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## Letter from Portfolio Managers

Dear Board of Advisors,

Thank you for joining us for the final meeting of this semester. Over the past month, we have worked extensively in our portfolio team meetings, culminating in an investment idea that we are excited to share today. On behalf of the entire club, we want to thank you all for joining us in the board meetings and for your valuable feedback throughout the semester.

With this being the last meeting of the school year, we wanted to shed light into what the portfolio team will be doing during the holiday. Over the course of the summer, each analyst will develop a pitch, complete with a model, that will spark our internal meeting discussion at the start of next semester. We will also be diligent in tracking the names we currently own, through position and model updates during the break.

Turning towards the portfolio, the market has seen some developments since the last meeting on March 30th. Namely, resulting tension from the Russia and Ukraine conflict and inflation concerns have plagued the market this calendar year. However, more recently, disappointing corporate earnings, specifically tech companies, and a worsening outlook for global growth has caused overall draw downs in the market.

Overall, the spread between the S&P and our portfolio has contracted to -1%, marking an improvement since our last meeting. Despite the short-term headwinds, we maintain conviction in the positions we own, and we will continue to look towards more defensible business models with sustainable moats in our own portfolio.

Shifting towards the ideas that we are bringing in today, we have had meaningful internal discussion over the last several weeks and would like to share two of our ideas with the board:

Semler Scientific (NASDAQ: SMLR) – A medical device market leader with a stronghold over a growing market. While we have some reservations about adding this name to the book right now, we wanted to get it on the board's radar and to hear some suggestions as we continue researching this name through the summer.

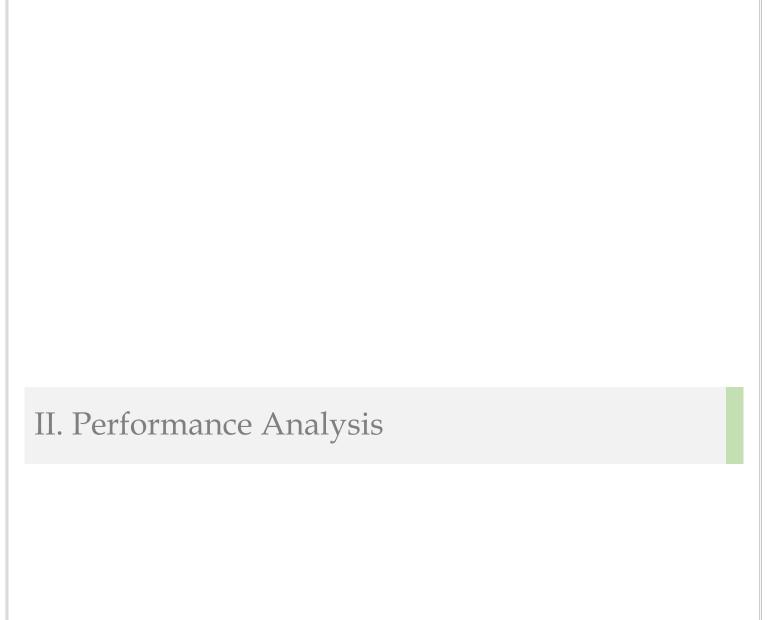
Sonic Automotive (NYSE: SAH) – A legacy franchised dealership with a hidden used car asset, Echopark.

Overall, we are glad to continue being a source of information to the Board and are excited to continue our tenures as the portfolio managers of IAG into the summer.

Best,

Niranjan Narasimhan and Rahul Parikh

Portfolio Managers



## Holdings Summary (as of May 2nd, 2022)

				Current Ho	ldings					
Company Name	Ticker	Coverage	Date of Purchase	% of Portfolio	Share Count	Price At Purchase	Share Price	Current Return	Industry	Holding Type
APi Group Corp	APG	Pravar Jain	9/24/20	3.9%	160	\$14.29	\$18.78	31.4%	<b>I</b> ndustrials	Core
Concrete Pumping Holdings Inc	BBCP	Alex Isaac	3/26/21	2.1%	300	\$7.07	\$5.44	(23.1%)	<b>I</b> ndustrials	Core
Berry Global Group Inc	BERY	Sophie Pan	12/2/20	3.7%	50	\$54.60	\$56.94	4.3%	Consumer Cyclical	Core
Builders FirstSource Inc	BLDR	Rahul Parikh	10/5/21	6.5%	80	\$52.20	\$63.28	21.2%	<b>I</b> ndustrials	Core
Catapult Group International Ltd	CAZGF	Rahul Parikh	12/7/21	2.3%	2,100	\$1.03	\$0.86	(16.5%)	Technology	Core
Krispy Kreme Inc	DNUT	Robert E.	12/7/21	4.5%	260	\$16.50	\$13.45	(18.5%)	Consumer Defensive	Oppt.
Exelon Corp	EXC	Rhys Berezny	4/30/21	4.2%	70	\$44.83	\$46.65	4.1%	Utilities	Oppt.
Flex Ltd	FLEX	Rhys Berezny	10/5/21	4.9%	230	\$17.88	\$16.58	(7.3%)	Technology	Core
HCA Healthcare Inc	HCA	Alice Yu	9/26/19	<b>5.1</b> %	19	\$119.99	\$210.82	75.7%	Healthcare	Core
JD.com Inc ADR	JD	Nithin M.	4/30/21	3.3%	40	\$77.55	\$63.37	(18.3%)	Consumer Cyclical	Core
Methode Electronics Inc	MEI	Achyut Seth	2/19/21	4.5%	80	\$38.56	\$44.22	14.7%	Technology	Oppt.
Monster Beverage Corp	MNST	Achyut Seth	11/9/21	4.5%	41	\$91.00	\$84.75	(6.9%)	Consumer Defensive	Core
Office Properties Income Trust	OPI	Mikhail Talib	10/28/20	3.5%	130	\$17.85	\$20.79	16.5%	Real Estate	Core
Palo Alto Networks Inc	PANW	Alex Isaac	9/24/20	7.4%	10	\$240.50	\$571.95	137.8%	Technology	Core
Points.com Inc	PCOM	Winston Yin	10/28/20	5.3%	240	\$10.01	\$17.03	<b>70.1</b> %	Communication Services	Core
RH	RH	Rahul Parikh	3/30/22	4.5%	10	\$323.66	\$347.83	7.5%	Consumer Cyclical	Oppt.
Sea Ltd ADR	SE	Niranjan N.	2/18/22	2.7%	24	\$133.00	\$88.69	(33.3%)	Communication Services	Oppt.
TransDigm Group Inc	TDG	Tony Wang	4/9/20	7.0%	9	\$527.65	\$602.88	14.3%	<b>I</b> ndustrials	Core
United Rentals Inc	URI	Carol Sun	3/14/19	5.5%	14	\$114.85	\$307.03	167.3%	<b>I</b> ndustrials	Core
Willis Towers Watson PLC	WTW	Mikhail Talib	11/9/21	4.6%	17	\$231.70	\$211.48	(8.7%)	Financial Services	Core
ZTO Express (Cayman) Inc ADR	ZTO	Niranjan N.	3/14/19	3.6%	100	\$19.43	\$28.11	44.7%	<b>I</b> ndustrials	Core
Total Equity Holdings				93.5%			\$72,727.59			
Cash				6.5%			5,063.45			
Total Portfolio Holdings				100.0%			\$77,791.04			

#### IAG vs S&P 500 LTM Returns

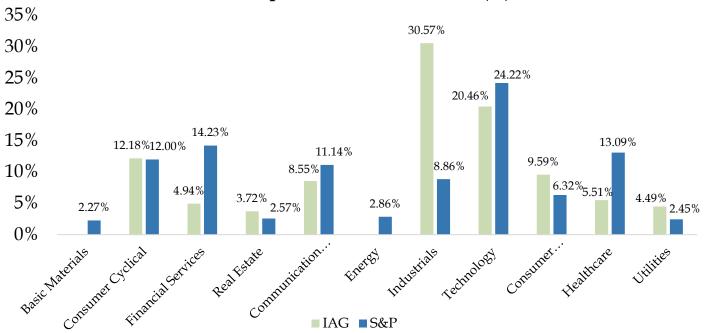


On a last twelve-month basis, **IAG's portfolio has returned -0.56**% while the S&P 500 returned 0.21%. Since the last oversight meeting, **the spread between IAG's portfolio and the S&P 500 improved from -1.40**% **(3/30/22) to -0.77**% **(5/2/22).** 

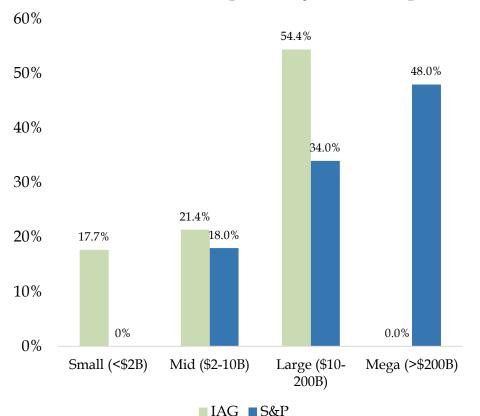
Our opportunistic positions now represent ~20% of our portfolio which is in line with our expectations.

## Portfolio Exposure vs. Benchmark





## IAG vs. S&P 500 Exposure by Market Cap



IAG continues to use the S&P 500 as the core benchmark as specified in the fund mandate. While our industrial exposure is still substantially overweight, the two proposed positions today will help improve the composition.

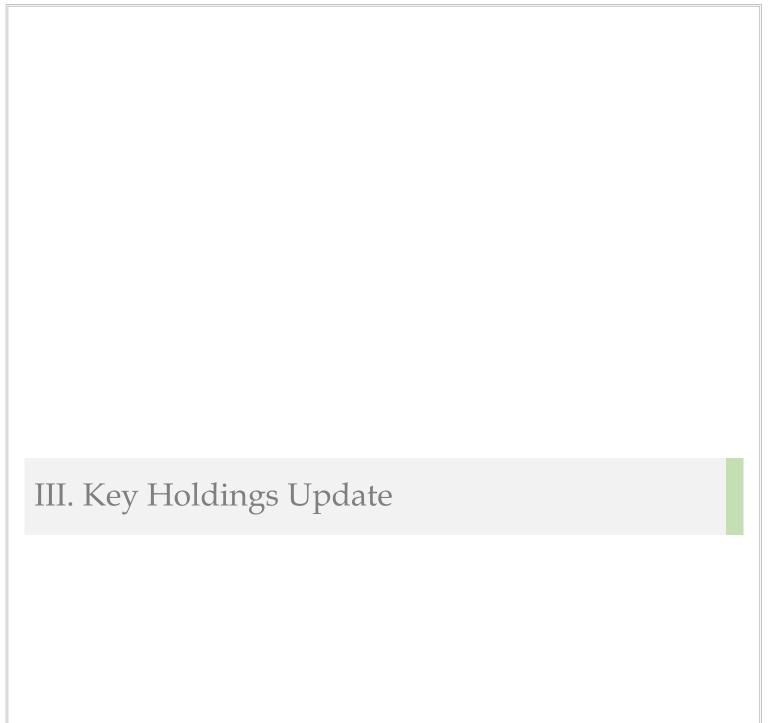
# IAG continues to be underexposed to mega-cap positions, yet drastically overexposed to small and large-cap companies. We will continue to look at the mega cap space for potential opportunities but do not think that the underexposure poses a major issue.

# Pitch Log Since Mar 2022 Meeting

Company  1 Micron Technology		Stage	<b>D</b> (	
		-	Date	Analysts
		Initial Screen	3/31/2022	Nithin Mantena
2 Nature's Sunshine		Initial Screen	4/6/2022	Karen Phua, Winston Yin, Carol Sun
3 Axon Enterprises		Initial Screen	4/6/2022	Pravar Jain
4 Sonic Automotive Inc.		First Update	4/13/2022	Vinny Ye, Alex Isaac, Carol Sun
5 New Residential Inve	stment Corp.	Initial Screen	4/20/2022	Karen Phua
6 Olin Corporation		Initial Screen	4/20/2022	Pravar Jain
7 Micron Technology		First Update	4/20/2022	Nithin Mantena
8 Semler Scientific		First Update	4/20/2022	Winston Yin, Tony Wang
9 Sonic Automotive Inc.		Second Update	4/20/2022	Vinny Ye, Alex Isaac, Carol Sun
10 Sonic Automotive Inc.		Devil's Advocate	4/27/2022	Robert Eisenman
11 Semler Scientific		Devil's Advocate	4/27/2022	Karen Phua, Carol Sun

	Active Pipeline				
	Company	Stage	Date	Analysts	
1	Micron Technology	First Update	4/20/2022	Nithin Mantena	
3	Olin Corporation	Initial Screen	4/20/2022	Pravar Jain	
2	Semler Scientific	First Update/Devil's Advocate	4/27/2022	Winston Yin, Tony Wang	

	Oversight Meeting					
	Company	Stage	Date	Analysts		
1	Semler Scientific*	First Update/Devil's Advocate	4/27/2022	Winston Yin, Tony Wang		
2	Sonic Automotive	Second Update	4/27/2022	Vinny Ye, Alex Isaac, Carol Sun		



Company	Ticker	Update
APi Group	APG	We propose to hold our position in the API Group. Since our purchase in 2019, the stock has increased ~178%. Since our last meeting, the stock has drawn down ~9.8%, largely in line with indexes like DOW and no material changes to its business. Management is expected to report Q1 2022 financials this week. We will analyze earnings closely to further understand the effect of APG's acquisition of Chubb, which started contributing to earnings in Q4 2021. Safety and Specialty services industry has grown significantly in the past year, and APG reported a 26% YoY increase in 2021. This is driven by a mix of organic growth as well as positive and accretive M&A, increasing our confidence in our initial thesis points. Supply chain issues and increased inflation in the US created downward pressure on margins but was offset by the expanding share of Safety services revenue. Management's authorization of a \$250 million share repurchase program gives us further confidence in their high FCF generation and capital allocation even during a period of significant macro headwinds. As such, we continue to hold conviction in our initial thesis points and would like to hold API till it realizes synergies from its recent acquisitions and continues to increase revenue share from its higher margin Safety and Services segment.
Concrete Pumping Holdings	ВВСР	We propose a hold on our position in Concrete Pumping Holdings. Our position is currently down 21.2% from our purchase price at \$7.08 per share. The company continues to face negative headwinds related to inflation and supply chain issues. As the largest operator at scale in the industry, we believe that BBCP is uniquely positioned to weather the current systemic factors facing the company. Specifically, we believe that these same factors are likely amplified for smaller operators, who lack the economies of scale to effectively source key supplies, such as diesel fuel. As such, we expect many of these companies to face financial constraints, creating unique buying opportunities for Concrete Pumping Holdings to continue its roll-up strategy. We are eagerly awaiting BBCP's second-quarter financial results and believe the company will withstand its current short-term challenges in a stronger competitive position than when we initially started the position.
Berry Global	BERY	We propose a hold in our stake in Berry Global. The company's Q2 earnings are scheduled to be reported on May 5, the day after our oversight meeting. As the stock is down ~22% YTD and still trading at 10%+ FCF yield, we believe the inflationary and supply chain shortage backdrop are priced in. To discuss some of the macro factors magnified with the Russia-Ukraine conflict, the entire paper and packaging sector has been experiencing headwinds. In particular, the sector may see margin compression due to energy, freight, and resin, but as costs are largely pass-through industry-wide, we are not too concerned about the price-cost recovery on Berry's long-term prospects. Continued increases in demand from Berry's end markets including consumer goods, industrial manufacturing, and home-building, partially offsets the input pricing impact as well as keeps organic growth steady.
Builders FirstSource	BLDR	We propose a hold on our stake in Builders Firstsource. Since our last update, the stock price has drawn down to ~\$63 per share, representing about 22% upside since we opened the position. Since the meeting in March, the only major news from the company has been the hiring of Amy Messersmith as Chief People Officer, heading the Joint HR department post-merger. The reason for the recent selloff has been general cyclicality in the housing cycle, as Builders lumber business (~35% of revenue) is generally exposed to commodity prices and interest rates. However, the company has not decreased as much as competitors' stock prices, as the manufactured products have been able to weather the storm, as well as the scale generated from a successful merger with BMC holdings. We look forward to Q1 results, which will be presented approximately 1 week from today.

Company	Ticker	Update
Catapult Sports	CAZGF	We propose a hold on Catapult Sports. Since our last meeting, the stock price has remained flat, and there have not been any changes to the business / earnings / news releases. The only noteworthy piece of information is that Catapult expanded their deal with the National Rugby League, to make it encompass the entire league. This is now the 3rd market that Catapult operates in where the entire league is using the video analytics and wearable technology, as the company continues to penetrate the sizable total addressable market that worldwide sports has to offer. We look forward to Catapult's earnings results, which are scheduled to release about 2-3 weeks from today's meeting.
Krispy Kreme	DNUT	We propose a hold on Krispy Kreme. The stock has declined about 7.5% to \$13.27 per share since our last update, despite no reported material changes to the business. Recent news has mostly pertained to insider activity from JAB and DNUT's management. On March 31st, JAB entered a cash-settled total return swap for 2,000,000 shares with BNP Paribas. JAB's swap position provides economic results comparable to owning shares. On April 6th, over a dozen members of Krispy Kreme's management purchased shares, ranging from the C-suite to director level. CEO Mike Tattersfield bought 69,000 shares of common stock. DNUT is scheduled to report Q1 2022 earnings on May 11th. We will keep an eye on supply chain and raw material headwinds, as well as updates on the DFD cabinet rollout.
Exelon Corp	EXC	We propose holding our position in Exelon. There have not been any significant developments for Exelon since the last update. Exelon's share price has remained flat, while the S&P has dropped by almost 10%. Exelon's rate base growth estimates until 2025 have increased from 7.6%, as we initially expected, to 8.1% which is a very positive sign as infrastructure construction and PP&E growth will increase at a faster rate, especially given Exelon's commitment to renewable energy and positive relationships with PUCs. Given the continued macroeconomic uncertainty for the foreseeable future as well as Exelon's efficient and continually improving operations, we believe that Exelon is a great hold for the near to medium term.
Flex Ltd.	FLEX	We propose a hold on Flex. Since our last update, Flex hosted its Virtual Investor and Analyst Day, which provided some additional positive insights into the business and the share price increased by 7% the following day. Paul Lundstrom, Flex's CFO, mentioned that at 10-12x earnings at \$2.65 (which is reasonable) soon, gives a \$26 share price. Based on the implied valuation of NEXTracker based on TPG's calculation, we can expect ~\$6 a share which yields roughly \$32 as a target share price. We believe that this is highly reasonable within the next couple of years. Flex mentions continued execution as the reason why the market has not realized this yet. In terms of the core business, Flex has achieved FCF conversion of 80%, operating margins of mid-single digits (4.5%) and high per-share adjusted earnings growth of ~20%. Our thesis regarding vertical growth in the healthcare space and further outsourcing is also making progress with Flex increasing this high margin business from ~70M in 2018 to 290M in 2021 and 390M estimated in 2023. If these contracts are further implemented as we should expect based on Flex's positive track record, we should expect to see some further value unlock. Flex has also purchased almost 10% of its outstanding shares over the last year and has 500MM remaining in its buyback plan which should be completed by 2023. Overall, as a business, Flex is improving operationally as well as financially as its contract mix continues to shift towards FRS. In time, we believe the share price will be more reflective of that.
HCA Healthcare	НСА	We propose a hold on our position in HCA Healthcare. The health-care sector has been under pressure due to inflation and higher labor costs. In its recent first-quarter 2022 earnings report, the hospital operator lowered its 2022 revenue guidance and the stock price dropped over 50 points surrounding the release and missing consensus EPS. The shift in the macro environment is testing our original thesis point about HCA's ability to effectively deal with high labor costs and shortages through acquiring nursing talent, yet these trends are being realized across the industry. The operating expenses are also partially being offset by revenues from solid patient volumes. In the past year, same facility admissions increased 2.1% and equivalent admissions increased 5%. HCA's past year of revenues totaled nearly \$14.95 billion, up from last year of \$13,977 billion. HCA recently announced a \$1.5 million partnership with Florida International University to address the national nursing shortage. News on HCA's pursuits of strategic hospital acquisitions and growing ecosystem of affiliated hospitals remains consistent.

Company	Ticker	Update
JD.com	JD	We propose to hold our position in JD.com. Since the last update for JD.com at the end of March, the stock price has remained relatively flat, only gaining .28%. The stock remains down from our original purchase price of \$77.55. In the short term, COVID lockdowns and the apparent economic slowdown in China will remain factors that will limit JD's growth. In light of the COVID lockdown and economic slowdown, China has stated that it will use a combination of fiscal and monetary measures to reach economic growth of approximately 5.5%. Additionally, China has emphasized recently that the tech crackdown has finally ended, a positive sign for JD.com and other Chinese tech companies. Moving away from macroeconomics factors and more towards company-specific issues, JD's founder and CEO, Richard Liu, stepped down. While the reason for his exit is unknown, Liu will continue as chairman. President Xu Lei will take over as CEO. The loss of Richard Liu as CEO certainly impacts our valuation of JD.com as Liu's philosophy of generating long-term value was aligned with IAG's values. Our thesis for JD.com remains intact though. We believe that the recent regulatory action by the government on data-heavy companies such as Tencent and Alibaba is leading investors to undervalue JD.com, a company that has historically stayed out of sight of the government due to its narrow line of business. Additionally, our valuation remains intact with mid-40 percent upside.
Methode Electronics Inc.	MEI	We propose to hold Methode Electronics. Since the last update, there have been no fundamental changes to the thesis, with no earnings calls or announcements regarding business updates. The auto industry continues to push into the EV space with announcements of new launches of EV models and higher investments, which supports our thesis point of MEI benefitting from winning more EV awards that significantly benefits the top-line. While headwinds will continue to persist for the second half of this year, MEI is in a strong position to withstand macro pressures with industry-leading margins and tight capital allocation.
Monster Beverage Corp	MSNT	We propose to hold Monster Beverage. There hasn't been any operational changes to the business or earnings calls since the previous board meeting. Our core thesis centered around MNST's ability to rebound from short-term macro headwinds and execute on its international expansion strategy. We expect supply chain issues that have plagued the past few quarters to persist, and management's strategies to combat margin contraction to come to fruition. These strategies include reducing reliance on imported aluminum cans and reducing promotions. Their partnership with Coca-Cola also continues to provide a hedge against downside cases. Given that current supply chain headwinds that Monster is facing are industry-wide, we believe that the long-term growth potential outweighs short-term macro headwinds. We believe our core thesis still holds and are confident in the fundamentals of the business.
Monster Beverage Corp	MSNT	We propose to hold our position in Monster Beverage. Our core thesis centered around MNST's ability to rebound from short-term macro headwinds and execute on its international expansion strategy. Our international expansion thesis is well underway, with international sales increasing by 32%. In its most recent earnings, Monster achieved record-high revenue of \$5.5bn. Increasing aluminum commodity pricing and distribution costs continue to pressure Monster's bottom-line, as net income decreased by 31.9%. To combat margin contraction due to supply chain issues, management began decreasing reliance on imported aluminum cans and reduced promotions and marketing expenses. Their partnership with Coca-Cola also continues to provide a hedge against the downside case. Given that current supply chain headwinds that Monster is facing are industry-wide, we are confident that the long-term growth potential outweighs short-term macro headwinds.

Company	Ticker	Update
Office Property Income	ОРІ	We propose a hold on our position in OPI group, an office-properties REIT. Since the last oversight update, the stock has drawn down ~15.5%. We believe that this drawdown is linked to the broader market sell off , as well as with negative investor sentiment and confidence in return to offices. OPI group reported Q1 2022 earnings this week, and management noted a gradual increase across occupancy metrics, utilization, and positive tenant interest in lease renewals. FFO per share increased to 1.3\$, up 1.2\$ YoY. This increase was driven by decreasing G&A expense and higher rental revenues from redeveloped properties. We continue to hold conviction in our initial thesis, with OPI maintaining 64% of its revenues from investment grade tenants this quarter, and a high 10.58% dividend yield. We will monitor future earnings as the capital recycling program plays out further, for a transition to newer assets that will reduce CapEx.
Palo Alto Networks	PANW	We propose a hold on Palo Alto Networks. Our position is currently up 129.3% since our purchase at \$244.75 per share. Despite a recent pullback, general investor sentiment on the stock remains positive. Third-quarter earnings will be released on May 19th, where investors will be focused on growth in Next-Generation Security ARR, total revenue, billings, and free cash flow. PANW's strong management has successfully outperformed expectations in previous quarters, propelling growth in key segments. While systemic risks such as interest rates remain a concern, we believe that the company's 36.6% FCF margin will mitigate discounting effects on the terminal value. On the whole, we are confident in management and the company to execute on its growth strategy, continuing its success in the security industry.
Points International	PCOM	We propose a hold on PCOM. Since our last meeting, PCOM has not reported quarterly earnings nor any negative news. However, the stock has dropped roughly ~10% since our last meeting. We feel that this drawdown is likely the product of general macroeconomic factors, as the global economy continues to be buffeted by a slew of monetary headwinds such as the Federal Reserve's monetary tightening, rising interest rates, persistent inflation, Covid-19 case spikes in China, and the ongoing war in Ukraine. Despite these headwinds, we still feel very confident in the recovery of the travel industry based on recent commentary from United, Delta, and American Airlines. Each of these airlines reported record sales levels in March, and their respective executives have all acknowledged extremely high levels of demand in both the spring and summer of this year, which gives them increasing confidence that they have reached a turning point in the financial recovery from Covid-19. Passenger volumes also tell the same story: TSA throughput numbers are now at 90-95% of pre-pandemic levels. We believe that PCOM's unique value proposition with regards to airlines' loyalty programs as well as its assetlight model will continue to keep it very well-positioned to take advantage of the recovery of the travel industry. Finally, our core growth theses remain intact, as PCOM has given no indication that it will experience slowdowns in the addition of new customers or the cross/upselling of existing ones. We will be closely monitoring the company's Q1 earnings in mid-May.
Restoration Hardware	RH	We propose to hold RH, with our position up 6% from our initial purchase in the last oversight cycle. Since the last meeting, there hasn't been any tangible changes to the business with no recent earnings call or announcements. While demand is expected to slow down with rising interest rates and margins are expected to face pressure from cost inflation, RH's long-term goal of European expansion and continued operational conversion of legacy galleries to design galleries with low execution risk remains intact. The next earnings call will be crucial in providing color on business updates to new product launches and opening of RH gallery in UK.

Company	Ticker	Update
Sea Ltd.	SE	We propose a hold in Sea Limited. Since the last oversight meeting, share price has continued to decline significantly, currently sitting at \$88.69, representing a 33.3% loss since our initial buy at \$133. After our purchase during the February oversight meeting, SE's share price fell to below \$90 and then rose all the way to above \$135 before sliding back to its current position. Much of that movement after dipping below \$90 for the first time has come while the company has not released any new material information, suggesting that much of the stock's movement is tied with turbulent macro views of investors. We are still convicted in the long-term strategy of the company and in our view that Shopee and Sea Money can be cash flow positive by 2023 and self-sustaining by 2025. This view has been backed up by management which has chosen to exit struggling markets (ie India) and re-focus on their core markets in SE Asia and Brazil. Given that we saw upside from our models by just forecasting our Southeast Asia and Brazil segments, we feel comfortable that the shift in focus from management will benefit the company over the long term. In South East Asia, we see SE continuing to sustain market share leads while increasing take rates against a backdrop of weakening competition. In Brazil, we have seen the company already get to over half the annual order volume that MELI has achieved, giving us conviction in the long-term potential of that segment.
TransDigm Group	TDG	We propose a hold on TDG. The company is set to release Q2 earnings on May 10th and the stock is down approximately 8% since Q1 earnings were reported. As of now, there has been no movement on the government's proposed Fair Pricing with Cost Transparency Act or significant changes to the regulatory risk provided by the Defense Department's audit report from mid-December. We believe TDG will continue to perform as it recovers from the macroeconomic turbulence experienced in the global airline industry and travel rebounds this summer. This will be crucial for the aerospace components manufacturer's aftermarket operations, which is currently projected to grow through 2028 at a CAGR of 6.12%. With the upcoming earnings report, we will be looking out for TDG's commercial OEM bookings and capital allocation dedicated to support the company's aftermarket customer demand.
United Rentals	URI	We would like to propose holding our stake in United Rentals (URI) at \$304.67, down 16.2% since our last update. We continue to believe that the company trades at an unfair discount compared to other construction equipment companies, such as CAT. CAT now trades at a 13.4x EV/EBITDA, while URI only trades at 10.4x EV/EBITDA. In the current economic climate, where pandemic and geopolitical uncertainties, supply chain and labor constraints are unable to meet growing demand in the construction space, contractors are eager to get their hands on construction equipment. When new supply is constrained, users go to used and rental construction equipment companies, which is also easier to justify compared to the purchase of new construction equipment. The company announced their Q1 2022 earnings on April 29th, exhibiting above forecast results. Total revenue was \$2.52 billion for the quarter, up 22.7% y/y. Adjusted EBITDA was \$1.14 billion, up 45.1% y/y. Net Debt/Adjusted EBITDA has reached an all time low of 2x. In Q1, the company also commenced a \$1 billion share repurchase program, with \$262 million being purchased so far.
Willis Towers Watson PLC	WLTW	We propose to hold our position on Willis Towers Watson. WTW's Q1 2022 earnings report was released last week, in which total revenue decreased 3% to \$2.2 billion with organic growth at 2%. The global advisory and broking and solutions company reported net income of \$125 million with diluted earnings per share of \$1.03 for the quarter, 82% down from \$736 million or \$5.63 per share in the prior year. The stock price currently is down over 15 points from our price at purchase of \$231.70. Our thesis, which has an emphasis on a management turnaround as well as operating improvement, however, remains intact. In the past quarter, the company announced Michael Chang would be joining as the head of WTW's Corporate Risk and Broking unit. While retention is not disclosed, some of the headwinds faced last year due to the merger termination have dissipated. Hiring activity in the past months was up 23% as compared to Q4 of 2021, also reaching WTW's highest hiring rate volume in a quarter since 2019. WTW is maintaining its FY 2022 guidance, expecting to deliver mid-single digit organic revenue growth and \$30 million in run-rate savings from their FY 2022 Transformation Program, which has generated an incremental \$16 million in total run-rate savings in the past quarter. On an additional note, Bank of America recently initiated coverage on WTW last month in a public report.

Company	Ticker	Update
ZTO Express	ZTO	We propose a hold on our position in ZTO. Since the last meeting, the company released their 2021 20-F, however no new earnings information has been released. Since the last update, the stock has risen about 9.5% and currently sits at \$28.11. We continue to believe that ZTO is best positioned to benefit from increasing regulations and rationalized competition, as Capex spend in the industry has likely peaked, entrenching ZTOs network scale advantages. Further, we believe that the express delivery sector as a whole will benefit from further consolidation while the upstream e-commerce supply is becoming more fragmented, giving more pricing power to ZTO and its peers. These factors are validated by ZTO's increasing ASPs (rose 13% sequentially) and increasing parcel volume (grew 17% YoY). We will continue to monitor the rising sorting and transportation costs, but believe those are largely momentary increases caused by supply chain crunches and zero-policy covid-lockdown measures in China.





May 4th, 2022

## Semler Scientific (NASDAQ: SMLR)

## Undervalued yet high-quality MedTech business with a couple question marks

**Tony Wang**Senior Analyst

Winston Yin
Junior Analyst

Akw401@stern.nyu.edu Winston.Yin@stern.nyu.edu

Price Target: \$60.87 (42.6% upside)

#### **Business Description:**

Semler Scientific is a medical technology company that currently sells a single commercial product known as QuantaFlo. QuantaFlo is an FDA-approved device containing proprietary, cloud-connected software that diagnoses peripheral artery disease (PAD) via a noninvasive, 5-minute test through sensors attached to a person's hands and feet. Semler signs contracts to sell QuantaFlo on either a variable (\$50/use) or fixed basis (\$400-500/month) to health insurance plans, physician groups, and home risk assessment companies (HRAs), with its primary customers being Medicare Advantage plans offered by insurance/risk management groups. Upon being sold to insurance providers, QuantaFlo is distributed to primary care physicians (PCPs) for use on an end patient. The PCP is paid by Medicare on either a per-usage or capitation basis

#### Peripheral Artery Disease (PAD) Description:

PAD is a highly prevalent circulatory syndrome that reduces blood flow to the limbs through the buildup of fatty plaque in the arteries. PAD is extremely common and generally asymptomatic, and it is estimated that  $\sim$ 20mm people in the United States have PAD, with  $\sim$ 3/4ths of these cases being undetected. The high-risk population for PAD is estimated to be roughly 80mm people in the U.S. PAD is highly prevalent among the elderly population as well as smokers, and people with PAD have a much higher risk of heart attacks, strokes, dementia, death, and other ailments. As such, it is vital for insurers to catch PAD as early as possible and immediately engage in preventive action, since further complications will cost insurers significantly larger sums of money.

#### QuantaFlo Value Proposition:

Conventionally, PAD is detected through an ankle brachial index (ABI) method that is only performed in specialized vascular labs and requires PCP referral. It also takes longer (~15 min) and requires specially trained vascular technicians to operate. The ABI method is also incompatible with specific patient demographics, such as cancer patients or obese patients. QuantaFlo has none of these problems. It is easy to use (<1 day training time), does not require a referral, and takes under five minutes. At the same time, it is just as accurate as the ABI method. Due the convenience and speed of QuantaFlo, it can be easily implemented into a routine checkup, allowing for much larger numbers of PAD cases to be detected and for preventative measures to be put in place. This is in the best interest of the insurers, and as a result, they are incentivized to purchase QuantaFlo and provide it to as many PCPs within their network as possible.

Within Medicare Advantage plans, QuantaFlo has offers a second benefit for both the PCP and the insurer. Medicare Advantage plans follow a capitation model, where a fixed monthly fee is paid to the insurer, who then pays most of this fee to the PCP based on the risk level of the patient pool the PCP treats. This model encourages PCPs to minimize the amount of future treatment each of their patient will need in the future as compared to a traditional fee-perservice model that encourages a PCP to offer higher service volumes. If PAD is identified in a patient, a patient's risk score will be increased, leading to increased capitation payments (+20-30%) for insurance providers, which are also passed onto the PCPs. As such, it makes financial sense for both the insurer and the PCP to use QuantaFlo and screen as many patients as possible for the condition.

#### **Key Ratios and Statistics:**

Recommendation	Buy/Long
Price Target	\$60.87
Implied Return	42.55%
Share Price (5/02/2022)	42.70\$
Market Cap	\$320.9M
52-Week High	\$153.21
52-Week Low	\$41.53

Figure 1 - SMLR 52-Week Stock Performance

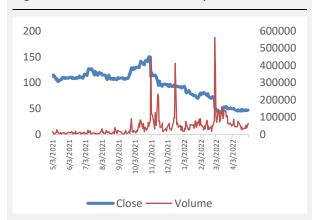


Figure 2 - QuantaFlo Product Demonstration

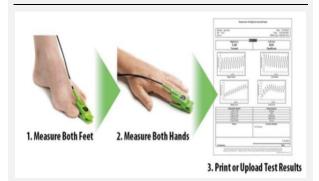
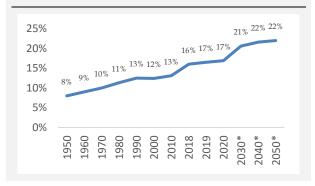


Figure 3 - Elderly Population (% of total U.S pop.)





#### Situation Overview:

After two stellar quarters in both Q1 and Q2 of 2021, Semler missed analyst estimates for both Q3 and Q4 of the same year, with revenue decreasing sequentially for the first time since the onset of the Covid-19 Pandemic. We view both quarterly misses as transitory for several reasons. Firstly, at the end of 2020, there was a huge push for seniors to get at-home checkups. To avoid this rush again, the schedulers at Semler front loaded at-home appointments, and as such variable fee testing skyrocketed during FQ1 and FQ2 of 2021. If a significant portion of a year's variable demand is met in the beginning of the year, then it is no surprise that the variable fee revenue would be lower (and look worse relative to last year). Future years should also likely follow the same pattern of significantly higher variable testing in the first half of the year and diminished variable revenues in the second half of the year. Additionally, both Q3 and Q4 were affected by the spread of Omicron, which limited patient visits, restricted marketing activity, and in-person training. We feel that the newfound seasonality in the business as well as the introduction of Omicron what generated the majority of the slowdown in revenue growth for Semler, which means that neither quarterly miss detracts from the core attractiveness of Semler's business.

#### Semler's Attractive Characteristics:

- Growth Potential: Outside of the recent quarters, Semler has posted incredible growth while remaining extremely underpenetrated in a rapidly growing market. The company has grown top line at nearly 50% CAGR over the last 5 years, yet still remains HSD-LDD penetrated in a \$1-2bn TAM (of which \$600-900mm is truly addressable). The company's addressable market is also growing rapidly as the United States population continues to age and the CMS continues to push for patients to swap to capitation-based insurance plans, where QuantaFlo can offer the most value-add. This combined with the company's unchanged and extremely strong value proposition gives the company a long runway for growth even with relatively conservative estimates.
- Unit Economics/Financial Profile: By marketing QuantaFlo to insurers instead of individual PCPs, Semler can operate an asset-light business that realizes huge benefits from added scale and can deliver extraordinarily high margins as a result. This has made the company historically FCF positive and it currently operates on a solid net cash balance that can be reinvested or returned to shareholders.
- Upside Optionality on Additional Products: Semler has at least three additional products in its pipeline. The first is a software for optimizing insulin dosage called Insulin Insights, the second is a software that tests for early-stage Alzheimer's disease called Discern, and the third is an undisclosed software that the company is developing in-house. Insulin Insights is the product with the most public visibility. The software is already FDA-cleared, and clinically proven to be effective. Semler is currently rolling out the software to select customers and recently purchased \$2mm in licenses to distribute. As such, revenue could begin to be realized in FY2022. All these products seem to be thematically similar to QuantaFlo (software solutions), and as such it is likely that they could possess similar unit economics. Additionally, Semler will be able to introduce these products at a much faster rate than QuantaFlo by leveraging its existing connections with insurers. Thus, if any one of these products becomes as remotely successful as QuantaFlo, the stock will automatically be worth multiples of what it is today.

Figure 4 - Variable Testing Fee Revenue (k) 2020-21

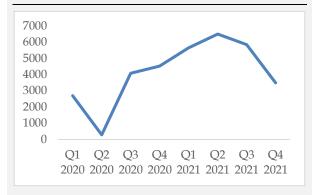
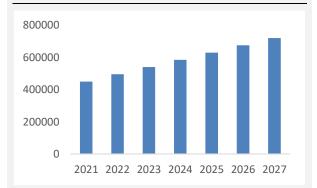


Figure 5 - SMLR Historical Financials

	2017	2018	2019	2020	2021
Revenue Y/Y	68%	73%	52%	18%	37%
Gross Margin	79%	87%	89%	91%	88%
EBIT Margin	-9%	28%	37%	45%	41%
Incremental Margin	26%	69%	48%	90%	24%
FCF Margin	-77%	70%	33%	100%	97%
Rule of 40	-9%	143%	86%	118%	###

Figure 6 - Semler Projected SAM (2021-2027)





#### Translating Characteristics to Valuation:

- Projected Patent Period (2022-2027): Within the rest of the period on which Semler retains it patent on QuantaFlo, we feel relatively confident underwriting modest market share gains on top of MSD-LDD growth in the Medicare Advantage population. We have this confidence for several reasons. (1) No true competitors have emerged to QuantaFlo or will emerge without infringing upon Semler's patents within the next 5-6 years. (2) There have been multiple studies released in the just the last two months that have reaffirmed the ROI of QuantaFlo. This may serve as a catalyst for changing care standards that recommend routine testing for PAD. (3) By our estimations, QuantaFlo appears to be less than one-third penetrated in its "lowhanging fruit" demographic of PCPs under United Healthcare and Humana. (4) Management recently announced exploration into using QuantaFlo detecting other vascular diseases, which may increase adoption of the product. With our current assumptions, Semler's cash flows during the projected patent period will make up~40% of its current enterprise value.
- Terminal Value (without new products): We believe that patent expiration does not hold as much weight within the medical technology as it does with pharmaceuticals. Based on expert calls, once a product becomes the "standard of care" within an industry, it is very difficult for new entrants to dislodge it. Additionally, the patent is not the only barrier to entry into the PAD detection market. Aspiring entrants must get their product FDA-cleared, establish relationships with providers and insurance carriers, and demonstrate that their product can generate a similar ROI, which can take years. Finally, given the size of the PAD detection space, it is estimated that the market could support up to give different players, which means that QuantaFlo could likely maintain market share even after patent expiration. As a result, we underwrite a terminal growth rate and implied exit multiple at roughly growth in the market. However, we are unsure of our assumptions here because we do not have a reliable case study or concrete evidence that can verify our thought process.
- Value of Product Pipeline: Management has not yet provided visibility on the amount of revenue any of the products in its pipeline could generate, their unit economics, or the release date of its products outside of Insulin Insights. As a result, we did not assign any value to these products in our valuation. We would like to have a clearer view on these products, but we have not found an information source that could provide us with the information necessary to form a strong opinion on them. This is likely something that we would need to wait for management to shed more light upon.

#### Figure 7 -SMLR Perpetuity Growth Reverse DCF

SMLR I	erpetui	ty Grov	wth Rate	Reverse	DCF	
Upside	-40%	-20%	0%	33%	67%	100%
Implied Growth	-20%	-5%	-0.22%	3.38%	5.15%	6.14%



Revenue	Buil	d:

Revenue Build	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Top-Down Market Sizing										
TAM Sizing										
# Physician Offices	250	250	250	250	250	250	250	250	250	250
Revenue per Office (\$)	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
TAM	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
SAM Multiplier	30%	30%	30%	30%	33%	36%	39%	42%	45%	48%
SAM	450,000	450,000	450,000	450,000	495,000	540,000	585,000	630,000	675,000	720,000
Revenue Breakdown										
Variable ASP	50	50	50	50	50	50	50	50	50	50
Variable Volume	95	179	232	430	495	569	626	688	757	833
Variable Fee	4,759	8,927	11,610	21,500	24,725	28,434	31,277	34,405	37,845	41,630
Fixed Fee	16,346	22,913	25,743	30,527	35,106	40,372	44,409	48,850	53,735	59,109
Total Vascular Testing Revenue	21,105	31,840	37,353	52,027	59,831	68,806	75,686	83,255	91,580	100,738
Equipment ASP	200	200	200	200	200	200	200	200	200	200
Equipment Volume	1.93	4.64	6.25	5.00	5.50	6.05	6.66	7.32	8.05	8.86
Equipment Sales/Other Revenue	386	927	1,250	1,000	1,100	1,210	1,331	1,464	1,611	1,772
Total Revenue	21,491	32,767	38,603	53,027	60,931	70,016	77,017	84,719	93,191	102,510
Implied Market Share (TAM)	1.43%	2.18%	2.57%	3.54%	4.06%	4.67%	5.13%	5.65%	6.21%	6.83%
Implied Market Share (SAM)	4.78%	7.28%	8.58%	11.78%	12.31%	12.97%	13.17%	13.45%	13.81%	14.24%
Y/Y										
Variable Fee		87.58%	30.05%	85.19%	15.00%	15.00%	10.00%	10.00%	10.00%	10.00%
Fixed Fee		40.17%	12.35%	18.58%	15.00%	15.00%	10.00%	10.00%	10.00%	10.00%
Total Vascular Testing Revenue		50.86%	17.31%	39.28%	15.00%	15.00%	10.00%	10.00%	10.00%	10.00%
Equipment Sales/Other Revenue		140.16%	34.84%	(20.00%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Total Revenue		52.47%	17.81%	37.36%	14.91%	14.91%	10.00%	10.00%	10.00%	10.00%

**Operating Build:** 

perating bund.	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Income Statement										
Revenue	21,491	32,767	38,603	53,027	60,931	70,016	77,017	84,719	93,191	102,510
Cost of revenue	2,703	3,661	3,356	6,122	7,312	8,402	9,242	10,166	11,183	12,301
Gross Profit	18,788	29,106	35,247	46,905	53,619	61,614	67,775	74,553	82,008	90,209
Engineering and product development	2,085	2,479	2,938	3,780	4,158	4,574	5,031	5,534	6,088	6,697
Sales and marketing	7,202	8,965	9,942	14,445	15,890	17,478	19,226	21,149	23,264	25,590
General and administrative	4,159	6,954	6,406	9,235	10,159	11,174	12,292	13,521	14,873	16,360
Total operating expenses	13,446	18,398	19,286	27,460	30,206	33,227	36,549	40,204	44,225	48,647
EBIT	5,342	10,708	15,961	19,445	23,413	28,387	31,226	34,349	37,783	41,562
Interest expense	(298)	2	19	10	-	-	-	-	-	-
Other expense	(4)	(9)	506	-	-	-				
Income before income taxes	5,040	10,701	16,486	19,455	23,413	28,387	31,226	34,349	37,783	41,562
Income tax provision	26	(4,383)	2,479	2,233	4,917	5,961	6,557	7,213	7,935	8,728
Net Income	5,014	15,084	14,007	17,222	18496.526	22425.906	24668.496	27135.346	29848.881	32833.769
EBITDA	5,845	11,340	16,537	20,073	24,013	28,987	31,826	34,949	38,383	42,162
	5,845 FY2018	11,340 FY2019	16,537 FY2020	20,073 FY2021	24,013 FY2022	28,987 FY2023	31,826 FY2024	34,949 FY2025	38,383 FY2026	42,162 FY2027
Margins	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Margins Cost of revenue	<b>FY2018</b> 12.58%	<b>FY2019</b> 11.17%	FY2020 8.69%	<b>FY2021</b> 11.55%	FY2022 12.00%	FY2023 12.00%	FY2024 12.00%	FY2025	FY2026 12.00%	FY2027 12.00%
Margins Cost of revenue Gross Profit	FY2018  12.58% 87.42%	FY2019 11.17% 88.83%	8.69% 91.31%	FY2021 11.55% 88.45%	FY2022 12.00% 88.00%	FY2023 12.00% 88.00%	FY2024 12.00% 88.00%	FY2025 12.00% 88.00%	FY2026 12.00% 88.00%	FY2027 12.00% 88.00%
Margins Cost of revenue Gross Profit Engineering and product development	FY2018  12.58% 87.42% 9.70%	FY2019  11.17% 88.83% 7.57%	8.69% 91.31% 7.61%	FY2021 11.55% 88.45% 7.13%	FY2022 12.00% 88.00% 6.82%	FY2023 12.00% 88.00% 6.53%	FY2024 12.00% 88.00% 6.53%	FY2025 12.00% 88.00% 6.53%	FY2026 12.00% 88.00% 6.53%	FY2027 12.00% 88.00% 6.53%
Margins Cost of revenue Gross Profit Engineering and product development Sales and marketing	FY2018  12.58% 87.42% 9.70% 33.51%	FY2019  11.17% 88.83% 7.57% 27.36%	8.69% 91.31% 7.61% 25.75%	FY2021 11.55% 88.45% 7.13% 27.24%	FY2022  12.00% 88.00% 6.82% 26.08%	FY2023  12.00% 88.00% 6.53% 24.96%	12.00% 88.00% 6.53% 24.96%	FY2025  12.00% 88.00% 6.53% 24.96%	FY2026 12.00% 88.00% 6.53% 24.96%	FY2027  12.00% 88.00% 6.53% 24.96%
Margins Cost of revenue Gross Profit Engineering and product development Sales and marketing General and administrative	FY2018  12.58% 87.42% 9.70% 33.51% 19.35%	FY2019  11.17% 88.83% 7.57% 27.36% 21.22%	8.69% 91.31% 7.61% 25.75% 16.59%	FY2021  11.55% 88.45% 7.13% 27.24% 17.42%	FY2022  12.00% 88.00% 6.82% 26.08% 16.67%	FY2023  12.00% 88.00% 6.53% 24.96% 15.96%	FY2024  12.00% 88.00% 6.53% 24.96% 15.96%	FY2025  12.00% 88.00% 6.53% 24.96% 15.96%	FY2026 12.00% 88.00% 6.53% 24.96% 15.96%	FY2027  12.00% 88.00% 6.53% 24.96% 15.96%
Margins Cost of revenue Gross Profit Engineering and product development Sales and marketing General and administrative Total operating expenses	FY2018  12.58% 87.42% 9.70% 33.51% 19.35% 62.57%	FY2019  11.17% 88.83% 7.57% 27.36% 21.22% 56.15%	8.69% 91.31% 7.61% 25.75% 16.59% 49.96%	FY2021  11.55% 88.45% 7.13% 27.24% 17.42% 51.78%	FY2022  12.00% 88.00% 6.82% 26.08% 16.67% 49.57%	FY2023  12.00% 88.00% 6.53% 24.96% 15.96% 47.46%	FY2024  12.00% 88.00% 6.53% 24.96% 15.96% 47.46%	FY2025  12.00% 88.00% 6.53% 24.96% 15.96% 47.46%	FY2026 12.00% 88.00% 6.53% 24.96% 15.96% 47.46%	FY2027  12.00% 88.00% 6.53% 24.96% 15.96% 47.46%
Margins Cost of revenue Gross Profit Engineering and product development Sales and marketing General and administrative Total operating expenses EBIT	FY2018  12.58% 87.42% 9.70% 33.51% 19.35% 62.57% 24.86%	FY2019  11.17% 88.83% 7.57% 27.36% 21.22% 56.15% 32.68%	8.69% 91.31% 7.61% 25.75% 16.59% 49.96% 41.35%	FY2021  11.55% 88.45% 7.13% 27.24% 17.42% 51.78% 36.67%	12.00% 88.00% 6.82% 26.08% 16.67% 49.57% 38.43%	FY2023  12.00% 88.00% 6.53% 24.96% 15.96%	FY2024  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54%	FY2025  12.00% 88.00% 6.53% 24.96% 15.96%	FY2026  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54%	FY2027  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54%
Margins Cost of revenue Gross Profit Engineering and product development Sales and marketing General and administrative Total operating expenses EBIT Interest expense (Cost of Debt)	FY2018  12.58% 87.42% 9.70% 33.51% 19.35% 62.57% 24.86% NA	FY2019  11.17% 88.83% 7.57% 27.36% 21.22% 56.15% 32.68% NA	8.69% 91.31% 7.61% 25.75% 16.59% 49.96% 41.35% NA	FY2021  11.55% 88.45% 7.13% 27.24% 17.42% 51.78% 36.67% NA	FY2022  12.00% 88.00% 6.82% 26.08% 16.67% 49.57% 38.43% NA	FY2023  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% NA	FY2024  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% 4.00%	FY2025  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% 4.00%	FY2026  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% 4.00%	FY2027  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% 4.00%
Margins Cost of revenue Gross Profit Engineering and product development Sales and marketing General and administrative Total operating expenses EBIT Interest expense (Cost of Debt) Other expense	FY2018  12.58% 87.42% 9.70% 33.51% 19.35% 62.57% 24.86% NA (0.02%)	FY2019  11.17% 88.83% 7.57% 27.36% 21.22% 56.15% 32.68% NA (0.03%)	8.69% 91.31% 7.61% 25.75% 16.59% 49.96% 41.35% NA 1.31%	FY2021 11.55% 88.45% 7.13% 27.24% 17.42% 51.78% 36.67% NA 0.00%	12.00% 88.00% 6.82% 26.08% 16.67% 49.57% 38.43% NA 0.00%	FY2023  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% NA 0.00%	12.00% 88.00% 6.53% 24.96% 15.96% 47.466 40.54% 4.00% 0.00%	FY2025  12.00% 88.00% 6.53% 24.96% 15.96% 47.466 40.54% 4.00% 0.00%	FY2026  12.00% 88.00% 6.53% 24.96% 15.96% 47.466 40.54% 4.00% 0.00%	FY2027  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 4.00% 0.00%
Margins Cost of revenue Gross Profit Engineering and product development Sales and marketing General and administrative Total operating expenses EBIT Interest expense (Cost of Debt)	FY2018  12.58% 87.42% 9.70% 33.51% 19.35% 62.57% 24.86% NA	FY2019  11.17% 88.83% 7.57% 27.36% 21.22% 56.15% 32.66%  NA (0.03%) 32.66%	8.69% 91.31% 7.61% 25.75% 16.59% 49.96% 41.35% NA	FY2021  11.55% 88.45% 7.13% 27.24% 17.42% 51.78% 36.67% NA	FY2022  12.00% 88.00% 6.82% 26.08% 16.67% 49.57% 38.43% NA 0.00% 38.43%	FY2023  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% NA 0.00% 40.54%	FY2024  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% 4.00%	FY2025  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% 4.00%	FY2026  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% 4.00%	FY2027  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.054% 40.00% 40.54%
Margins Cost of revenue Gross Profit Engineering and product development Sales and marketing General and administrative Total operating expenses EBIT Interest expense (Cost of Debt) Other expense	FY2018  12.58% 87.42% 9.70% 33.51% 19.35% 62.57% 24.86% NA (0.02%)	FY2019  11.17% 88.83% 7.57% 27.36% 21.22% 56.15% 32.68% NA (0.03%)	8.69% 91.31% 7.61% 25.75% 16.59% 49.96% 41.35% NA 1.31%	FY2021 11.55% 88.45% 7.13% 27.24% 17.42% 51.78% 36.67% NA 0.00%	12.00% 88.00% 6.82% 26.08% 16.67% 49.57% 38.43% NA 0.00%	FY2023  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% NA 0.00%	12.00% 88.00% 6.53% 24.96% 15.96% 47.466 40.54% 4.00% 0.00%	FY2025  12.00% 88.00% 6.53% 24.96% 15.96% 47.466 40.54% 4.00% 0.00%	FY2026  12.00% 88.00% 6.53% 24.96% 15.96% 47.466 40.54% 4.00% 0.00%	FY2027  12.00% 88.00% 6.53% 24.96% 15.96% 47.46% 40.54% 4.00% 0.00%



## DCF:

DCF	1	2	3	4	5	6
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
EBITDA	24,013	28,987	31,826	34,949	38,383	42,162
FCF	22,463	23,981	26,110	28,819	31,619	34,681
Discount Factor	91%	83%	75%	68%	62%	56%
Stage 1 EV	118,750	Cur EV	283,900	% EV	42%	
Net Debt	(37,323)					_
Equity	156,073			WACC	10%	
Shares	8,139					_
Per Share	\$19.18	Cur Price:	\$42.70	% QV	45%	

Perpetuity Gro	owth	Exit Multiple	
Growth Rate	4.00%	Multiple (EV/EBITDA)	15.00x
Discount Rate	10%	Terminal Value	632,426
Terminal Value	601,144	NPV of TV	356,988
NPV of TV	339,330	NPV of Stage 1 FCF	118,750
NPV of Stage 1 FCF	118,750	Net Debt	(37,323)
Net Debt	(37,323)		_ ` ′
Equity Value	495,403	Equity Value	513,061
DSO	8,139	DSO	8,139
Target Price	\$60.87	Target Price	\$63.04
Current Price	\$42.70	Current Price	\$42.70
Implied Upside	42.55%	Implied Upside	47.64%

		Perpe	tuity Gro	wth Rate		
		2%	3%	4%	5%	6%
	12%	-5.58%	0.71%	8.58%	18.69%	32.17%
$\mathcal{O}_{1}$	11%	4.32%	12.55%	23.13%	37.23%	56.97%
WA	10%	16.74%	27.80%	42.55%	63.21%	94.19%
	9%	32.73%	48.17%	69.79%	102.22%	156.27%
	8%	54.09%	76.73%	110.69%	167.29%	280.49%

		Exit Mu	Itiple (EV	//ERLIDA)		
		10.00x	12.50x	15.00x	17.50x	20.00x
	12%	4.31%	19.68%	35.05%	50.41%	65.78%
CC	11%	8.72%	24.94%	41.15%	57.37%	73.58%
WACC	10%	13.39%	30.51%	47.64%	64.76%	81.88%
	9%	18.36%	36.44%	54.53%	72.61%	90.70%
	8%	23.64%	42.75%	61.86%	80.98%	100.09%



## Sonic Automotive Inc. (NYSE: SAH)

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#### Idea:

Sonic Automotive ("Sonic" or "SAH") is an automotive vehicle dealer with two segments - a more traditional franchised dealerships business and a digital-based used car retailer (called "EchoPark"). While there are certainly attractive portions to the franchised dealership businesses that we will get into later in the memo, we are more interested in the used car retailer which competes in an attractive, quickly growing market with existing proofs of concepts (Carvana). We believe that the market is not accurately ascribing value to EchoPark because of the early innings nature of the business, along with the perception of Sonic Automotive as a legacy dealership, i.e., we see it more common for people to place Sonic in the same category as Asbury, Group One, etc. rather than Carvana or CarMax. We believe that the consolidated company can generate around \$13 p/s in run-rate free cash flows, which at a 7.5x multiple provides an attractive risk/return ratio. Purchasing equity in SAH provides the optionality from successful execution and quick expansion of their used car segment, while maintaining a downside protection backdrop through the franchised car dealership business. Presently, we estimate that around 70-80% of the current share price is accounted for by the franchised dealership business, and given the company tends to trade more like a franchised dealership roll-up, we think that this opportunity is highly asymmetric given the market does not seem to have recognized what is a quickly growing segment with strong economics.

#### **Consensus View:**

4b/1n/1s. Covered by MS, JPM, Stephens, Seaport Global, Benchmark Co., and Jefferies. Jefferies and Morgan Stanley are neutral and underweight, respectively.

Sell-side is overly focused on near-term cadences and extrapolating from recent used car trends. This makes sense for them to do as there is significant volatility in that market presently and used car prices have been elevated for a significant period of time throughout the pandemic. We note further that the semiconductor shortage has led to some short-termism in the used car/new car dichotomy present in Sonic's business as they own new and used car dealers. We, however, are looking to take a multi-year view of the business and believe that much of the near-term headwinds to be adequately covered by sell-side and thus priced into the stock as it is currently trading. We note that the last initiation of coverage, and the last time in which long-term investment horizon was referenced was in 2016 with Jefferies at a hold. We note that since then, the EchoPark segment has developed very positively, and the business looks different now than it did back then.

#### **Key Ratios and Statistics:**

Recommendation	Buy
Price Target	\$96.89
Implied 3-yr. IRR	22%
Share Px (4/29/2022)	\$42.55
Market Cap	\$1.683 B
52-Week Low	\$38.64
52-Week High	\$58.00

Figure 1: EchoPark US Expansion Plans



Figure 2: EchoPark Location 4-Wall Economics at Maturity:

Expected Pre-Tax Return On Investment		55%+		35% - 50%		28% - 33%
Estimated Years to Maturity		2 Years		4 Years		5 Years
Estimated Months to Breakeven		3-6 Months		6-9 Months		6-9 Months
Capital Expenditures, Including Land (Varies By Market)		\$1-2 Million	\$	7-12 Million	\$2	20-25 Million
Inventory Floor Plan Financing	\$	-		(15,000,000)	\$	(31,000,000
Working Capital Investment	\$	-	\$	15,000,000	\$	31,000,000
Target Inventory Days' Supply		N/A		30 Days		30 Days
Average Retail Unit Sales Per EG Per Month		N/A		30		30
Sales Experience Guide ("EG") Headcount		N/A		25		50
Total Headcount		7		105		170
Average Compensation Per Employee (with Fringe)	\$	68,000	\$	78,000	\$	78,000
Annual Pre-Tax Profit	\$	2,100,000	\$	7,200,000	\$	14,400,000
Target SG&A Expenses as % of Gross Profit		65%		60%		609
Total Combined Gross Profit Per Unit Retailed ("GPU")	\$	1,700	\$	2,150	\$	2,150
Total Annual Revenues	\$	82,000,000	\$	205,000,000	\$	410,000,000
Average Vehicle Selling Price	\$	20,500	\$	20,500	\$	20,500
Average Monthly Retail Unit Volume		300		750		1,500
(Modeled Metrics Assume 100% Maturity)	_	Center	_	Retail Hub	_	Retail Hu
		Delivery		Medium		Large

#### Figure 3: VRM, SFT, and CVNA Exposures

		VRM	CVNA	Shift
ge Aix	1 - 3 years	68%	48%	25%
₹ ≥	4+ years	32%	52%	75%
0) ~	<\$10k	0%	1%	16%
Price Mix	\$10-20k	21%	72%	64%
_	\$20k+	79%	27%	20%
Custo	mer Sourcing	36%	41%	90%
Test [	Drive	No	No	Yes
Logis	tics	3 <sup>rd</sup> party	In-house	In-house
Reco	nditioning Centers	13	8	5
Geog	raphy	<b>National</b>	National	CA & OR



Finally, we note that dealerships don't really fit any sector, and coverage is quite weak across the board. Dealerships are not part of the supply chain yet are also not necessarily retail or finance. They are a conglomeration of some aspects of retail, some aspects of financing, and some aspects of supply. Most bulge brackets which cover dealerships are from auto analysts typically more focused on Tier 1 and OEMs. Overall, we think weak coverage makes for an under-covered industry and with a "hidden-asset" tilt to our investment, makes our investment thesis ever more enticing – most market participants likely have not uncovered or understand beyond the surface level presented by the sell-side.

#### **Investment Thesis:**

Core franchised dealership business is meaningfully attractive and provides a base valuation for our situation:

- Local monopolies: Franchise agreements commonly come with exclusivity in geographic areas and as a result have local moats and oligopolies. While customers may be willing to go out of their way to purchase a vehicle at a lower price, dealerships in the area can then capitalize on P&S arguably the more important revenue generated by these businesses as these are recurring and at higher margins.
- Regulatory protections: For over a century, the United States has required that all new car sales go through dealership networks. New regulations continue to be signed that protect that those sales go through dealerships. In 2014, for example, Chris Christie voted in favor of banning direct car sales, with similar moves across the nation from Arizona and Texas. With the plurality of revenue derived from the sunbelt, we view this protection to be highly attractive we estimate that just over 50% of revenues come from states where direct-selling is outright banned or extremely limited (exception for a few Tesla stores).

#### <u>Vroom and Shift troubles lead to open market share for EchoPark:</u>

- Vroom attempts at the "asset-light" model have failed and transition to asset model is unlikely: Vroom attempted to replicate the platform aspect of Carvana, with a focus on higher-priced vehicles. As a result, the company has been able to enjoy a sexy "platform tech business" pitch at IPO and backed it up with higher GPU and unit economics compared to Carvana. However, as time went on, the business model was exposed for the lack of any sense of a moat as the company was without vertical integration. Vroom's focus solely on origination meant that they owned none of the supply chain and important segments like reconditioning. With Carvana's recent acquisition of ADESA, a vehicle reconditioning and auction business, we think that the nail in the coffin for Vroom is coming soon. The company did as much as 24% of business with ADESA, and without them will have to reposition to Mannheim. Given ADESA will predominantly be used for Carvana's benefit, the unit economics for Vroom have effectively been destroyed. Without vertical integration, the company is essentially a shell platform that we believe will open up white space for other digital used car competitors to step in.
- Industry is shifting to fixed cost structure something Sonic Automotive has plenty of experience and exposure with: EchoPark is no new invention it has been around since 2014 and although it may not have a significant digital presence as of yet, is uniquely poised to capture the shift to fixed cost structures (which EchoPark and Carvana both benefit from). As the industry matures and scale expands, it is those with operating leverage that are poised to benefit. The high variable costs of the asset-light competitors Shift and Vroom are not to be the winner-take-all or winner-take-most in the long run it will be amongst Carvana and EchoPark, the businesses that already have significant investments in vertical integration.
- EchoPark targets a similar segment to Vroom: EchoPark focuses on the 1-4yr. age mix between 20,000 and 35,000 miles, which Vroom also does. We think this gives them a slight advantage over Carvana in winning this new business Carvana seems to focus more on 4+ years age mixes and lower ASP (majority in \$10-20k, while EchoPark has a significant portion above \$20k much like VRM). We have been tracking current inventory and believe that the mix implied by what is carried today to be much closer to the structure of Vroom.

#### Unique hub-and-spoke model more attractive than competitors on a unit-economics basis:

• No last-mile delivery perhaps an advantage: Unlike Carvana, EchoPark does not make any last-mile deliveries. Instead, vehicles are moved from retail hubs that are located near multiple smaller delivery centers. The delivery center holds cars for inventory storage and reconditioning. Right now, 30% of the population in the US is covered by these delivery centers and management expects that by 2025, that number could rise to 90%. We have already seen some of the current locations dominating local market share (10-14%), and we believe that this will continue to take



shape. New delivery center capital expenditures are \$1-2 million and we see that they mature in around 2 years with a 3-6 month break-even point. We like these metrics and view this as a quick way to gain national traction while maintaining local economic moats, without the upfront cost and insane variable costs associated with last mile delivery to the home. Carvana ships at some 30-35 cents per mile which may beat out legacy logistics competitors but remains a massive scale disadvantage as EchoPark takes on investment costs upfront rather than per-mile.

• Attractive 4-wall economics at maturity: Delivery centers require 7 employees to be hired. Medium retail hubs require 105, and large retail hubs 170. We will dedicate our focus to the delivery centers, which will make >80% of the new development and capital expenditures of Sonic. We associate some other SG&A costs with the developments – management thinks 65% for the delivery centers and 60% for the retail hubs. In either case, due to the low headcount found in delivery centers and small upfront costs, we think they will be extremely accretive in the long run whilst still maintaining the ability to quickly source inventory from larger hubs. In addition, this allows Sonic to accelerate into white space with minimal expenditures and little to no overhead costs.

#### Market overrates importance of brand building in online used-car retailing segment:

• We fundamentally disagree with Carvana's brand-first focus and heavy advertising spend: Carvana's local advertising strategies seem inferior to Echo Park's on a return-on-investment basis. Carvana likens their brands to "vending machines," which are extremely costly proprietary real estate sculptures that are not easy to produce and surely not efficient uses of space. In fact, compared to EchoPark's lots of a few millions of initial capex, Carvana's "vending machines" have been reported to cost anywhere from \$15-20mm, a reflection of poor marketing strategy and yet another aspect of the company that is weighing its profitability down. Furthermore, Carvana has been seeking brand building through costly last-mile delivery with branded vehicles and a vertical supply chain. While there are certainly long-term scale advantages to be had here, we think that it is wrong to immediately write-off the competitive efficacy of EchoPark simply due to perceived brand "disadvantage."

#### Why This Opportunity Exists:

- Legacy business obfuscates early innings EchoPark business: We think that the market backdrop looks at Sonic as a legacy franchised dealership player and ascribes it a valuation even below other dealerships which do not have the optionality of a digital used car segment like EchoPark. Versus our comp set, a mix of used and new car dealerships (KMX, ABG, AN, LAD, PAG, GPI), SAH trades more than 3 turns lower than the average. This is all while generating a higher '17-'20 EPS CAGR and roughly performing in line over the pandemic.
- Sell-side asleep at the wheel: We did not find the sell-side as particularly helpful on providing color on the EchoPark segment as they seem to be overly focused on near-term trends and figures. Taking a long view, however, gives us much more confidence in the long-term trajectory and future accretion to the bottom line. While we will surely be following the KPIs as the situation develops over the years, and thus following what the sell-side is saying, we believe that this has not allowed the stock to be meaningfully owned by high quality investors with the same view as us.

#### **Investment Risks**

- Execution risks: This investment ultimately requires that EchoPark become a sustainable segment that can generate positive profits over time. We believe that although there have been recent struggles from VRM and SFT, along with notorious negative profitability of the industry, KMX entry and CVNA success are proofs of concept that somewhat mitigate this risk. Regardless, we are concerned that if management does not adequately grow to reach its \$14bn commitment that the thesis may not play out correctly and we may not see the accretion to the bottom line that we are underwriting today.
- Insider ownership/management issues: The CEO has faced very serious allegations. The board has voiced support of this CEO, who is also the son of the founder, making the business a second-generation family owned one. We don't necessarily like this, especially as the CEO seems to be more focused on the Sonic Automotive franchised dealership half of the business. We remain concerned that if the CEO faces controversies in the future, the stock price could suffer. Also, since the Smith family owns a significant share of the business, we are concerned with any potential corporate governance issues and any potential internal strife. [we expand on the management risk below



- Auctions and ADESA: EchoPark currently sources 10-15% of auction inventory from ADESA, which is an auction company that holds low-mileage, one-owner car auctions for licensed, registered car and specialty dealers only. Recently, CVRA acquired ADESA, threatening this vehicle source. This presents a near-term risk as management notes SAH will have to pivot to alternative sourcing channels, including retail and digital dealer-to-dealer wholesale operations. Reconditioning being lost to CVNA does not pose an immediate risk as EchoPark primarily deals with younger cars with ASPs greater than \$20,000, and SAH already has excess reconditioning capacity. That, however, could change if CVNA shifts to older cars.
- 1-4 year used vehicle supply risk: Part of EchoPark's strengths is that it can sell cars that are 1-4 years used at the lowest price. However, COVID-19 induced supply-chain shortages have limited the production of new vehicles, posing a direct threat to the 1-4 year used vehicle supply. Management plans to combat this by purchasing more 5-8-year-old cars and instead putting in excess reconditioning capacity. This moves in the direction of business models of competitors such as KMX and CVNA, which produce front-end GPI with 5-8-year-old cars, instead of EchoPark's current business model: negative front-end GPU and GP reliant on F&I. This can be risky, as it moves away from one of EchoPark's key differentiating factors, and requires more reconditioning capacity, which can be constrained or non-existent (for example, Vroom lost 25% of their reconditioning from the ADESA acquisition).

#### **Management Commentary**

While we note the management's 30% ownership of the business, we are concerned that it is a second-generation family run business with an uninspiring history. The founding family seems to be much more in tune with the legacy business and we lack insight into what they think they want to do with the EchoPark business. In the past, they have also been late on filings (early 2010s) and overall, reputationally speaking, do not seem to be as professionally managed as the other dealers. We note that as a result, Sonic has garnered a discount to its peers, while we think its luxury focus and exposures are quite attractive. While we win regardless of whether there is a spin-off or not, we note that management can hurt us with lack of meaningful disclosure of the EchoPark business. We think this is mitigated as the company has been making efforts to roadshow the business following digital roll-out, and more disclosures have been given over the years in filings and investor presentations.

We note a significant issue with David Smith, the current CEO and son of the Founder Ollen Smith. David Smith was accused of attempting to strangle a woman in a domestic dispute in October 2020. While all charges were dropped, as there was no "reasonable likelihood of success in proving each of the elements of this offense beyond a reasonable doubt," we nevertheless remain cautious around this individual's tenancy. The board does not seem to be considering letting David Smith go and is unanimously behind his tenancy as CEO. We will continue to monitor the situation and potentially seek out a call with IR and management to better gauge David Smith's character and integrity. Unfortunately, given that there are some execution requirements that we view with an investment in SAH, this is a meaningful way for management to hurt our thesis.

#### **Payoff Structure & Valuation**

Valuatio.	n - PF FCF	2022E	2023E	2024E	2025E	Run-rate
Run-rate	FCF	\$6.33	\$7.19	\$9.63	\$12.92	\$16.14
Multiple		7.5x	7.5x	7.5x	7.5x	7.0x
Value		\$47.46	\$53.91	\$72.24	\$96.89	\$113.00
Upside		9%	23%	65%	122%	159%
Px	(\$43.70)	\$47.46				
	(\$43.70)	-	\$53.91			
	(\$43.70)	: <del>-</del>	-	\$72.24		
	(\$43.70)	-	-	-	\$96.89	
IRR		13%	13%	21%	24%	

Valuation	n - EPS	2022E	2023E	2024E	2025E
Run-rate	FCF	\$7.84	\$8.30	\$10.14	\$12.22
Multiple		6.5x	6.5x	6.5x	6.5x
Value		\$50.94	\$53.93	\$65.90	\$79.44
Upside		17%	23%	51%	82%
Px	(\$43.70)	\$50.94			
	(\$43.70)	-	\$53.93		
	(\$43.70)	=	5 <del>-</del>	\$65.90	
	(\$43.70)		-		\$79.44
IRR		26%	13%	17%	18%

Operating build  Sales COGS Gross Profit SG&A D&A EBIT Interest Expense Other Pretax Income Taxes NI Discontinued Operations NI (Cont.) D. Shares EPS  EBIT D&A Adj. EBITDA Capex Interest Tax Normalized FCF Normalized FCF	2017 \$9,867 (8,410) \$1,458 (1,148) (89) \$108 (14) \$94 \$94 \$94 \$108 (14) \$93 \$108 (14) \$93 \$108 (14) \$93 \$108 (14) \$93 \$108 (14) \$93 \$108 (14) \$93 \$108 (14) \$93 \$108	2018 \$9,952 (8,506) \$1,446 (1,145) (94) \$207 (102) (30) (30) (30) \$575 (23) \$52 43.0 \$1.20 207 94 (164) (102) (164) (102) (102) (203) (204) (203)	2019 \$10,454 (8,933) \$1,521 (1,099) (93) \$220 (21) \$200 (55) \$145 \$145 \$3.30 328 93 422 (126) (108) (29) (109	2020 \$9,767 (8,343) \$1,424 (1,029) (91) \$304 (69) (270) (\$55) (16) (\$51) (\$51) (\$51) 42.5 (\$1.21) 304 91 395 (127) (69) (42) (57) (99) (10	2021 \$12,396 (10,482) \$1,914 (1,275) (101) \$539 (80) (0) \$458 (109) \$458 (109) \$349 	2022E \$15,096 (13,024) \$2,073 (1,451) (107) \$515 \$430 (90) \$339 43.3 \$7.84 515 107 622 (190) (85) (33) (190)	2023E \$17,247 (14,963) \$2,284 (1,615) (129) \$540 (85) \$455 (95) \$359 43.3 \$8.30 540 (190) (85) (190) (85) (190) (85)	2024E \$20,935 (18,293 (18,273) (162) \$641 (85) \$556 (117) \$439 43.3 \$10.14 641 162 803 (190) (85) (117)	2025E \$24,577 (21,459) \$3,119 (2,136) (228) \$755 (85) \$670 (141) \$529 43.3 \$12.22 755 228 <b>983</b> (190) (85) (149) \$59 \$12.92	Rnn-rate \$2,6,464 (23,154) \$3,310 (2,260) (228) (85) \$737 (155) \$582  43.3 \$13.44  822 228 1,050 (80) (81) (186) 699 \$16.14	\$2,389 (2,030) \$359 (247) (23) \$89 (26) (2) \$61 (19) \$42 (2) \$0 \$9 \$3.98 89 23 112 (31) (26) (2) (31) (44) (44) (44) (44) (44) (44) (44) (4	9219 \$2,614 (2,233) \$381 (295) (24) \$63 (26) \$27 (10) \$27 (0) \$27 43.2 \$0.62 63 24 87 (21) (26) (8) 32 \$0.73	93'19 \$2,703 (2,316) \$387 (297) (24) \$66 (25) (1) \$41 (11) \$29 (0) \$29 44.2 \$0.66  66 24 90 (23) (25) (9) 33 \$0.75	94'19 \$2,748 (2,557) \$394 (261) (23) \$110 (31) (18) \$61 (15) \$46 0 \$44.5 \$1.04  110 23 133 (51) (31) (31) (31) (31) (90)	q1'20 \$2,308 (1,957) \$351 (282) (222) (223) \$46 (211) (268) (\$243) 44 (\$199) 42.6 (\$4.68) 46 22 68 (20) (21) (21) (21) (22) (22) (23) (24) (24) (25) (25) (26) (27) (27) (28) (28) (29	92'20 \$2,112 (1,805) \$307 (230) (23) \$54 (16) (10) \$31 (0) \$31 (0) \$31 43.6 \$0.71  54 23 77 (42) (16) (44) 15 \$0.34	93'20 \$2,549 (2,172) \$377 (257) (238) \$96 (16) (0) \$81 (21) \$60 (0) \$60 \$1.34 96 23 119 (30) (16) (15) \$8	94'20 \$2,799 (2,409) \$389 (259) (259) (20) \$107 (15) (1) \$90 (33) \$57 (0) \$1.30  107 23 130 (35) (15) (15) (15) (17) 63 \$1.43	q1'21   S2,787   (2,386)   S401   (289)   (249)   S401   (289)   (24)   S88   (15)     573   (19)   S54   1   1   S54   43.5   S1.25   S8   24   (15)   (66)   (15)   (66)   23   \$0.52	92'21 \$3,352 (2,841) \$511 (321) (251) (325) \$165 (144) (14) (15) \$151 (311) (10) \$114 (10) \$114 (10) \$114 (10) \$119 (10) \$110 (10) \$110 (10) \$110 (10) \$110 (10) (10) (10) (10) (10) (10) (10) (	g3'21   \$3,073   (2,601)   \$472   (321)   (321)   (325)   (13)   (13)   (13)   (14)   (15)	94'21 \$3,185 (2,654) \$8531 (345) (27) \$160 (37) (0) \$122 (26) (9) \$97 (0) \$99 42.8 \$2.25  160 27 187 (117) (37) (7) 26 \$0.61
Sales Growth % Gross Margin % EBITDA Margin %	1.4% 14.8% 3.1%	0.9% 14.5% 3.0%	5.1% 14.5% 4.0%	(6.6%) 14.6% 4.0%	26.9% 15.4% 5.2%	21.8% 13.7% 4.1%	14.2% 13.2% 3.9%	21.4% 12.8% 3.8%	17.4% 12.7% 4.0%		15.0% 4.7%	14.6% 3.3%	14.3% 3.3%	14.3% 4.8%	(3.4%) 15.2% 3.0%	(19.2%) 14.6% 3.6%	(5.7%) 14.8% 4.7%	1.8% 13.9% 4.7%	20.7% 14.4% 4.0%	58.7% 15.2% 5.7%	20.6% 15.4% 4.9%	13.8% 16.7% 5.9%
IS (as reported) Total Revenue COGS SG&A Impairment D&A Interest Expense Taxes Discontinued Operations	2017 9,867 (8,410) (1,148) (9) (89) (103) (14) (1)	2018 9,952 (8,506) (1,145) (30) (94) (102) (23) (1)	2019 10,454 (8,933) (1,099) (21) (93) (108) (55) (0)	2020 9,767 (8,343) (1,029) (270) (91) (69) (16) (1)	2021 12,396 (10,482) (1,275) (0) (101) (80) (109)	2022E	2023E	<u>2024E</u>	2025E		<u>q1'19</u> 2,389 (2,030) (247) (2) (23) (26) (19) (0)	22'19 2,614 (2,233) (295) (24) (26) (10) (0)	93'19 2,703 (2,316) (297) (1) (24) (25) (11) (0)	2,748 (2,355) (261) (18) (23) (31) (15) 0	<u>q1'20</u> 2,308 (1,957) (282) (268) (22) (21) 44 (0)	<u>q2'20</u> 2,112 (1,805) (230) (1) (23) (16) (6) (0)	2,549 (2,172) (257) (0) (23) (16) (21) (0)	2,799 (2,409) (259) (1) (23) (15) (33) (0)	<u>q1'21</u> 2,787 (2,386) (289) (24) (15) (19) 1	92'21 3,352 (2,841) (321) (25) (14) (37) (0)	93'21 3,073 (2,601) (321) (25) (13) (28) (0)	94'21 3,185 (2,654) (343) (0) (27) (37) (26) (0)
BS / CF (as reported) D&A SBC CF-Pre WC CFFO CF-PP&E CF-Acquisitions CF-Dividend	89 11 185 163 (234) (77) (9)	94 12 128 144 (164)	90 11 179 171 (126)	88 12 281 281 (127) (20) (17)	94 15 486 306 (298) (1,019) (18)						22 3 21 (94) (31)	23 3 50 37 (21)	23 3 53 31 (23)	22 3 55 197 (51)	22 2 40 (47) (20)	22 3 54 275 (42)	22 3 79 45 (30)	22 3 108 8 (35) (20)	22 3 78 90 (68) (9)	23 4 138 (125) (37) (20)	24 4 109 301 (76) (38)	25 4 161 40 (117) (953)
Cash	6	6	29	170	299						3	2	2	29	182	116	126	170	77	240	220	299
Debt - ST LT Total Debt Operating Leases	61 963 1,025	26 919 945	71 637 708 347	72 652 724 339	103 1,511 1,614 301						38 881 919	68 888 956	64 883 947	71 673 745	101 864 965	73 718 791	67 709 777	72 714 786	79 705 783	65 699 764	89 697 786	103 1,646 1,750
AR Inventory AP NWC Change in NWC NWC % of sales	482 1,513 130 1,865 (18) 18.9%	438 1,528 114 1,852 (13) 18.6%	433 1,518 135 1,815 (37) 17.4%	372 1,247 105 1,514 (302) 15.5%	401 1,261 133 1,529 15 12.3%	414 1,447 214 1,647 118 10.9%	425 1,663 246 1,842 195 10.7%	459 2,029 325 2,162 321 10.3%	505 2,384 412 2,478 315 10.1%		372 1,530 127 1,775	364 1,522 129 1,757 (18)	365 1,529 120 1,774 17	433 1,518 135 1,815 42	201 1,608 78 1,731 (85)	323 1,177 106 1,393 (337)	287 1,138 93 1,332 (61)	372 1,247 105 1,514 182	374 1,232 136 1,469 (44)	357 1,017 147 1,227 (243)	278 850 105 1,023 (203)	401 1,261 133 1,529 506
AR Days AP Days Inventory Turns Inventory Days	18 6 5.6x 66	16 5 5.6x 66	15 6 5.9x 62	14 5 6.7x 55	12 5 8.3x	10 6 9.0x 41	9 6 9.0x 41	8 7 9.0x 41	8 7 9.0x 41		14 6 5.3x 69	13 5 5.9x 62	12 5 6.1x 60	14 5 6.2x 59	8 4 4.9x 75	14 5 6.1x 59	10 4 7.6x 48	12 4 7.7x 47	12 5 7.7x 47	10 5 11.2x 33	8 4 12.2x 30	11 5 8.4x 43
Common Stock PIC Retained Earnings Other Income Treasury Stock Total SE	1 733 625 1 (574) 787	1 745 671 4 (598) 823	1 756 790 (2) (600) 945	1 768 722 (4) (672) 815	1 790 1,052 (1) (765) 1,076																	

			EchoPar	k Ruild						
	2017	2018	2019	2020	2021	2022E	2023E	2024E	2025E	Run-rate
Locations BoP	5	9	8	9	14	46	71	96	121	146
Net Additions / (Closures)	4	(1)	1	5	32	25	25	25	25	-
Locations EoP	9	8	9	14	46	71	96	121	146	146
Used Car Segment										
Sales	\$216	\$603	\$997	\$1,219	\$1,976	\$3,686	\$6,707	\$10,075	\$13,388	\$14,934
Units	10,618	29,437	49,520	57,161	77,835	175,500	313,125	461,125	600,750	657,000
ASP (000s)	\$20.3	\$20.5	\$20.1	\$21.3	\$25.4	\$21.0	\$21.4	\$21.8	\$22.3	\$22.7
Growth %	(4.7%)	0.8%	(1.7%)	6.0%	19.1%	(17.3%)	2.0%	2.0%	2.0%	2.0%
Front-end COGS	(\$209)	(\$608)	(\$997)	(\$1,236)	(\$2,032)	(\$3,808)	(\$6,864)	(\$10,213)	(\$13,448)	(\$15,000)
Front-end Gross Profit	<b>\$</b> 7	(\$5)	(\$0)	(\$17)	(\$56)	(\$123)	(\$157)	(\$138)	(\$60)	(\$66)
Front-end GPU (000s)	\$0.6	(\$0.2)	(\$0.0)	(\$0.3)	(\$0.7)	(\$0.7)	(\$0.5)	(\$0.3)	(\$0.1)	(\$0.1)
Margin %	3.2%	(0.9%)	(0.0%)	(1.4%)	(2.8%)	(3.3%)	(2.3%)	(1.4%)	(0.4%)	(0.4%)
F&I Revenue	\$15	\$61	\$114	\$132	\$194	\$421	\$720	\$1,061	\$1,352	\$1,478
Back-end GPU	\$1.4	\$2.1	\$2.3	\$2.3	\$2.5	\$2.4	\$2.3	\$2.3	\$2.3	\$2.3
Total Gross Profit	\$22	\$55	\$114	\$115	\$138	\$298	\$564	\$922	\$1,292	\$1,413
Total GPU (000s)	\$2.06	\$1.88	\$2.30	\$2.01	\$1.77	\$1.70	\$1.80	\$2.00	\$2.15	\$2.15
Margin %	10.1%	9.2%	11.4%	9.4%	7.0%	8.1%	8.4%	9.2%	9.6%	9.5%
Units/Location	1,517	3,463	5,826	4,971	2,595	3,000	3,750	4,250	4,500	4,500
Name Can Samurant										
New Car Segment					\$9	\$67	\$196	\$389	\$489	\$545
Sales Units						936			6,408	
ASP (000s)				-	\$70.4	\$71.8	2,672 \$73.3	5,208 \$74.7	\$76.2	7,008 \$77.8
Growth %					\$/0.4	2.0%	2.0%	2.0%	2.0%	2.0%
Front-end COGS					(\$8)	(\$59)	(\$170)	(\$337)	(\$424)	(\$475)
Front-end Gross Profit					\$1	\$8	\$25	\$52	\$64	\$70
Front-end GPU (000s)				-	\$8.6	\$9.0	\$9.5	\$10.0	\$10.0	\$10.0
Margin %					12.2%	12.5%	13.0%	13.4%	13.1%	12.9%
Magni 70					12.270	12.570	13.070	13.470	13.170	12.570
Units/Location					4	16	32	48	48	48
Consolidated EchoPark Sales	\$217	\$605	\$999	\$1,221	\$1,979	\$3,688	\$6,709	\$10,077	\$13,390	\$14,937
COGS	(\$195)	(\$549)	(\$885)	(\$1,106)	(\$1,840)	(\$3,381)	(\$6,120)	(\$9,103)	(\$12,034)	(\$13,454)
Consolidated EchoPark GP	\$22	\$55	\$114	\$115	\$139	\$307	\$589	\$974	\$1,356	\$1,483
SG&A	(\$41)	(\$66)	(\$88)	(\$95)	(\$198)	(\$215)	(\$395)	(\$614)	(\$813)	(\$890)
% of GP	(187.4%)	(119.8%)	(77.1%)	(82.5%)	(142.6%)	(70.0%)	(67.0%)	(63.0%)	(60.0%)	(60.0%)
D&A		(\$4)	(\$12)	(\$12)	(\$16)	(\$27)	(\$49)	(\$82)	(\$148)	(\$148)
EBIT	(\$19)	(\$15)	\$14	\$8	(\$75)	\$65	\$145	\$278	\$394	\$445
Interest Expense	(\$2)	(\$2)	(\$5)	(\$4)	(\$4)	(\$9)	(\$9)	(\$9)	(\$9)	(\$9)
Tax 21.0%	_	-	(\$2)	(\$1)	-	(\$12)	(\$29)	(\$57)	(\$81)	
NI	(\$21)	(\$17)	\$7	\$3	(\$80)	\$44	\$108	\$213	\$304	\$344
D. Shares	44.4	43.0	43.7	42.5	43.3	43.3	43.3	43.3	43.3	43.3
EPS	NM	NM	\$0.17	\$0.07	NM	\$1.02	\$2.48	\$4.91	\$7.03	\$7.95
Capex Buildout					(\$173)	(\$110)	(\$110)	(\$110)	(\$110)	
Additional D&A					(31/3)	(\$110)	(\$22)	(\$33)	(\$66)	
Additional Doca						(311)	(\$22)	(\$33)	(300)	
						1.76%	2.16%	2.76%	2.94%	2.98%

		Fre	nchsied De	alershin Bu	ild							
Franchsied Dealership Build 2017 2018 2019 2020 2021 2022E 2023E 2024E 2025E Rum-rate												
Locations BoP	107	103	96	86	84	20222	20232	20242	20202	2011/1-7 0110		
Net Additions / (Closures)	(4)	(7)	(10)	(2)	27							
Locations EoP	103	96	86	84	111							
New Car Sales	\$5,295	\$4,974	\$4,889	\$4,281	\$5,109	\$5,875	\$5,288	\$5,446	\$5,610	\$5,778		
Growth %	1.2%	(6.1%)	(1.7%)	(12.4%)	19.3%	15.0%	(10.0%)	3.0%	3.0%	3.0%		
New Car Gross Profit	\$265	\$242	\$233	\$234	\$460	\$411	\$317	\$272	\$280	\$289		
Margin %	5.0%	4.9%	4.8%	5.5%	9.0%	7.0%	6.0%	5.0%	5.0%	5.0%		
Used Car Sales	\$2,406	\$2,371	\$2,493	\$2,346	\$2,901	\$3,481	\$3,133	\$3,227	\$3,324	\$3,424		
Growth %	(0.5%)	(1.5%)	5.2%	(5.9%)	23.7%	20.0%	(10.0%)	3.0%	3.0%	3.0%		
Used Car Gross Profit	\$148	\$148	\$148	\$123	\$188	\$209	\$188	\$194	\$199	\$205		
Margin %	6.2%	6.3%	5.9%	5.2%	6.5%	6.0%	6.0%	6.0%	6.0%	6.0%		
Wholesale Sales	\$162	\$197	\$180	\$169	\$257	\$206	\$206	\$206	\$206	\$206		
Growth %	(19.4%)	22.0%	(8.7%)	(6.3%)	52.5%	(20.0%)	-	-	_	-		
Wholesale Gross Profit	(\$8)	(\$12)	(\$4)	(\$1)	\$1	(\$10)	(\$10)	(\$10)	(\$10)	(\$10)		
Margin %	(5.2%)	(6.0%)	(2.3%)	(0.5%)	0.2%	(5.0%)	(5.0%)	(5.0%)	(5.0%)	(5.0%)		
P&S Sales	\$1,402	\$1,365	\$1,367	\$1,194	\$1,340	\$1,381	\$1,422	\$1,465	\$1,509	\$1,554		
Growth %	0.1%	(2.7%)	0.1%	(12.6%)	12.2%	3.0%	3.0%	3.0%	3.0%	3.0%		
P&S Gross Profit	\$677	\$665	\$669	\$595	\$673	\$690	\$711	\$732	\$754	\$777		
Margin %	48.3%	48.7%	49.0%	49.8%	50.2%	50.0%	50.0%	50.0%	50.0%	50.0%		
F&I Sales	\$348	\$345	\$363	\$358	\$444	\$466	\$489	\$513	\$539	\$566		
Growth %	3.5%	(0.9%)	5.3%	(1.5%)	23.9%	5.0%	5.0%	5.0%	5.0%	5.0%		
F&I Gross Profit	\$348	\$345	\$363	\$358	\$444	\$466	\$489	\$513	\$539	\$566		
Margin %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
Consolidated Franchised Dealership Sales	60.612	\$9.251	\$9,292	\$8,348	\$10.051	611 100	\$10.538	\$10.857	611.107	611 527		
Consolidated Franchised Dealership Sales	\$9,613 (\$8,183)	(\$7,863)	(\$7,884)	(\$7,039)	(\$8,286)	\$11,409 (\$9,643)	(\$8,843)	(\$9,156)	\$11,187 (\$9,424)	\$11,527 (\$9,700)		
Consolidated Franchised Dealership GP	\$1,430	\$1,388	\$1,409	\$1,309	\$1,766	\$1,766	\$1,695	\$1,701	\$1,763	\$1,827		
SG&A	(\$1,144)	(\$1,141)	(\$1,116)	(\$1,000)	(\$1,150)	(\$1,236)	(\$1,220)	(\$1,259)	(\$1,322)	(\$1,370)		
% of GP	(80.0%)	(82.2%)	(79.2%)	(76.3%)	(65.2%)	(70.0%)	(72.0%)	(74.0%)	(75.0%)	(75.0%)		
D&A	(\$89)	(\$89)	(\$81)	(\$79)	(\$85)	(\$80)	(\$80)	(\$80)	(\$80)	(\$80)		
EBIT	\$197	\$157	\$211	\$231	\$530	\$450	\$395	\$362	\$361	\$377		
Interest Expense	(\$101)	(\$101)	(\$103)	(\$64)	(\$76)	(\$76)	(\$76)	(\$76)	(\$76)	(\$76		
Tax 21.0%	(\$20)	(\$12)	(\$23)	(\$35)	(\$95)	(\$78)	(\$67)	(\$60)	(\$60)	(\$63)		
NI	\$76	\$45	\$86	\$132	\$359	\$295	\$252	\$226	\$225	\$238		
D. Shares	44.4	43.0	43.7	42.5	43.3	43.3	43.3	43.3	43.3	43.3		
EPS	\$1.70	\$1.04	\$1.96	\$3.10	\$8.29	\$6.82	\$5.81	\$5.23	\$5.20	\$5.49		

FCF Layout	<u> 2017</u>	<u> 2018</u>	<u> 2019</u>	<u>2020</u>	<u> 2021</u>	2022E	2023E	2024E	2025E
NI	94	52	145	(51)	349	339	359	439	529
D&A	89	94	90	88	94	107	129	162	228
SBC	11	12	11	12	15	11	11	11	11
Change in NWC	18	13	37	302	(15)	(118)	(195)	(321)	(315)
NOL									
CFFO	212	170	282	350	443	340	304	292	453
CF-PP&E	(234)	(164)	(126)	(127)	(298)	(190)	(190)	(190)	(190)
FCF	(22)	7	157	223	144	150	114	102	263
Dividend	(9)	(10)	(15)	(17)	(18)	(40)	(40)	(40)	(40)
FCF Post-Dividend	(31)	(3)	141	206	126	110	74	62	223
Debt					1,614	1,504	1,430	1,368	1,145
Comital Table	2017	2070	2070	2020	2027	20222	20222	20248	2025#
Capital Table	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	2022E	2023E	2024E	2025E
PP&E BoP	1,010	1,147	1,178	1,097	1,121	1,459	1,542	1,602	1,630
Depreciation						(107)	(129)	(162)	(228)
Capex						190	190	190	190
PP&E EoP	1,147	1,178	1,097	1,121	1,459	1,542	1,602	1,630	1,592
WC	1,865	1,852	1,815	1,514	1,529	1,647	1,842	2,162	2,478
IC	2,944	3,015	2,953	2,623	2,819	3,147	3,414	3,779	4,089
ROIC	3.2%	1.7%	4.9%	(1.9%)	12.4%	10.8%	10.5%	11.6%	12.9%
IIC	112	71	(62)	(331)	196	328	267	365	310
INI	(0)	(42)	92	(195)	400	(10)	20	80	90
ROIIC	(0.3%)	(58.4%)	(149.1%)	59.1%	203.9%	(2.9%)	7.4%	21.9%	29.1%
	` ′	` '	` ′			` ′			
SE	787	823	945	815	1,076	1,416	1,775	2,214	2,743
Total Debt	1,025	945	708	724	1,614	1,504	1,430	1,368	1,145
Cash	(6)	(6)	(29)	(170)	(299)	(299)	(299)	(299)	(299)
Total Capitalization	1,805	1,762	1,624	1,368	2,391	2,620	2,905	3,283	3,589