Board of Advisors Meeting

Mar 30th, 2022

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Letter from Portfolio Managers

Dear Board of Advisors,

Thank you for joining us for the second meeting of this semester. Over the past month, we have had a productive portfolio team cycle and are excited to share our ideas with you today. Further, this marks the first oversight meeting since Caleb Nuttle and Tony Wang's term as portfolio managers ended. We want to thank them for their unwavering dedication to IAG and the hand that they played in developing every analyst and idea to be the best they could be throughout their tenure.

With that, we want to introduce ourselves, Niranjan Narasimhan and Rahul Parikh, as IAG's next portfolio managers. We are both sophomores who have been with IAG since Fall 2020 and are looking forward to running the portfolio team moving forward.

Our primary focus as portfolio managers will be to foster more engagement within our weekly meetings and encourage collaboration on ideas whenever possible. We believe that a more team-centric approach to pitching combined with an earlier start to our DA process will produce higher quality work and help us gain a better understanding of the risk-reward profile of pitches we bring to oversight meetings.

In other news, we would like to welcome our new hires this semester that will participate in our training process and be evaluated over the course of the semester to potentially join the portfolio team. Our new hires are Anirudh Ganesh, Luis Figueroa, Christina Monev, Raunakk Jalan, Avanti Aggarwal, Sean Chen, and Dov Levy (all freshmen).

Turning towards the portfolio, there have been several negative developments in the market, and as a result, our returns have contracted. Inflationary fears and the ongoing Russia/Ukraine conflict have caused market indices to fall ~5% YTD. Our growth and opportunity stocks have been hit especially hard and as a result of these factors, IAG's portfolio is down ~10% YTD. However, despite these macro headwinds, we remain highly convicted in our positions and are looking to pivot towards defensible business models that provide an opportunity based on long-term cash flows.

Shifting towards the ideas that we are bringing in today, we have had meaningful internal discussions over the last several weeks and are happy to share the following investment recommendations with the Board:

1. **Restoration Hardware (NYSE: RH) –** A mispriced luxury furniture undergoing an internal transformation towards bigger galleries that present favorable unit economics.

2. **Barnes and Noble Education (NYSE: BNED) –** An underfollowed textbook and bookstore operator with a hidden subscription business that presents a sustainable growth lever amidst a broader industry turnaround.

Overall, we are glad to continue being a source of information to the Board and are excited to begin our tenures as the new portfolio managers of IAG. We look forward to ending this semester strong.

Best,

Niranjan Narasimhan and Rahul Parikh

Portfolio Managers

II. Performance Analysis

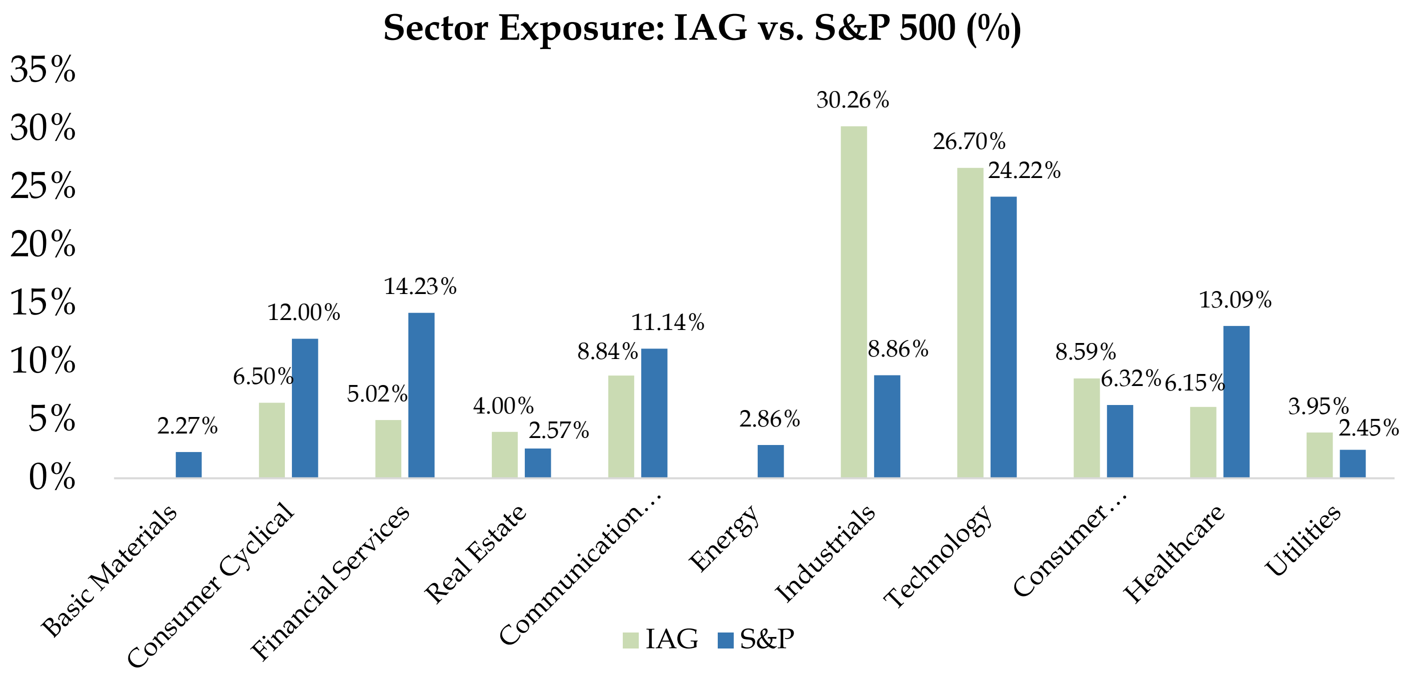
Holdings Summary *(as of Mar 28th, 2022)*

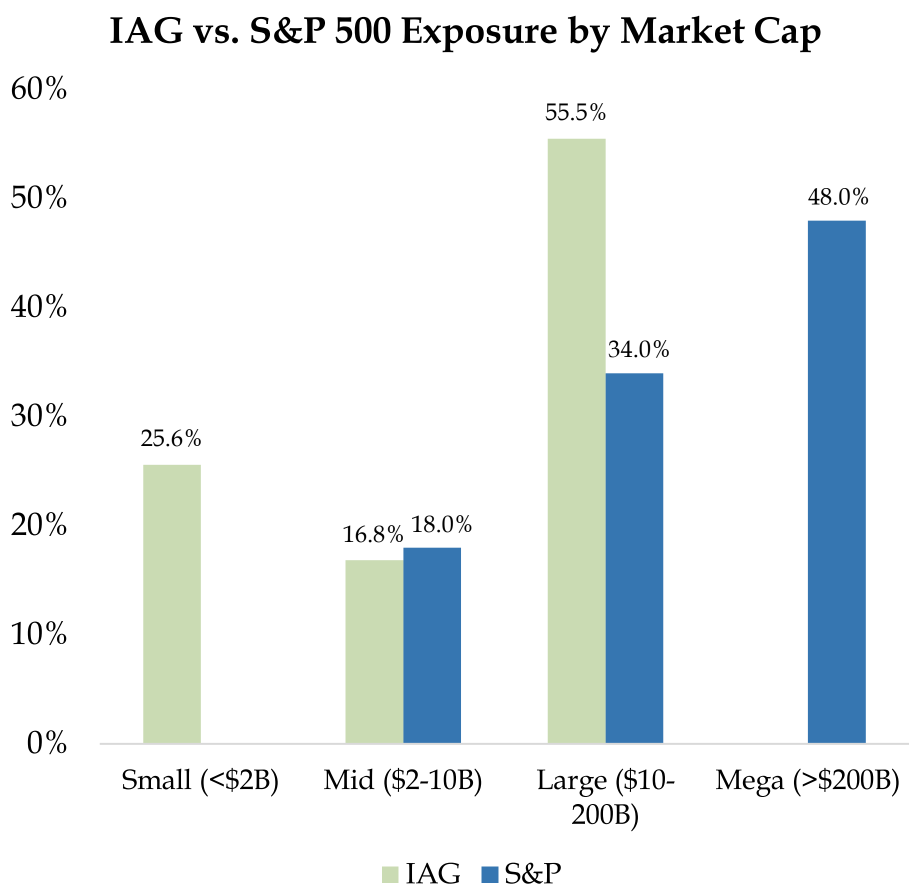
Current Holdings											
Company Name	**Ticker**	**Coverage**	**Date of Purchase**	**% of Portfolio**	**Share Count**	**Price At Purchase**	**Share Price**	**Current Return**	**Industry**	**Holding Type**
APi Group Corp	APG	Pravar Jain	9/24/20	**4.1%**	160	$14.29	$21.38	49.6%	Industrials	**Core**
Concrete Pumping Holdings Inc	BBCP	Alex Isaac	3/26/21	**2.5%**	300	$7.07	$7.03	(0.6%)	Industrials	**Core**
Berry Global Group Inc	BERY	Sophie Pan	12/2/20	**3.5%**	50	$54.60	$58.25	6.7%	Consumer Cyclical	**Core**
Builders FirstSource Inc	BLDR	Rahul Parikh	10/5/21	**6.7%**	80	$52.20	$69.33	32.8%	Industrials	**Core**
Catapult Group International Ltd	CAZGF	Rahul Parikh	12/7/21	**2.1%**	2,100	$1.03	$0.85	(17.5%)	Technology	**Core**
Krispy Kreme Inc	DNUT	Robert E.	12/7/21	**4.5%**	260	$16.50	$14.35	(13.0%)	Consumer Defensive	**Oppt.**
Exelon Corp	EXC	Rhys Berezny	4/30/21	**3.9%**	70	$44.83	$46.02	2.7%	Utilities	**Oppt.**
Flex Ltd	FLEX	Rhys Berezny	10/5/21	**4.8%**	230	$17.88	$17.29	(3.3%)	Technology	**Core**
HCA Healthcare Inc	HCA	Alice Yu	9/26/19	**6.0%**	19	$119.99	$264.41	120.4%	Healthcare	**Core**
Identiv Inc	INVE	Tony Wang	9/24/20	**7.7%**	400	$5.68	$15.98	181.3%	Technology	**Core**
JD.com Inc ADR	JD	Nithin M.	4/30/21	**2.9%**	40	$77.55	$59.77	(22.9%)	Consumer Cyclical	**Oppt.**
Methode Electronics Inc	MEI	Achyut Seth	2/19/21	**4.1%**	80	$38.56	$42.41	10.0%	Technology	**Core**
Monster Beverage Corp	MNST	Achyut Seth	11/9/21	**3.9%**	41	$91.00	$80.02	(12.1%)	Consumer Defensive	**Core**
Office Properties Income Trust	OPI	Mikhail Talib	10/28/20	**3.9%**	130	$17.85	$25.09	40.6%	Real Estate	**Core**
Palo Alto Networks Inc	PANW	Alex Isaac	9/24/20	**7.5%**	10	$240.50	$625.25	160.0%	Technology	**Core**
Points.com Inc	PCOM	Winston Yin	10/28/20	**5.3%**	240	$10.01	$18.37	83.5%	Communication Services	**Oppt.**
Sea Ltd ADR	SE	Niranjan N.	2/18/22	**3.4%**	24	$133.00	$116.98	(12.0%)	Communication Services	**Oppt.**
TransDigm Group Inc	TDG	Tony Wang	4/9/20	**7.2%**	9	$527.65	$668.62	26.7%	Industrials	**Core**
United Rentals Inc	URI	Carol Sun	3/14/19	**6.1%**	14	$114.85	$363.40	216.4%	Industrials	**Core**
Willis Towers Watson PLC	WTW	Mikhail Talib	11/9/21	**4.9%**	17	$231.70	$240.85	3.9%	Financial Services	**Core**
ZTO Express (Cayman) Inc ADR	ZTO	Niranjan N.	3/14/19	**3.0%**	100	$19.43	$25.21	29.7%	Industrials	**Core**
Total Equity Holdings				**98.0%**			**$81,634.16**			
Cash				**2.0%**			**$1,700.00**			
Total Portfolio Holdings				**100.0%**			**$83,334.16**			

On a last twelve-month basis, **IAG's portfolio has returned 14.52%** while the S&P 500 returned 15.92%. Since the last oversight meeting, **the spread between IAG's portfolio and the S&P 500 contracted from 3.01% (2/17/22) to -1.40% (3/30/22).**

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

Portfolio Exposure vs. Benchmark





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 Feb 2022 Meeting

Internal Pitches Since Feb 2022 Meeting				
	Company	Stage	Date	Analysts
1	Barnes & Noble Education Inc.	First Update	2/23/2022	Alice Yu, Karen Phua
2	Tilly's Inc.	Initial Screen	2/23/2022	Vinny Ye
3	Alibaba Group Ltd.	Initial Screen	2/23/2022	Nithin Mantena
4	Restoration Hardware	Second Update	3/2/2022	Rahul Parikh, Achyut Seth
5	Semler Scientific	Initial Screen	3/2/2022	Tony Wang
6	Compass, Inc.	Initial Screen	3/2/2022	Mikhail Talib, Robert Eisenman
7	Abercrombie & Fitch Co.	First Update	3/9/2022	Sophie Pan, Amy Chen, Winston Yin
8	Sonic Automotive Inc.	Initial Screen	3/23/2022	Vinny Ye, Alex Isaac, Carol Sun
9	Barnes & Noble Education Inc.	First Update	3/23/2022	Alice Yu, Karen Phua
10	Abercrombie & Fitch Co.	Second Update	3/23/2022	Sophie Pan, Amy Chen, Winston Yin
11	Abercrombie & Fitch Co.	Devil's Advocate	3/23/2022	Pravar Jain

Active Pipeline				
	Company	Stage	Date	Analysts
1	Compass, Inc.	Initial Screen	3/2/2022	Mikhail Talib, Robert Eisenman
2	Semler Scientific	Initial Screen	3/2/2022	Tony Wang
3	Sonic Automotive Inc.	Initial Screen	3/23/2022	Vinny Ye, Alex Isaac, Carol Sun
4	Abercrombie & Fitch Co.	Second Update	3/23/2022	Sophie Pan, Amy Chen, Winston Yin

Oversight Meeting				
	Company	Stage	Date	Analysts
1	Restoration Hardware	Second Update	3/2/2022	Rahul Parikh, Achyut Seth
2	Barnes & Noble Education Inc.	Second Update	3/23/2022	Alice Yu, Karen Phua

III. Key Holdings Update

Portfolio Updates Since Feb 2022 Meeting

Company	Ticker	Update
APi Group	**APG**	We would like to propose a hold on our API Group position. Since our initial purchase in 2019, the stock has returned a close to 130% gain, and recently reported compelling Q4 financials. We continue to hold high conviction in our initial thesis points. One of our core thesis points involved API Group's strengths in executing accretive, and strategic Mergers and Acquisitions. In the last oversight update, we reported that API acquired Chubb to increase their presence in the fire safety industry. Since then, Chubb has been a large contributor for inorganic growth. In Q4 financial results, the synergies are starting to get realized as API reported a 26.1% YoY gain in revenues. The decline in Industrial services revenue was partially offset by strong growth in the fire safety industry. Even though inflation and supply chain issues posed downward pressures on margin, API was able to increase Gross margins by a 219 basis point due to its strategic Chubb acquisition. This gives us conviction in our thesis point about management's increased focus on increasing margins through inorganic and organic growth. Additionally, management just announced a $250 Million share repurchase program, which increases confidence in our positive outlook. We would like to hold API Group until it trades more in line with comps, and satisfies our thesis point about deserving a multiple closer to a safety business.
Concrete Pumping Holdings	**BBCP**	We propose a hold on our position in Concrete Pumping Holdings. Our position is currently down 0.1% since our purchase at $7.08 per share. The company posted encouraging results in its Q122 earnings release. Revenue increased 21.3% year-over-year since Q121, with organic revenue rising 11.8%. Additionally, net income increased from $(12.8) million to $0.7 million. Gross profit in the quarter increased 14.3% to $34.1mm. However, gross margins fell 2.5%, driven primarily by inflation, specifically within the diesel fuel market. BBCP has recently completed its acquisition of Pioneer Concrete Pumping, adding 83 operating units centered in the Atlanta, Georgia, area. The company's strong top-line performance is reflected in its US and UK operations, growing revenue by 20.6% and 22.9%, respectively. Reaffirming our thesis, U.S. concrete waste management services saw revenue increase 24.2% in the period. We expect growth in the segment to continue, providing strong supplemental revenue. Management is focused on calibrating rates over the following periods to mitigate inflation headwinds. We see consistent and effective management driving improvements in the fundamentals, which reflect in valuation following the passing of the aforementioned external factors.
Berry Global	**BERY**	We propose a hold in our stake in Berry Global. Since the last oversight meeting, Berry has not reported earnings (with Q2 earnings estimated to be reported on May 3). The company has not experienced any significant changes or announcements. While the thesis point about deleveraging has been actualized, the other thesis points still hold true. The industry has faced headwinds from labor shortages and rising costs due to supply chain disruptions - a large driver of the recent performance. Although rising energy prices due to developments in the Russia-Ukraine conflict may increase the prices of resin, a key component, these developments are not unique to Berry. Due to a sizeable market share and economies of scale, Berry is well-positioned to fare through these rising costs and pass these costs on to its customers. In its share buyback program, Berry repurchased $50mm in Q1 and aims to repurchase at least an additional $300mm in FY22. Organic growth remains strong due to faster growing emerging markets and sustainability in the plastics packaging industry.
Builders FirstSource	**BLDR**	We propose a hold on Builders Firstsource. Since our last meeting, BLDR reported its Q4 and FY 2021 earnings. BLDR reported net revenues of 19.9 billion and gross profit 5.9 billion which was slightly higher than, but fairly in line with guidance. The company benefited from a stronger supply chain in the latter portion of the year, but is still facing some covid-related headwinds. The big news from the annual report is the completion of their integration of BMC holdings, with cost synergies beating run-rate guidance by 3 months. Our thesis is still well intact despite macro headwinds, with BLDR completing 4 bolt-on 'value add' acquisitions in the last 2 quarters of FY21, primarily focused on enhancing the prefab business. Looking forward, we are looking towards continuing the digital transformations with a comprehensive homebuying experience. Our prediction on the revenue mix of lumber (39%) was actually reported at 36%, which helped margins and led to an EBITDA beat that has seen the stock continue to outperform its peers. On the whole, the stock is up ~32% since our purchase, and relatively flat since our last meeting.

Portfolio Updates Since Feb 2022 Meeting

Company	Ticker	Update
Catapult Sports	CAZGF	We propose a hold on Catapult Sports. Since our last meeting, the stock has drawn down ~15%, primarily due to relatively high beta. However, since our last meeting, Catapult has not reported earnings or had any negative news. The company is continuing to enhance and cross-sell its video analytics software, with that portion of the business trending towards 65% of revenue, compared to the historical <50%, as per our thesis. The business has also reported SaaS as nearly 90% of revenue as the hardware product continues to impress its clients, a key piece of information to drive margin growth moving forward. The only relevant news with the company has been the onset of the NCAA tournament and Catapult's push to land and expand across college basketball. We look forward to the FY21 earnings that are set to release in the next month, and evaluating from there.
Krispy Kreme	DNUT	We propose a hold on our position in Krispy Kreme. DNUT's 2021 Q4 earnings were released on February 22nd with mostly positive results, including sales and margin growth above the street's and our own estimates. The share price propelled upward around 10% on the news, but the stock has since tricked back down to remain flat at around $14.35 per share. EBITDA margin grew 60 basis points to 13.58% for 2021, above our estimate of 13.3%. Global Access points grew by more than 2,000 to 10,427, a 25% year-over-year increase. The hub and spoke model is continuing to proliferate in new markets, including Albuquerque, New Mexico. Revenue per hub in this market has grown 29% year-over-year, increasing local EBITDA margin by over 700 basis points. The branded sweet treat segment experienced an increase of fulfillment rates from 65% to 85% in the quarter despite Omicron, and the Insomnia Cookies segment experienced revenue growth of 30% year-over-year. DNUT also released strong 2022 outlook figures, including revenue growth of approximately 11% to 13% and EBITDA growth of 12% to 16%.
Exelon Corp	EXC	We propose holding our position in Exelon. This is our first update since we sold the generation side of the business (Constellation Energy Corp). There have not been any significant developments for Exelon since the last update, but the utilities industry has performed very well. The rise in energy costs, specifically natural gas, and uncertainty in the macro environment has made utilities a very attractive industry to go into. As a sector, utilities have rallied roughly 8%, beating the S&P by a sizable amount since our last update. Given the continued uncertainty in the macroenvironment for the foreseeable future, we believe that Exelon is a great hold for the near to medium term.
Flex Ltd.	FLEX	We propose a hold on Flex. There has been relatively little news after two busy updates involving the $540 million all-cash acquisition of Anord Mardix, a global leader in power solutions, as well as Flex selling roughly $500 million in preferred equity of NEXTracker to TDG, which values NEXTracker at $3 billion (higher than expected). Since then, there have been some changes in leadership. The President of Global Operations and Components is retiring and the CFO of NEXTracker recently became the Chief Accounting Officer of Flex. These changes in leadership are not overly impactful and should not at all change the strategic direction of the company. In terms of stock performance, Flex has practically mirrored the S&P 500 since the last update as the news of Russia's invasion of Ukraine has not significantly affected Flex's major distribution channels or overall supply chain.
HCA Healthcare	HCA	We propose a hold position on HCA Healthcare. HCA remains the largest hospital operator in the US in 2021, with a presence in 21 states for a total of 182 hospitals. Our thesis point on high ROIC through acquisitions remains intact, as HCA continues to generate new names for HCA hospital network, acquiring two local hospitals in Florida's Ocala and Marion County. In the Florida market, HCA also rebranded all of its hospitals, uniting its 450+ affiliated hospitals under the HCA Florida Healthcare name. Operations continue as the surge in patients seen from the Omicron surge declines. Labor remains a challenge, especially with COVID-19. In combating the national physician shortage, HCA offered 1,867 residency positions to medical school graduates. The number of new residency and fellow positions offered at HCA hospitals remains more than any other healthcare system in the country.

Portfolio Updates Since Feb 2022 Meeting

Company	Ticker	Update
Identiv	**INVE**	Sell Note
JD.com	**JD**	We propose to hold our position in JD. Since our last position update on February 17th, JD is down approximately 20%. The recent fall is due to renewed delisting fears of Chinese ADRs and Q4 earnings. Regarding the renewed delisting fears, many of these fears are unwarranted and pose no risk to the intrinsic value of JD's business. Q4 earnings, however, came in much lower than expected. Revenue growth for JD was still 23% for Q4. However, the loss from operations was $61.5 million, compared to a gain of $86 million dollars in Q4 2020. Management cited high logistics costs, increased cost of goods sold, and the slowing of Chinese consumer demand as reasons for the loss. Full-year 2021 results came in a bit lower than projected. We updated our model to account for the changes in JDs fundamental business quality. We decreased 3C, general merchandise, and 3P GMV growth rates to highlight a few fundamental changes. Additionally, we updated the model to project a faster decline in logistics take rates due to increased competition from other logistic competitors in China. Our valuation remains intact with a 49% upside despite these updated projections. Furthermore, there remains a disconnect between the market's view on Chinese regulations and our view that JD.com will not face harsh regulations because they are a pure-play e-commerce business. In addition, China released a statement in mid-March stating that they will continue to support oversea listings and end the tech crackdown as soon as possible. While these statements do not affect our thesis or valuation, they show continued support for our thesis.
Methode Electronics Inc.	**MEI**	We propose to hold Methode Electronics. Since the last update, Methode Electronics posted its latest earnings for Q3 FY'22 - sales YoY declined 1.3% and gross margins lowered by 90 bps. This can primarily be attributed to lower automotive sales in Europe, which is facing supply chain issues (European auto OEM production slowdowns). Supporting our thesis point of the decreasing dependence on the cyclical automotive segment is the increasing strength of the industrial segment, which outgrew the automotive sales and is continuing to benefit from macro trends in electrification, e-commerce, and automation. Another positive trend is the EV as % of sales, which is growing at a faster rate than our model initially predicted. In the latest quarter, EV represented 19% of sales (for reference, management expected mid teens for FY'22), which can be attributed to winning new program awards for power distribution products, one of them being with a large established German automotive OEM. Capital allocation continues to be tight, with net debt slightly increasing to execute a $21 million share buyback in the quarter. Management has also revised guidance, increasing annual sales slightly. Although headwinds with supply chain is likely to prolong for the remainder of this year along with cost inflation, the fundamentals of Methode in the long term ultimately make us bullish.
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.

Portfolio Updates Since Feb 2022 Meeting

Company	Ticker	Update
Office Property Income	**OPI**	We propose a hold on Office Properties Income Trust (OPI). When we initially proposed it we had a $22.21 price target representing a 15.5% upside. Since then, the stock has reached $25.22, exceeding our original price target. However, we remain confident in our thesis and nothing has fundamentally changed in our long term outlook for OPI group. Since our last update, OPI released their fourth quarter results. Leasing momentum remains strong amongst a sharp return to the office amongst many grade A tenants. They continue to steadily execute their capital recycling program. Leasing volume exceeded 700,000 SF, representing the highest quarterly volume in two years. Same property cash NOI was unchanged year over year. For our second thesis, OPI group continues replacing older, high-CapEx assets with newer assets in superior locations and generating higher cash flows. In FY2021 OPI sold nine non-core properties consisting of 2.9 million SF for more than $250 million and acquired two core properties in Chicago and Atlanta for $550 million. We would like to note that these 3 properties were acquired at an average cap rate of 6.36%, coming close to management's expected goal of 6% when we first proposed the stock. We remain confident in our thesis and would like to hold OPI as it starts to realize the benefits of its capital recycling program.
Palo Alto Networks	**PANW**	We propose a hold on Palo Alto Networks. Our position is currently up 154.3% since our purchase at $244.75 per share. The company posted excellent results in its recent quarterly call. Total billings increased 32% year over year, with revenue rising 30% in tandem. Next-Generation Security ARR increased 166mm to 1.43B. The bottom line also reflected PANW's performance, with operating income rising 20% and free cash flow growing 33%. Management points to the company's large deal success as key to accelerated growth rates. The company made 221 1mm+ deals in Q2'22. Similarly, PANW has had 22 major product releases in 1H'22, compared to 29 for FY21. Management has raised estimates for FY22 across the board, including revenue, billings, ARR, and EPS. Going forward, the company aims to generate 30% revenue growth through its balanced portfolio of products. On the whole, we are confident in management's ability to deploy capital and compound value for shareholders.
Points International	**PCOM**	We propose a hold on PCOM. Since our previous meeting, PCOM has reported its fourth quarter earnings for FY2021. Overall top-line growth was in-line with our bull case as the loyalty industry rebounded much faster in 2021 than expected. Although margins came in below our expectations, we believe that as PCOM's existing partners continue to recover activity lost during the pandemic, PCOM's profitability will gradually improve as well. Our theses regarding the multitude of growth opportunities that PCOM has access to also remain intact: PCOM's total product and service base is now 15% greater than it was in 2019 and it has continued to make solid progress upselling and cross-selling existing customers, which include six additional deployments of its Accelerate Anything service as well as a renewed and expanded partnership with Marriott Bonvoy. Additionally, management cited a strong pipeline of potential partners and service expansions going forwards. Finally, management is targeting $90mm in gross profit and $40mm in EBITDA for FY2024, which if delivered upon (conceivable given historical growth, strong industry growth, and attractive economics) would imply a price target of over $25 even with conservative multiples (~8x EV/EBITDA) and assumptions of no share buybacks.
Sea Ltd.	**SE**	We propose a hold of our position in SE. Since adding this position to the book last oversight meeting, the stock fell by as much as 36% as negative sentiment on the India Free Fire ban continued to persist, and the company guided Garena bookings down by 34% during their FY21 Q4 earnings call on March 1st. However, we felt that this was largely an overreaction by the markets and that the better than expected results on Shopee and SeaMoney show that the long-term value drivers of this business are still intact. The company expects that Shopee will be EBITDA positive in SE Asia before HQ allocation costs by the end of this fiscal year, and that SeaMoney will be cash flow positive by the end of this year. Management also stated their belief that by 2025, the cash from both Shopee and SeaMoney will allow those segments to be self-sustaining. Since providing another update to the board on Thursday, March 10th, the share price has improved 17.4%. Overall, we are down 12.7% and the share price currently sits at $116.12.

Portfolio Updates Since Feb 2022 Meeting

Company	Ticker	Update
TransDigm Group	**TDG**	We propose a hold on our position in TDG. In the past quarter, net sales of $1,194 million were up 8% YoY and organic sales growth was 8.7%. The company recently announced that it is set to acquire DART Aerospace, for approximately $360 million in cash. A leading provider of unique helicopter mission equipment solutions for civilian aircraft, DART generates 95% of its revenues from proprietary products, supporting TDG's continued accretive OEM investments. FY2022 guidance remains suspended due to continued disruption in its commercial markets, however the momentum for continued improvement in global air traffic is positive - it is expected to recover to 2019 levels by 2024 with industry-wide aftermarket volumes expected at 106% 2019 levels by 2024. The regulatory risk is overblown with democrats set to lose power this year and the GOP already unwilling to take specific measures against TDG. As for the disclosures of cost data under the Truthful Cost or Pricing Data statute, Congress has already created significant loopholes that restrict the number of components for which pricing data has to be turned over to the DLA and raised the price thresholds for its applicability. Regulatory tightening remains a risk as ≈43% of revenue is derived from defense, but TDG looks set to weather it better than expected, especially as the focus shifts towards rapid defense acquisitions after the Ukraine conflict. Leverage remains a risk in this rate hike cycle, as its term loans are based on a LIBOR+2.25% floating rate and represent 38% of LT Debt. However, management recently increased the revolving credit to $810M which will allow it to meet any short term obligations.
United Rentals	**URI**	We would like to propose holding our stake in United Rentals (URI) at $363.67, up 215.6% since inception in March 2019, and 12.7% since our last oversight in February 2022. We continue to believe that the company trades at an unfair discount compared to other construction equipment companies, such as CAT, even more so this cycle, as CAT now trades at a 13.36x EV/EBITDA, while URI only trades at 8.45x EV/EBITDA. But in reality, in the current economic climate, where pandemic 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. Since the last oversight, the most important development has been the announcement to add zero-emission POWRBANK battery systems in its rental fleet. This energy storage system is integrated with diesel generators and is claimed to "significantly reduce generator run-time and reduce emissions, noise and fuel waste." The equipment requires basically no maintenance, and can be recharged using renewable power sources, tying to the company's sustainability goals. We continue to believe that URI is a core holding in the industrial space.
Willis Towers Watson PLC	**WLTW**	We propose a hold on our Willis Towers Watson position. U.S. commercial insurance prices rose again, with the reported aggregate commercial price change above 7%. Nearly all lines have indicated significant price increases over the past six quarters, however, prices are beginning to increase at a lower rate. Yet, notwithstanding price these increases, organic revenue growth for the year was strong at 6% for the year. Advancing the company's insurance analytics capabilities, WTW released the launch of the newest version of its market-leading Radar software and management appointed a new officer to its Data Science for Insurance Consulting role. WTW's continued efforts to hire talented management remains in line with our thesis point on the importance of management turnaround. WTW also announced its withdrawal from all of its business operations in Russia in response to the conflict in Ukraine.

Portfolio Updates Since Feb 2022 Meeting

Company	Ticker	Update
ZTO Express	**ZTO**	We propose a hold on ZTO. Since our last meeting, ZTO reported Q4 FY21 earnings, largely matching or slightly beating consensus estimates. Although the share price has fallen 16.7% to 25.43, contracting our return to 30.9%, since our last meeting, we feel confident that ZTO will continue to benefit long-term from the improving regulatory landscape in China. As the government has gotten more involved, the price war between incumbents, such as ZTO, and new entrants, such as J&T, has largely ended as the new entrants are no longer allowed to sell below cost. This benefits ZTO, who has been the natural low-cost provider in the industry for years. We see that new regulations have had a positive material impact on the industry, as ZTO's Q4 ASP rose 13% sequentially. As the price war has ended, we see unit economics and KPIs continue to improve for ZTO. Total revenue grew 12% YoY, driven by a 16% YoY increase in parcel revenue and a 17% YoY increase in parcel volume. Further, the company reported that Q4 ASP increased 13% sequentially. Although sorting costs per parcel increased 4.1% YoY, transportation costs fell 3.3% and ZTO has been able to maintain higher unit margins compared to competitors.

IV. Buy and Sell Notes

Sell Note: Identiv (NASDAQ: INVE)

Dear Board of Advisors,

We would like to sell our position in Identiv, realizing a ~180% return. The stock has drawn down substantially over the past few months amidst the broader equity market sell-off and disappointing Q4 results. Given the questionable near-term economics of Identiv's RFID business, we would like to exit our investment. Our initial thesis is summarized below.

1. RFID business is at an inflection point that is missed by sell-side

As a $100mm market cap business, Identiv garnered minimal sell-side attention. The few brokers who did cover the stock were overly focused on the core federal security business. Thus, we saw a disconnect between the Street's RFID projections and the significant underlying market tailwinds. We also discovered that Identiv was the lowest-cost provider in the NFC space (a subset of the RFID market) with minimal incremental capex requirements to ramp up growth.

2. INVE is a compelling buyout target with attractive margins at scale

Identiv's closest NFC competitor, Smartrac, had been acquired by a larger, commoditized RFID player in early 2020. This acquisition had positive implications for Identiv from both a competition and valuation standpoint. Smartrac wound down its NFC business post-acquisition, making Identiv the de-facto market leader. Further, Smartrac was acquired at 1.5x sales, supporting our exit valuation for INVE. We also believed that, once Identiv had scaled its RFID business and reached $100mm in overall revenue, EBITDA margins would expand to 15% (management guidance).

Update on Current Situation and Post-Mortem

We believe that this mispricing has largely disappeared. The RFID business now contributes to a meaningful portion of overall revenues (40%+), and management has begun disclosing KPI's for this segment. Further, sell-side is now breaking down contract-by-contract revenues to triangulate their estimates. The "underappreciated growth" thesis played out as anticipated and the market has rewarded us with 1.2x multiple expansion on a 30% higher sales base.

While the thesis proved to be true, we could have used more discipline in monitoring the stock. We were encouraged by positive developments over our holding period and fell victim to "thesis creep." We did not take a granular view on the RFID segment's unit economics and thus were unpleasantly surprised by Q4 results; gross margins declined 300bps due to contract mix shift. Going forward, we hope to be more rigorous in our position monitoring and mitigate anchoring bias by sticking firmly to our original theses and investment horizons.

Overall, INVE has been one of our best-performing investments and has encouraged us to hunt for other under-covered small cap's with hidden assets. Although the stock has drawn down significantly, there are more attractive risk-reward's in today's market and thus we propose a sell.

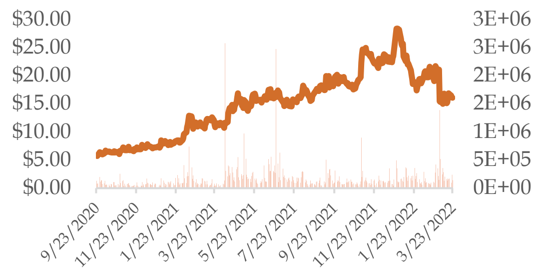
Best,

Tony Wang

Stock Overview (LTM Figures)

	At Purchase:	Current:
Share Price:	$5.68	$15.75
Market Cap (mm)	107.91	283.25
Revenue	79.2	103.8
Gross Margin	42.01%	35.71%
EBITDA Margin	4.29%	3.90%
EV/Sales (NTM)	1.29x	2.51x
EV/EBITDA (NTM)	15.44x	37.68x

Performance Since Inception (9/23/2020)



V. New Position Proposal

Restoration Hardware (NYSE: RH)

Mispriced Luxury Furniture Pure-Play with Sustainable Growth Levers

Achyut Seth, Rahul Parikh
Senior Analysts
as12932@stern.nyu.edu rpk7593@stern.nyu.edu
Price Target: $487.79 (39% upside)

March 27, 2022

Business Description:

Restoration Hardware ("RH") is a luxury retailer in the home furnishing market. RH offers a wide variety of home goods, including categories like furniture, lighting, decor, and outdoor furniture. They currently operate primarily in the US and Canada, where they have an omnichannel approach: Stores, website, and mailing books. RH has also recently launched "The World of RH, an online portal to showcase the vision of its products and services. The stores can be split up into two buckets. Retail stores (Legacy Stores) and Design Galleries, which offer a more comprehensive, luxury experience for the customer. RH runs a membership program where the consumer receives a 25% discount on any purchase throughout the year. RH has close to 450,000 members (18% growth from 2017) with about 8-9% yearly member churn. The average ticket price is around $12,000. Products are sourced from Asia (72%) and US (15%) with a host of different vendors (75% of products sourced from 30 vendors). Typically, for big ticket purchases (50K plus), members will enter the store wanting to see the inventory and set up an appointment with a designer. The designer will then go to their home, take measurements, and provide recommendations of RH products to purchase, or complementary items to what the homeowners had in mind.

Customer Profile - Reaping Benefits from Luxury Space:

The luxury market generally consists of companies that have established brands and utilize their pricing power to generate high margins. As a result, the space is a favorable one to operate in, which is a unique advantage for RH, one of the most prominent pure-play companies in the luxury furniture market generating industry-leading operating margins (26% to 11-15% industry standard). Due to the luxurious brand aesthetic RH has carefully created throughout the years, the company appeals to a niche market of 300k households that account for 80% of the business, targeting customers who spent ~10% of house's value on furnishing after purchase. In terms of the customer profile for an RH shopper, we know that the average customers spend is around $10K, but most of the bulk purchases (where customers are purchasing more than one item) are at least $50K. RH has historically leveraged its wealthy customer base to increase prices. A key example is 3Q21 results, where gross margins exceeded 50% for the first time, 110 bps higher than consensus. The implied price increases are set to continue, as strong demand and favorable product mix are long standing tailwinds for margin improvement. RH has also pulled the pricing lever on the membership program this past year, where the 50$ annual price increase ($100 to $150) have improved gross margins by 30 bps while maintaining HSD churn, emphasizing how price-inelastic the customers for RH are.

Fundamentals of the Business

a. ***Industry-leading margins (Figure 2):*** RH has made significant strides in terms of margins that are well above industry standard LTM medians (Gross Profit 43%, EBITDA 14%, and EBIT 11%). Margin improvement has primarily been driven by upselling products & realizing the design gallery presents a new experience (whilst maintaining same shipping cost), and a smaller in-store payroll for a lot more sales and items.
b. ***Membership Model (Figure 3):*** Recently, RH has switched to a membership model to stabilize revenues. Historically with the furniture industry, there are lots of constant, random sales promos that eat into margins, but with a membership model, the customers

Key Ratios and Statistics (as of Feb 14, 2022):

Price Target	$487.79
Upside	39%
Purchase Price	$351.96
Market Cap	$8.77B
52-Week Low	744.56$
52-Week High	362.00$
Cash	2,199.0M
Debt	3,529.2$M
Avg. 3M Daily Volume	.55M

USD: M FY'	'18A	'19A	'20A	'21E
Revenue	2,506	2,6471	2,849	3,703
% YoY	*3%*	*6%*	*8%*	*30%*
EBIT	262	363	467	786
% Margin	*10%*	*14%*	*16%*	*21%*
NI	136	220	273	547
% Margin	*8%*	*8%*	*10%*	*15%*

Figure 1 – TEV/Forward EBITDA trading at lowest point since 2017

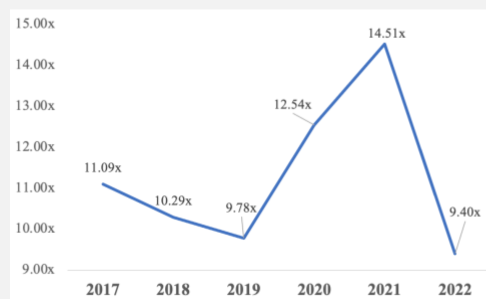


Figure 2 – Margin Profile Improving Significantly

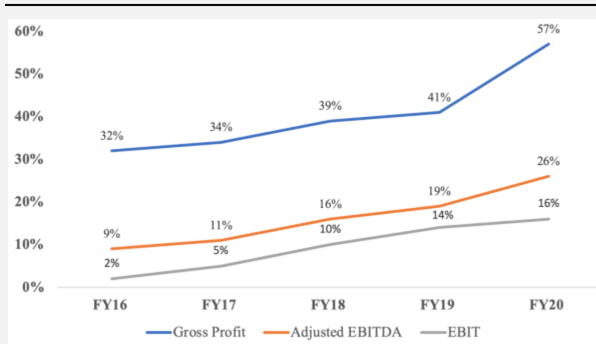


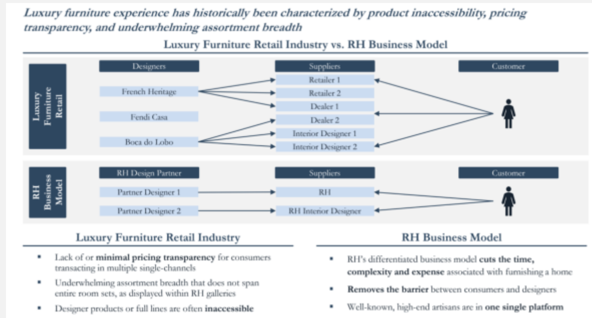
Figure 3 –Sales Cadence Comparison Before and After Members Program

still feel like they get good value anytime of the year, and the average ticket price is increasing. Since inception, the membership program has allowed RH to cut overhead costs (same store payroll for concept that generates more sales) and generate ~20% gross margin improvement driven by an increase in foot traffic. Other advantages of the membership model have been improving inventory forecasting and planning by reducing sales volatility, creating manufacturing efficiencies, and adding a recurring revenue stream. Additionally, since program launch, RH has seen ~150 bps reduction in return rate, ~100 bps reduction in exchange rate, and ~200 bps reduction in cancel rate

Source: Company reports.

c. **RH Interior Design *(Figure 4)*:** Traditionally, luxury furniture distribution has gone through an intermediary (designers) and "fragmented set of places to buy from" with lots of third parties involved. However, RH is vertically integrated with the furniture value chain (in-house design team & interior designers & delivers products with own delivery professionals in certain regions) while most companies in the business segment are not (outsourced designs; independent dealership). RH Interior is a big part of the core RH business (65% of retail business), allowing RH to "*aggregate demand and aggregate supply in the luxury retail segment in such a way others are not trying to emulate*". Having free interior design consultation services provides benefits to all parties involved: RH can tightly control design aspects of its furniture, interior designers receive a greater scale and get more customers through RH, and customers can choose from multiple designers that suit their taste, while also getting more price transparency than other places. RH Interior combines the in-store, online, and at-home experiences for RH members to personalize their furniture. RH is shifting more towards selling spaces, so an interior designer will guide them along the process of what they want the interiors of their homes to reflect. RH doubled the number of interior designers in 2016, as it views the services as a differentiator for the high-end customers.

Figure 4 - RH Vertically-Integrated Business Model Streamlines Customer Experience with Greater Price Transparency



d. **2022 Primary Product Launch of RH Contemporary:** RH Contemporary is a dynamic and immersive multi-channel platform dedicated to bringing international artists and their work to a global audience. The program encompasses a distinctive online gallery featuring a series of artist documentaries, an art journal written by a roster of acclaimed curators, critics, and artists and a gallery in New York City exhibiting works for sale. RH Contemporary Art offers a new way to view, learn about and acquire artwork.

e. Operational Improvements

i. **Supply chain:** Since the shift in strategy to design galleries, RH has seen its average lead times improve by up to 10 days. This is primarily driven by being able to hold more inventory in-house (3x more) and have added a new distribution center in Los Angeles.

ii. **Logistics**: Historically, returns have transferred from dist centers to outlets, but starting in 2017, RH reconceptualized the logistics business to directly transfer returns to outlets (via home delivery hubs). This has improved selling margins and transportation costs, leading to savings and margin enhancement of ~20 million annually. About 60-65% complete on logistics/outlet redesign as of 2018.

iii. **E-Commerce:** Fundamentally, RH is selling a different product online versus in-store. Physical stores individualize products, because clients work very closely with designers to see how products would fit in the context of their spaces, which means most of the online sales come from smaller ticket items like chandeliers, bath towels, outdoor furniture, etc. Recently, RH has redesigned their website to split up their new lines and target individual demographics, while adding new distribution centers to improve lead times on online orders.

Thesis Points:

- **Multiples Re-Rate Attributed to Operational Transformation towards Design Galleries (Figures 4-:** One of the initiatives Restoration Hardware has undertaken to improve the operational profile of its galleries is transforming its legacy galleries into design galleries. Legacy galleries, historically found in outlet stores or malls, are retail-type stores that display a limited amount of the RH catalog (7-8%), and take up around 5,000 square feet. In contrast, design galleries are larger concepts (~8x the size of legacy galleries) that display over 50% of the RH catalog in a 'room' type of setting rather than just as individual products. This helps customers visualize how specific items fit together, incentivizing customers to buy products as a 'collection' which raises the average ticket. Importantly, design galleries also feature hospitality services like wine bars and rooftop restaurants, which bolster the customer experience and drive even more foot traffic. So far, RH has successfully converted 22 out of 50 legacy galleries into design galleries, at a rate of ~1-2 per year, and plan to have, in total, 60-70 design galleries in the US/CAN region.

Unit Economics (Figure 5): On the operational side, the design galleries have transformed the business. Driven by a 3-4x increase in foot traffic and an 80-100% sales uplift from displaying products in the store (accommodate ~20% of 30 SKUs per gallery vs 10 SKUs in legacy galleries), design galleries have increased the average ticket price by 1.6x, doubled the sales volume on lower occupancy/operating expense rates (2-3x cash contribution dollars vs legacy galleries), and ROICS have jumped from high single digits to nearly 30%.

Case Study of RH Oak Brook Visit (Figure 6): An equity report from Loop Capital Markets highlighted a visit to RH Oak Brook when it launched in Oct 2021. The report underlined how the design gallery was located in a high-end mall in Oak Brook, a relatively affluent suburb near Chicago. With over 60k sq feet of indoor and outdoor space, the analyst described how the visually stunning store environment and elegant restaurant (fully booked for the day), as well as the free interior design services offered to busy, affluent customers, were key differentiators in driving traffic and elevating customer experience (Figure 4 for reference).

We believe that the dramatic operational improvement is sustainable for two key reasons - the first of which is a long runway for cutting low-hanging fruit. The remaining 28 legacy galleries present a unique opportunity for RH to tangibly improve its financial profile across the entire business in the long-term. Moreover, much of the market sentiment is that RH benefited from COVID-induced demand surge of people upgrading their homes, and that the growth prospects are unsustainable. However, these concerns are overstated as the stores were only operating at ~60% capacity, and there are still $300M in backlog gains for the company to realize in FY22. Additionally, a Jefferies report *(Figure 8)* highlights strong short-term demand outlook for the industry, with luxury single-family home (value >$900k-$1M) sales up 23% YoY in December 2021, suggesting ongoing demand for premium home furnishings throughout 1H22. Also, website visits to luxury real estate websites (up 17% MoM in Jan 2022) from high-earners remain elevated relative to pre-pandemic levels (up 43% YoY vs Jan

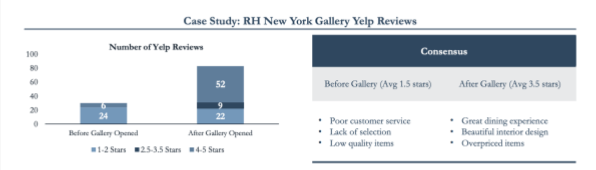
Figure 5 - Store Economics Against Furniture Retailers

Store Economics Against Furniture Retailers

	Sales	Selling Sq. Ft.	Sales / Sq. Ft.
RH Average	**12,252,601**	**11,880**	**$1,031.38**
Williams Sonoma	4,226,586	6,800	$621.56
Ethan Allens	4,070,465	9,444	$431.00
At Home Group	6,000,000	66,109	$90.76
Retailer Average			**$381.11**

Figure 6 - RH Oak Brook Restaraunt Rating from Opentable.com

Figure 7 - RH New York Gallery Yelp Reviews Improved Significantly with Design Gallery



2020), setting the stage for 1Q signings and demand at retail into early 2H22.

The second reason we see the transformation as still being better than the business historically is due to favorable rent economics. Because the leases on design galleries are in much more subdued locations, and don't operate as a '% of sales rent', the payback period on its transformed galleries has been, on average, less than two years (lower than industry average). Additionally, due to the productivity of its design galleries, RH has been able to negotiate 'capital light' leasing deals, where 65-100% of the capital is funded by the landlord, as opposed to historic numbers around 30%. For its bigger projects, RH has participated in sale-leaseback, which cuts out the middleman and lowers rent and D&A expenses, allowing them to recoup a larger portion of its capital. In terms of key risks to opening and converting design galleries, a big one is oversaturation, but we don't see that as a big inhibitor because although RH has done legacy galleries in 80% of MSA's, design galleries present a new market opportunity, and they are only ~40% saturated with those thus far. There is also the risk of the product 'fad' fading out, which exists with every luxury company. However, as there are no direct competitors in the space to take away share from the brand, we don't see this as a potentially dangerous issue. Overall, we believe that the market is fundamentally underappreciating the growth dynamic, as RH is opening new design galleries just as quickly as they are replacing legacy galleries. In our view, the favorable economics are more sustainable than the market is giving RH credit for, and we see a long runway for growth as the playbook remains consistent. With RH trading below historic multiples (9.4x forward EBITDA vs 5-yr average of 11.0x) and below comps (9.4x forward EBITDA vs furnishing comps median of 11.0x vs luxury comps median of 18.0x), we believe there is a mispricing opportunity, given the improvements in business quality and ongoing operational transformations.

- **Tapping Into International Expansion as Additional Lever for Growth (Figures 10-12):** According to GMI, the global luxury furniture market is valued at $21 billion in 2020 with a CAGR of 4.5% between 2021 and 2027. Europe is expected to capture ~30% of the market by 2027, which is why RH's management is looking beyond the North American market with a tentative launch in Europe as early as spring 2022. Not only does the executive design team have a strong European background, but RH already has experience in Europe in terms of sourcing products from the geographic region, as well as maintaining its position as one of the top brands for Italian bedding and Belgian linen. Additionally, Europe, with its historic, grand architecture and real estate, presents a significant opportunity for RH to complement and elevate its luxury brand aesthetic with its design galleries, such as RH England in Aynhoe Park. Furthermore, the company already has secured 5 leases in UK, Germany, and France, with negotiations underway for another 5 leases to accelerate expansion plans in the next 3-5 years. This strategy to move into Europe coincides with other 2022 product launches and expansions, such as the launch of RH Contemporary, RH Guesthouse in NY, launch of RH3 (luxury yacht available for charter in Mediterranean and Caribbean), and expansion of RH Interiors (shift towards selling spaces designed fully by RH interior designers). Although international expansion poses execution risk and requires higher upfront investments in the next several years to build the supply chain and distribution network, we are confident management can capitalize on the high brand awareness in Europe and turn RH into a global luxury brand that is an ecosystem of "Products, Places, Services, and Spaces" - the company's long-term vision.

Figure 8 - Strong Short-Term Demand Outlook for Luxury Furniture

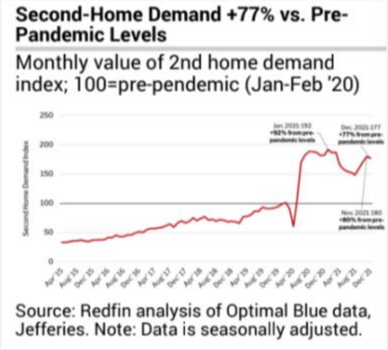


Figure 9 - Lowered Rent Expenses with Sale-Leaseback Model

Figure 27: Lease vs. Sale-leaseback Model Estimates for RH Yountville Gallery

	Lease Model	Sale-leaseback Model
Sales	$30MM	$30MM
Rent	$2.2MM	$1.7MM
Rent as % of sales	7.33%	5.67%
Net Capital	-$15MM	+$3MM

Source: Company reports.

"RH determined it doesn't need somebody else's balance sheet to do the development. It'll keep everything in-house, develop the building, then sell it as a developed building with a tenant in place. The tenant is itself, Restoration Hardware. Given where things trade today, it netted about $3 million on the Edina, Minnesota building"

Figure 10 - Global Furniture Spending (higher-end of per-capita revenue concentrated in Europe)

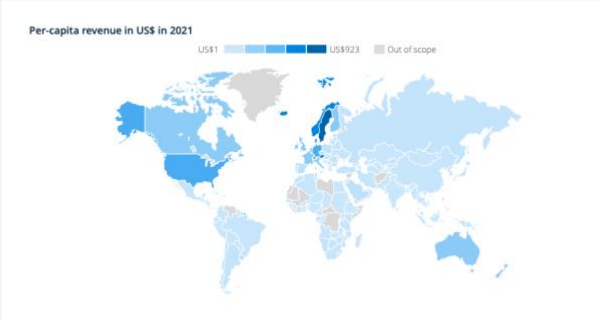


Figure 11 - Relevance of premium or luxury furniture in European markets in line with U.S.

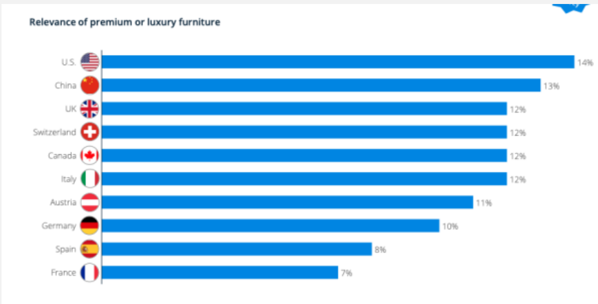


Figure 12 - Competitive Landscape in Europe

Valuation – Restoration Hardware Historic Multiples

(as of Mar 27, 2022)	2017	2018	2019	2020	2021	2022	Average	Median
TEV/LTM Total Revenue	1.13x	1.50x	1.75x	2.76x	4.59x	2.42x	2.36x	2.09x
TEV/NTM Total Revenues	1.03x	1.40x	1.65x	2.57x	4.00x	2.20x	2.14x	1.92x
TEV/LTM EBITDA	14.72x	13.59x	10.45x	12.33x	15.87x	7.96x	12.49x	12.96x
TEV/NTM EBITDA	11.09x	10.29x	9.78x	12.54x	14.51x	7.52x	10.95x	10.69x
TEV/LTM EBIT	22.68x	18.67x	14.12x	18.26x	20.47x	9.78x	17.33x	18.46x
TEV/NTM EBIT	16.10x	13.34x	12.33x	15.85x	16.57x	8.52x	13.78x	14.60x
P/LTM EPS	115.65x	115.54x	25.06x	33.19x	50.49x	16.32x	59.38x	41.84x
P/NTM EPS	22.03x	17.59x	14.17x	20.62x	27.67x	13.87x	19.33x	19.10x
P/BV	2.28x	36.88x	90.62x	135.13x	24.56x	7.50x	49.49x	30.72x
TEV/LTM Unlevered FCF	14.75x	12.98x	26.52x	21.95x	22.54x	18.77x	19.58x	20.36x

Discounted Cash Flow - Base Case (39% Upside)

Revenue Build

Revenue Build	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Number of Stores										
Total Galleries	84	84	71	68	68					
Waterworks Showrooms	15	15	15	15	14					
Total retail locations	99	99	86	83	82					
Outlet Stores	28	32	39	38	38					
Total Stores	127	131	125	121	120	122	123	124	125	126
US and Canada	*127*	*131*	*125*	*121*	*120*	*121*	*121*	*121*	*121*	*121*
Europe	-	-	-	-	-	*1*	*2*	*3*	*4*	*5*
Revenue Per Store	$ 16,810.01	$ 18,627.28	$ 20,045.22	$ 21,879.64	$ 23,738.55	$ 30,354.21	$ 33,118.17	$ 34,493.64	$ 35,928.58	$ 37,425.60
YoY Growth		11%	8%	9%	8%	28%	9%	4%	4%	4%
Revenue YoY Growth		14%	3%	6%	8%	30%	10%	5%	5%	5%
Loop Capital						32%	11%			
William Blair						33%	11%			
Canalyst						33%	7%	7%	7%	7%

Operating Build

YoY Growth	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Gross Profit		23%	17%	11%	21%	34%	10%	-2%	3%	0%
EBITDA		47%	98%	43%	19%	97%	10%	-2%	1%	-3%
EBIT		121%	123%	39%	29%	98%	10%	-3%	0%	-5%
Net Income		-148%	5322%	62%	23%	145%	10%	-7%	-8%	-10%
Margins	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
Gross Profit	32%	34%	39%	41%	47%	48%	48%	45%	44%	42%
Loop Capital						48%	48%			
William Blair						49%	49%			
Canalyst						51%	51%	51%	51%	52%
EBIT	2%	5%	10%	14%	16%	25%	25%	23%	22%	20%
Loop Capital						24%	25%			
William Blair						26%	26%			
EBITDA	5%	7%	13%	17%	19%	29%	29%	27%	26%	24%
Adjusted EBITDA	9%	11%	16%	19%	26%					
Barclays						28%	29%	30%		
Net Income	0%	0%	5%	8%	10%	18%	18%	16%	14%	12%
Loop Capital						19%	18%			
William Blair						20%	19%			
D&A	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
as % of Revenue		2%	2%	4%	3%	4%	4%	4%	4%	4%
CapEx	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
as % of Revenue	8%	3%	3%	4%	4%	8%	6%	6%	6%	6%
Wedbush						7%	4%	4%		
Delta in NWC	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
Current Assets (ex cash)	1,051,234	627,023	698,164	549,294	701,038					
Current Liabilities	416,169	519,335	992,586	982,912	921,632					
NWC	635,065	107,688	(294,422)	(433,618)	(220,594)	(444,386)	(488,824)	(513,265)	(538,929)	(565,875)
% of Revenue	30%	4%	-12%	-16%	-8%	-12%	-12%	-12%	-12%	-12%
Change in NWC		(527,377)	(402,110)	(139,196)	(81,398)	(223,792)	(44,439)	(24,441)	(25,663)	(26,946)

(in thousands)	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Net revenues	$ 2,134,871	$ 2,440,174	$ 2,505,653	$ 2,647,437	$ 2,848,626	$ 3,703,214	$ 4,073,535	$ 4,277,212	$ 4,491,073	$ 4,715,626
COGS	1,455,084	1,600,876	1,520,076	1,552,426	1,523,095					
Gross Profit	679,787	839,298	985,577	1,095,011	1,325,531	$ 1,777,543	$ 1,955,297	$ 1,924,745	$ 1,976,072	$ 1,980,563
SG&A	626,751	722,183	723,841	732,180	858,673					
EBIT	53,036	117,115	261,736	362,831	466,858	$ 925,803	$ 1,018,384	$ 983,759	$ 988,036	$ 943,125
Interest expense-net	44,482	56,002	67,769	87,177	69,250					
Goodwill and tradename impairm	-	33,700	32,086	-	20,459					
(Gain) loss on extinguishment of d	-	4,880	917	6,472	(152)					
Total other expenses	44,482	94,582	100,772	93,649	89,557					
Pre-Tax Income	8,554	22,533	160,964	269,182	377,301					
Taxes	3,153	25,132	25,233	48,807	104,598					
Income (loss) before equity metho	5,401	(2,599)	135,731	220,375	272,703					
Share of equity method investmen	-	-	-	-	(888)					
Net Income	$ 5,401	$ (2,599)	$ 135,731	$ 220,375	$ 271,815	$ 666,578	$ 733,236	$ 684,354	$ 628,750	$ 565,875
EBITDA	$ 110,031	$ 161,711	$ 320,105	$ 457,098	$ 545,703	$ 1,073,932	$ 1,181,325	$ 1,154,847	$ 1,167,679	$ 1,131,750
Other Financial and Operating Data:										
Adjusted net income (2)	$ 51,789	$ 103,822	$ 204,318	$ 276,297	$ 462,904					
Adjusted EBITDA (3)	$ 186,225	$ 269,509	$ 400,067	$ 495,418	$ 745,648					
CapEx	$ 170,031	$ 68,393	$ 79,992	$ 93,623	$ 111,126					
Landlord assets under constructio	-	81,065	59,001	64,300	69,508					
Adjusted capital expenditures (4)	$ 170,031	$ 149,458	$ 138,993	$ 157,923	$ 180,634					

DCF

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
EBIT	117,115	261,736	362,831	466,858	925,803	1,018,384	983,759	988,036	943,125
*(1-Tax Rate)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
NOPAT	**92,521**	**206,771**	**299,698**	**367,417**	**740,643**	**814,707**	**787,007**	**790,429**	**754,500**
(+) D&A	83,176	91,372	100,739	100,040	148,129	162,941	171,088	179,643	188,625
(-) Adjusted Capex	149,458	138,993	157,923	180,634	296,257	244,412	256,633	269,464	282,938
(-) Delta in NWC	(527,377)	(402,110)	(139,196)	(81,398)	(223,792)	(44,439)	(24,441)	(25,663)	(26,946)
Unlevered FCF	**553,616**	**561,260**	**381,710**	**368,221**	**816,306**	**777,675**	**725,904**	**726,271**	**687,134**
Discount Factor					1.08	1.17	1.26	1.36	1.47
PV of FCF					755,839	666,731	576,246	533,831	467,652

WACC	
ERP	3.28%
Beta	2.28
Risk-Free Rate	1.4%
COE	8.91%
Weight	22.2%
CoD	5.74%
Weight	77.8%
Tax Rate	21%
WACC Calculated	5.51%
WACC Used	8.00%

Perpetuity Growth	
Growth Rate	2.0%
TV	11,681,280
NPV of TV	7,950,083
NPV of FCF	3,000,298
Cash	100,446
Debt	1,622,169
Equity Value	9,428,657.76
DSO (in thousands)	20,401
Target Price	$ 462.17
Current Price	$ 351.96
ROI	31%

Exit Multiple	
EBITDA Multiple	11.00x
TV	12,449,253
NPV Of TV	8,472,752
NPV of FCF	3,000,298
Cash	100,446
Debt	1,622,169
Equity Value	9,951,327.56
DSO	20,401
Target Price	$ 487.79
Current Price	$ 351.96
ROI	39%

		Perpetuity Growth				
		1.0%	1.5%	2.0%	2.5%	3.0%
WACC	7.0%	37%	48%	61%	77%	97%
	7.5%	25%	34%	45%	58%	74%
	8.0%	15%	22%	31%	42%	55%
	8.5%	6%	12%	20%	29%	39%
	10.0%	-15%	-11%	-6%	0%	6%

		EBITDA Multiple				
		9.0x	10.0x	11.0x	12.0x	13.0x
WACC	7.0%	23%	34%	45%	57%	68%
	7.5%	20%	31%	42%	53%	64%
	8.0%	17%	28%	39%	49%	60%
	8.5%	14%	25%	35%	46%	56%
	10.0%	7%	16%	26%	36%	46%

Discounted Cash Flow - Bull Case (66% Upside)

Revenue Build

Revenue Build	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Number of Stores										
Total Galleries	84	84	71	68	68					
Waterworks Showrooms	15	15	15	15	14					
Total retail locations	99	99	86	83	82					
Outlet Stores	28	32	39	38	38					
Total Stores	127	131	125	121	120	123	126	126	127	128
US and Canada	*127*	*131*	*125*	*121*	*120*	*122*	*123*	*122*	*122*	*122*
Europe	-	-	-	-	-	*1*	*3*	*4*	*5*	*6*
Revenue Per Store	$ 16,810.01	$ 18,627.28	$ 20,045.22	$ 21,879.64	$ 23,738.55	$ 31,265.41	$ 34,183.51	$ 36,234.52	$ 38,106.16	$ 40,076.97
YoY Growth		11%	8%	9%	8%	32%	9%	6%	5%	5%
Revenue YoY Growth		14%	3%	6%	8%	35%	12%	6%	6%	6%
Loop Capital						32%	11%			
William Blair						33%	11%			
Canalyst						33%	7%	7%	7%	7%

Operating Build

YoY Growth	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Gross Profit		23%	17%	11%	21%	42%	12%	2%	1%	4%
EBITDA		47%	98%	43%	19%	118%	12%	-1%	2%	-2%
EBIT		121%	123%	39%	29%	114%	12%	-2%	2%	-3%
Net Income		-148%	5322%	62%	23%	183%	12%	-5%	-6%	-7%
Margins	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
Gross Profit	32%	34%	39%	41%	47%	49%	49%	47%	45%	44%
Loop Capital						48%	48%			
William Blair						49%	49%			
Canalyst						51%	51%	51%	51%	52%
EBIT	2%	5%	10%	14%	16%	26%	26%	24%	23%	21%
Loop Capital						24%	25%			
William Blair						26%	26%			
EBITDA	5%	7%	13%	17%	19%	31%	31%	29%	28%	26%
Adjusted EBITDA	9%	11%	16%	19%	26%					
Barclays						28%	29%	30%		
Net Income	0%	0%	5%	8%	10%	20%	20%	18%	16%	14%
Loop Capital						19%	18%			
William Blair						20%	19%			
D&A	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
as % of Revenue		2%	2%	4%	3%	5%	5%	5%	5%	5%
CapEx	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
as % of Revenue	8%	3%	3%	4%	4%	9%	7%	7%	7%	7%
Wedbush						7%	4%	4%		
Delta in NWC	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
Current Assets (ex cash)	1,051,234	627,023	698,164	549,294	701,038					
Current Liabilities	416,169	519,335	992,586	982,912	921,632					
NWC	635,065	107,688	(294,422)	(433,618)	(220,594)	(538,390)	(602,997)	(639,177)	(677,528)	(718,179)
% of Revenue	30%	4%	-12%	-16%	-8%	-14%	-14%	-14%	-14%	-14%
Change in NWC		(527,377)	(402,110)	(139,196)	(81,398)	(317,796)	(64,607)	(36,180)	(38,351)	(40,652)

(in thousands)	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Net revenues	$ 2,134,871	$ 2,440,174	$ 2,505,653	$ 2,647,437	$ 2,848,626	$ 3,845,645	$ 4,307,123	$ 4,565,550	$ 4,839,483	$ 5,129,852
COGS	1,455,084	1,600,876	1,520,076	1,552,426	1,523,095					
Gross Profit	679,787	839,298	985,577	1,095,011	1,325,531	$ 1,884,366	$ 2,110,490	$ 2,145,808	$ 2,177,767	$ 2,257,135
SG&A	626,751	722,183	723,841	732,180	858,673					
EBIT	53,036	117,115	261,736	362,831	466,858	$ 999,868	$ 1,119,852	$ 1,095,732	$ 1,113,081	$ 1,077,269
Interest expense-net	44,482	56,002	67,769	87,177	69,250					
Goodwill and tradename impairm	-	33,700	32,086	-	20,459					
(Gain) loss on extinguishment of d	-	4,880	917	6,472	(152)					
Total other expenses	44,482	94,582	100,772	93,649	89,557					
Pre-Tax Income	8,554	22,533	160,964	269,182	377,301					
Taxes	3,153	25,132	25,233	48,807	104,598					
Income (loss) before equity metho	5,401	(2,599)	135,731	220,375	272,703					
Share of equity method investmen	-	-	-	-	(888)					
Net Income	$ 5,401	$ (2,599)	$ 135,731	$ 220,375	$ 271,815	$ 769,129	$ 861,425	$ 821,799	$ 774,317	$ 718,179
EBITDA	$ 110,031	$ 161,711	$ 320,105	$ 457,098	$ 545,703	$ 1,192,150	$ 1,335,208	$ 1,324,009	$ 1,355,055	$ 1,333,761
Other Financial and Operating Data:										
Adjusted net income (2)	$ 51,789	$ 103,822	$ 204,318	$ 276,297	$ 462,904					
Adjusted EBITDA (3)	$ 186,225	$ 269,509	$ 400,067	$ 495,418	$ 745,648					
CapEx	$ 170,031	$ 68,393	$ 79,992	$ 93,623	$ 111,126					
Landlord assets under constructio	-	81,065	59,001	64,300	69,508					
Adjusted capital expenditures (4)	$ 170,031	$ 149,458	$ 138,993	$ 157,923	$ 180,634					

DCF

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
EBIT	117,115	261,736	362,831	466,858	999,868	1,119,852	1,095,732	1,113,081	1,077,269
*(1-Tax Rate)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
NOPAT	**92,521**	**206,771**	**299,698**	**367,417**	**799,894**	**895,881**	**876,586**	**890,465**	**861,815**
(+) D&A	83,176	91,372	100,739	100,040	192,282	215,356	228,277	241,974	256,493
(-) Adjusted Capex	149,458	138,993	157,923	180,634	346,108	301,499	319,588	338,764	359,090
(-) Delta in NWC	(527,377)	(402,110)	(139,196)	(81,398)	(317,796)	(64,607)	(36,180)	(38,351)	(40,652)
Unlevered FCF	**553,616**	**561,260**	**381,710**	**368,221**	**963,865**	**874,346**	**821,454**	**832,026**	**799,870**
Discount Factor					1.08	1.17	1.26	1.36	1.47
PV of FCF					892,467	749,611	652,097	611,564	544,378

WACC	
ERP	3.28%
Beta	2.28
Risk-Free Rate	1.4%
COE	8.91%
Weight	22.2%
CoD	5.74%
Weight	77.8%
Tax Rate	21%
WACC Calculated	5.51%
WACC Used	8.00%

Perpetuity Growth	
Growth Rate	2.0%
TV	13,597,785
NPV of TV	9,254,424
NPV of FCF	3,450,117
Cash	100,446
Debt	1,622,169
Equity Value	11,182,817.88
DSO (in thousands)	20,401
Target Price	$ 548.15
Current Price	$ 351.96
ROI	56%

Exit Multiple	
EBITDA Multiple	11.00x
TV	14,671,376
NPV Of TV	9,985,092
NPV of FCF	3,450,117
Cash	100,446
Debt	1,622,169
Equity Value	11,913,485.79
DSO	20,401
Target Price	$ 583.97
Current Price	$ 351.96
ROI	66%

Discounted Cash Flow - Bear Case (4% Upside)

Revenue Build

Revenue Build	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Number of Stores										
Total Galleries	84	84	71	68	68					
Waterworks Showrooms	15	15	15	15	14					
Total retail locations	99	99	86	83	82					
Outlet Stores	28	32	39	38	38					
Total Stores	127	131	125	121	120	121	121	122	123	123
US and Canada	*127*	*131*	*125*	*121*	*120*	*120*	*120*	*120*	*120*	*120*
Europe	-	-	-	-		*1*	*1*	*2*	*3*	*3*
Revenue Per Store	$ 16,810.01	$ 18,627.28	$ 20,045.22	$ 21,879.64	$ 23,738.55	$ 28,250.84	$ 30,510.90	$ 31,168.64	$ 31,842.69	$ 32,797.97
YoY Growth		11%	8%	9%	8%	19%	8%	2%	2%	3%
Revenue YoY Growth		14%	3%	6%	8%	20%	8%	3%	3%	3%
Loop Capital						32%	11%			
William Blair						33%	11%			
Canalyst						33%	7%	7%	7%	7%

Operating Build

YoY Growth	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Gross Profit		23%	17%	11%	21%	19%	8%	-4%	3%	1%
EBITDA		47%	98%	43%	19%	63%	8%	-9%	7%	-6%
EBIT		121%	123%	39%	29%	68%	8%	-10%	8%	-7%
Net Income		-148%	5322%	62%	23%	101%	8%	-10%	-12%	-14%
Margins	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
Gross Profit	32%	34%	39%	41%	47%	46%	46%	43%	43%	42%
Loop Capital						48%	48%			
William Blair						49%	49%			
Canalyst						51%	51%	51%	51%	52%
EBIT	2%	5%	10%	14%	16%	23%	23%	20%	21%	19%
Loop Capital						24%	25%			
William Blair						26%	26%			
EBITDA	5%	7%	13%	17%	19%	26%	26%	23%	24%	22%
Adjusted EBITDA	9%	11%	16%	19%	26%					
Barclays						28%	29%	30%		
Net Income	0%	0%	5%	8%	10%	16%	16%	14%	12%	10%
Loop Capital						19%	18%			
William Blair						20%	19%			
D&A	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
as % of Revenue		2%	2%	4%	3%	3%	3%	3%	3%	3%
CapEx	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
as % of Revenue	8%	3%	3%	4%	4%	7%	5%	5%	5%	5%
Wedbush						7%	4%	4%		
Delta in NWC	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21E**	**FY22E**	**FY23E**	**FY24E**	**FY25E**
Current Assets (ex cash)	1,051,234	627,023	698,164	549,294	701,038					
Current Liabilities	416,169	519,335	992,586	982,912	921,632					
NWC	635,065	107,688	(294,422)	(433,618)	(220,594)	(341,835)	(369,182)	(380,257)	(391,665)	(403,415)
% of Revenue	30%	4%	-12%	-16%	-8%	-10%	-10%	-10%	-10%	-10%
Change in NWC		(527,377)	(402,110)	(139,196)	(81,398)	(121,241)	(27,347)	(11,075)	(11,408)	(11,750)

d

(in thousands)	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E	FY25E
Net revenues	$ 2,134,871	$ 2,440,174	$ 2,505,653	$ 2,647,437	$ 2,848,626	$ 3,418,351	$ 3,691,819	$ 3,802,574	$ 3,916,651	$ 4,034,151
COGS	1,455,084	1,600,876	1,520,076	1,552,426	1,523,095					
Gross Profit	679,787	839,298	985,577	1,095,011	1,325,531	$ 1,572,442	$ 1,698,237	$ 1,635,107	$ 1,684,160	$ 1,694,343
SG&A	626,751	722,183	723,841	732,180	858,673					
EBIT	53,036	117,115	261,736	362,831	466,858	$ 786,221	$ 849,118	$ 760,515	$ 822,497	$ 766,489
Interest expense-net	44,482	56,002	67,769	87,177	69,250					
Goodwill and tradename impairm	-	33,700	32,086	-	20,459					
(Gain) loss on extinguishment of d	-	4,880	917	6,472	(152)					
Total other expenses	44,482	94,582	100,772	93,649	89,557					
Pre-Tax Income	8,554	22,533	160,964	269,182	377,301					
Taxes	3,153	25,132	25,233	48,807	104,598					
Income (loss) before equity metho	5,401	(2,599)	135,731	220,375	272,703					
Share of equity method investmen	-	-	-	-	(888)					
Net Income	$ 5,401	$ (2,599)	$ 135,731	$ 220,375	$ 271,815	$ 546,936	$ 590,691	$ 532,360	$ 469,998	$ 403,415
EBITDA	$ 110,031	$ 161,711	$ 320,105	$ 457,098	$ 545,703	$ 888,771	$ 959,873	$ 874,592	$ 939,996	$ 887,513
Other Financial and Operating Data:										
Adjusted net income (2)	$ 51,789	$ 103,822	$ 204,318	$ 276,297	$ 462,904					
Adjusted EBITDA (3)	$ 186,225	$ 269,509	$ 400,067	$ 495,418	$ 745,648					
CapEx	$ 170,031	$ 68,393	$ 79,992	$ 93,623	$ 111,126					
Landlord assets under constructio	-	81,065	59,001	64,300	69,508					
Adjusted capital expenditures (4)	$ 170,031	$ 149,458	$ 138,993	$ 157,923	$ 180,634					

DCF

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
EBIT	117,115	261,736	362,831	466,858	786,221	849,118	760,515	822,497	766,489
*(1-Tax Rate)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
NOPAT	**92,521**	**206,771**	**299,698**	**367,417**	**628,977**	**679,295**	**608,412**	**657,997**	**613,191**
(+) D&A	83,176	91,372	100,739	100,040	102,551	110,755	114,077	117,500	121,025
(-) Adjusted Capex	149,458	138,993	157,923	180,634	239,285	184,591	190,129	195,833	201,708
(-) Delta in NWC	(527,377)	(402,110)	(139,196)	(81,398)	(121,241)	(27,347)	(11,075)	(11,408)	(11,750)
Unlevered FCF	**553,616**	**561,260**	**381,710**	**368,221**	**613,484**	**632,805**	**543,436**	**591,072**	**544,258**
Discount Factor					1.08	1.17	1.26	1.36	1.47
PV of FCF					568,040	542,528	431,397	434,456	370,413

WACC	
ERP	3.28%
Beta	2.28
Risk-Free Rate	1.4%
COE	8.91%
Weight	22.2%
CoD	5.74%
Weight	77.8%
Tax Rate	21%
WACC Calculated	5.51%
WACC Used	8.00%

Perpetuity Growth	
Growth Rate	2.0%
TV	9,252,383
NPV of TV	6,297,017
NPV of FCF	2,346,834
Cash	100,446
Debt	1,622,169
Equity Value	7,122,127.66
DSO (in thousands)	20,401
Target Price	$ 349.11
Current Price	$ 351.96
ROI	-1%

Exit Multiple	
EBITDA Multiple	11.00x
TV	9,762,645
NPV Of TV	6,644,292
NPV of FCF	2,346,834
Cash	100,446
Debt	1,622,169
Equity Value	7,469,402.93
DSO	20,401
Target Price	$ 366.13
Current Price	$ 351.96
ROI	4%

		Perpetuity Growth				
		1.0%	1.5%	2.0%	2.5%	3.0%
WACC	7.0%	3%	12%	23%	35%	52%
	7.5%	-6%	1%	10%	20%	33%
	8.0%	-14%	-8%	-1%	8%	18%
	8.5%	-21%	-16%	-10%	-3%	5%
	10.0%	-37%	-34%	-30%	-26%	-21%

		EBITDA Multiple				
		9.0x	10.0x	11.0x	12.0x	13.0x
WACC	7.0%	-8%	0%	9%	18%	27%
	7.5%	-11%	-2%	7%	15%	24%
	8.0%	-13%	-4%	4%	12%	21%
	8.5%	-15%	-7%	1%	10%	18%
	10.0%	-21%	-13%	-6%	2%	10%

Public Comps

						Dividend	P/E			EV/EBIT			EBIT Margin (%)			Net Debt/	2023
Ticker	Company	Price	Shares	Market Cap	Net Debt	Yield (%)	2022	2023	2024	2022	2023	2024	2022	2023	2024	EBITDA	ROIC
Furnishing Comps																	
FND	Floor & Decor Holdings, Inc.	$96.82	105.6	$10,223	1,072	0.0%	33.0x	24.9x	18.8x	24.9x	18.6x	13.0x	9.8%	10.8%	12.6%	2.3x	19%
WSM	Williams-Sonoma, Inc.	$142.58	73.0	$10,402	657	1.7%	9.5x	10.2x	10.1x	6.7x	6.8x	6.7x	17.0%	16.2%	15.2%	0.4x	41%
HNI	HNI Corporation	$40.36	43.6	$1,758	145	3.0%	14.5x	12.7x	NMF	10.8x	9.5x	NMF	6.6%	7.1%	NMF	0.8x	0%
KBAL	Kimball International, Inc.	$9.79	36.7	$360	30	3.7%	52.5x	11.1x	7.1x	32.9x	8.6x	5.9x	1.7%	5.8%	9.0%	1.8x	36%
ETD	Ethan Allen Interiors Inc.	$24.37	25.3	$616	25	4.1%	7.8x	8.3x	NMF	5.8x	6.2x	NMF	14.2%	13.4%	NMF	0.2x	0%
Median						3.0%	14.5x	11.1x	10.1x	10.8x	8.6x	6.7x	9.8%	10.8%	12.6%	0.8x	19%
Luxury Comps																	
ENXTPA:MC	LVMH Moët Hennessy - Louis Vuitton, Société	$790.75	503.8	$398,366	35,363	0.9%	29.3x	26.2x	28.2x	19.8x	17.7x	16.5x	25.9%	26.3%	27.3%	1.9x	37%
EL	The Estée Lauder Companies Inc.	$297.02	359.9	$106,912	3,992	0.7%	39.2x	34.5x	31.1x	29.0x	25.6x	23.0x	19.8%	20.5%	21.1%	1.0x	59%
RACE	Ferrari N.V.	$232.31	183.8	$42,688	1,523	0.4%	41.8x	36.5x	31.5x	33.0x	28.3x	23.1x	25.3%	26.4%	28.0%	1.0x	36%
ENXTPA:RMS	Hermès International Société en commandite p	$1,547.01	104.6	$161,885	(4,359)	0.2%	55.9x	50.2x	53.4x	36.4x	32.0x	31.2x	36.8%	37.5%	37.5%	-1.0x	84%
XTRA:BOSS	Hugo Boss AG	$59.82	69.0	$4,128	985	0.1%	20.7x	16.7x	14.3x	15.3x	12.7x	10.0x	9.3%	10.2%	11.1%	4.4x	22%
LSE:BRBY	Burberry Group plc	$26.11	398.9	$10,414	307	2.1%	21.0x	18.9x	17.6x	13.3x	11.8x	10.5x	18.1%	18.5%	19.2%	0.3x	37%
ENXTPA:OR	L'Oréal S.A.	$425.88	557.7	$237,503	(2,813)	0.9%	38.5x	35.5x	33.0x	29.2x	26.6x	24.8x	19.6%	20.0%	20.2%	-0.3x	>100%
ENXTPA:CDI	Christian Dior SE	$778.04	180.4	$140,367	35,210	0.9%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	1.9x	0%
ENXTPA:KER	Kering SA	$758.53	123.7	$93,864	5,958	1.2%	22.1x	19.6x	21.9x	15.6x	13.7x	12.9x	29.1%	30.2%	29.8%	1.0x	58%
Median						0.9%	33.9x	30.3x	29.6x	24.4x	21.7x	19.8x	22.5%	23.4%	24.2%	1.0x	37%
RH	RH	$351.96	21.5	$7,556	1,330	0.0%	9.8x	9.8x	9.0x	7.6x	6.7x	5.3x	25.5%	25.6%	26.3%	1.3x	41%

Legacy vs Design Gallery Unit Economics

Figure 25: Legacy vs. New Large Format Gallery Deal Economics

	Legacy Gallery	Large Format Gallery
Net Sales	12,500	$31,050
Leased selling sq feet	7500	45500
Exterior selling sq feet	0	10500
Total selling sq feet	7500	56000
Occupancy	$1,308	$1,975
% of sales	10.5%	6.4%
Occupancy/selling sq feet	$174.40	$35
Cash Contribution	2,942	$8,700
% of sales	23.5%	28.0%
JPMe Merch Margin	50%	50%
JPMe S&G Expense Rate	16.0%	15.6%
Total Capex		$19,500
Landlord Contribution		($15,000)
Inventory Investment		$1,000
Net RH Investment		$5,500
Payback period (years)		0.6

Source: Company reports and JPMe based on the deal economics shared during the Denver Gallery opening in 2015

Barnes & Noble Education Inc. (NYSE: BNED)

Underfollowed B2B2C with hidden subscription business undergoing industry restructuring

Alice Yu
Analyst
Alice.L.Yu@stern.nyu.edu

Karen Phua
Junior Analyst
Karen.Phua@stern.nyu.edu

Price Target: $7.24 (77.47% upside)

March 30th, 2022

Business Description:

Barnes & Noble Education, Inc. ("BNED") is one of the largest contract operators of physical and virtual bookstores for college and university campuses and K-12 institutions across the United States. Originally spun-off from Barnes and Noble Inc. ("BKS") in 2015, it operates as a provider of textbook wholesale and inventory management hardware/software and digital education solutions. BNED operates 1,417 physical, virtual, and custom bookstores and serves more than 6M students, delivering educational content and tools via an omni-channel retail environment. Additionally, BNED also offers direct-to-student products and services to help students improve academic performance. BNED has 770 brick-and-mortar stores and 650 virtual ones. Contracts are exclusive 5-year agreements with a 90%+ renewal rate and an average relationship tenure of 15 years. Contract terms for bookstore management vary by university, with BNED's commission typically calculated on a guaranteed amount basis or percentage of gross sales (Figure 10).

Business Segments:

- **Retail**: Offers new and used print and digital textbooks for sale or rent, course material for students on textbooks.com (ecommerce site for new/used textbooks), and operates approximately 1,420 college, university, and K-12 bookstores. Also offers the First Day Complete inclusive access program, offering students content at a reduced price.
- **Wholesale**: Sells and distributes new/used textbooks to approximately 3,300 physical bookstores and sells hardware and software applications that provide POS and inventory management solutions. Also serves as national distributor for McGraw-Hill and Pearson rental textbooks.
- **DSS** (Digital Student Solution): Direct-to-student online offerings to assist students to study more effectively and improve academic performance, such as via homework help, writing services, and 24/7 online tutors.

Industry Overview:

- **Publishing Oligopoly:** Fifteen years ago, the publishing industry was an attractive business operating in a captive market with high price points, sticky customers, and high barriers to entry due to brand name authors and decades of content build up. Eighty percent of the market had been dominated by publishers such as Wiley, Oxford, McGraw Hill, Cengage, and Pearson.
- **Erosion of Pricing Pressure**: However, the textbook publishing industry's pricing power fell apart due to the rise of secondary markets (Amazon) and the proliferation of digital options. Consequently, publishers experimented with several pricing structures/access strategies to re-seize market share from the resale and rental market, many of which backfired. These techniques include making particular textbooks rental-only to avoid secondary market overflow, active repurchase of used textbooks, and the implementation of unique access codes that obliged students to buy textbooks in order to access supplemental online textbooks and quizzes.
- **Industry Stabilization:** In more recent years, the situation began to stabilize. The industry had arrived at a solution known as "inclusive access model" that offers value to all stakeholders, including the school, students, publishers, and bookstore distributors. Under BNED, this solution is known as **"First Day Complete" (FDC).**
    - o Under First Day Complete, physical and digital course materials are offered at a reduced price through course fees or included in tuition

Key Ratios and Statistics:

Recommendation	**Buy/Long**
Price Target	$7.24
Implied Return	77.47%
Share Price (3/25/2022)	$4.08
Market Cap	$212.4 M
52-Week Low	$3.54
52-Week High	$12.01

Figure 1 – BNED 52-Week Stock Performance

Figure 2 – BNED Operating Structure

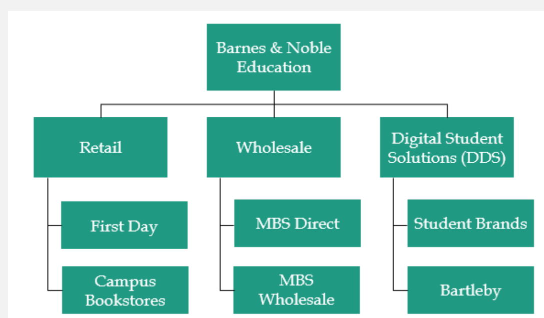
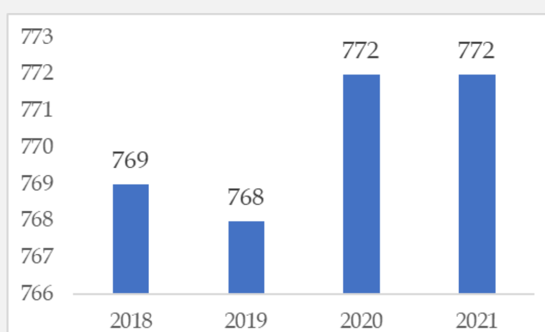


Figure 3 – Total Physical Stores (BoP)



(e.g. a flat rate based on credit hour) and delivered to students before the first day of class. Negotiated between BNED and publishers, students are able to receive course materials at a steep discount. As universities typically auto-enroll students into this plan, the "inclusive-access" model drives lower inventory, larger adoption rates, and higher unit sell-through compared to traditional bookstores, all while appeasing university administrators and students given increased affordability and convenience.

- **Demand for Outsourcing:** Given the financial pressures from COVID, state and federal budget cuts, declines in endowment donations, and downward pressure on tuition prices, many campus bookstores are looking to outsource their services to bookstore operators such as BNED. Approximately 30% of university-affiliated bookstores in the U.S. are self-operated, which presents BNED a further runway for growth. BNED also offers a distinctive POS system that breaks down the intricacies of determining textbook pricing with financial aid and student tuition, a significant hurdle for local bookstore operators to overcome.
- **Duopoly Market:** BNED currently operates in a duopoly market, with its only real competitor in this market being Follett. Over the past ten years, the market has significantly consolidated from over half a dozen players down to the two names. Other competitors in the market only operate in the online space with either course materials or spirit wear. BNED and Follett are the only that can do both well, overseeing both brick-and-mortar and online retail stores. They are the only one-stop shops capable of offering universities strategic solutions that meet student needs, whether they be for hard copy, used, rental, or digital learning materials purchased through online or in physical stores, with or without financial aid.

Investment Thesis:

- **Adoption of First Day Complete to drive earnings growth and reverse historically declining textbook sales:** We believe that the market has yet to price in BNED's earnings potential as the industry adopts the inclusive-access model. Adopting the FDC model results in a 80% sell-through rate (compared to 35% pre-adoption), ~2.6x addition to total sales, 90-95% retention rate, and a $300 per student revenue increase. Considering that BNED currently serves 6M+ students and faculty members, this represents a $1.8B+ opportunity for potential incremental sales. BNED is well-positioned to do so given its sticky, exclusive relationships with academic institutions. Contracts with universities are negotiated on a 5-year average contract life, 15 years of average relationship tenure, and ~90% renewal rate. As the industry moves to adopt the inclusive-access model, publishers rely on bookstores such as BNED as their primary distribution channel. It is very difficult for universities to adopt inclusive-access models with select publishers due to faculty demand for a diverse range of publishers and ease of administrative processes. Tenured relationships go beyond course materials and extend into merchandise. Additional integrations such as AIP (enable seamless courseware selection) and university systems (tuition and financial aid infrastructure tied to bookstore operators) make the relationship sticky. College bookstores are oftentimes the only place that students could use their financial aid / federal student loans to purchase course materials, with 86% of college students being on some form of aid. Here, BNED works as an aggregator of publications, owning the school's relationships. Additionally, although the rise of digital materials have contributed to margin erosion in the publishing space, we believe that trend towards digital options could benefit BNED's roll-out of FDC. While net gross profit per dollar per textbook is similar between physical and digital textbooks, digital textbooks face a much more favorable commission rate of 6-8% while the rate of physical textbooks is 12-16%. Higher sell-through of digital textbooks via the FDC model, therefore, would

Figure 4 – Physical Stores Opened / Closed

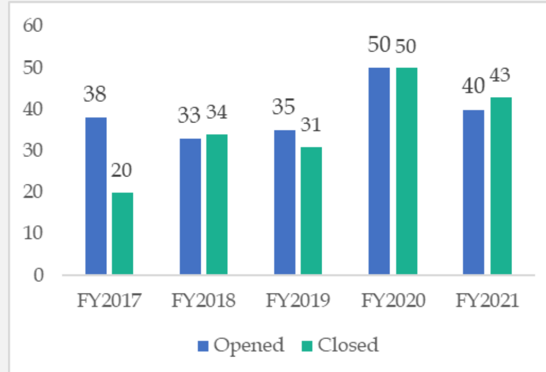


Figure 5 – Virtual Stores Opened / Closed

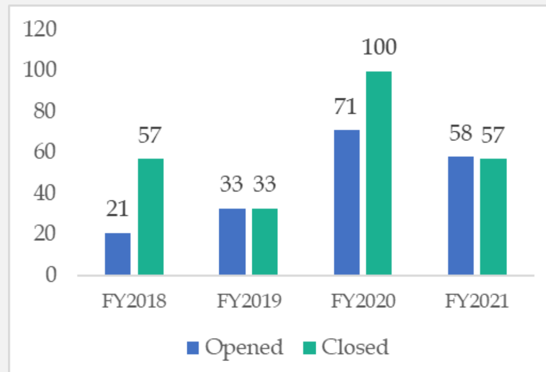


Figure 6 – Preferred Source of Course Materials

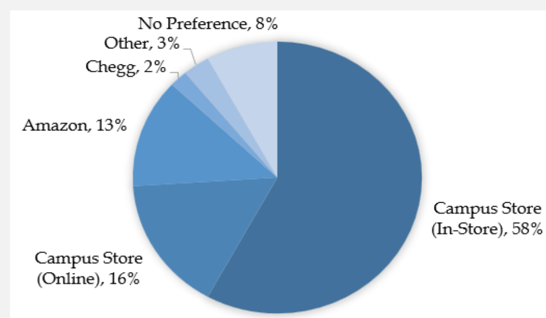
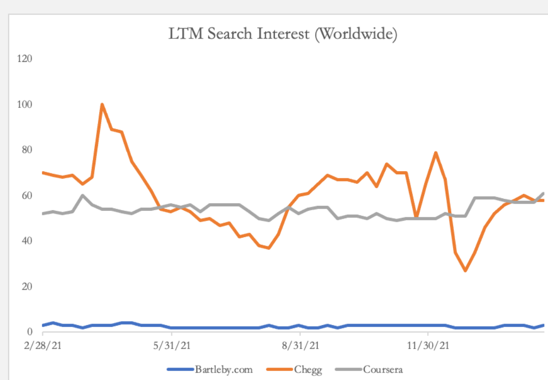


Figure 7 – bartleby.com LTM Search Interest



drive both sales and profitability. Given that BNED has only penetrated 5% of its market, we believe that there is still a long-term runway for growth.

- **Growth potential in high-margin, underfollowed subscription business:** Under DDS, BNED operates a number of digital brands that offer online educational services including 123Helpme.com, PaperRater.com, and the most popular option, bartleby.com. Launched in 2018, bartleby.com is a direct-to-student subscription-based offering providing textbook solutions, expert questions and answers, writing and tutoring support. Bartleby's solutions consist of Bartleby Learn (which has over two million textbook solutions, over three million Q&A solutions, and student guides), Bartleby Write (provider of revision, plagiarism, citation, and scoring tools), and Bartleby Tutor (expert tutors available for 24/7 support). Bartleby subscribers grew at a CAGR of 44% from 2018 to 2021. Bartleby.com is essentially BNED's answer to Chegg, a competing provider of textbook rentals, textbook solutions, and online tutoring. Priced at $9.99/month for all services (v. $14.99/month with Chegg), Bartleby had been a heavy target of CapEx investment. If BNED can penetrate 10% of its current market of 6M students with an average duration of ~6 months, this would yield $36M of high-margin subscription revenue. During 2021, 300,000+ new subscribers paid for Bartleby products, achieving a 70% YoY growth over FY2020, which represents a small percentage of the TAM opportunity. Q3'21 alone yielded 97k+ subscriber additions. Well-established relations with college partners and an on-campus presence provides Bartleby with a competitive advantage as new services are rolled out. Whereas Chegg utilizes book rentals as a customer acquisition strategy for their subscription service, Bartleby has the ability to scale through Barnes & Noble's retail success and on-campus presence. BNED also understands which course materials are most widely adopted by faculty and used by students, further providing targeted textbook solutions. Bartleby adoption is underway, with its recent revenue growing 36% YoY and consistent addition of new subscribers every quarter. Notably, BNED announced its first bundled FDC and Bartleby customer the most recent quarter, highlighting its creation of long-term relationships with campus administrators to curate student success solutions. Moreover, the platform recently added Bartleby Plus, which combines Bartleby Learn and Bartleby Write. BNED rolled out Bartleby Plus to 55 campus stores in a limited test and expects to hone in on further physical store expansion while also utilizing search engine optimization (SEO) tools. Accelerating the scaling of Bartleby's offerings and continued bundling of FDC and Bartleby could also lead to digital study tool market share gains over time.

Recent Events:

- **Growing interest in takeover / acquisitions:** Throughout the past year, the publishing industry had been facing increasing takeover interest. Pearson had been approached by Apollo for a $8.5B takeover proposal after Apollo sold McGraw Hill to another PE firm. Follett had sold its digital solutions segment to Francisco Partners (technology PE Firm) and had been acquired by Jefferson River Capital, a single-family office of Tony James.
    - **Proposals rejected:** In 2019, Bay Capital Finance offered to take over BNED for $4.50/share in cash. A few other proposals were offered between $5.25-$5.75/share in cash and $6.75- $7.25/share in cash, implying a 65-80% premium compared to its current price. BNED rejected all of such offers.
- **Aggressive insider buying:** Levenick Zachary, private investor and a member of BNED's Board of Directors had been buying in BNED shares since he first joined BNED's board on October 22nd, 2020. Currently, 27.6% of BNED shares are insider-owned.

Figure 8 – Pre / Post-FDC Adoption Economics

Pre FDC / Traditional Model		
Student Enrollment		10,000
Required Books/yr		8
Potential Textbook Units		80,000
Sell-Through		***35%***
Units Sold		28,000
Avg. Selling Price	$	64
Total Sales	$	1,792,000

Post FDC Adoption		
Student Enrollment		10,000
# Credit Hrs Avg/yr		24
Potential Billable Credit Hrs/yr		240,000
Sell-Through		***80%***
Billable Credit Hours		192,000
Avg. FDC per credit price	$	25
Total Sales	$	4,800,000

Figure 9 – Approximate Gross Bartleby Subscribers

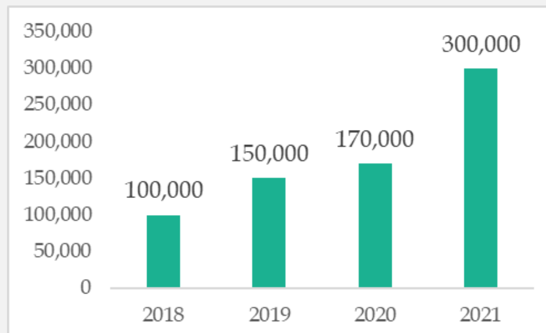


Figure 10 – Contract Structure Examples

(A) Guaranteed Amount **or** **(B)** Calculated Commission.

A. Guaranteed Amount:

Contract Year 1: $675,000

Barnes & Noble will provide a Guaranteed Amount in all future years of this Agreement that will be an amount equal to ninety percent (90%) of the Calculated Commission of the immediately preceding year.

B. Calculated Commission:

Gross Sales excluding Digital Course Materials
12% of all gross sales up to **$6,000,000**
13% of all gross sales from **$6,000,000** to **$8,000,000**
14% of all gross sales over **$8,000,000**

New textbooks will be sold at no greater than (i) the publisher's list price or (ii) a 25% gross margin on net priced books, inclusive of restocking fees, return penalties and freight surcharges. Net priced books are defined as books purchased from publishers that do not have a publisher's suggested list price or when the publisher's discount to the bookstore is less than 20%.

Used textbooks will be sold at 25% less than the new selling price.

a) Course packs and textbooks purchased from publishers with restrictive or non-returnable text policies will be priced at up to a 30% gross margin.

b) School supplies will be priced at or below manufacturers' suggested retail prices.

Annual Guarantee
The guaranteed commission payment will be equal to the prior year's actual commission or $1,500,000, whichever is greater. The annual minimum guarantee will increase to $1,700,000 upon the completion of the West Campus Bookstore.

Percentage of Gross Sales

12% on gross sales up to and including $11,000,000
13% on gross sales between $11,000,001 and including $17,000,000
14% on gross sales over $17,000,000

In any contract period that is less than a complete year, the payments shall be based on the percentage of gross sales at the Bookstore.

(Gross sales shall be defined as all collected sales at the Bookstore less voids, refunds, sales tax, discounted departmental sales, discounted faculty/staff sales, pass-through income, or other merchandise mutually designated as non-commissionable, etc.)

If annual gross sales of the Bookstore shall materially decline as a result of declining enrollment (i.e. decrease 5% or more), online textbook sales, or other reasons outside of the control of Barnes & Noble, Texas A&M University agrees to negotiate in good faith with Barnes & Noble an appropriate reduction in the payments set forth above.

Risks:

- **Potential consolidation between publishers:** Publishers have their own programs for inclusive access (including Pearson, McGraw Hill, and Cengage), however, entire universities rarely adopt books from a single publisher. Universities rely on their own bookstore system to collect and distribute textbooks from a multitude of publishers. BNED's distribution process and the FDC solution allows administrators to streamline/simplify the process of satisfying faculty demand for books from a diverse range of publishers. Consolidation between multiple publishers would disrupt BNED's competitive advantage and unique distributive positioning if they were to publish a joint FDC offering. However, this is unlikely given recent antitrust rulings against a potential merger between McGraw Hill and Cengage (~50% share combined).
- **Decline in college enrollment rates:** By 2025, the generation that will enter college was born during the Great Recession, where we saw birth rate declines.
- **Growth in secondary market/content piracy:** The industry has been actively combating the rise of Amazon textbook rentals and piracy. Nevertheless, these two aspects of disintermediation have been plaguing the industry and will likely continue.
- **Failure to execute:** Management execution risks are involved with BNED's digital services. BNED launched Bartleby as their first internally developed product within DSS. BNED has a limited history in operating a fully digital platform, so the company may have difficulties fully integrating digitally. With FDC, management may fail to present solutions aligned with certain colleges' goals, leading to a lack of university adoption or a failure to win contracts. Regardless, the company's partnership with VitalSource, a leading provider of online course materials, and proven success in gradually adapting to the increasingly digital landscape provides security.

Figure 11 – BNED Recent Insider Activity

Date	Owner	Price	Units	Value
3/18/22	Golden David G	$3.98	28,172	$112,234
3/11/22	Levenick Zachary	$3.91	70,545	$275,590
1/11/22	Miller Michael Connoll	$6.57	-45,140	($296,570)
12/31/21	Levenick Zachary	$6.78	35,000	$237,400
12/27/21	Levenick Zachary	$6.70	67,500	$452,075
12/16/21	Miller Michael Connoll	$7.50	-4,000	($30,000)
12/15/21	Levenick Zachary	$6.87	20,000	$137,400
12/13/21	Levenick Zachary	$7.02	40,000	$280,995
12/9/21	Levenick Zachary	$7.48	30,000	$224,303
12/3/21	Levenick Zachary	$6.66	5,000	$33,300
12/2/21	Levenick Zachary	$6.90	85,000	$586,423
10/3/21	Levenick Zachary	$10.11	30,000	$303,189
9/17/21	Wilson David A	$11.04	-36,052	($398,057)
9/14/21	Levenick Zachary	$10.17	30,000	$305,209
9/13/21	Levenick Zachary	$10.17	30,000	$305,209
9/9/21	Levenick Zachary	$10.15	25,000	$253,700

Valuation:

Barnes and Noble Education	4.08																
NYSE: BNED	3/25/22		BNED														
USD mm	**FY2019A**	**FY2020A**	**FY2021A**	**FY2022E**	**FY2023E**	**FY2024E**	**FY2025E**	**FY2026E**	**Drivers**	**2019A**	**2020A**	**2021A**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**
Earnings Model																	
Segment Breakdown																	
Retail									% growth		-9.3%	-9.3%	10.1%	8.7%	8.4%	8.4%	8.4%
Product sales	1,693	1,533	1,196	1,333	1,453	1,580	1,718	1,868	% growth		-9.5%	-22.0%	11.4%	9.0%	8.7%	8.7%	8.7%
Rental Income	196	180	134	132	139	146	153	160	% growth		-8.2%	-25.4%	-1.6%	5.6%	4.7%	4.7%	4.7%
EBITDA	89	36	(67)	11	61	75	91	109	% sales	4.7%	2.11%	-5.0%	0.72%	3.85%	4.35%	4.85%	5.35%
Wholsale																	
Sales	223	198	166	112	79	55	39	27	% growth		-11.2%	-16.4%	-32.2%	-30.0%	-30.0%	-30.0%	-30.0%
EBITDA	35	22	19	13	11	8	5	4	% sales	15.68%	10.87%	11.22%	14.00%	14.00%	14.00%	14.00%	14.00%
DSS																	
Sales	21	24	27	35	50	68	84	99	% growth		10.9%	15.7%	29.2%	40.9%	36.8%	22.8%	17.9%
EBITDA	6	3	4	(0)	15	20	25	30	% sales	28.91%	14.41%	16.41%	30%	30%	30%	30%	30%
Other																	
Revenue Eliminations	(99)	(84)	(90)	(83)	(63)	(68)	(74)	(80)	% sales	-5.11%	-4.78%	-6.46%	-4.00%	-4.00%	-4.00%	-4.00%	-4.00%
Total Revenue	2,034.6	1,851.1	1,433.9	1,530.1	1,657.5	1,781.0	1,919.5	2,074.0	% growth		-9.0%	-22.5%	6.7%	8.3%	7.5%	7.8%	8.1%
EBITDA (Operations)	130.3	61.2	(43.7)	23.8	87.3	103.2	121.2	142.0	% sales	6.4%	3.3%	-3.1%	1.6%	5.3%	5.8%	6.3%	6.8%
EBITDA (Eliminations)	(17.4)	(16.5)	(36.8)	(22.5)	(19.0)	(20.4)	(22.1)	(23.9)	% Rev Elim	17.6%	19.7%	41.0%	27.2%	30.0%	30.0%	30.0%	30.0%
Total EBITDA	112.9	44.7	(80.5)	1.3	68.3	82.7	99.1	118.0									
Income Statement																	
Revenue	2,034.6	1,851.1	1,433.9	1,530.1	1,657.5	1,781.0	1,919.5	2,074.0	% growth		-9.0%	-22.5%	6.7%	8.3%	7.5%	7.8%	8.1%
EBITDA	112.9	44.7	(80.5)	1.3	68.3	82.7	99.1	118.0		5.5%	2.4%	-5.6%	0.1%	4.1%	4.6%	5.2%	5.7%
D&A	65.9	61.9	53.0	50.26	58.01	62.33	67.18	72.59		3.24%	3.34%	3.69%	3.28%	3.50%	3.50%	3.50%	3.50%
Other Adj.	9.0	6.6	5.1	6.5	6.63	7.12	7.68	8.30		0.4%	0.4%	0.4%	0.4%	0.40%	0.40%	0.40%	0.40%
EBIT	38.0	(23.8)	(138.6)	(55.5)	16.9	27.5	39.6	53.7		1.87%	-1.28%	-9.67%	-3.62%	1.02%	1.55%	2.06%	2.59%
Interest	9.8	7.4	8.1	10.3	8.0	8.0	8.0	8.0	% debt	7.3%	4.3%	4.6%	5.15%	4.00%	4.00%	4.00%	4.00%
Other Adj.	65.6	19.0	37.6	10.2	0.0	0.0	0.0	0.0									
EBT	(37.4)	(50.2)	(184.3)	(76.0)	8.9	19.5	31.6	45.7									
Tax	(13)	(12)	(52)	(4)	(2)	(4)	(7)	(10)	% EBT	34.89%	23.85%	28.48%	5%	21%	21%	21%	21%
NI	(24.4)	(38.2)	(131.8)	(79.9)	7.0	15.4	25.0	36.1	% sales	-1.20%	-2.07%	-9.19%	-5.22%	0.42%	0.87%	1.30%	1.74%

WC Schedule								
Cash and Equivalents	14	8	8	19	17	18	19	21
Receivables, net	98	91	121	129	91	88	89	97
Total inventories	467	470	310	331	431	464	473	511
Prepaid expenses and other current assets	12	16	62	66	33	36	38	41
Total Current Assets	591	585	501	545	572	605	620	670
Accounts payable	187	144	138	147	157	168	181	196
Accrued liabilities	122	95	93	151	149	160	173	187
Short-term borrowings	100	75	50	101	101	101	101	101
Total Current Liabilities	409	314	280	399	407	430	455	484
Net Working Capital	169	263	212	127	149	157	146	166
Delta		94	(50)	(85)	21	9	(11)	20
COGS	1,507	1,409	1,181	1,172	1,243	1,336	1,440	1,556
Debt	134	175	178	200	200	200	200	200
Valuation								
Sales	2,035	1,851	1,434	1,530	1,657	1,781	1,920	2,074
EBIT	38	(24)	(139)	(55)	17	28	40	54
NOPAT	25	(18)	(99)	(53)	13	22	31	42
D&A	66	62	53	50	58	62	67	73
Capital Expenditure	(46)	(36)	(37)	(43)	(33)	(45)	(48)	(52)
Increase in NWC		94	(50)	(85)	21	9	(11)	20
Unlevered FCF		(86)	(33)	39	17	31	62	43
PV of UFCF				36.00	14.26	23.61	43.61	27.93

Sum of PV of UFCF	$ 145.4
Terminal value	535
Perpetual Growth	1.00%
PV of terminal value	345.1
Enterprise value	**$ 490.5**
(-) Debt	178
(+) Cash	8
Market capitalization	321
Shares outstanding	52
Price target	$ 6.17
Upside %	51.13%

Weighted Average Cost of Capital	
Cost of Equity	
Risk free rate (10Y treasury)	1.88%
Levered beta	2.4
Equity risk premium (Damoradan)	4.90%
Cost of equity	13.64%
Share count (M)	52.05
Current price	$ 4.08
Market capitalization (M)	$ 212.36
Cost of debt	
Effective interest rate	4.7%
Effective tax rate	18%
After tax cost of debt	3.8%
Debt outstanding	178
Weight Average Cost of Capital	*9.17%*

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USD mm	FY2019A	FY2020A	FY2021A	FY2022E	FY2023E	FY2024E	FY2025E	FY2026E
Margin Analysis								
Retail Segment Breakdown								
Retail Sales								
Product sales	1,693	1,533	1,196	1,333	1,413	1,493	1,579	1,669
Rental Income	196	180	134	132	138	143	148	154
Total Sales	1,889	1,713	1,330	1,465	1,551	1,636	1,727	1,823
Product Sales								
% Product Sales Attributable to Legacy Courseware	*96.40%*	*92.41%*	*85.41%*	*74.43%*	*71.9%*	*70.5%*	*69.3%*	*68.3%*
% Product Sales Attributable to FDC	*3.60%*	*7.59%*	*14.59%*	*25.57%*	*28.07%*	*29.46%*	*30.66%*	*31.69%*
FDC Launch								
Number of FDC stores at beginning of period	-	12	16	45				
(+) # FDC stores converted	12	4	29	41				
Number of stores at end of period	12	16	45	86	87	88	88	89
% Served Campuses Converted	*0.8%*	*1.1%*	*3.2%*	*6.0%*	6.0%	6.0%	6.0%	6.0%
FDC Sales $ / # store	$ 5.08	$ 7.27	$ 3.88	$ 3.96	$ 5.00	$ 5.50	$ 6.00	$ 6.50
FDC Sales Realized (mm)	61	116	175	341	435	482	530	578
YoY growth %		*91%*	*50%*	*95%*	*28%*	*11%*	*10%*	*9%*
Retail Costs								
Product COGS	1,326	1,225	1,048	1,079	1,116	1,165	1,216	1,268
% Total COGS	*92.24%*	*92.12%*	*92.31%*	*93.66%*	*93.63%*	*93.67%*	*93.71%*	*93.75%*
% Sales	*78.29%*	*79.89%*	*87.57%*	*80.94%*	*79.00%*	*78.00%*	*77.00%*	*76.00%*
Rental COGS	112	105	87	73	75.9	78.7	81.6	84.6
% Total COGS	*7.76%*	*7.88%*	*7.69%*	*6.34%*	*6.37%*	*6.33%*	*6.29%*	*6.25%*
% Sales	*56.96%*	*58.27%*	*65.03%*	*55.32%*	*55.00%*	*55.00%*	*55.00%*	*55.00%*
Total COGS	1,437	1,330	1,135	1,152	1,191.8	1,243.5	1,297.3	1,353.1
Product Gross Profit %	*22%*	*20%*	*12%*	*19%*	*21%*	*22%*	*23%*	*24%*
Retal Gross Profit %	*43%*	*42%*	*35%*	*45%*	*45%*	*45%*	*45%*	*45%*
Product S&A	*335*	*320*	*257*	278	283	299	316	334
% sales	*19.8%*	*20.9%*	*21.5%*	*20.9%*	*20.00%*	*20.00%*	*20.00%*	*20.00%*
Rental S&A	*28*	*27*	*21*	18	19	20	21	22
% sales	*14.4%*	*15.2%*	*15.9%*	*13.9%*	*14.00%*	*14.00%*	*14.00%*	*14.00%*
Retail S&A	363	348	278	297	302	319	337	355
Product D&A	46	42	36	33.5	40	42	44	47
% sales	*2.74%*	*2.75%*	*2.98%*	*2.51%*	*2.80%*	*2.80%*	*2.80%*	*2.80%*
Rental D&A	5	5	4	3.5	4	4	4	4
% sales	*2.74%*	*2.75%*	*2.98%*	*2.67%*	*2.70%*	*2.70%*	*2.70%*	*2.70%*
Retail D&A	52	47	40	37.0	40	42	44	47
Product EBIT	33	-12	-108	-24	14	30	47	67
Rental EBIT	56	48	26	41	43	44	46	48
Product EBITDA	79	30	(72)	9	54	72	92	113
Rental EBITDA	61	53	30	44	46	48	50	52
Δ with Adj. EBITDA	51	46	24	43	40	48	57	66
% Total EBITDA	37%	56%	-55%	80%	40%	40%	40%	40%
Total EBIT	89	35	(83)	16	57	74	93	114
% Margins	*4.69%*	*2.07%*	*-6.21%*	*1.12%*	*3.67%*	*4.54%*	*5.41%*	*6.28%*
Total EBITDA	89	36	(67)	11	60	72	85	99
% Margins	*4.72%*	*2.11%*	*-5.02%*	*0.72%*	*3.88%*	*4.40%*	*4.92%*	*5.44%*