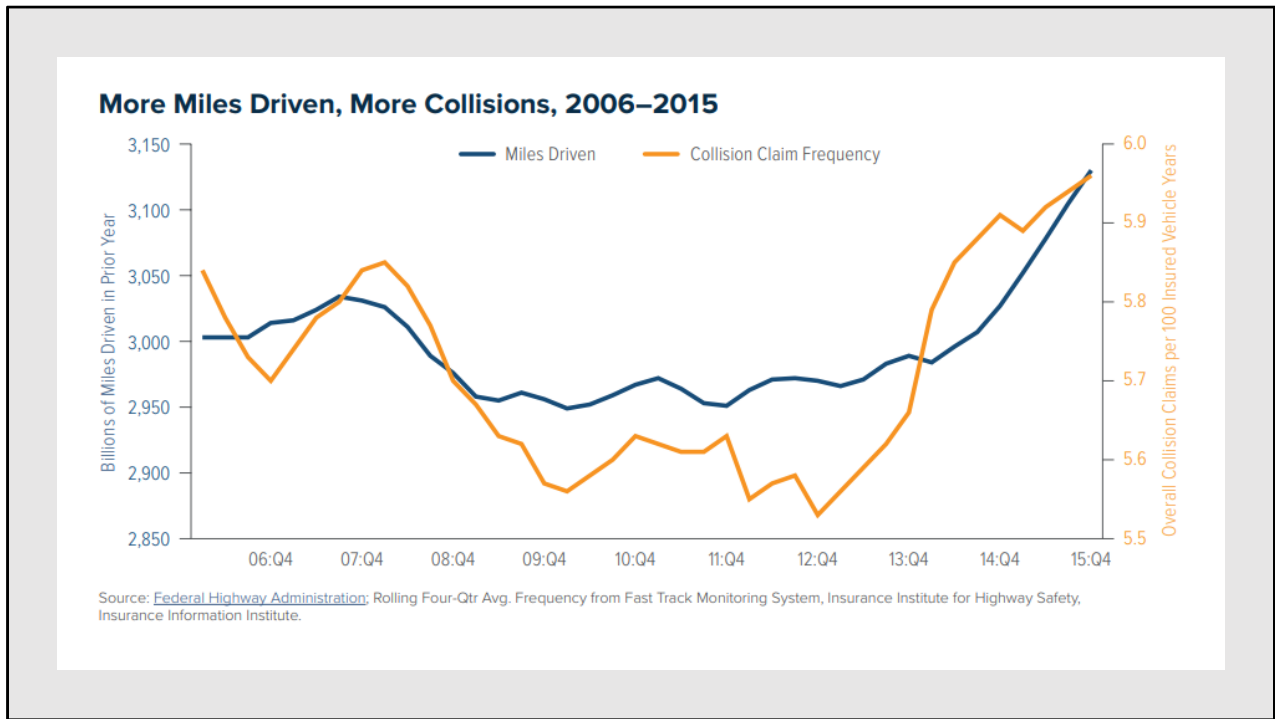
Salvage volume is driven by the size of the installed base, not new vehicle sales

Growing North American Installed Base



Source: IHS

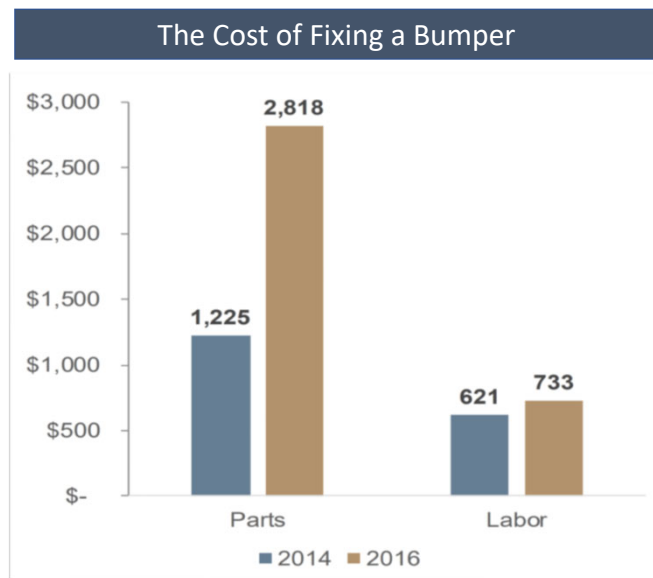
1) **Volume is driven by the installed base of new vehicles**, not new car purchases. Furthermore, an aging fleet will ultimately translate into greater future volume (i.e. older vehicles are more prone to salvage).



2) When we drive more, we crash more. Increasing miles driven translates into increasing accidents.

Greater Vehicle Complexity = Greater Repair Costs

The cost of replacing a bumper on an entry level car has more than doubled over two years with the added cost of new distance sensors

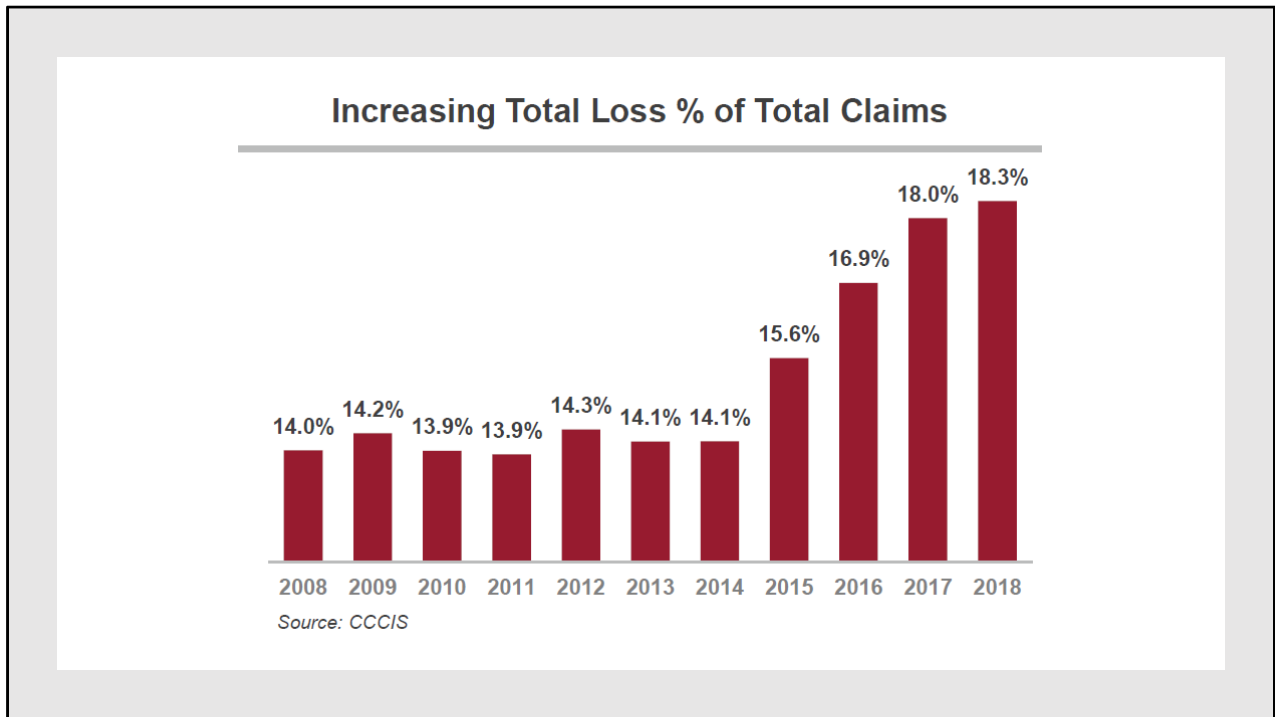


Source: Liberty Mutual

3) Increasing vehicle complexity is driving higher repair costs, which lead to greater salvage rates.



4) While new technology has the potential to reduce accident frequency, in the near-term, it is having the opposite effect (i.e. distractions).

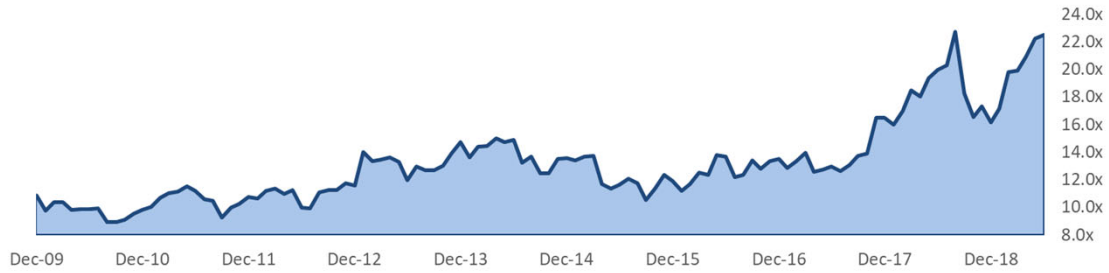


Finally, I think this chart is all you need to understand the salvage business today. Here, we are looking at the percentage of “total loss” vehicles relative to total accidents. This percentage was pretty steady at around 14% up until five years ago. It has since climbed toward 20% due to the factors we just discussed.

Copart Historical EV/EBITDA Ratio

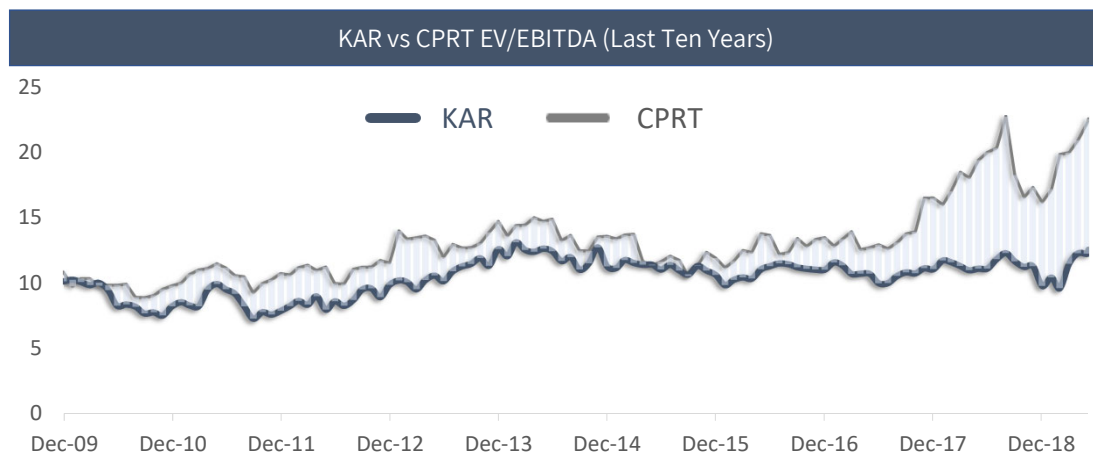


Shares of Copart traded on average at 12x EV/EBITDA for the ten years prior to 2017. Since then, the stock has rerated to nearly 23x EBITDA today. It's fair to say that investors understand this is a high quality business



The market has taken notice. Check out the rise in Copart's valuation over the past few years. The stock traded at 12x EBITDA for the ten years up until 2017. Today it trades at roughly twice that level.

Mind the gap



Bottom line: we think the spin off of IAA is an obvious catalyst to close this gap.

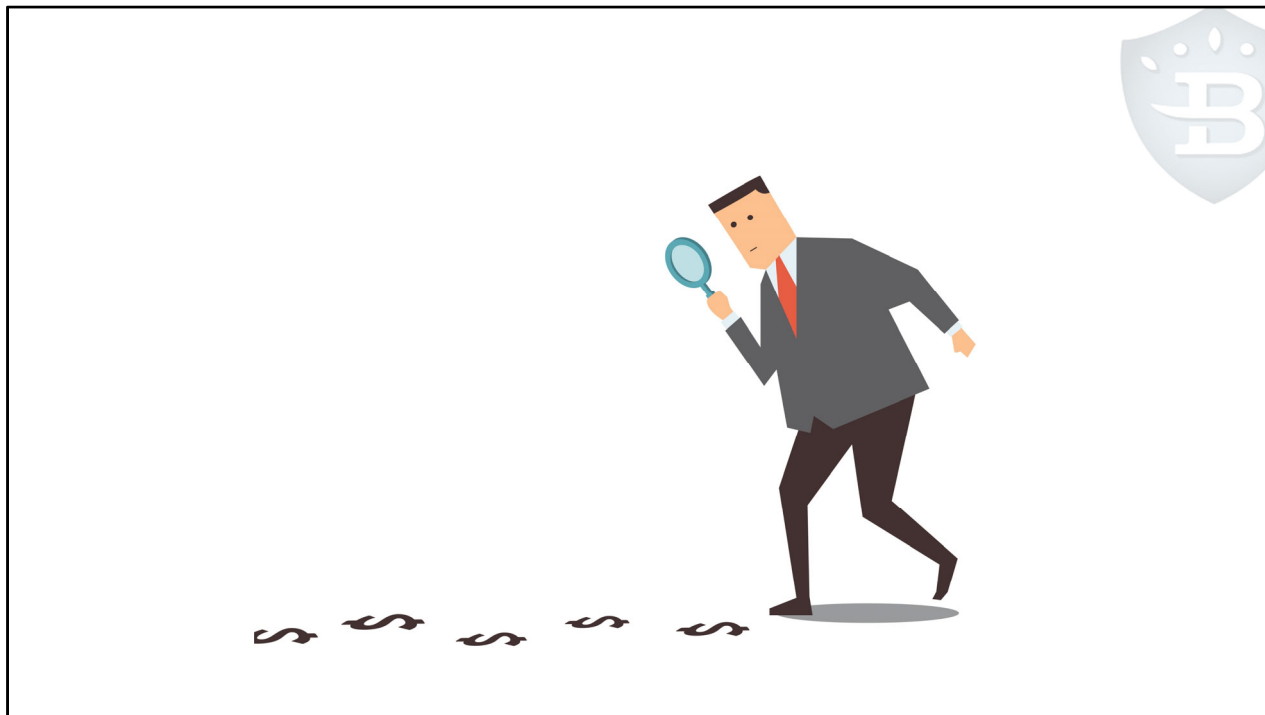


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ADESA

Whole Car Auction Services



So why is management sticking around at RemainCo, if IAA is in such an obviously good position?

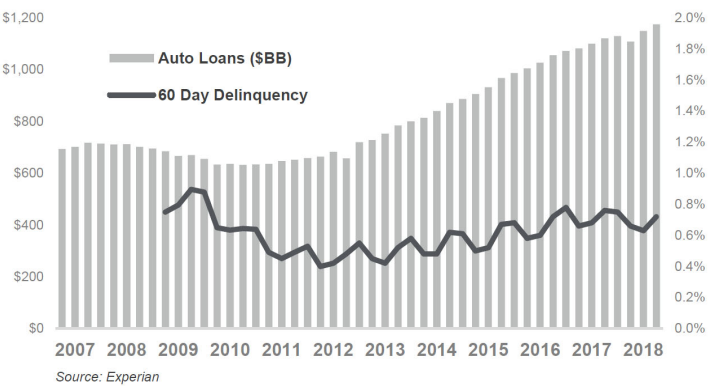
In spinoffs, management typically follows the money trail. All the incentives are there for management to drive value creation at the new, independent company. So, when we initially looked at KAR, IAA seemed like a no brainer. The business is under-earning relative to Copart and trading at half the multiple. Strike the options at today's depressed valuation and head for the bank once the stock rerates.

But that's not what's happening here. KAR's CEO and CFO have both made a deliberate choice to stay with the RemainCo, ADESA. With IAA such an obvious winner – benefitting from little cyclical and opportunity for international expansion – we believe this choice is a valuable signal. KAR's CFO is choosing to commute 200 miles to ADESA's HQ, when he lives 14 miles from IAA's HQ. Why would anyone do that?

ADESA volumes, which lag SAAR, are more cyclical than IAA. Off lease vehicles, which currently account for a third of industry volume, are expected to peak in the near term. And the business appears to be at risk of disruption from VC backed start-ups. Bottom line: the cyclical and secular threats facing the business are well known. But investors appear to be overlooking a number of tailwinds:

Used car auction services are less cyclical than perceived

Increasing Auto Loans = Repo Volume Growth

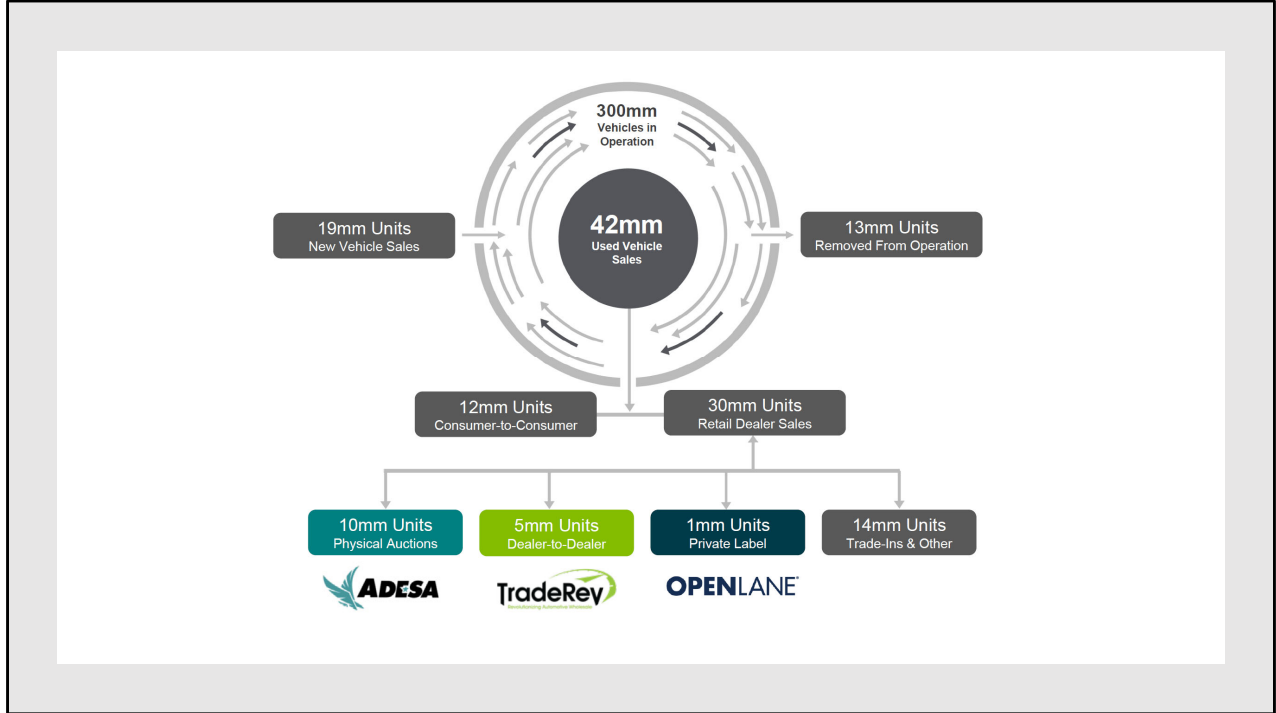


1) We think used car auctions are less cyclical than widely perceived. And we believe that there are a number of levers that management can pull when off-lease volumes peak. For example, they can shift sourcing to other suppliers as they've done in the past. Another point worth mentioning is that repossessions are approaching a quarter of ADESA volume and represent a countercyclical source of inventory.

Upside to margins via SG&A and ancillary services



2) We think management has plenty of room to drive margin expansion. They are likely to significantly cut overhead after the spin. We wouldn't be surprised to see a substantial cost saving initiative announced in the near term. Another important driver here is the continued growth of ancillary services.



3) And last but not least, we believe that KAR’s acquisition of TradeRev is widely underappreciated. TradeRev will open ADESA up to a fragmented market of dealer-to-dealer transactions that was previously overlooked. We believe the business generates similar margins (management is targeting 75% Gross Margins) to its core auctions business and should experience a rapid acceleration in adoption for years ahead.

Trade Rev

	Trade Rev	ACV Auctions
Vehicles Sold	200,000	120,000
Markets	176	140
Valuation	< \$0	\$600 million

Sources:

[ACV Auctions Hits Monthly Milestone of 5,000 Dealer-to-Dealer Online Wholesale Vehicle Sales](#)

[ACV Auctions continues rapid disruption of \\$100B wholesale automotive industry](#)

[ACV Auctions valuation near \\$600 million, according to Pitchbook](#)

TradeRev's closest competitor, ACV Auctions, was recently valued at \$600 million in its last round of VC funding. Note that TradeRev is in more markets and does almost twice the volume of ACV today. Yet, the market is implicitly valuing TradeRev at less than zero, putting a KAR multiple on ~ \$60 million in current operating losses.

Jane Doe's 3-year lease from a captive finance company on her luxury sedan is winding down. Here is what could happen next, and KAR Auction Services' possible role in each step.

- 1.** Several months before the lease expires, the captive or dealership can see if there is demand for the car on KAR's Openlane online auction. If so, they may ask Jane Doe if she wants to end the lease early and get another vehicle.
- 2.** A month before the lease expires, an inspector goes to her office parking lot to check the car and take photos, perhaps videos. The inspector may be from KAR's AutoVIN subsidiary.
- 3.** When she returns the car to her dealership at the end of the lease, the store can use KAR's Lease Turn-In Manager tool to complete lease termination on behalf of the captive. The dealership then has 24-48 hours to decide whether to buy the car. If the store does not buy it ...
- 4.** The captive offers the car via a private-label online auction site, powered by KAR's Openlane, to other dealerships of that brand for 24-48 hours. The captive may use analytics, largely from KAR's Drivin subsidiary, to help manage its vehicle portfolio and decide how to price the car for maximum profit and quickest sale. If the car doesn't sell there ...
- 5.** For automakers with multiple brands, the captive may offer the car to dealerships selling those other brands for 24-48 hours, via another private-label auction site powered by Openlane. If it doesn't sell there ...
- 6.** It is offered via Openlane to franchised and independent dealerships, and co-listed on adesa.com, usually for 2-3 days. If it doesn't sell there ...
- 7.** The car can be offered to participating TradeRev dealerships. TradeRev, owned by KAR, enables dealerships to wholesale vehicles to other dealerships via an app almost instantly. Many of those dealerships will have specified vehicles they're looking for, and if this car is what they want, they will receive an alert when it is launched into TradeRev's live-bidding, one-hour auction. If it still doesn't sell ...
- 8.** The car is shipped, perhaps by KAR's transport subsidiary, CarsArrive Network, to an ADESA physical auction. There it may undergo reconditioning or other work the consigner requests before being offered to bidders in the lanes and off-site via the ADESA LiveBlock simulcast. The buyer, particularly if it is an independent dealership, may obtain floorplan financing from KAR's Automotive Finance Corp.

Source: Auto News, ADESA's bold bid to revamp auto auctions

For those interested in going a little deeper into the weeds, this is a good example of KAR's role in the auction process as a luxury sedan comes off lease.



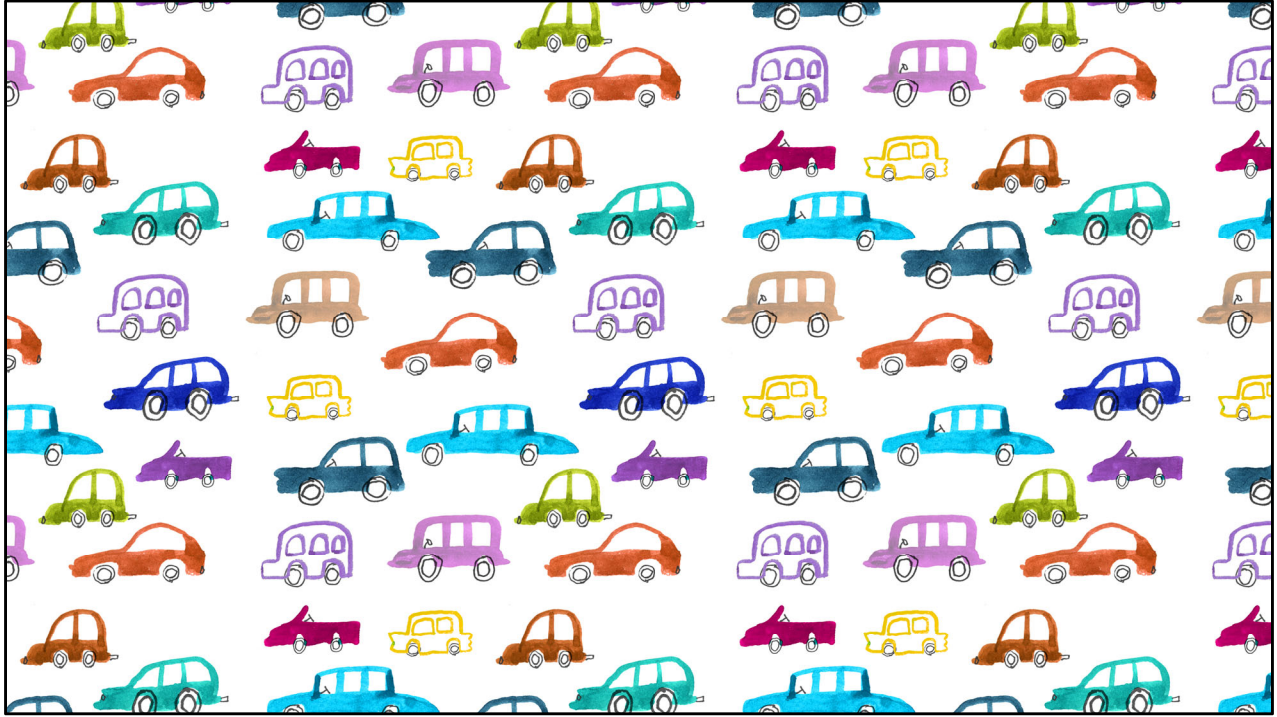
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Valuation

Putting It All Together

So what's it worth? In every valuation exercise, we try to start with broad strokes. We sketch out the thesis on a napkin to make sure we understand all the moving pieces.



Here's our first draft.

Investors are **highly skeptical** of the used car business

Pending spin should unlock **significant value**

Current KAR Valuation with Near Term Upside from IAA Spin

<i>(\$ millions)</i>	Bear	Base	Bull
ADESA			
2019 Adj EBITDA	590.0	600.0	610.0
EV/EBITDA Multiple	8.0x	10.0x	12.0x
Implied Enterprise Value	4,720.0	6,000.0	7,320.0
IAA			
2019 Adj EBITDA	411.3	415.2	419.0
EV/EBITDA Multiple	14.0x	16.0x	18.0x
Implied Enterprise Value	5,757.9	6,642.6	7,542.7
Total Enterprise Value	10,477.9	12,642.6	14,862.7
(-) Net Debt	2,714.0	2,714.0	2,714.0
Implied Equity Value	7,763.9	9,928.6	12,148.7
Shares Outstanding	134.0	134.0	134.0
Intrinsic Value per Share	\$58	\$74	\$91
% Gain/Loss from Current Price	(3%)	23%	51%

Notes:

ADESA EBITDA estimates adjusted for \$60 million in TradeRev losses
Assumes IAA trades at 20% - 40% discount to CPRT

Next, we took a look at near-term upside assuming IAA rerates higher post spin. Even though these are nearly identical businesses with few structural differences, we assume IAA trades at a 20% - 40% discount to CPRT. **On these numbers, we see little downside in the stock with significant upside remaining even after the recent run.**



But wait...

The market is currently ascribing a **negative value** to TradeRev

TradeRev's closest comparison, ACV Auctions, is half the size . . .

And was recently valued at \$600 million.

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Implied Equity Value	7,763.9	9,928.6	12,148.7
Shares Outstanding	134.0	134.0	134.0
Intrinsic Value per Share	\$58	\$74	\$91
% Gain/Loss from Current Price	(3%)	23%	51%
(+) TradeRev	\$4.5	\$6.0	\$7.5
Total Value per Share + TradeRev	\$62	\$80	\$98
% Gain/Loss from Current Price	4%	33%	64%

Our initial take backed out \$60 million in annual losses from TradeRev, but still effectively valued this business at zero. **If we assume TradeRev is worth at least as much as ACV, we see another \$5 - \$10 in upside.**

Longer term,
we see
**potential for
a double**
inside of
three years

Implied 2022E KAR Valuation Under Various Scenarios

(\$ millions)	Bear	Base	Bull
ADESA			
Adj EBITDA	678.4	716.5	755.6
EV/EBITDA Multiple	8.0x	10.0x	12.0x
Implied Enterprise Value	5,427.2	7,164.8	9,066.8
IAA			
Adj EBITDA	489.8	508.6	527.9
EV/EBITDA Multiple	12.0x	14.0x	16.0x
Implied Enterprise Value	5,878.1	7,120.2	8,445.9
Total Enterprise Value	11,305.3	14,285.0	17,512.8
(+) Cumulative Cash Flow	800.0	1,000.0	1,200.0
(-) Net Debt	1,914.0	1,714.0	1,514.0
Implied Equity Value	9,391.3	12,571.0	15,998.8
Shares Outstanding	134.0	134.0	134.0
Intrinsic Value per Share	\$70	\$94	\$119
(+) Cumulative Dividends	4.9	4.9	4.9
Total Value per Share	\$75	\$99	\$124
% Gain/Loss from Current Price	25%	65%	107%

Notes:

Assumes current dividend yield remains constant and all cash accumulates on b/s
ADESA revenue growth of 6% - 8% and incremental margins at 30%
IAA EBITDA growth estimated at 6% - 8%

Longer term, if we assume mid single digit EBITDA growth in both businesses, we see a clear path to a double inside of three years on relatively conservative assumptions.



Bottom Line

- We think this is a very good business available at a great price today due to the perceived secular risks across the auto supply chain.
- The pending spin is an obvious, short-term catalyst that should unlock significant value as IAA closes the gap with CPRT.
- Management staying with RemainCo is an important tell, which we believe signals the long term potential in used auto auctions.
- We see a clear path to a double in shares with minimal downside risk.

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Management staying with RemainCo is an important tell, which we believe signals the long term potential in used auto auctions.

We see a clear path to a double in shares with minimal downside risk.



With how many things are we on the brink of becoming acquainted, if cowardice or carelessness did not restrain our inquiries.

*-Mary Shelley,
Frankenstein*

Nothing is as painful to the human mind as a great and sudden change.

Given the significant changes occurring across the auto supply chain, I think KAR is worth the time to get acquainted.



ABOUT BROYHILL

We are a boutique investment firm, established as a family office and guided by a disciplined value orientation. Located in the foothills of the Blue Ridge Mountains, we operate outside of the fray and invest with a rational, objective, long-term perspective.



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