Applied Investment Management (AIM) Program

AIM Class of 2019 Equity Fund Reports
Fall 2018

Date**: Friday, September 7th | **Time:** 3:00 P.M. | **Location: AIM Research Room 488

Student Presenter	Company Name	Ticker	Sector	Page
Philip Suess	Core Laboratories N.V.	CLB	International Energy	2
Nathaniel D'Amato	Houlihan Lokey, Inc.	HLI	Financial Services	5
Michael Vidovic	Imperva	IMPV	Information Technology	8
Nicholas Tenuta	AIA Group	AAGIY	International Financial Services	11

These student presentations are an important element of the applied learning experience in the AIM program. The students conduct fundamental equity research and present their recommendations in written and oral format – with the goal of adding their stock to the AIM Equity Fund. Your comments and advice add considerably to their educational experience and is greatly appreciated. Each student will spend about 5-7 minutes presenting their formal recommendation, which is then followed by about 8-10 minutes of Q & A.

David S. Krause, PhD
Director, Applied Investment Management Program
Marquette University
College of Business Administration, Department of Finance
436 Straz Hall, PO Box 1881
Milwaukee, WI 53201-1881

mailto: AIM@marquette.edu

Website: MarquetteBuz/AIM AIM Blog: AIM Program Blog
Twitter: Marquette AIM Facebook: Marquette AIM

Core Laboratories N.V. (CLB)
September 7, 2018

Philip Suess | International Energy

Core Laboratories N.V. is a global provider of reservoir and product enhancement services in the oil and gas industry. Their operations expand across more than 50 countries with the largest shares of revenue coming from the United States (43.1%), Canada (5.0%), Germany (4.6%), and Russian Federation (4.1%). CLB has over 70 offices around the world and services their clients through six Advanced Technology Centers (ATCs) located in Aberdeen, Scotland, Abu Dhabi, United Arab Emirates, Calgary, Canada, Houston, Texas, Kuala Lumpur, Malaysia, and Alberta, Canada. CLB's operations are divided into two segments: Reservoir Description (63%) and Product Enhancement (37%). The Reservoir Description segment provides characterizations for permeable reservoir rocks and the reservoir fluids: natural gas, crude oil, and water. The Product Enhancement Segment provides diagnostic services and products for improving well operations and optimizing recoverable reserves. CLB is headquartered in the Netherlands and was founded in 1936.

Price ($):	109.96
Price Target ($):	134.73
52WK H-L ($):	87.17-130.34
Market Cap (mil):	4,892
Insider Holdings	1.51%
Avg. Daily Vol (mil):	0.4
Yield (%):	2.00%
ESG Rating	AA

Beta:	0.97
M-Term Rev. Gr Rate Est:	8.5%
M-Term EPS Gr Rate Est:	15.5%
Debt/Equity:	4.9%
Debt/EBITDA (ttm):	175.3%
WACC	8.9%
ROA (%):	15.3%
ROE (%):	60.4%
ROIC (%):	25.7%

FY: Dec	2017	2018	2019	2020
Revenue (Mil)	659.81	719.63	777.44	855.17
% Growth	10.94%	9.07%	8.03%	10.00%
Oper Inc	112.89	123.99	158.55	185.88
% Growth	31.52%	9.83%	27.87%	17.24%
Op Margin	17.11%	17.23%	20.39%	21.74%
EPS	$1.88	$2.08	$2.77	$3.29
P/E	58.49	52.77	39.66	33.42
EV/EBITDA	37.25	34.83	28.06	24.30

Source: Bloomberg

Recommendation

Core Laboratories is an established leader in services for the oil and gas industry and is poised to benefit from a rising price of oil and increases in drilling operations. As a service provider, Core Laboratories is directly impacted by economic and technological changes in the oil and gas industry. Oil prices sharply decreased in 2016, harming many of the businesses operating in the oil and gas services industry. Core Laboratories' EBITDA margin declined from 34.49% in 2014 to 18.95% in 2016. As the price of oil has risen since then and oil drilling operations have increased, Core Laboratories' EBITDA margin has recovered to 22.41% in the 2018Q2 period. Since bottoming at $26.05 per barrel in 2016, WTI Crude has risen by 168% to $69.88. In addition to rising oil prices, the number of oil rigs has recovered since 2016 – as such, the Baker Hughes' Worldwide Oil Rig count has increased from 1,593 in 2016 to 2,238 in August 2018. Expanded global drilling operations increase the size of Core Laboratories' market and offer the opportunity for revenue numbers to return to their previous highs. Core Laboratories is well positioned to take advantage of an expanding market given their current financial position. The firm's debt/equity is only 4.9% versus a peer average of 53.5%. This offers Core Laboratories the ability to aggressively expand and fund operations in an effort to increase market share. Given the combination of rising oil prices, increasing drilling operations, as well as Core Laboratories' strong financial position, it is recommended that Core Laboratories be added to the AIM International Equity Fund with a price target of $134.73 representing a 22.53% upside. Core Laboratories currently pays a dividend yield of 2.00%.

Investment Thesis

- **Technology Spending Growth.** Allied Market Research projects the reservoir analysis market to grow by a CAGR of 4.2% through 2025 representing a significant increase in market size. This expansion is expected to be the result of increasing energy demand from rising electricity consumption and maturing oil & gas fields. Sustained increases in spending on reservoir analysis is a catalyst for Core Laboratories as they are a leader in the space and simply maintaining their current market share would drive revenue growth.

- **Expanding Well Drilling.** In 2017, new well drilling for development and exploration purposes increased by 14%. Rystad Energy projects this growth trend in development well drilling to continue through 2020 as a means for cost saving by large oil companies. This should be viewed as a positive for Core Laboratories as they provide services to further develop existing wells and to maximize recoverable reserves. Additionally, the majority of the increased exploration drilling is occurring in the North America and Russia regions. Core Laboratories already has a strong presence in both locations and is expected to be able to take advantage of the increased drilling.
- **Financial Flexibility.** Core Laboratories is well positioned among its peers in both debt financing and operating margins. The peer average operating margin is 2.6% compared to 17.1% for Core Laboratories. Having a lower amount of debt financing and significantly higher operating margins is expected to help Core Laboratories outperform peers if market conditions begin to turnover as it will experience less financial stress and can afford more margin pressure before becoming unprofitable. Additionally, the low debt outstanding places Core Laboratories in a strong position to pursue acquisitions and partnerships. Management has expressed interest in acquiring companies to expand their technology capabilities to enhance their market position.

Valuation

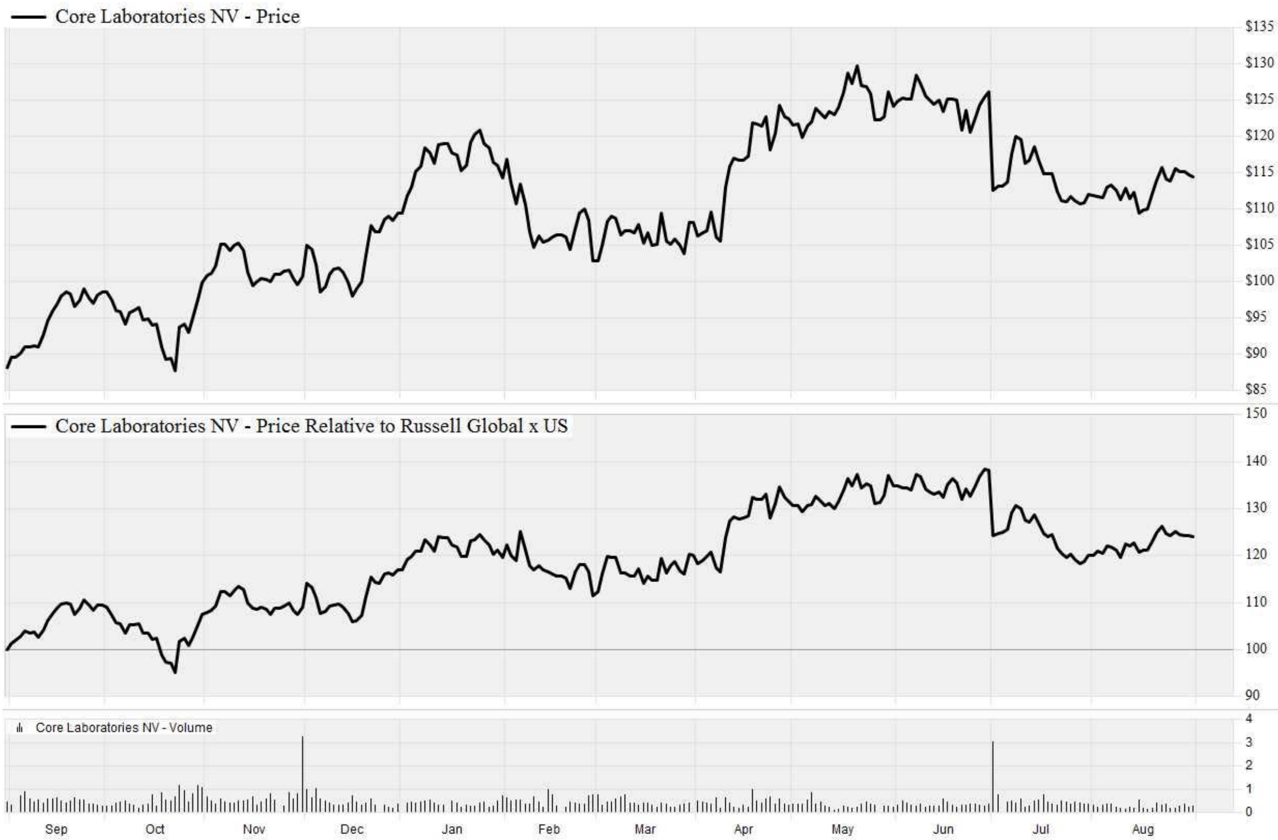
To find an intrinsic value for Core Laboratories, a ten-year discounted cash flow model was constructed. Using the discounted cash flow model with a terminal growth rate of 2.25% and a weighted average cost of capital of 8.89%, an intrinsic value of $130.12 was reached. A sensitivity analysis with a terminal growth rate ± 0.5% and a weighted average cost of capital ± 1.5% resulted in a price range of $76.43-$142.39. Additionally, a relative valuation was conducted using the price of oil. Using a price to WTI Crude multiple of 1.92x and a projected 2019 oil price of $72.50, resulted in a price target of $139.35. The 1.92x multiple was calculated as the daily average multiple of Core Laboratories stock price to price of WTI Crude since 2012. Weighting the models 50/50, a price target of $134.73 was reached representing an upside of 22.53%.

Risks

- **Geopolitical Tensions & Tariffs.** The current geopolitical tensions surrounding trade disputes poses a material risk for CLB as 56.9% of their revenue is derived outside the United States. An escalation in trade disputes resulting in the implementation of tariffs would likely harm profit margins. Additionally, CLB's two production facilities are located in Houston, Texas and Alberta Canada. Failure to reach a trade agreement between Canada and the United States may result in higher costs of production placing pressure on margins in their products segment.
- **Environmental Regulation & Disputes.** CLB provides products and services to companies engaging in fracking and offshore drilling which have both been subject of regulatory and environmental scrutiny. Increases in environmental regulation surrounding fracking practices and offshore drilling is expected to reduce drilling operations decreasing the size of Core Laboratories' market and lowering top line revenue.
- **Bottom of the Ninth.** Major deterioration of global economic conditions poses a risk to rising oil prices. If economic conditions deteriorate, industrial production facilities are expected to lower output as consumer demand decreases. Lower industrial production would cause a decrease in the demand for oil lowering the price which could reduce both margins and revenue of Core Laboratories.

Management

David M. Demshur is the Chairman and CEO of Core Laboratories and has been with the company for 39 years. During his tenure, Demshur has held numerous positions within the company prior to Chairman and CEO including Manager of Geological Services, Vice President of Europe, Middle East, and Africa, and Senior Vice President of Petroleum Services. Lawrence Bruno is the President and has been with the company for 20 years.



Source: FactSet

Peer Valuation

Name	Ticker	Market Cap (mil)	P/CF	P/E	EV/EBITDA	P/B
Core Laboratories N.V.	CLB	$4,892	47.67	52.77	34.83	3.80
Schlumberger LTD	SLB	$89,054	15.80	34.31	14.29	2.38
Halliburton Co	HAL	$33,026	10.14	18.15	9.46	3.67
John Wood Group PLC	WG	$4,836	12.79	16.99	11.33	1.36
TechnipFMC PLC	FTI	$13,337	39.91	22.95	7.90	1.06
Aker Solutions ASA	AKSO	$15,441	13.13	33.69	9.23	2.17
		31,139	18.35	25.22	10.44	2.13

Source: Bloomberg

Peer Fundamentals

Name	Ticker	Revenues	ROE	ROA	Debt/Equity	Operating Margin
Core Laboratories N.V.	CLB	$659.8	60.4%	15.3%	4.9%	17.1%
Schlumberger LTD	SLB	$30,400	-1.9%	-1.0%	38.0%	-2.8%
Halliburton Co	HAL	$20,600	1.1%	0.4%	118.2%	6.6%
John Wood Group PLC	WG	$5,394	-2.6%	-1.1%	42.5%	0.1%
TechnipFMC PLC	FTI	$15,100	1.3%	0.6%	29.2%	6.4%
Aker Solutions ASA	AKSO	$22,500	5.2%	5.3%	39.6%	2.5%
Peer Averages		$18,799	0.6%	0.8%	53.5%	2.6%

Source: Bloomberg

Houlihan Lokey, Inc. (HLI)
September 8, 2018

Nathaniel D'Amato Financial Services

Houlihan Lokey, Inc. (NYSE: HLI) is an investment bank that provides services in Corporate Finance (CF), Financial Restructuring (FR), and Financial Advisory Services (FAS). The Corporate Finance activity includes M&A engagements and capital markets advisory. These operating segments allow for Houlihan to maintain a highly diversified revenue base with a balanced client mix across all major industries. Houlihan Lokey went public on August 13, 2015 and is headquartered in Los Angeles, CA, with over 1,200 employees globally.

Price ($):	46.73
Price Target ($):	55.69
52WK H-L ($):	53.2 - 35.15
Market Cap (mil):	3.09 B
Insider Holdings	0.00
Avg. Daily Vol (mil):	327460.10
Yield (%):	2.39
ESG Rating	B

Beta:	0.99
M-Term Rev. Gr Rate Est:	0.06
M-Term EPS Gr Rate Est:	0.14
Financial Leverage %	13.00
WACC	0.10
ROA (%):	14.61
ROE (%):	22.00

FY: Mar	3/31/2017	3/31/2018	3/31/2019	3/32/2020
Revenues	872.10	963.40	1037.20	1141.00
% Growth	25.70	10.47	7.66	10.01
Employee comp.	582.20	636.60	656.55	718.83
%Rev	0.67	0.63	0.63	0.63
EPS	1.63	2.60	2.85	3.14
P/E	21.13	16.07	17.00	15.22
P/B	3.46	3.55	3.79	3.21

Recommendation

Houlihan Lokey is a leading US investment bank serving over 1,000 clients annually. The firm has grown net income at a 5-year CAGR of 23% as of 2018's fiscal year end. The current revenue breakdown from each segment includes 56% CF, 29% FR, and 15% FAS. Their clients are primarily concentrated in the United States but also expand into Europe, Asia, and Australia. The three operating segments provide a natural hedge to business revenue volatility as the market shifts. The Corporate Finance and Financial Advisory Services segments naturally benefit during strong economic conditions due to higher volumes of M&A and capital market engagements, while the Financial Restructuring segment benefits countercyclical when there are higher levels of business distress and failures. Q1 FY 2019 occurred during strong market conditions, resulting in CF revenues increasing by 7%, FAS increasing by 6%, and FR revenues decreasing by 14% YoY. Adjusted net income for the quarter was still able to grow by 10% YoY despite the decline in restructuring activity. HLI has diversified revenue streams through product, industry, and volume of engagements allowing for sustainable long-term growth potential. No industry represents more than 16% of revenues and no single transaction has exceeded 3% of total revenues during the past year. Additionally, HLI's M&A deals are primarily in the mid-cap space, resulting in less volatility than the bulge-bracket investment banks with a higher concentration of large-cap activity. Opportunities for growth will also be driven by the expected increase in M&A activity for the market as a whole and the recent acquisitions expanding HLI's capabilities. Considering these factors, it is recommended that Houlihan Lokey, Inc., is added to the AIM Equity Fund with a price target of $57.47, representing a potential upside of over 23%.

Investment Thesis

- **Strong Economic and Market Conditions.** The economy as a whole is providing a healthy environment for M&A and capital market activities with opportunities arising from declining regulations for financial institutions and corporations having more free cash due to recent tax reform. HLI is not sensitive to credit or interest rate risks since they rarely issue debt, especially since most of their M&A activity is primarily focused on sell-side engagements.
- **Acquisition Activity.** HLI has recently made four strategic acquisitions to increase their capabilities and provide great opportunities for revenue growth. In 2018, HLI made major improvements to their Corporate Finance segment by acquiring BearTooth Advisors to establish a new global private funds group and Quayle Munro to improve their data analytics capabilities and

expand their presence internationally. In 2017, HLI acquired Black Stone IP to enhance their Tech & IP Advisory division and Bluestone Capital Partners for their M&A Advisory resources.

- **M&A Outlook.** As of 2018's year-end, M&A activity in the United States is projected to grow at a 5-year 7% CAGR. According to the IMMA Institute, 2017 was a record breaking year for M&A deals growing by over 14% in terms of volume with 15,457 completed deals. 2018's M&A outlook is projected to finish just as strong, with only a 2% decline in volume. Considering historical growth rates, rapid GDP growth, and pro-business policy changes, it is expected that M&A activity will continue to remain strong in 2019.

Valuation

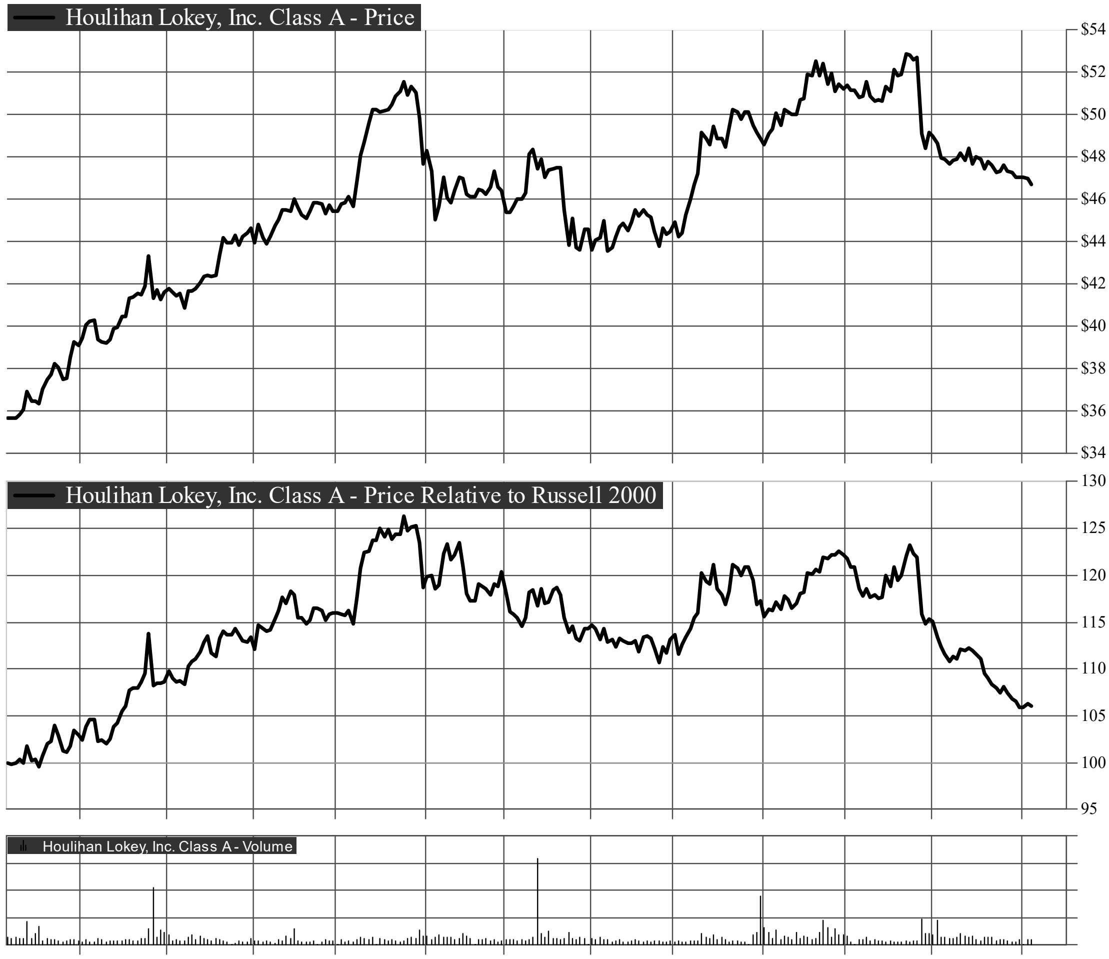
In order to reach an intrinsic value for HLI, multiple valuations were weighted equally. This includes an excess return model and relative valuations of P/E and P/B. The excess return model resulted in an intrinsic value of $55, using a 22% ROE from my projected I/S. The multiples for the relative valuations were derived from taking the average estimated P/E and P/B multiples from HLI's competitors of 16.62 and 5.64 respectively, then multiplied by the estimated EPS of $2.85 and BVPS of $12.42 - resulting in price targets of $47.36 and $70.08. Combing all intrinsic values a price target of $57.47 was reached, resulting in an 23% potential upside.

Risks

- **Retain/Recruit Managing Director's.** Maintaining talented MD's is crucial to any investment bank's success. Losing a good MD could result in loss of clients to a competing firm with more resources for employee compensation.
- **Changing Market Conditions.** A declining market could materially reduce HLI's revenue by declining activity in Corporate Finance and Financial Advisory Services. These two segments accounts for over 70% of total revenues each year.
- **Size of Competitors** HLI is at risk of falling behind larger competitors if buy-side M&A engagements significantly grow in volume. HLI primarily services mid-cap engagements due to their relatively small size and lack of resources compared to bulge-bracket investment banks.

Management

Houlihan Lokey has a very experienced management team. The most veteran member is the CEO Scott Beiser who has been with the company for over 34 years. The recent changes to management have only been the addition of Managing Directors in charge of their specialty line of service.



Name	Ticker	Market Cap (M)	P/E	P/B	P/Sales	Div Yld %
Houlihan Lokey, Inc.	HLI	3,148	22.00	3.80	1.42	2.39
LPL Financial Holdings	LPLA	5,835	18.60	5.80	1.84	1.51
Piper Jaffray Companies	PJC	1,168	12.47	1.16	-	-
Moelis & Co.	MC	3,684	22.56	8.67	3.47	5.99
Evercore Inc.	EVR	4,843	17.62	6.94	1.31	1.95
Peer Averages		3882 M	17.81	5.64	2.21	3.15

Name	Ticker	Sales	Total Expenses	NI	ROE (%)	ROA
Houlihan Lokey, Inc.	HLI	963.4	748.90	172.3	22	11.87
LPL Financial Holdings	LPLA	4,721.50	4,260.9	334.5	26.8	4.6
Piper Jaffray Companies	PJC	832.4	770.7	-64.9	-9	-3.1
Moelis & Co.	MC	803.2	589.8	63.4	11	4.5
Evercore Inc.	EVR	1,887.0	1,384.1	191.0	23.4	7.7
Peer Averages		2,061.0	1,751.4	131.0	13.0	3.4

Imperva (IMPV)
September 7, 2018

Michael Vidovic — Domestic Information Technology

Imperva, Inc (NASDAQ: IMPV) is a leading cyber security firm that delivers best in class data protection services across cloud, on-premises, and hybrid environments. The company's offerings include web application firewall solutions for neutralizing digital threats (SecureSphere), DDoS protection and server overload solutions (Incapsula), data weakness detection (CounterBreach), and sensitive data masking (Camouflage). Imperva primarily sells to large banks, retailers, IT firms, hospitals, and government agencies with 60% of revenue being generated in North America, 20% in EMEA, and 20% in APAC. Imperva was founded in 2002 by Shlomo Kramer, Mickey Boodaei, and Amichai Shulman, and is headquartered in Redwood Shores, Redwood City, California.

Price ($) (9/31/2018):	46.9	Beta:	0.88	FY: Dec	2017A	2018E	2019E	2020E
Price Target ($):	56.79	M-Term Rev. Gr Rate Est:	12.7%	Revenue (Mil)	321.72	360.32	403.56	443.92
52WK H-L ($):	57.65 - 37.17	M-Term EPS Gr Rate Est:	19.6%	% Growth	21.65	12.00	12.00	10.00
Market Cap (mil):	1,641	Debt/Equity:	0.0	Oper Inc	34.78	30.27	39.35	56.16
Insider Holdings:	0.99%	Debt/EBITDA (ttm):	0.00	% Growth	-3835.23	-12.96	30.00	42.72
Avg. Daily Vol (mil):	0.318	WACC:	8.18%	Op Margin	10.81	8.40	9.75	12.65
Yield:	0%	ROA (%):	4.88	EPS ($)	$1.06	$0.32	1.03	1.41
ESG Rating:	BB	ROE (%):	8.36	P/E (Cal)	44.2	145.3	45.37	33.15
		ROIC (%):	8.36	EV/EBITDA	27.5	29.7	23.53	17.39

Recommendation

Imperva, Inc ended fiscal 2017 with inline results and an accelerated YoY billings growth rate of 17.1%. Newly appointed CEO Christopher Hylen also announced a restructuring plan to unify sales, marketing, and product development teams in addition to reallocating $10m towards new growth initiatives. These subpar results paired with the recent turnover of the company's CEO, CFO, and Chairman of the Board caused the stock to remain stagnant leading up to Q2 of fiscal 2018. Q2 was another disappointment with revenues and operating income missing guidance, although Imperva offered a strong update on the restructuring plan they began in early 2018. Subscription billings surpassed estimates by $8m due to strong growth in Imperva's FlexProtect category. The firm also announced the acquisition of the Prevoty, a key player in the DevOps space with a highly complementary communication focused platform to IMPV's hybrid security offering. The stock dropped 8% from the Q2 announcement, focusing on the decline in operating income and dilutive acquisition while ignoring the growth of the FlexProtect category and deferred revenue. The category increased 30% YoY, and the increased deferred revenue will be realized as the organization's restructuring finishes in the latter half of 2018. Additionally, management commented on the acquisition of Prevoty, which will be immediately dilutive of $4.5m in reduced operating income through 3Q2019. However, the acquisition is expected to achieve revenue synergies starting in 2019, $20m in ACV per year, and adds Prevoty's autonomous security offerings to Imperva's portfolio. The cyber security industry has been one of the highest growing industries in recent history with the global market growing by 35 times in the last 13 years and to grow an additional 8% annually through 2021. Additionally, the US Government has announced its budgetary plans to continue increasing its cybersecurity budget to $19b from $14b last year along with other government institutions who are realizing the mounting security threat. Imperva operates significantly within the government security space and will capitalize on US government spending as well as the EU's implementation of the GDPR. If Imperva can complete its reorganization efforts and capitalize on its quickly ramping FlexProtect category, the company stands to gain significantly from its recurring revenue sources. Given the overly bearish sentiment on IMPV paired with the highly attractive cyber security spending environment it is recommended that IMPV be added to the AIM Domestic Equity Fund with a price target of $52.24, representing a 21.09% potential upside.

Investment Thesis

- **No Longer Digitally Naive.** The cyber security industry has been one of the fastest growing industries as demonstrated by its rise from the total market being worth $3.5b in 2004 to over $120b in 2017. This 31.25% CAGR shows no signs of dissipating either with the average cost of cyberattacks rising $2m since 2014. With the threat of a data breach becoming ever more important, the EU has rolled out the GDPR with higher corporate requirements for cybercrime but over a quarter of EU firms are not yet at GDPR compliant levels yet.
- **Increased Global Outreach.** Currently about half of Imperva's revenues are generated outside of North America, but with EMEA and APAC's 25% and 32% YoY revenue growth rates respectively there is still a lot of runway left. Europe continues to show signs of growth with the ongoing rush to be compliant with GDPR, but China has become a major opportunity with EY's annual Global Information Security Surveys showing consistently increasing security spending expectations.
- **Long-Term Acquisitions Have Yet to Mature.** Imperva acquired Prevoty in July of 2018, and while in next 5 quarters it will serve as a headwind to operating income, it will strongly complement IMPV's current portfolio in the DevOps space. Imperva also acquired Camouflage in early 2017 and still has a significant runway left in China and the US.

Valuation

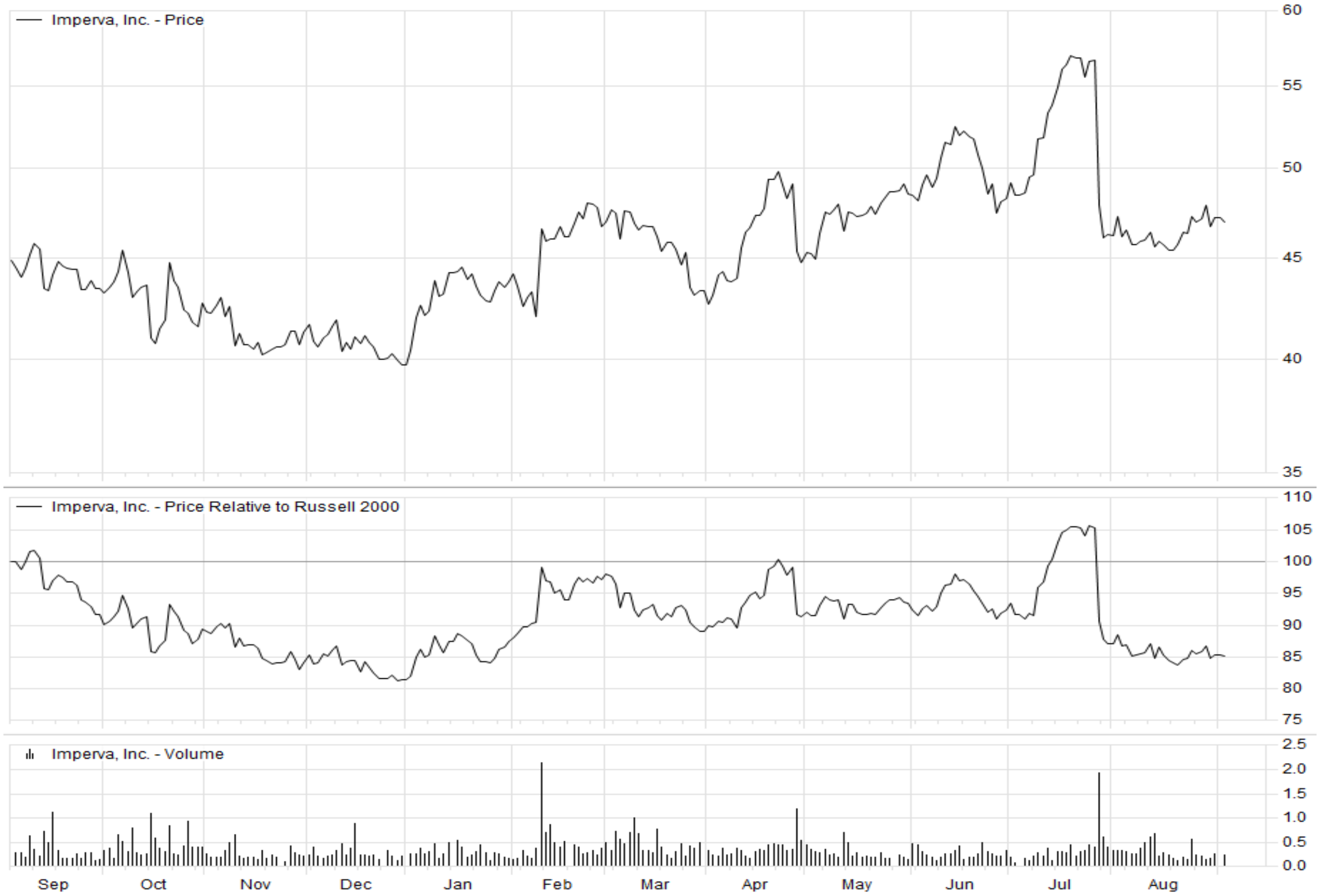
In order to reach an intrinsic value for IMPV, a five year DCF model was constructed. Using a terminal growth rate of 2.25% and a WACC of 8.18%, a valuation of $59.82 was reached. A sensitivity analysis for the DCF was computed using a ±1% WACC and a ±50bps terminal growth rate, resulting in a price range of $48.54 -$78.64. Additionally, an EV/EBITDA relative valuation was calculated using an estimated 2018 EBITDA of $42.27m, and a peer average multiple of 33.92x to produce an intrinsic value of $52.24. By weighing the two models 60/40, a price target of $56.79 was reached, resulting in a 21.09% potential upside.

Risks

- **Business Reorganization.** Imperva has undergone a large-scale restructuring endeavor starting in early 2018 designed to refocus the company towards product innovation, operational efficiency, and customer contract retention. Restructuring efforts have been successful thus far, but IMPV still plans to spend $10m on reallocation. Additional costs may be necessary in the future and would undermine the effectiveness of both the venture and management's early decision making.
- **Acquisition challenges & Unexpected Slowdowns Globally.** In late July Imperva announced the acquisition of DevOps leader Prevoty and commented on the $4.5m headwind to operating margin for the next 5 quarters. Prevoty is a new venture for the company and may require additional financing from Imperva. As Prevoty becomes implemented, unforeseen slowdowns in global markets would extend the dilutive effect of Prevoty even further.

Management

Christopher Hylen was recently appointed as President, CEO, and Director of Imperva in August of 2017. Christopher previously served as CEO of Citrix GetGo and Intuit solutions prior to joining Imperva. Mike Burns is the newly appointed CFO of IMPV, and prior to his initiation in January of 2018 he served as CFO of Gigamon and CFO of Volterra Semiconductor for six years.



Peer Valuation

Name	Ticker	Market Cap (mil)	P/S	P/E	EV/EBITDA	P/B
Imperva, Inc.	IMPV	1,641	5.10	44.17	27.50	4.99
Qualys, Inc.	QLYS	3,594	15.23	124.53	36.11	9.84
CyberArk Software Ltd.	CYBR	2,740	9.52	135.68	42.37	6.79
SailPoint Technologies Holdi	SAIL	2,776	12.67	230.00	35.27	8.39
Fortinet, Inc.	FTNT	14,559	9.16	172.16	39.00	12.45
Symantec Corporation	SYMC	12,456	2.59	10.90	16.86	2.51
Peer Averages		7,225	9.8	134.7	33.92	8.0

Source: Factset

Peer Fundamentals

Name	Ticker	Revenues	ROE	ROA	Debt/Equity	ROIC
Imperva, Inc.	IMPV	322	8.36	4.88	0.00	8.36
Qualys, Inc.	QLYS	231	13.44	8.53	0.00	13.44
CyberArk Software Ltd.	CYBR	262	4.93	3.54	0.00	4.93
SailPoint Technologies Holdi	SAIL	186	-2.82	-1.70	0.21	-2.13
Fortinet, Inc.	FTNT	1,495	4.40	1.43	0.00	4.40
Symantec Corporation	SYMC	4,846	26.95	6.78	0.99	11.26
Peer Averages		1,404	12.4	5.1	0.05	8.5

*ROE, ROA, and ROIC Averages exclude SAIL

Source: Factset

AIA Group (AAGIY)
September 7, 2018

Nicholas Tenuta International Financials

AIA Group (OTC-US: AAGIY) was one of the first life insurance companies t0 introduce agency distribution in Asia. This core distribution strategy remains as their main channel as it generates 70% of the company's total value of new business premiums (VONB). AIA is the second largest life insurance provider in the world, and it is the largest company listed on the Hong Kong Exchange. The company is also the largest international company that is solely focused on the Asia-Pacific region. Recently, AIA Group has expanded their product line into individual wealth management, in the form of Independent Financial Advisors (IFAs). While their revenues are primarily generated through their Hong Kong operations (34.8%), they also have operations in China, Thailand, Malaysia, India, Korea, Australia and New Zealand. AIA Group was established in 1919 and is headquartered in Hong Kong.

				FY: Dec	2016	2017	2018E	2019E
Price ($):	$34.50	Beta:	0.64	Revenues	26,458.58	31,906.85	35,268.67	40,540.54
Price Target ($):	$43.30	M-Term Rev. Gr Rate Est:	10.54%	% Growth	11.85%	20.59%	10.54%	14.9%
52WK H-L ($):	37.89-29.50	M-Term EPS Gr Rate Est:	1.4%	Premiums Earned	20446.00	25484.09	27309.43	29265.51
Market Cap (bil):	104.20	Financial Leverage	0.14	%Growth	9.82%	25%	7.16%	7.16%
Insider Holdings	0%	COE	6.55%	Underwriting Income	2735.27	3454.33	3818.30	5056.99
Avg. Daily Vol (mil):	19,314,742.0	ROA (%):	3.09	Efficiency Ratio	0.13	0.14	0.14	0.17
Yield (%):	1.10%	ROE (%):	15.90	P/E	17.4	15.9	17.11	16.91
ESG Rating	BBB	Expense Ratio	19.09	EPS	1.34	1.98	2.02	2.04
		Loss Ratio	97.5					

Recommendation

AIA Group completed their IPO in 2010 and have since become one of the most recognized companies in Asia. In 2017, AAGIY became the first company to win the Million Dollar Round Table's #1 company for the third consecutive year. The company is committed to delivering the best insurance services, through an intense recruitment process called the Premier Agency Strategy, which seeks to only hire the top candidates. The firm's commitment to hiring the best talent has paid dividends as the Agency Network (their core distribution platform) grew 28% YoY in 2017. AIA also experienced a 19% YoY increase in operating income. While organic growth is still their top priority, the company has taken advantage of various opportunities for inorganic growth via long-term strategic acquisitions and partnerships. In 2017, AIA acquired the Commonwealth Bank of Australia's life-insurance business, in Australian and New Zealand markets, along with a 20-year bancassurance distribution agreement allowing them to sell their products to the bank's client base. This arrangement has made AIA the largest individual life insurer in the Australian and New Zealand markets, giving them access to 13 million new customers. The biggest opportunity was the strategic partnership with one of South Korea's largest conglomerates, SK Holdings, giving them access to an addition 30 million new customers. These strategic partnerships, which generated over $1 billion in VONB, reflect AIA's market-leading reputation in Asia. Group insurance will be one of the largest drivers for growth in the coming years, as the emphasis on health and wellness schemes by employers continues to increase. The working population in the Asia-Pacific region consists of 1.8 billion people, providing AIA with another area for double-digit growth. AIA Vitality, a new science-based wellness program, emphasizes the Group's commitment to providing working-class people with multiple forms of protection. Due to AIA Group's consistent financial performance since 2010, their market-leading position in the fastest-developing region of the world, and their extensive network of strategic partnerships, it is recommended that AIA Group is added to the AIM International Equity fund, with a price target of $43.30, representing an upside of 25.5%.

Investment Thesis

- **The Right Place at the Right Time.** Economic growth continues to accelerate throughout most of the Asia-Pacific region. Domestic consumption and services continue to replace exports as the leading economic driver. The Asia-Pacific economy has continued to see real annual GDP growth near 5%, well above the world average. By 2030, over 90 million people in Asia are expected to move to urban areas due to the growth of the working middle class allowing AIA to continue its strong growth.

- **Insurance in High Demand.** Due to the strong economic growth in the region and the expanding middle class, the demand for financial services and insurance protection has never been higher. Also, the aging population, lifestyle diseases, and inflation on healthcare prices, has put an enormous burden on government pension plans- private insurance will likely play an increasing critical role in the continued development of this region.
- **The Brand.** AIA is a major brand in the Asia-Pacific region. Their sole commitment to this region, with no plans to expand into Europe or the Americas has made them one of the most trusted companies in the region. AIA has continuously improved their image through many long-term strategic partnerships and new products. In 2017, the Group extended their partnership with the English Premier League Football Club, Tottenham Hotspur, for another five years as the lead shirt sponsor, emphasizing their commitment healthy living.

Valuation

In order to reach an intrinsic value for AAGIY, a five year DDM model was constructed. Using a terminal growth rate of 2.5% and a COE of 6.55%, an intrinsic value of $40.50, representing a 17.38% upside. A sensitivy analysis conducted on the terminal growth rate and COE ranged from $33.14-$52.65. Additionally a P/E multiple relative valuation was calculated. Using the 2019E EPS of 2.04, and a market value weighted average of 20.90, an intrinsic value of $42.72 was reached, representing a 23.84% upside. Lastly, an excess return model was calculated. Using a terminal growth rate of 2.5% and a COE of 6.55% an intrinsic value of $48.00 was reached, representing a 39.14% upside. Weighting each valuation method 33/33/33, an intrinsic value of $43.30 was reached, representing a 25.5% upside. The firm pays a dividend yeilding 1.10%.

Risks

- **Tariffs.** Although management has recently said, they are not concerned about tariffs from the United States because of their long-term focus, heavy tariffs could cause an economic downturn in the region. An economic downturn would slow the growth of the middle class, and slow the growth of the financial services sector overall.
- **Integration of New Partnerships.** In 2017, large insurance groups in Europe made similar acquisitions and partnerships, however, the integration of their products gave many customers problems when using their online platforms. If the integration process does not go smoothly, it could ruin their reputation and cause a decrease in top-line growth. However, they have successfully integrated their four biggest platforms.
- **Shaky Reporting.** AIA management uses different metrics when reporting their 20-F. One of the metrics that was used most often, was VONB. This reporting style seems too optimistic as it only reports the growth of the new businesses, and not the performance of their already established businesses.

Management

Ng Keng Hooi, was appointed CEO of AIA Group in June of 2017. He has been with the Group since it went public in 2010. Hooi has been in the Asian life insurance industry for 38 years and takes a long-term management approach. Garth Jones is the CFO of the company. He has held various director positions since joined AIA Group in 2011, before being promoted to CFO.

Source: FactSet

Peer Analysis

Name	Ticker	Net Margin	ROA	Loss Ratio	Last 3yr NI growth
AIA Group	AAGIY	19.18	3.09	97.46	21.10%
Prudential Plc	PRU-GB	2.76	0.51	166.08	-5.50%
Manulife	MFC-US	3.37	0.30	68.56	-20%
China Life Insurance	LFC-US	5.02	1.13	38.80	-3.30%
China Pacific Insurance	CHPXF-US	4.62	1.35	33.33	6.60%
Peer Averages		3.94	0.82	76.69	-5.55%

Name	Ticker	Market Cap	P/B	P/TBV	Div Yld
AIA GROUP	AAGIY	104.2 B	2.23	2.43	1.30
Prudential Plc	PRU-GB	58296	3.05	3.82	2.47
Manulife	MFC-US	37046	1.39	1.88	3.02
China Life Insurance	LFC-US	85982	1.79	0.48	1.43
China Pacific Insurance	CHPXF-US	40,682	2.06	2.10	2.62
Peer Averages		55,502	2.07	2.1	2.4