



Welcome!
Fill out form to get recruiting reminders:



<https://bit.ly/pir-recruitment>

A little bit about your presenters today...



Adam Tuchler



Akaash Babu



Tanya Dholakia



Our Mission



.....

We are a student-run publication at UChicago with a threefold mission: 1) to democratize knowledge about investment research, 2) to promote an intellectual approach for investing, and 3) to equip our members with a strong analytical toolkit. Every quarter, we publish 3-4 full-length equity research reports in print, highlighting our Research Analysts' best work. Beyond this, we pride ourselves in our strong culture and close-knit community.

Who are we as an organization?

<https://www.promontoryinvestmentresearch.com/join>



Agenda

Introduction to Equity Research

- What is equity research?
- What we do

The Promontory Experience

- Organizational structure
- Events
- What we offer you

Recruitment Details

- What we're looking for
- Recruiting timeline
- Support during application process

Q&A

- Any questions?



Introduction to Equity Research

What is equity research?

Morgan Stanley | RESEARCH

FOUNDATION

Spotify Technology SA

In Bloom - Initiate at OW

Stock Rating: **Overweight** | Industry View: **In-Line** | Price Target: **\$190.00**

We believe we are in the early stages of a music renaissance in consumer spending, led by subscription streaming and Spotify. We see premium users growing from 70 mm to ~200 mm by 2022E, with revenue growing over 20% per annum. We initiate OW, 20% upside to our PT with 2:1 bull/bear skew.

Come Together: In the last two years, subscription streaming grew by over 100 mm users globally (see Exhibit 6), with Spotify adding 40% of that growth despite already representing 40% of the market. However, in the context of a) 1.3 bn smartphone users in Spotify's US existing markets, and b) per capita spending on music still a fraction of its late 90s peak, this is likely just the beginning. Consumer spending on recorded music has seen accelerating growth during this time frame, reaching 7.5% in 2017.

Money: We base our OW rating on a) our bullish view of the music streaming business (see "General: The Investment Case for Music"), but also b) our view on Spotify's already near global scale and c) supporting data points regarding its competitive position and value proposition to consumers. Specifically, we are encouraged that engagement is high and growing. Time spent on Spotify Premium is nearing Netflix levels. Annual time spent per monthly active user (MAU) has grown 11% on a CAGR basis over the last two years (see Exhibit 22). Driving this engagement has been Spotify's successful personalization efforts. Roughly 65% of listening is on playlists, and nearly 50% of that is on playlists Spotify has curated or personalized (see Exhibit 27). Rising engagement has led to falling churn (see Exhibit 34), contributing to rising lifetime value (LTV) relative to stable subscriber acquisition cost (SAC, see Exhibit 35).

Into the Great Wide Open: Given the opportunity ahead, we see meaningfully more upside in our bull case than downside in our bear case. However, we see a wide range of potential outcomes. Our \$300 12-month bull case assumes that net additions and revenue growth accelerate. To achieve this, Spotify will likely have to enter more markets more quickly than our base case, fend off Apple and Amazon, and show enough gross margin expansion to support multiple expansion. Our bull case assumes EV/NTM sales reaches ~5.5x from 4x today (and compared to NFLX at ~8x today). Our \$300 bear case Cx EV/NTM sales envisions slowing top line as paid streaming proves to be more niche than expected given popular free options (YouTube), while Spotify loses share in the paid market.

If Not for You: There is a temptation to pit Spotify (and by extension Apple and Amazon) against their supply chain (i.e. the Big Three: Universal Music Group, Warner Music, Sony, collectively the Big Three). Netflix and the media sector have built this temptation. If we are right about the long-term opportunity for paid streaming, we think this is a false choice. Our view is there is little to no incentive for either side to take a more confrontational position on revenue share in the near-

Spotify Technology SA (SPOT, SPOT US)	
Media United States of America	
Stock Rating	Overweight
Industry View	In-Line
Price Target	\$190.00
Old price, close (Apr 21, 2018)	\$189.88
Vol cap, cur (mm)	422,088
52-week Range	\$189.00-128.21

Planned Year Ending	12/17	12/18e	12/19e	12/20e
Revenue EPS (K)	(8.14)	(1.84)	(1.84)	(0.48)
Price Model/Share EPS	-	-	-	-
P/E	N/A	N/A	N/A	N/A
Consensus EPS (K)	-	(1.40)	(0.40)	0.00
Div Yld (%)	-	0.0	0.0	0.0

Consensus revenue and EPS are based on Morgan Stanley's consensus estimates.

(*) Consensus data is provided by Thomson Reuters Eikon.

(*) Morgan Stanley Research estimates.

	2017e	2018e	2019e	2020e
Quarter	2017	Prior Current	Prior Current	
Q1	(1.10)	-	(0.40)	-
Q2	(1.24)	-	(0.40)	-
Q3	(1.44)	-	(0.34)	-
Q4	(0.47)	-	(0.34)	-

(*) Morgan Stanley Research estimates.

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Equity Research

Not Investment Banking!

Equity Research Analysts:

- Liaisons between investors and corporations
- Public markets, focus on value, and sector focused - generalists rare

Bankers (broadly) facilitate the sale of companies

What do we do?

Research economic & industry parameters

Perform fundamental analysis

Prepare an investment thesis

Project financials of the company

Valuation using DCF, Relative Valuation, others

Compare “intrinsic value” with market price.

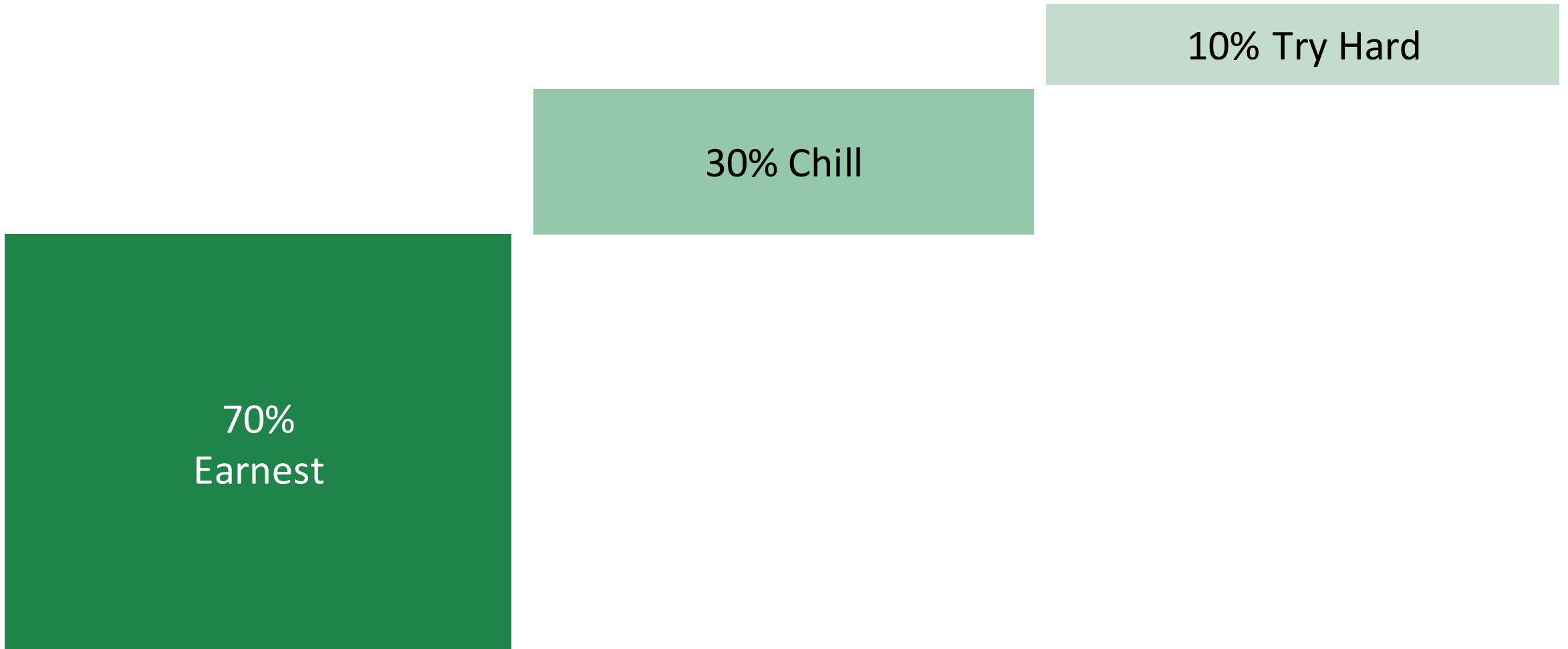


<http://promontoryir.com/our-research>

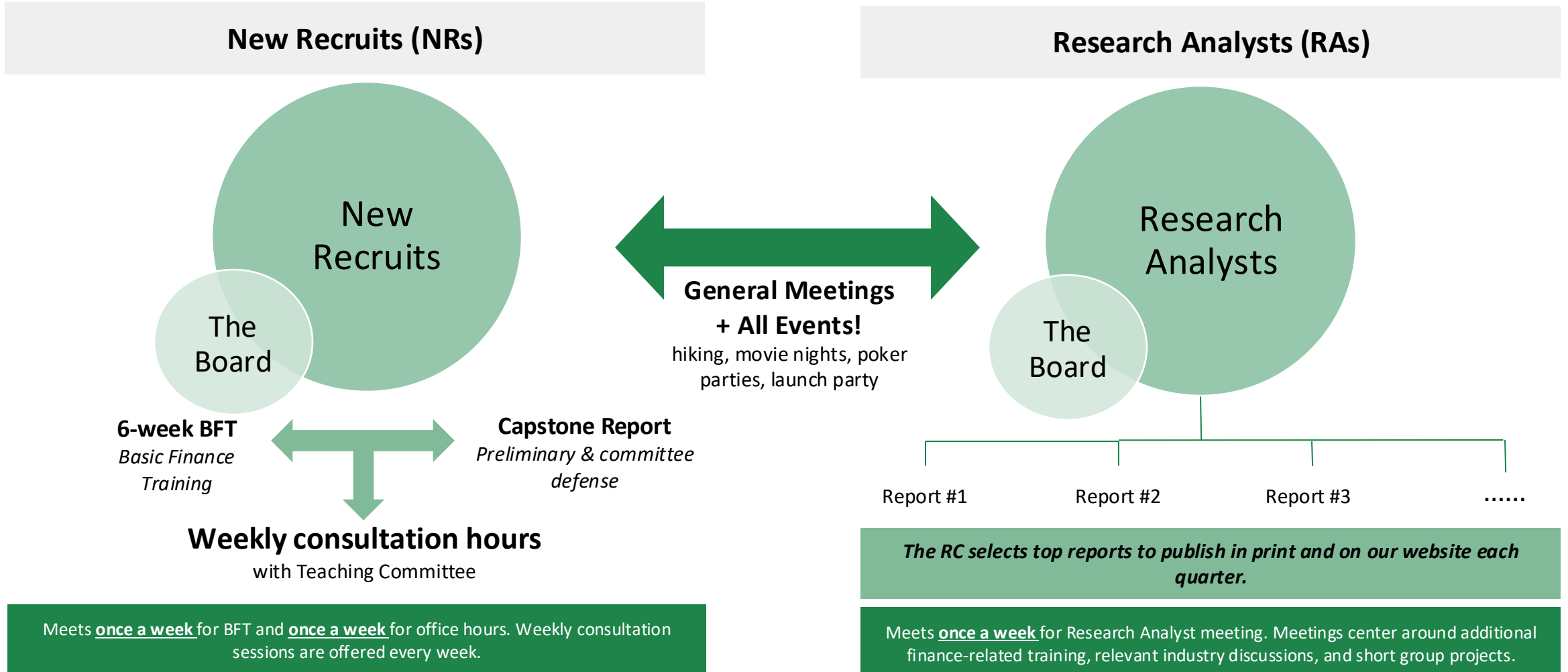


The Promontory Experience

Who are we as a community?



Our organizational structure



New Recruit Track | Introduction

What you'll learn

- How to think like an investor
- How to analyze a company's competitive strategy
- How to value a company

How you'll learn it

- Weekly lectures and assignments geared towards topics in accounting and valuation
- Write your own equity research report from scratch

Resources available

- Weekly consultation hours
- RA mentorship
- All of Board and the rest of the club!

New Recruit Track | 6 Week Basic Financial Training

Module	Technical Training	Equity Research Training
1	Introduction to Finance and Accounting	Company & Industry Analysis
2	Accounting Continued: Multiples	Developing an Investment Thesis
3	Qualitative Analysis: Competitive Strategy	Evaluating Risk Factors & Mitigants
4	DCF: Cost of Capital	Financial Modeling: Relative Valuation
5	DCF: Intrinsic Valuation	Financial Modeling: Intrinsic Valuation
6	Review Week	Capstone Presentation

Culmination: Project Defense in front of Board & Final Exam



New Recruit Track | Past Reports



Autumn 2020, Issue 7
Promontory Investment Research
<http://www.promontoryir.com>

New Oriental Education & Technology Group Inc.

New Oriental Education & Technology Group Inc. / NYSE: EDU		
Target Price	Current Price	Positive
Share price, 12/02/20	\$163.77	
Market capitalization:	\$28.05B	
Shares outstanding:	107.17mm	
52-week range:	\$180.67 / \$103.85	
EPS (FY17):	\$3.73	
Beta	1.01	
Price target:	\$170.00	

Price Chart



Financial Highlights

(Dollars in millions)	2020	2019	2018
Revenue	3493.9	4366.0	3437.5
Growth	11.4%	27%	29%
EBIT	466.1	367.6	298.4
Net Profit	11.4%	1.9%	1.9%
EPS	3.03	4.08	5.97

Research Analyst

Yanqiu Xu | yanqiu@uchicago.edu

Investment Overview

I am recommending a **BUY** rating on EDU because I expect EDU's offline after-school tutoring (AST) programs to recover and have growth after 2QFY21, and will continue to accelerate business performance in FY2021 run. Dual-teacher classes and OMO systems will be outstanding distinctions of the company and will keep attracting student enrollments. The impact from COVID-19 on offline classes threatens EDU's revenue; nevertheless, the offline courses are still appealing for parents and online courses are developed and introduced to the parents during the pandemic. I also believe EDU will have a significant growth in the future due to its investment in K-12 business which is recovering rapidly nowadays. Additionally, I see the company's potential from its growing brand recognition as one of the biggest education services and its improving cash flow which will be used to fund its innovation and future expansion.

Company Overview

Company History

New Oriental Education & Technology Group Inc. established its first school in China in 1993 and now grows to be the largest private educational service provider regarding its total net revenues and number of schools and learning centers. As of May 31, 2020, the company had a physical network of 104 schools and 1,361 learning centers in 81 cities and approximately 41,400 teachers.

EDU is a holding company first incorporated in the BVI on August 18, 2004 and subsequently reincorporated and continued in the Cayman Islands on March 16, 2006 as an exempted company under the laws of the Cayman Islands.

Business Segments

Seven operating segments are identified by EDU including (i) K-12 AST, test preparation, and other courses (formerly referred as language training and test preparation courses), (ii) primary and secondary school education, (iii) online education, (iv) content development and distribution, (v) pre-school education, (vi) overseas study consulting services, and (vii) study tours. In FY2020, K-12 AST, test preparation, and other courses is seen as a reportable segment. Primary and secondary school education, online education, content development and distribution, pre-school education, overseas study consulting services and study tours operating segments were aggregated as others because individually they do not exceed the 10% quantitative threshold.

Competitive Landscape

EDU faces competition in every major program and geographic market. Its biggest competitor is TAL Education Group (TAL) which focuses on providing K-12 AST services and owns a market cap of \$42.08 billion. EDU remains a higher net revenue than TAL whereas the valuation gap between the companies is narrowing throughout the year. As the main cost of both of the companies are operating costs such as rent and salaries of teachers, gross margin of both companies are approximately 53%.

The difference in upsize is responsible for most of the distinction between growth rates of two companies. EDU focuses on offline education and is relatively more conservative in marketing input with an increase of 11.4%YOY. In contrast, TAL has been largely invested on K-12 online courses and thus have a considerable growth rate under pandemic. However, in a long run, EDU shows a more steady growth pattern in the past three financial years than TAL.

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Value Drivers

Although EDU's overseas business may remain a near-term overhang, its earnings should be well supported by better-than-expected K-12 momentum with further OMO and operational efficiency with better cost control.

Key trends

Competition in high-quality education is intensifying in China. The huge demand for quality education and scarce resources of quality education in China have resulted in intense competition among students at an early age. University entrance examinations, known as "Gaokao", and high school entrance examinations, known as "Zhongkao", are the key exams where students compete for admission into better universities and high schools. The admission rate of 985/211 (tier 1) universities are below 4% and 8% respectively. The enrollment rate in high school is about 58%. In other words, more than 40% of middle school graduates have to go to vocational schools (38%) or go to work directly which is unacceptable for most of Chinese families currently. The anxiety among Chinese parents and intensified competition between students have fueled the lasting and booming demand for K-12 after-school tutoring services.

Online course is a structural trend. Based on the estimation from Morgan Stanley, China's K-12 online tutoring market will grow by 110% YoY to \$24bn in 2020, and 50% and 34% YoY in 2021 and 2022. By then, about half of K-12 AST students will be taking online courses. The rapid growth is being supported by technology development, and more acceptance of online studying due to Covid-19. Online education will grow rapidly and provide high-quality education at a lower price. Parents feel offline tutoring offers better interaction with the teacher and is more able to keep students engaged. However, we believe that online will be attractive to parents who are more price sensitive, located far away from offline centers or in regions that lack good teachers offline.

Household expenditure on education is increasing in a fast rate in China. Total number of K-12 students in China reached 225.1 million in 2019 and is expected to grow to 232.3 million by 2024. With the continuous growth in population, increasing level of urbanization and higher per capita disposable income in China, demand for better education has continued to grow as it becomes more accessible and affordable for households in China. Disposable income per capita grew from \$2014 in 2015 to \$6471 in 2019, and is expected to grow to \$8989 in 2024. Urbanization rate in China grew from 56.1% in 2015 to 60.6% in 2019, and is expected to reach 64.8% in 2024. The growth rate of per capita household expenditure on education from \$150 in 2019 to \$218 in 2024, at a 7.8% CAGR, outpaces the growth rate of China's disposable income per capita during the same period.

Investment Thesis

EDU takes the leading position in education technology and OMO system is expected to provide additional growth.

OMO (online-merge-offline) system was introduced by EDU in 2014 as a pioneer amongst private educational service providers in China. It was first developed and launched as a standardized digital classroom teaching system to digitalize the offline teaching materials and education resources. Backed with technology advancements, OMO system has evolved into an online education system, with a comprehensive set of technologies and initiatives that complements and supports students' offline learning activities and improves students' learning experience. Our OMO system has been extensively integrated into EDU's educational services and operations.

EDU has invested \$39 million for OMO system maintenance and improvement. After promoting OMO online courses in 20 cities, OMO model shows an impressive retention rate of over 50.0%. EDU will launch its OMO program to the whole of China, and anticipates OMO to be available for 50% of its courses in two years, with the online portion contributing 20-30% of its total revenue in the long term. OMO helps to achieve high scalability with dual-teacher model tailored to students in lower-tier cities and from price-sensitive families. EDU will continue to use small group classes for its online teaching, which it deems do not, allowing it to differentiate its offering amid current competition.

Exhibit 1: Reportable segment breakdown

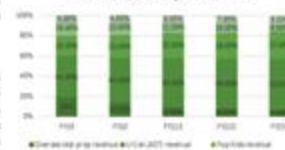


Exhibit 2: Number of teacher applicants from 1990 to 2020 (in million)

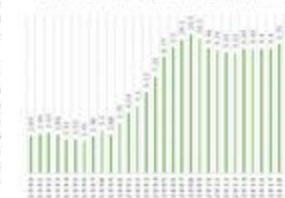


Exhibit 3: OMO strategies of EDU's competitors

Company	OMO strategy
EDU	Management targets OMO to be available for 50% of its courses in the next two years, and online portion to contribute 20-30% of total revenue in the long term.
TAL	Peiyao online as complementary to Peiyao offline and share course R&D with lower ASP. Peiyao online is 12% of total Peiyao revenue in FY2020.
Rise	Developed online course after the breakout of COVID-19. The company will continue to tolling out its integrated OMO with a digitalized curriculum that increases in-class interaction and a combination of online/offline course formats.
OneSmart	Company launched OMO as its core strategy after the pandemic and guides for its pure online offering to reach 10% of revenue in one year and 20-30% of revenue after three years.

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Research Analyst Track | Introduction

What you'll work on

- 10-page group research report on stock of choice
- Internals -> Overviews -> Thesis -> Valuations -> Risks
- Defense in general meeting, Q&A sessions

Who you'll work with

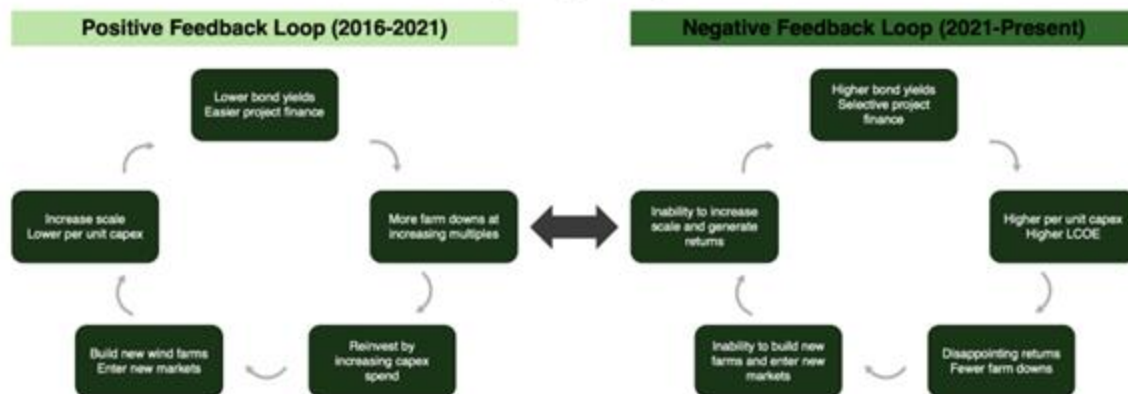
- Sector Pods of 3-4 analysts, overseen by RC members
- Weekly office hours fine tuning research direction, thesis and models

Resources

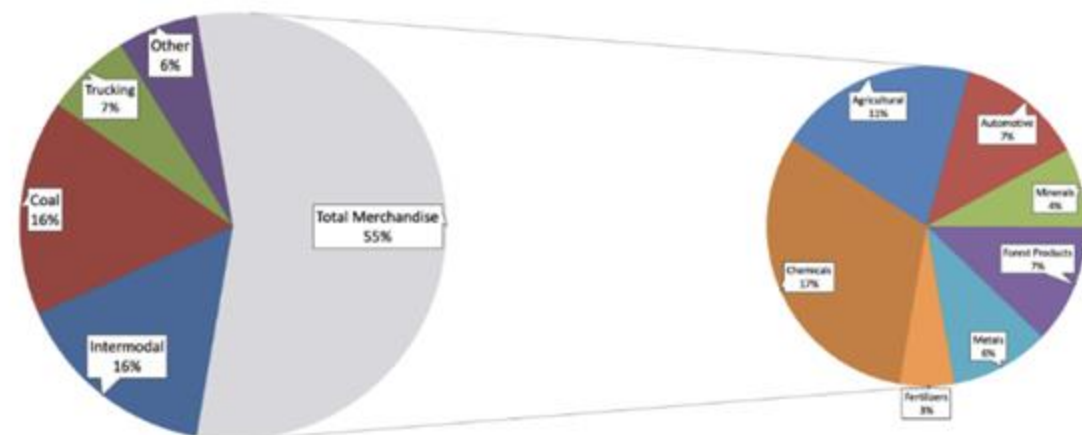
- IB Recruiting Workshops
- Alumni mentorship and career panels
- Advanced financial analysis and investment theme presentations

Research Analyst Track | Past Reports

Utilities Cycles: Signs of Being Broken



Breakdown of CSX Revenue



Price Target

Using a DCF with WACC ~6.00% yields an implied fair share price of 452.49 DKK/share. We set our **price target at 455.00 DKK/share** on the probability of a slightly stronger WACC-IRR spread on American offshore wind projects given recent strong macroeconomic printings. Consensus is at 440.00 DKK/share. We thus represent a 3.40% premium to consensus.

Discounted Free Cashflow Valuation													
Year	2018	2019	2020	2021	2022	2023	Projected						
Free Cash Flow (millions, USD)							2024	2025	2026	2027	2028	2029	2030
Revenue	75,520	70,398	90,151	77,873	132,277	79,255	96,447	99,954	107,408	114,008	117,835	122,890	125,944
% growth	-6.78%	-28.78%	54.88%	70.30%	-40.08%	24.22%	1.53%	7.48%	6.14%	3.36%	4.29%	2.49%	
Earnings Before Interest and Taxes (EBIT)	24,654	10,052	10,536	16,195	19,774	(17,853)	20,061	19,329	24,808	29,097	30,665	33,936	35,725
% revenue	32.6%	14.3%	21.0%	20.9%	14.9%	-22.5%	20.4%	19.3%	23.1%	25.5%	26.0%	27.6%	28.4%
Net Operating Profit After Tax (NOPAT)	19,230	7,841	8,218	12,632	15,424	(13,925)	15,648	15,077	19,350	22,696	23,919	26,470	27,861
% revenue	25.5%	11.1%	16.4%	16.3%	11.7%	-17.6%	13.9%	15.1%	18.0%	19.9%	20.3%	21.5%	22.1%
Depreciation & Amortization (DMA)	5,978	6,864	7,568	7,972	9,754	9,795	10,796	12,378	13,811	15,300	16,813	18,281	18,775
Capital Expenditure (CapEx)	(14,655)	(22,445)	(26,957)	(34,569)	(33,004)	(38,203)	(32,487)	(29,696)	(30,305)	(30,509)	(30,006)	(29,728)	(28,944)
Change in Net Working Capital (ΔNWC)	1,570	2,498	90	3,478	3,878	2,767							
Free Cash Flow to the Firm (FCFF)	(9,310)	(13,649)	(14,055)	(11,304)	(46,211)	(8,821)	(2,401)	11,243	6,698	10,298	14,457	17,361	
Adjustments to FCFF	-	-	-	-	-	-	-	-	9,221	-	-	-	-
PV Free Cash Flow to the Firm (FCFF)						(8,331)	(2,545)	8,479	5,329	7,737	10,258	11,627	

WACC Calculation	
Risk-free Rate	4.860%
Unlevered Beta	0.35
Levered Beta	0.50
Equity Market Risk Premium	6.00%
Effective Tax Rate	22.00%
Total Debt	88,046
Net Debt	48,386
Current Share Price (\$)	388.90
FD50	420.20
Market Capitalization	163,416
Cost of Debt	3.34%
Cost of Equity (CAPM)	7.66%
Percent Debt	35.01%
Percent Equity	64.99%
WACC	5.89%

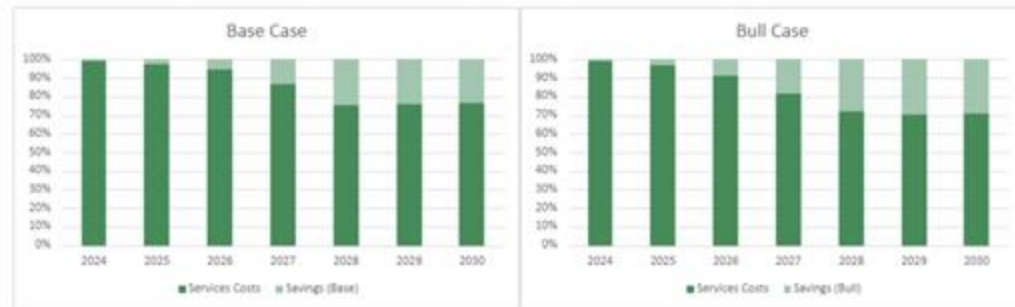
		WACC						
		5.14%	5.39%	5.64%	5.89%	6.14%	6.39%	6.64%
TDR	1.50%	549.64	492.80	443.36	400.03	361.78	327.83	297.77
	1.70%	575.87	514.96	462.25	416.26	375.83	340.06	306.96
	1.85%	604.50	539.00	482.64	433.70	389.86	353.10	319.19
	2.00%	636.86	565.18	504.72	452.43	406.38	367.03	331.11
	2.15%	670.38	593.78	528.69	472.79	424.31	381.94	344.44
	2.30%	708.55	625.16	554.82	494.78	443.00	397.96	358.88
	2.50%	782.02	684.85	604.02	525.83	477.63	427.43	384.84

Gordon-Growth Model	
Terminal Growth Rate	2.00%
Last Forecast FCFF	11,627
Terminal Value	305,271
PV Terminal Value	204,571
Sum of Near Term PV CFs	33,960
Proportion that is TV	85.8%
Implied Enterprise Value	238,521
Implied Equity Value	190,135
Implied Fair Share Price	452.49
Upside (Downside)	16.35%

Research Analyst Track | Past Reports

Train Inspection Portal (TIP) Projects

Currently, many Freight trains are typically manually inspected by trained personnel who visually examine the train cars for any signs of damage, wear, or irregularities. This process involves walking alongside the stationary train, and visually inspecting the wheels, brakes, couplings, and other critical components to ensure they are in proper working condition. As Freight train lengths on average have increased about 25% in recent decades this has resulted in longer static inspection times and safety concerns due to human error. What CSX has been doing in recent years is the introduction of a dynamic inspection system called Train Inspection Portals (TIPS) that allows for camera technology to inspect trains as they are moving through these checkpoints. Such technologies would save on operation costs in two avenues: Firstly, there will be less need to pay specialized personnel to come out and manually inspect freight trains; Secondly, as the new TIPS technology allows trains to continue moving this will drastically reduce fuel costs and improve dwell times, saving about **\$1200 an hour per cart in maintenance**. As an after-effect the new systems could reduce human error as the new TIPS systems analyze 10,000 frames a second allowing for small yet vital parts such as cotter keys (which are essential to braking systems) to be checked accurately. In base and bull cases we can predict future savings on service expenses for the company to reduce by almost 25% and 30% respectively by 2030 totaling \$3.36B - \$4.46B in savings across the decade.



Currently February 28, 2023 – CSX has opened a third train inspection portal (TIP) that is already using its advanced imaging and analysis technology to inspect up to 20 trains a day on the busy mainline at Walthourville, Georgia, northeast of the Waycross terminal. The first TIP opened in 2019 just outside of Waycross, and a second was added on the Fitzgerald Subdivision northwest of the vital CSX hub. CSX has currently implemented 3 TIPS in their busiest lines but plans on having it as a standard across all their operating geographies in the coming years. CSX has been optimizing their technology since 2019 while competitors like Norfolk Southern have only begun implementation of Train Inspection Portals very recently in late 2023 setting themselves behind in the race. CSX's competitors also share a critical flaw in their safety as the standard for when to stop the actual train has not been adjusted even after the Palestine OH derailment posing concerns that even with more accurate screening there will still be a lack of action with the current guidelines. On the contrary, CSX states that should a critical flaw be found by one of the portals, the conductor is to be instructed to immediately halt the train at the nearest stop for manual inspection and repair.

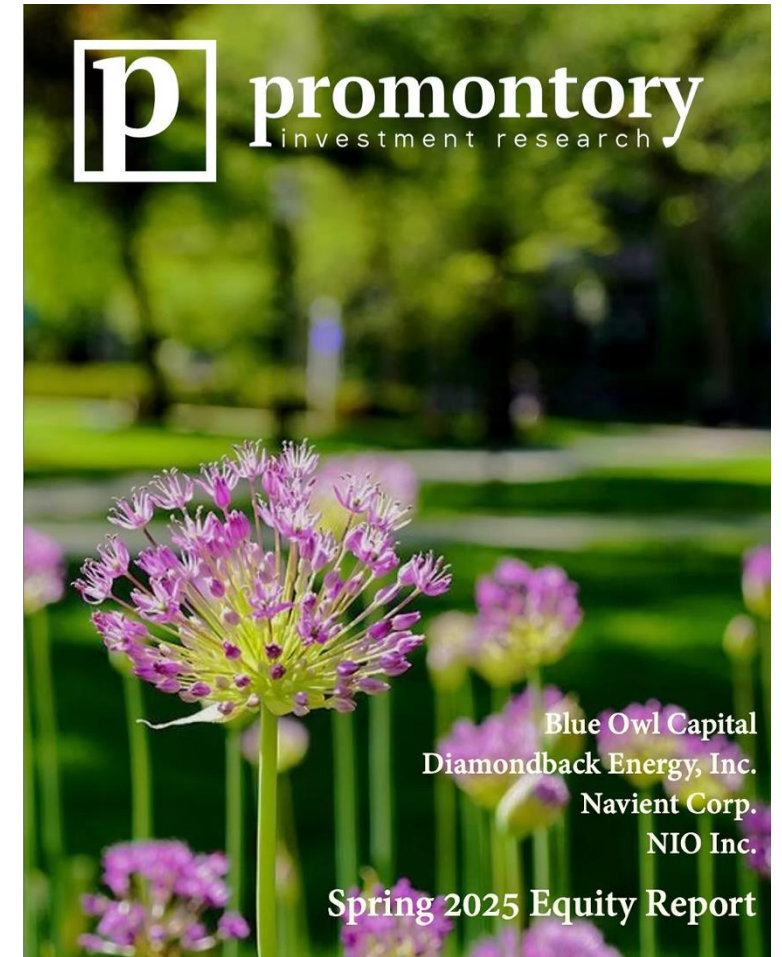
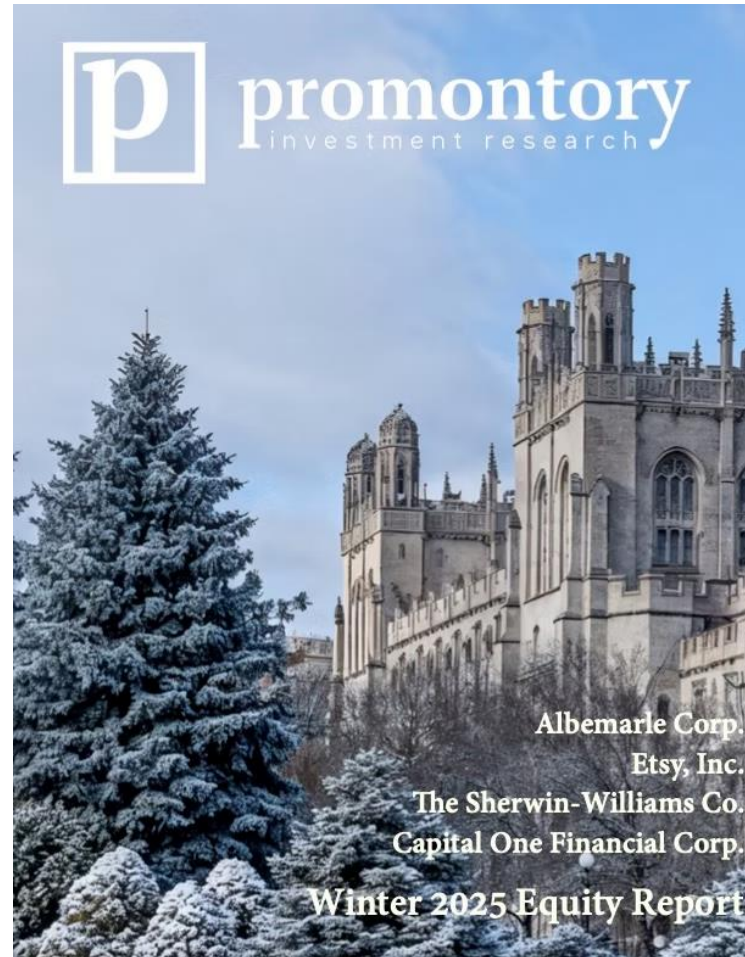
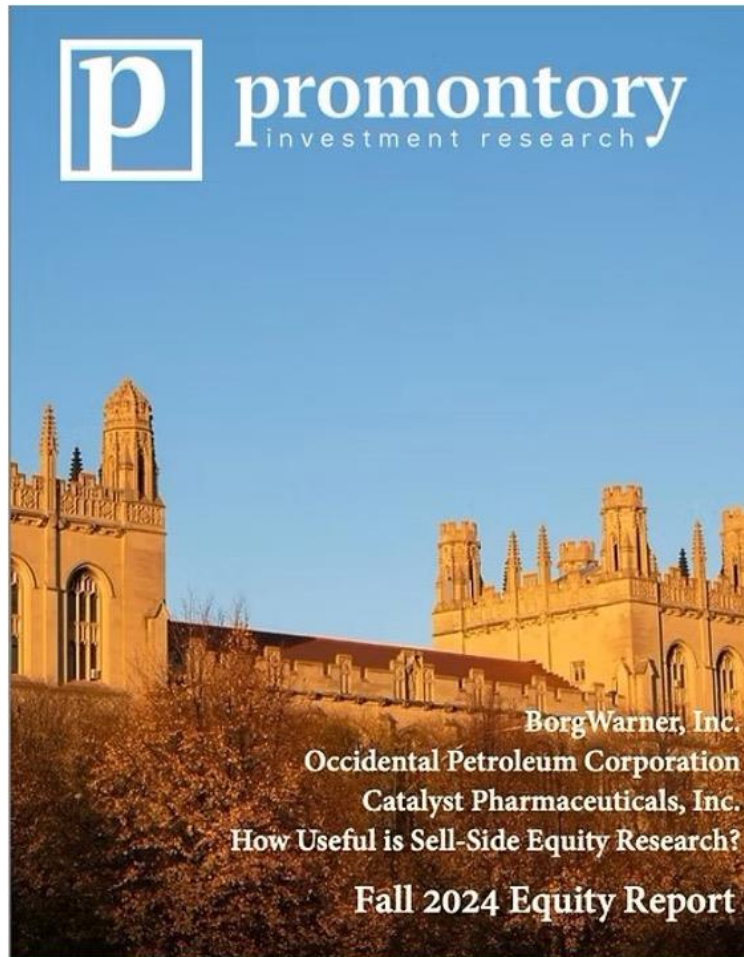
Valuation

Assumptions

For most product lines of CSX (excluding Intermodal), we can assume that their revenue per unit follows in tandem with the Price Index of their corresponding commodity. We can draw this connection by comparing 10-year historical data of CSX's product lines (Light Green) to the 10-year historical data given by FRED (Dark Green). As a result, we can use commodity prices as a baseline to predict the future revenue per unit cart.



Recent Coverage





Promontory Events

External Events: Launch Parties

- Hosted 9th week of each quarter after the publication is print-ready
- Open to the campus community
- Always catered (Chipotle, Wingstop, etc.)



Corporate Partnerships

- We continuously make an effort to partner up with relevant firms to hold a variety of events
 - exclusive PIR events
 - info sessions
 - resume drops
 - school-wide events
 - educational sessions
 - speaker series



BlackRock®



Goldman Sachs



WELLINGTON
MANAGEMENT®

D E Shaw & Co

MORNINGSTAR™

Past Events: Socials!



What we offer you

A well-rounded understanding of different industries and companies

An applicable, practical skill-set

Increased responsibility in a relatively small RSO

A diversity of mentors- career or otherwise!

A close-knit community

Where our Research Analysts and alumni work





Recruitment Details

Who We Look For

NR

- Understanding of BFT and the time **commitment**
- Willingness to meet other members

RA

- Long-term effort and commitment
- Pay-it-forward mentality – willingness to meet NRs

Both

- Someone who will make the most out of Promontory
 - Academically
 - Intellectually
 - Culturally

Fall 2025 Recruiting Timeline

Written Application



- Why PIR?
- Cultural fit & background
- Various topics to see how you think, interest in business and finance
- **Due Sunday, October 5th @ 6:00 PM CT**

First Round



- 2-on-1 interview
- ~70% Behavioral, ~30% Business Intuition
- Cultural fit & background, assess critical thinking skills, interest in business and finance
- Tuesday, October 7th - Friday, October 10th

Second Round

- 3-on-1 interview
- ~40% Candidate Case Study, 40% Behavioral
~20% Research-focused prep required
- Sunday, October 12th

Support during the recruiting process

Support

Reach out if you have any questions!

promontoryinvestmentresearch@gmail.com

Integrity

- Board members cannot interview someone they know and cannot interview a friend of a friend
 - Only interviewers are allowed to speak on behalf of candidates during deliberations
- Potential interviewers are not Recruitment Buddies



Questions?

