

Applied Investment Management (AIM) Program

AIM Class of 2015 Equity Fund Reports Fall 2014

Date: Friday, October 24th Time: 3:00 pm – 4:15 pm
Road Show Location: AIM Research Room DS 488

Student Presenter	Company Name	Ticker	Price	Page No.
Dan Alon	Zix Corporation	ZIXI	\$3.16	2
Berent Kowarick	Proofpoint, Inc.	PFPT	\$35.90	5
Rushi Shah	VASCO Data Security International	VDSI	\$19.59	8
Chris Swanson	HSBC Holdings plc ADR	HSBC	\$49.94	11
Mitchell Swirth	Astronics Corporation	ATRO	\$45.76	14
Patrick Hart	Federal Signal Corporation	FSS	\$13.32	17

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 – the first rounds of student presentations will be on existing holdings. 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.

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Zix Corporation (ZIXI)

October 22, 2014

Dan Alon

Domestic Information Technology

Zix Corporation (NASDAQ: ZIXI), which was founded in 1988 and is located in Dallas, Texas, is a security technology company that provides email encryption, data loss prevention, and “bring your own device” technology. Zix primarily serves organizations in the healthcare, financial services, and government sectors including the SEC, and FINRA. The company distinguishes itself by developing systems that are incredibly easy to use from both sides of an email transaction and by focusing on minimal user interaction of the actual encrypting. Zix currently drives nearly 100% of their revenue from their one to five year contracts of email encryption within the United States.

Price (\$): (10/22/14)	\$3.16	Beta:	0.81	FY: Oct. 21	2013A	2014E	2015E
Price Target (\$):	\$4.33	WACC	9.79%	Revenue (Mil)	\$48	\$51	\$62
52 WK H-L (\$):	\$2.90-\$4.97	M-Term Rev. Gr Rate Est:	13.00%	% Growth	11.03%	10.00%	20.00%
Market Cap (mil):	217.6	M-Term EPS Gr Rate Est:	13.00%	Gross Margin	84.18%	82.17%	82.17%
Float (mil):	59.3	Debt/Equity	36.9%	Operating Margin	18.38%	17.29%	18.38%
Short Interest (%):	6.77%	ROA:	12.04%	EPS (Cal)	0.170	0.168	0.174
Avg. Daily Vol (k):	280.27	ROE:	15.78%	FCF/Share	0.16	0.19	0.19
Dividend (\$):	\$0.00			P/E (Cal)	18.59	18.79	18.12
Yield (%):	0.0%			EV/EBITDA	22.7x	24.3x	13.1x

Recommendation

As the world is becoming more dependent on technology, there is more sensitive data available on the web. This data is not only sensitive to the companies this information belongs to, but also is extremely impactful to investors and other companies if it is leaked. This risk poses a huge liability for organizations and their operations. As we have seen in the recent past, companies whose systems were hacked can - and usually do - result in major reputational losses and fines. Email is a big target for hackers and through Zix's heavy focus on email encryption, data prevention loss (DLP), and bring your own device (BYOD) capabilities, they are able to separate themselves as a leader in the sector and ensure high profile clients. Zix has secured clients in the past who have to pay a yearly subscription fee, and guarantees revenue into the future, especially with the 90% renewal rate Zix maintains. With one to five year contracts, there is a lot of backlog in revenue and should amplify revenues as newer customers come to Zix. Zix's core email encryption business is gaining traction and is positioned very well for significant growth due to a heightened awareness of the need for data and privacy protection. Zix is in a prime opportunity to steal customers and revenue from competitors, especially as Cisco is closing their email encryption segment. Zix provides their solutions in three segments: 1) "ZixDirectory" which is growing at roughly 100,000 end users per week, is the world's largest email encryption community which is designed to share the identities with the tens of millions of users, 2) Zix's "Best Method of Delivery" is designed to deliver email according to the sender's encryption policy, and 3) "ZixGateway" automatically encrypts and decrypts the email for the receiver. In May of 2014 "GAME" was designed by Zix at the request of Google for Google Apps and provides secure email to and for Google Apps users when communicating outside Google's secure cloud to all other email users, which is expected to bring revenue in for years to come. In the past two years Zix has released products that are specific to current and evolving trends. "ZixDLP" is designed to help companies minimize email data loss in terms of cost and time from months to hours. "ZixOne" is a BYOD solution designed to allow employees to use their own devices for company email. Because of significant growth potential, ease of use, and new products, it is recommended that ZIXI be added to the AIM Equity Fund with a target price of \$4.33, which offers a potential upside of 37%.

Investment Thesis

- **Significant Growth Potential.** On the second quarter earnings call, Zix announced two significant customer steals: one from Microsoft with a large healthcare system and one from Cisco with a

large financial firm. Management also noted the end of Cisco's IronPort Encryption Appliance, which was a heavy competitor to Zix. This could be a huge revenue generator as Cisco's customers are expected to find other services. Zix believes that it can attain 100 – 200 current Cisco customers with average seat counts in the 10,000 to 20,000 range. Zix currently averages about \$20 per user per year for the standard service as it is now. If Zix lands half of these seats, there would be an additional \$2.25 million per year in revenue.

- **Extreme Ease of Use.** In a recent survey Zix conducted, 81% of users use their own devices for work and 71% of those people turned off a passcode for their device all together. One of the ways that Zix continues ensures these customers and drives more clients to cooperate with them is via its extreme ease of use. Through ZixGateway, there are no extra steps or passwords which makes secure email as convenient as regular email for senders and receivers.
- **GAME, ZixDLP, and ZixOne.** Historically, Google was a strong customer for Zix's new first year orders, growing from less than 10% in 2009 to 22% in 2012. GAME is now available through the Google sales team, which should bring future revenue and increase awareness for the need of email encryption. ZixDLP, which is designed as a complementary solution to Zix's Email Encryption, added 13 customers in 2Q14 representing 69,000 subscriptions. Like ZixDLP, ZixOne sales are beginning to increase as well. 45 ZixOne customers were added in 2Q14 with half being new to the company.

Valuation

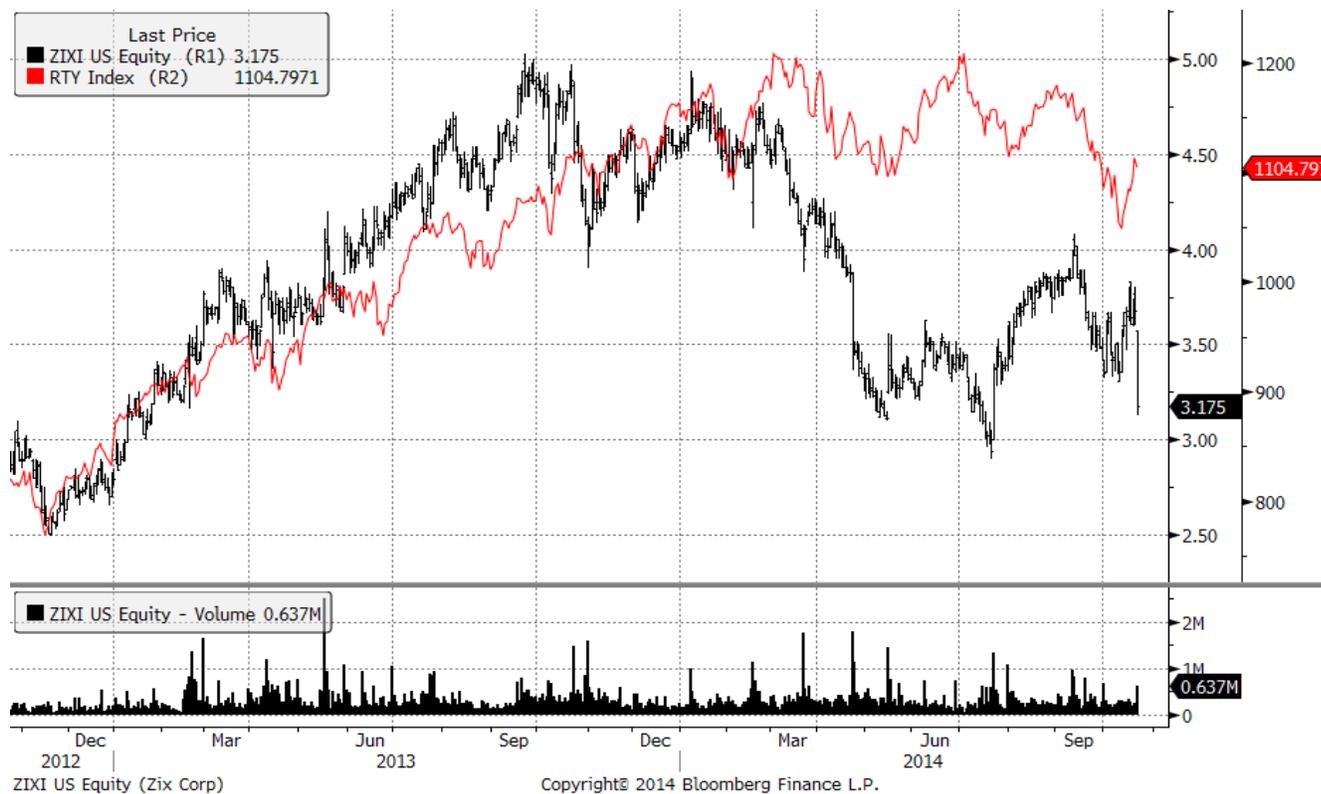
In order to reach an intrinsic value for ZIXI, a five year discounted cash flow model was conducted. Using a terminal growth rate of 2.5% and a WACC of 9.79% resulted in a valuation of \$4.40. Sensitivity analysis on both the terminal growth rate and WACC provided for a range between \$5.42 and \$3.64. Additionally, a PE multiple comparison was analyzed. Using an industry average PE multiple of 25.35x and a 2014 EPS estimate of \$0.17, a value of \$4.26 per share was obtained. By weighing the DCF model 50%, and the PE multiple valuation 50%, a price target of \$4.33 was established. ZIXI does not pay a dividend.

Risks

- **Heavy Reliance on Email.** All of Zix's revenue comes from the dependency on email. There would be a huge risk if anything were to take over and deem email obsolete. Presently, there does not seem to be anything that could have this potential and email seems to be continuing to grow.
- **Encryption Algorithm Leaked.** Naturally, the most important segment of Zix's email encryption is the algorithm. Although the algorithm changes every time, there is still a small possibility someone could figure out the algorithm and gain access to emails. If this were to happen, it is likely we would see an exodus of Zix service and almost no client retention.
- **Strong Competition.** Zix competes in a challenging segment. Competition includes companies such as Microsoft, Baracuda Networks, and Cisco. There has also been a large trend of consolidation between the companies, which further drives market share away from Zix. Some of the competitors have longer operating histories, more extensive operations, and greater name recognition.

Management

Richard D Spurr functions as the Chairman, President, CEO, and COO. He has been in this role with Zix since 2004. Michael English serves as the CFO and has been with Zix since 2007. David J Robertson has been the Vice President of Engineering since 2002.



Ownership

% of Shares Held by All Insider & 5% Owners:	13.00%
% of Shares Held by Institutional & Mutual Fund Owners:	43.00%

Top 5 Shareholders

Holder	Shares	% Out
Wellington Management Company, LLP	5,901,009	9.95%
BlackRock Institutional Trust Company, N.A.	2,323,821	3.92%
MIG Capital, LLC	1,961,753	3.31%
Kornitzer Capital Management, Inc.	1,827,200	3.08%
Vanguard Group, Inc.	1,721,060	2.90%

Source: Yahoo!

Proofpoint, Inc. (PFPT)

October 24, 2014

Berent Kowarick

Domestic Information Technology

Proofpoint, Inc. (NASDAQ: PFPT) is a security-as-a-service (SaaS) vendor that delivers data protection solutions to over 3,100 customers among large and mid-sized organizations worldwide. Revenue is recognized as either subscription (2Q14 97% of revenues) or hardware services (3%). Subscription is recognized ratably over the term of the arrangement, which is generally 1 year or 3 years. Overall renewal rate is strong at over 90%. The company's SaaS platform provides cloud-based e-mail security, advanced threat protection, archiving, and data protection solutions, which protect data from sophisticated cybersecurity threats. These solutions help mitigate the impact of unwanted email, protect its customers from spear-phishing attacks, and detect advanced malware. As of FY 2013, PFPT owns 40 patents and 13 patent applications. The company was founded in 2002, completed its IPO in 2012, and is headquartered in Sunnyvale, California.

Price (\$) (10/15/14)	35.90	Beta:	1.218	FY: December	2013A	2014E	2015E
Price Target (\$):	45.71	WACC	10.71%	Revenue (Mil)	\$ 137.90	\$ 186.17	\$ 245.74
52WK Range (\$):	24.04 - 45.66	M-Term Rev. Gr Rate Est:	30.0%	% Growth	29.73%	35.00%	32.00%
Market Cap:	1.34B	M-Term EPS Gr Rate Est:	92.0%	Gross Margin	69.83%	72.00%	73.00%
Float	31.20M	Debt/Equity	230.9%	Operating Margin	-21.46%	-6.00%	-2.00%
Short Interest (%):	10.4%	ROA:	-8.8%	EPS (Cal)	\$ (0.32)	\$ (0.35)	\$ (0.20)
Avg. Daily Vol (3 mo):	439.6K	ROE:	-89.9%	FCF/Share	\$ 0.13	\$ 0.25	\$ 0.59
Dividend (\$):	-			EV/Sales	7.94	6.82	5.52
Yield (%):	-						

Recommendation

Email security, despite being a well-penetrated market, continues to remain as one of the top security concerns for organizations. According to the 2013 Verizon Data Breach Report, 95% of all of targeted attacks have began with spear-phishing via e-mail. In addition, these targeted attacks are impossible to detect using conventional content scanning. Proofpoint reports that 1 in 10 users that receive email messages with malicious URL links will click on them. The growing threat of data breaches has been displayed to the public through recent attacks on high profile companies such as Target, Home Depot, and recently JP Morgan, which impacted 76 million households. This is a clear indicator that sophisticated malware threats have sharply increased. The company's total addressable market (TAM) has expanded from approximately \$5B to \$6.7B since PFPT's IPO in 2012. This is believed to continue to increase at a 9% CAGR into the foreseeable future as a result of expansion into broader forms of messaging, data governance, and advanced threat detection. Guidance expects EBITDA to breakeven by the end of the 4Q14, which will inflect meaningful FCF growth. With deferred revenues considered, guidance predicts FCF to scale 18-22% of revenue meaning margins should expand at over 700bps per year over the next three years. Due to Proofpoint's expanding product line, market capture, and increasing demand for cybersecurity, it is recommended that PFPT be added to the AIM Equity Fund with a price target of \$45.71, offering an upside of 27.32%. The company does not pay dividends at this time.

Investment Thesis

- Opportunity To Raise TAP Pricing.** The new Targeted Attack Protection (TAP) solution was added to the Protection product of PFPT in February 2014. The company's acquisition of Armorize in August 2013 supports the technology that has been part of the TAP solution. Through the use of big data techniques and dynamic malware analysis TAP has the ability to identify Advanced Persistent Threats (APT). According to a report by Trend Micro in 2012, over 90% of APTs are delivered via e-mail. Previously the solution could only protect against URL links, which directed users to malware-laced websites. Due to TAP's high differentiation and increasing customer demand, PFPT raised the price from \$7-\$8/user/year to \$10/user/year. TAP has grown 100% YoY in 2Q14 and is the primary driver of 43% YoY billing growth.

- **Pure Play Captures Cybersecurity Market.** Many of PFPT's previous competitors have been acquired by larger non-security focused organizations, such as Postini by Google, IronPort by Cisco, Brightmail by Symantec and MX Logic by Intel. This leads PFPT to become the largest remaining pure play in the e-mail and content security market, leveraging a cloud-based delivery model. The larger competitors are more interested in selling a broader portfolio of offerings therefore leaving PFPT as the clear leader in this competitive environment. This is evident by reviewing the Gartner Magic Quadrant for Secure Email Gateways presented in July 2014. When comparing this more recent report to the Gartner Magic Quadrant presented in August 2012, one can see that PFPT moved from second or third place to first since the company's IPO. Ultimately, PFPT has shown success in expanding into faster-growing, attractive markets.
- **Substantial Cross-Selling Opportunity Through New Products.** As of the 2Q14, 67% of the 3,100 customers have only deployed one of the company's three core products. This allows for a large cross-selling opportunity to increase its recurring annualized revenue by 3x among its installed base. In May 2014, PFPT acquired NetCitadel which provided the means to release its Threat Remediation product. This product automatically confirms and prioritizes security alerts and can automatically quarantine impacted systems within minutes. This new product is priced at \$10/user/year and is a natural complement to PFPT's large base of Protection and TAP customers. PFPT also intends to introduce another complementary product called Content Control in the 3Q14. This product provides visibility and control over sensitive content such as customer records, patient info, and credit card data.

Valuation

To reach an intrinsic value for Proofpoint, a five-year discounted cash flow model was constructed. Using a long term growth rate of 3% and a WACC of 10.71%, the model generated an intrinsic value of \$47.06, an upside of 31.08%. A sensitivity analysis on both the terminal growth rate and the WACC resulted in a range between \$38.95 and \$59.22. An EV/Sales comparison was also taken into account. The EV/Sales approach with a peer group average of 8.07x generated an intrinsic value of \$42.56 representing an upside of 18.54%. Weighting the DCF model at 70% and EV/Sales at 30%, a price target of \$45.71 was established, representing a potential upside of 27.32%. The company does not pay dividends at this time.

Risks

- **Highly Competitive Market.** The email security market is reaching the peak of maturity and is well-penetrated. PFPT has remained competitive despite the competition of several well funded organizations primarily due to a lack of focus on this area from large competitors. There is strong fragmentation with no single company owning more than 20% of the market share. Companies that like offering the full platform for anti-malware are competing with PFPT which only provides a niche product.
- **Limited Ability to Expand Beyond Email Security.** The risk that PFPT is unable to expand its TAM at a competitive rate beyond the core email filtering into broader areas such as enterprise archival, e-discovery, and advanced threat detection. Although this may be a concern, it is believed that the company will continue to grow based on the core market share gains, transition from legacy competitors, and product development.

Management

Gary Steele has been the CEO and director since the company was founded in 2002. Previously he was CEO of Portera Systems, Inc. Paul Auvil has served as CFO since March 2007. Mr. Auvil has over 20 years of experience in finance. Eric Hahn is the company's founder and chairman on the board. He also previously was a founding partner of Inventures Group in 1998 and was chief technology officer for Netscape Communications.



Source: Bloomberg

Ownership

% of Shares Held by All Insider and 5% Owners:	4%
% of Shares Held by Institutional & Mutual Fund Owners:	>90%

Source: Bloomberg

Top 5 Shareholders

Holder	Shares	% Out
T Rowe Price Associates	5,852,997	15.65%
Meritech Capital	3,017,502	8.07%
Wells Fargo & Company	1,827,982	4.89%
MDV Partners LLC	1,669,974	4.46%
BlackRock	1,507,924	4.03%

Source: Bloomberg

VASCO Data Security International Inc. (VDSI)

October 24, 2014

Rushi Shah

Domestic Information Technology

Vasco Data Security International Inc. (NASDAQ: VDSI) provides security solutions through user authentication products and application security products worldwide. VDSI operates in two segments: Banking (85% of revenue), and Enterprise & Application Security (15%). The company has different products like DIGIPASS and VACMAN, which are used by applications that need user authentication and/or electronic signatures. The company operates in four geographic segments: EMEA (57%), United States (5%), Asia Pacific (27%) and Other (11%). VDSI has many competitors including EMC Corporation and Symantec. VASCO Data Security International Inc. was incorporated in 1991 and is headquartered in Oakbrook Terrace, IL. The company also has a subsidiary in Switzerland that realizes the majority of revenue at a lower tax rate.

Price (\$): October 21, 2014	\$19.59	Beta:	1.66	FY: Jan	2013A	2014E	2015E
Price Target (\$)	\$22.24	WACC:	11.83%	Revenue (\$mil)	\$155.05	\$204.39	\$251.41
52 WK H-L (\$)	\$6.47-21.22	M-Term Revenue Gr. Rate Est:	26%	% Growth	7.70%	31.83%	23.00%
Market Cap (mil):	777.71	M-Term EPS Gr. Rate Est:	47%	Gross Margin	65.10%	67.00%	68.00%
Float (mil):	29.09	Debt/Equity Ratio	0.00%	Operating Margin	16.00%	16.50%	17.00%
Short Interest (%)	3.30%	ROA:	6.33%	EPS (Cal)	\$0.28	\$0.69	\$0.88
Avg Vol (K)	608,525	ROE:	9.92%	FCF/Share	\$0.24	\$0.91	\$1.12
Dividend (\$):	--			P/E (Cal)	42.98	28.26	22.28
Yield (%)	--						

Recommendation

According to Gartner, security software businesses achieved nearly \$20 billion of revenue in 2013. In addition, authentication is expected to increase by a 14% CAGR. VDSI has positioned in this market to growth at a 21% CAGR in the last ten years. VDSI uses their main products such as VACMAN, DIGIPASS, and IDENTIKEY to supply banks and e-commerce companies security services. VDSI has 10,000+ customers in more than 100 countries including more than half of the 100 top global banks and 1,700+ financial institutions. Their main clients include HSBC, BNP Paribas - Fortis, and Indiana University. VDSI is trying to expand at a time where data security is one of the most important trends in the information technology space. VDSI believes that their products provide the the most clear and easy-to-use security products that companies around the world can use. The company also strives to grow with their cross-platform products, which is preferred compared to single platform products. In 2012, VDSI launched MYDIGIPASS.COM as a way to approach the B2B and B2C business. In 2013, they made an accretive acquisition of Cronto, a provider of secure visual transaction authentication solutions for online banking. VDSI has had 46 consecutive quarters of profitability with a 21% CAGR in revenue from 2003-2013, and are positioned to stem growth for the future. That being said, it is recommended that VDSI is added to the AIM Domestic Equity Fund with a target price of \$22.24, presenting a 13.53% upside. The firm does not pay a dividend.

Investment Thesis

- **Cybersecurity theme extremely important going into 2015.** In 2013, Gartner projected a 14% CAGR in authentication through 2019. In addition, with the recent breaches to Target, Home Depot, and JPMorgan Chase, cyber security has been extremely demanding. Before companies can innovate with Internet of Things products, they must realize that security is most important. This should provide VDSI top and bottom line growth as their customer base continues to grow.
- **Growth in all segments.** Q2 provided growth in all geographic and business segments including 98% growth in the Asia Pacific region and 65% growth in the “Other” region, which includes India, Latin America, and Australia. VDSI uses its global presence to be able to service banks and

e-commerce companies everywhere. Another benefit of having growth outside of the United States is that revenue is realized in the Swiss part of the company, where there is only an 8-12% tax rate.

- **DIGIPASS set for mobile applications market.** More than 100 billion mobile application downloads were executed in 2013. VDSI wants to grasp the market for this growing number. DIGIPASS is one of VDSI's most important products for the future because it is cloud driven, and services mobile applications. According to Gartner, by 2017, more than 50% of enterprises will choose cloud-based services for user authentication services. Not only does this product provide easy to use cloud-based authentication, but it benefits the company because of recurring revenues. Having a customer base that will provide recurring revenue should continue to stem organic growth. The product provides two factor authentication, which has become extremely vital.

Valuation

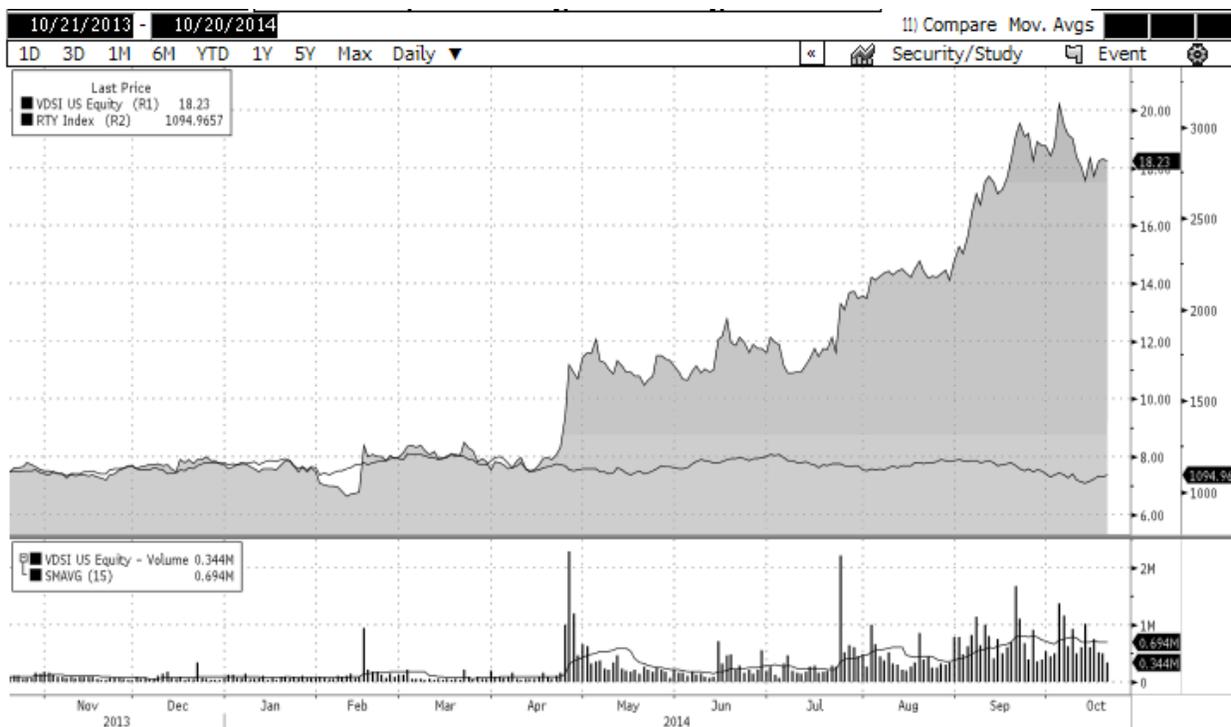
The intrinsic value of VDSI was found using three different valuation methods. A 5-year DCF was conducted using a WACC of 11.83% with a terminal growth rate of 3%. An intrinsic value of \$20.22 was achieved. A P/E comparable valuation was conducted as well. Competitors of VASCO were used to obtain a P/E multiple of 30.36x. Using this along with the expected 2014 EPS of \$0.67, an intrinsic value of \$20.39 was obtained. For the EV/EBITDA valuation, an average of 19.59x was found to result in an intrinsic value of \$21.48. Weighing the DCF model at 50%, and the P/E comparable along with the EV/EBITDA valuation at 25% each, a target price of \$22.24 was established. This represents a 13.53% upside. VDSI does not pay a dividend.

Risks

- **Consistency an issue.** Although VDSI has a 21% CAGR for the last ten years, their numbers have been inconsistent. In the last six quarters, the revenue for VDSI decreased twice compared to the previous quarter. There have been segments that have experienced this as well which may cause trouble in the future. In the first two quarters of fiscal 2014, VDSI averaged an operating margin of 13.3% compared to 8.84% in all of fiscal 2013. This growth in margins and decreasing tax rates should help combat the inconsistency in the top line.
- **Top customers account for large percent of growth.** The top ten customers for revenue have accounted for 40%, 37%, and 47% in 2013, 2012, and 2011 respectively. This poses a threat because if some of these customers find a better alternative compared to VDSI's products, it would decrease revenue significantly. However, transitioning to another product would be hard because for these banks because of high switching costs.
- **Breach of software can cause loss of customers.** Hackers are finding ways to breach some of the most sophisticated software with malware, sometimes without the company even knowing. If someone figured out how to hack VDSI's services, their whole product line would be in jeopardy.

Management

Kendall Hunt is the founder and CEO of VASCO. His experience speaks volumes after working for many tech start up companies. He co-founded Secured Services Inc. before starting VASCO, and is 70 years old. This may cause questions for management when he retires. Clifford Bown serves as Chief Financial Officer of the company. Jan Valcke serves as President of the company. Valcke predominantly manages the banking side of the company and also helped with digiline, the marketing part of DIGIPASS.



Ownership

% Shares Held by All Insider and 5% Owners:	26%
% Shares Held by Institutional & Mutual Fund Owners:	49%

Source: Yahoo! Finance

Top 5 Shareholders

Holder	Shares	% Out
FMR, LLC	2,889,224	7.28%
Private Capital Management	2,141,753	5.40%
BlackRock Fund Advisors	1,570,064	3.96%
Vanguard Group	1,142,396	2.88%
Royce & Associates	993,100	2.50%

Source: Yahoo! Finance

Competitors

Company	Ticker	Mkt. Cap	P/E Ratio	EV/EBITDA
Vasco Data Security	VDSI	1.18B	42.00	11.07
Akamai	AKAM	9.6B	32.05	15.24
Commvault Systems Inc.	CVLT	2.17B	37.18	17.62
EMC Corporation	EMC	54.67B	22.11	9.69
LifeLock Inc.	LOCK	1.43B	30.1	53.21

HSBC Holdings plc ADR (HSBC)

October 24, 2014

Chris Swanson

International Financials

HSBC Holdings plc ADR (NYSE:HSBC) is a global investment bank located in the United Kingdom. HSBC has a presence in 74 countries and provides a variety of financial services broken down into 4 main segments: retail banking and wealth management, commercial banking, global banking and markets, and global private banking. It derives its revenue from Hong Kong and Asia (37%), Europe (31%), Latin America (16%), North America (13%), and Middle East (3%). The bank currently employs over 256,000 people and serves about 52 million customers worldwide. Each share of the ADR represents 5 regular shares, which are traded on the London Stock Exchange.

Price (\$): (10/21/2014)	\$49.94	Beta (vs. SPADR):	0.98	FY: Dec 31	2013A	2014E	2015E
Price Target (\$):	\$62.06	Cost of Equity:	8.86%	Net Interest Income (\$M):	35,861.00	36,365.28	37,092.59
52 WK L-H (\$):	\$48.80-\$56.79	M-Term Rev. Gr Rate Est:	3.7%	% Growth:	-5.36%	1.41%	2.00%
Market Cap (B):	192.61	M-Term EPS Gr Rate Est:	6.9%	NIM (%)	1.68%	1.80%	1.95%
Float (B):	3.83	Financial Leverage	15	EPS:	\$4.20	\$4.93	\$5.32
Avg. 10 Day Vol:	1,700,000	Ave. ROE (FY 2011-13):	9.50%	BVPS:	\$48.75	\$51.47	\$54.74
NPA/Total Assets (%)	1.23%	Tier-1 Capital Ratio	12.30%	P/B:	1.10	1.03	1.06
Dividend (Q):	\$0.50	Credit Rating (S&P)	A+	P/E	12.70	10.75	10.89
Dividend Yield:	3.98%	Short Interest	-	Div. Per Share	\$2.40	\$2.45	\$2.75

Recommendation

The world economy is becoming more connected, and HSBC is well positioned to capture world trade growth as well as GDP growth in many of the world's fastest growing markets. As developing economies grow their wealth, they look to strong financial institutions to help them facilitate long term sustainable growth. HSBC offers an attractive array of financial services with an international network of trade partners that make them a one stop shop for growing businesses to scale up their presence on an international level. HSBC operates in growth markets while maintaining a strong balance sheet, with a 12.3% Tier 1 Capital Ratio, providing investors with a way of playing growth in emerging markets without the inherent risks of concentration in one market. Net interest income has been decreasing since 2011 as HSBC continues to sell off non core business segments but core interest income growth remains strong and increased \$400mm in 1H14 over 1H13. Concerns over Europe's economic situation as well as the recent Hong Kong protests have held HSBC's share price artificially low without effecting the long term prospects of the company, providing a buying opportunity with an attractive upside. It is recommended that HSBC be added to the AIM International Equity Fund with a target price of \$62.06, representing a potential upside of 24.28%. HSBC also pays out a large portion of profits to shareholders, with a dividend yield of roughly 4%.

Investment Thesis

- **Select Emerging Markets Exposure.** HSBC targets select high growth markets for capital deployment. These markets have some of the highest forecasted growth rates in their respective regions and the world, including: China (forecasted 2013-2025 GDP CAGR of 10.4%), India (13.2%), Indonesia (9.3%), and Brazil (6.1%). HSBC will be able to borrow at the low rates UK has to offer and lend those out at much higher rates in these emerging markets, raising their net interest margins while expanding their presence. As world trade growth continues to outstrip GDP growth, HSBC will also profit from these markets becoming more integrated with each other.
- **Lean Operating Model Following Massive Restructuring.** Since 2011, HSBC has exited out of 74 non core businesses, most notably the sale of their credit card business to Capital One in 2012. The effect of the restructuring was a reduction in risk weighted assets by approximately \$100B. This strategic restructuring allowed HSBC to de-risk their their business and concentrate on their core banking business. Management is also forecasting an additional \$2-3B in cost

reductions by 2016, increasing the bottom line that will get paid out to shareholders and improving its efficiency ratio to roughly 55%.

- **Leading Market Position.** HSBC is one of the world's largest financial institutions, giving them economies of scale that are not affordable for the vast majority of banks. Due to their operations in the emerging markets, HSBC is able to offer lower rates than many local banks due to the sheer number of loans they are making. HSBC can use this method to rapidly gain market share in emerging markets while still being able to profit from the efficiencies created by a large scale financial institution. In addition to HSBC's pricing power, they also generate revenues in diversified regions, meaning if one market were to slow in growth, HSBC would be buoyed by their other markets. This makes HSBC a safer investment than a traditional emerging markets bank.

Valuation

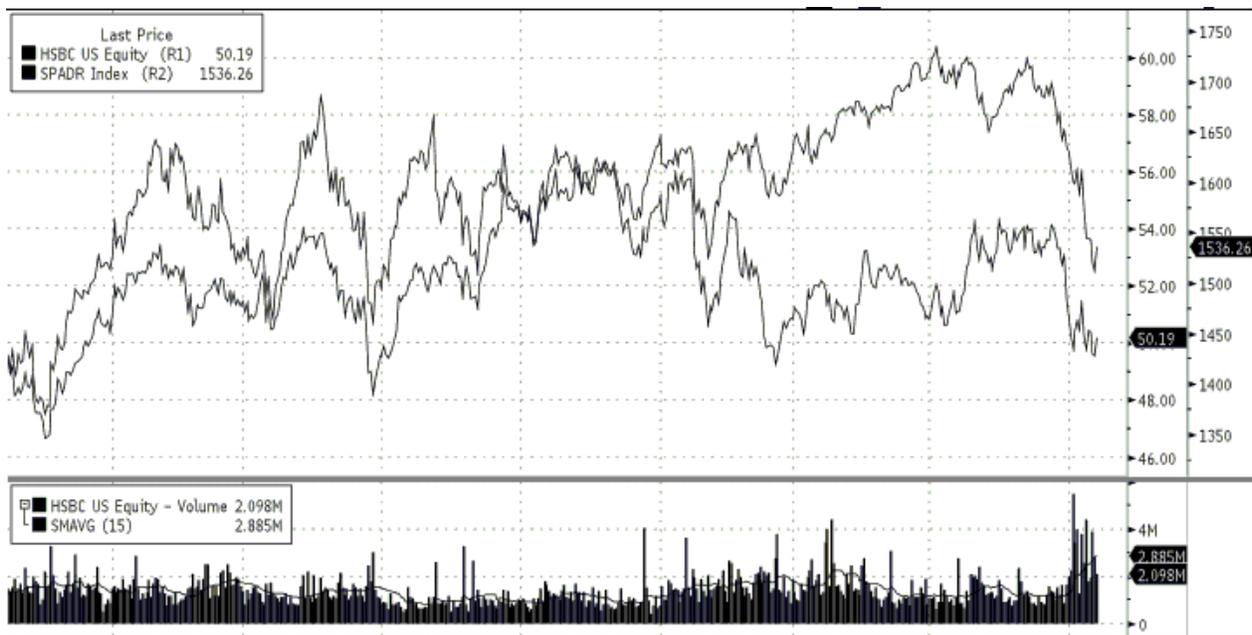
To value HSBC, a DDM methodology was utilized along with a P/B multiple. Using an assumed cost of equity of 8.86% and a perpetuity growth rate of 3%, an intrinsic value of \$58.97 was computed, representing an upside of 17.5%. A sensitivity analysis on the cost of equity and perpetuity growth rate generated a range of \$47.21-\$74.99. In addition, weighting historical average and peer comparables 50/50, a P/B multiple of 1.3x was found. Multiplying the multiple with the TTM BVPS of 49.59 yielded a value of \$65.16, an upside of almost 30%. Weighting the two methodologies equally, an intrinsic value of \$62.06 was computed, representing an upside of 24.28%. HSBC also pays a quarterly dividend, representing an impressive yield of 4%.

Risks

- **Hong Kong Protests Create Instability.** The current protests in Hong Kong have led to a 10% drop in HSBC's share price. Should the protests escalate into large scale violence, HSBC may suffer material losses in their Hong Kong operations. In addition, if current political powers are overthrown, concern over future political policy could create a risk premium that will be priced in. It should be noted, however, that very little violence has occurred since the protests started in late September, and protestors have indicated that they will remain peaceful.
- **Increased Regulatory Requirements.** Governments and regulators in numerous jurisdictions continue to develop policy which may impose new requirements, including in the areas of capital and liquidity management and business structure.
- **Information Security Risk.** HSBC controls a large amount of customer data, and a security breach could materially effect the company. The recent security breach at JP Morgan shows that these risks are inherent and should be addressed accordingly.

Management

Stuart Gulliver is Group Chief Executive of HSBC as well as the Chairman of The Hongkong and Shanghai Banking Corporation Limited. Mr. Gulliver has worked at HSBC in a number of roles since 1980 and was appointed to Global Chief Executive in 2011. Mr. Gulliver holds a law degree from Oxford University.



Ownership

% of Shares Held by All Insider and 5% Owners	13%
% of Shares Held by Institutional & Mutual Fund Owners	85%

Source: Bloomberg

Top 5 Shareholders

<u>Holder</u>	<u>Shares</u>	<u>% Out</u>
JP Morgan Chase & Co	1,426,266,342	7.43%
Blackrock	1,186,634,958	6.18%
Aberdeen	656,455,168	3.42%
State Street Corp	607,785,029	3.17%
Legal & General Inv Mgmt Ltd.	569,887,861	2.97%

Source: Bloomberg

Astronics Corporation (ATRO)

October 24, 2014

Mitchell Swirth

Domestic Industrials

Astronics Corporation. (NASDAQ: ATRO) designs and manufactures, through its subsidiaries, products for the aerospace and defense industries worldwide. The company operates in two segments, Aerospace (76% of revenues) and Test Systems (24% of revenues), and has locations in three different countries: the U.S., Canada, and France. The Aerospace segment provides electrical power and motion (52% of revenues YTD), aircraft lighting and safety systems (31%), aircraft structures (3%), avionics products (10%), and other products (4%). The segment serves airframe manufacturers that build aircraft for commercial, military, businesses, and other general aviation markets. In 2013, the commercial market made up 72% of sales, military made up 15%, business jet made up 9% and other markets made up the remaining 4%. The Test Systems segment designs, develops, manufactures and maintains communications and weapons test systems, and training and simulation devices for military applications. The segment sells its product to primarily the U.S. military, and manufacturers of military communication systems. The company has 1,715 employees, was founded in 1968 and is headquartered in East Aurora, New York.

Price (\$)(10/15/14):	\$ 45.76	Beta:	1.30	FY: Dec	2013A	2014E	2015E
Price Target (\$):	\$ 61.74	WACC	10.26%	Revenue (\$Mil)	339.90	645.81	697.47
52WK L-H (\$):	60.68-35.36	M-Term Rev. Gr Rate Est.	28.0%	% Growth	27.6%	90.0%	8.0%
Market Cap (mil):	868.90	M-Term EPS Gr Rate Est.	29.2%	Gross Margin	25.86%	26.00%	27.00%
Shares Out (Mil)	13.70	Debt/Equity:	126.1%	Operating Margin	12.44%	13.50%	14.04%
Short Interest (%):	8.1	ROA:	8.5%	EPS (\$Cal)	\$1.30	\$2.35	\$2.92
Avg. Vol (90 day)	181,335.0	ROE:	20.5%	FCF/Share	\$3.31	\$3.50	\$4.26
Dividend (\$):	N/A			P/E (Cal)	23.26	19.45	15.65
Div. Yield:	N/A			EV/EBITDA	25.79	9.70	8.43

Recommendation

Astronics Corporation currently has a significant share of the in-seat power market (ISP), which is important to airlines because it is an amenity that they can offer to their customers to differentiate from opposing airlines. ATRO owns nearly 80% of the total market and over 90% of those found on wide-body airplanes. Since ATRO dominates the ISP market and Boeing expects the narrow-body planes to make up 70% of all planes by 2030, demand will grow in the future. This demand should provide a strong boost to ATRO. The narrow-body ISP market is susceptible to competitors taking market share from ATRO. However, if larger competitors, like BAE systems, begin capturing narrow-body market share, this market will expand allowing ATRO to grow their share because having ISP on narrow-body planes will become the trend. Other than ISP in ATRO's electrical power & motion product sets, they have recently announced four new intelligent power management system programs. The Lear 85, which content value is approximately \$250,000 per aircraft is the program to be realized in early 2015. These four programs are expected to be the new generation power distribution systems for airplanes. ATRO has also seen major increases to their top line revenue in 2014 from four closed acquisitions that have taken place since 2013 along with strong organic growth at 12.5%. One of their acquisitions was of an EADS system that is expected to add sales of \$160 million in 2014. ATRO's bookings in Q2 2014 were at \$139 million, up 109% YoY, which may not be a sustainable growth rate, but management expects the strong bookings growth to continue in the near term. For these reasons along with a favorable valuation, it is recommended that ATRO be added to the AIM Equity Fund with a price target of \$61.74, representing a potential upside of 34.91%.

Investment Thesis

- **Market growth of ISP market.** It is estimated that today only 5% of the global narrow-body planes have ISP today. This number is expected to expand rapidly as FAA regulation now allows electronic devices gate-to-gate, and several major airlines (Alaska, Air Canada, Continental/United, and Delta) have announced ISP installations. These airlines made these announcements to differentiate from competitors, and it is expected most airlines follow this trend to keep up. This market should also grow as more and more planes need to be replaced considering a Bombardier analysis found about 20% of all commercial aircraft is 20 years or older, and the probability of retirement of a plane increases dramatically when it reaches 20 years.
- **Increasing content per aircraft.** Over the past decade, a typical aircraft held about \$10,000 worth of ATRO equipment. Today aircraft like the Boeing 787 or the A380 Joint Strike Fighter, have between \$100,000 and \$500,000 of ATRO equipment installed. Management expects this trend to continue. That level of content on each aircraft allows for maintained current market share, and it keeps replacement and maintenance revenues on a steady, growing track.
- **High percentage of sales going into R(E)&D.** Since ATRO mainly has competitors that are much larger, they pride themselves on investing a higher percent of sales in research (engineering) and development. By developing or acquiring technical capability they are able to legally protect themselves from competitors through patents. From 2008-2012, that percent grew up to 16.9% in 2012. In 2013 and 2014 that percent dropped due to the four recent acquisitions.

Valuation

In order to reach an intrinsic value for ATRO, a five year discounted cash flow model was conducted. Using a terminal growth rate of 2% and a WACC of 10.26%, a valuation of \$63.41 resulted. A sensitivity analysis on both the terminal growth rate and WACC yielded a range between \$55.09 and \$75.60. Additionally, an EV/EBITDA multiple was performed in this analysis. An industry average EV/EBITDA multiple of comparable firms yielded a multiple of 9.66x. Using this multiple, a share price of \$60.06 resulted. By weighting the DCF model 50% and the EV/EBITDA multiple 50%, a price target of \$61.74 was established offering potential upside of 34.91%. ATRO does not pay a dividend.

Risks

- **Panasonic Avionics and the Boeing Company as customer.** These are the two major customers of ATRO. In 2013, Panasonic represented 29.6% of sales while Boeing represented 14.5% sales. However, management is confident that relations with both of these companies are sound and there is no prospect of losing either customer in whole or partially.
- **High Debt Level.** From 2009-2012, the level of debt ranged from \$20-40 million. However, in 2013 the company began acquiring more companies with the use of significant leverage. At the end of 2013 the company had \$188 million of long-term debt. With continued leverage, it will become more difficult for ATRO to continue their strategic acquisition strategy.
- **Cyclical Aerospace Market.** The aerospace market is cyclical by nature and economic downturns could negatively affect ATRO as they are generally smaller than most of their competitors. The commercial aircraft market is also highly cyclical and sensitive to fuel prices, labor disputes, global economic conditions, availability of capital to fund new aircraft purchases and upgrades of existing aircraft and passenger demand.

Management

Peter J. Gundermann is the CEO, President, and director of ATRO; he has been in the CEO and President roles since 2003. Mr. Gundermann also serves as the President of Luminescent Systems Inc., and he has assumed that role since 1991. David C. Burney serves as the CFO, Principal Accounting Officer, Executive VP of Finance, and Treasurer of Astronics Corp, and he too assumed these roles in 2003. The Chairman of Astronics Kevin T. Keane; he served as CEO and President from 1974-2002.



Ownership

% of Shares Held by All Insider and 5% Owners:	8%
% of Shares Held by Institutional & Mutual Fund Owners	71%

Source: Yahoo!
Finance

Top 5 Shareholders

Holder	Shares	% Out
Lord Abbett & Co	999,396	7.13%
NWQ Investment Management Company, LLC	788,064	5.62%
Royal Bank of Canada	626,006	4.47%
Franklin Resources, Inc	539,016	3.85%
Stephens Investment Management Group	513,638	3.66%

Federal Signal Corporation (FSS)

October 24, 2014

Patrick Hart

Industrials

Federal Signal Corporation (NYSE: FSS) designs and manufactures a variety of products and integrated solutions for municipal, governmental, industrial, and commercial customers. The company operates in three segments: Environmental Solutions (57% of revenue), Safety and Security Systems (28%), and Fire Rescue (15%). The Environmental Solutions segment manufactures street sweepers, vacuum trucks and high-performance waterblasting equipment for municipal and industrial customers. The Safety and Security Systems segment manufactures systems and products for law enforcement, fire rescue, emergency medical services, campuses, military facilities and industrial sites to protect people and property. The Fire Rescue segment is a manufacturer of vehicle-mounted, aerial platforms for fighting fires, rescue, electric utility, and industrial uses. Federal Signal Corporation was founded in 1901 and is headquartered in Oak Brook, Illinois.

Price (\$) (10/21/14):	\$ 13.32	Beta:	1.20	FY: December 31	2013A	2014E	2015E
Price Target (\$):	\$ 16.63	WACC	10.43%	Revenue (\$Mil)	851.3	910.0	991.9
52WK L-H (\$):	11.53-16.05	M-Term Rev. Gr Rate Est.	9.2%	% Growth	6.0%	6.9%	9.0%
Market Cap:	835.5M	M-Term EPS Gr Rate Est.	13.9%	Gross Margin	24.10%	24.70%	25.20%
Short Interest:	2.30%	Debt/Equity:	20.1%	Operating Margin	8.30%	8.90%	9.50%
Avg. Vol (3 month)	258,715	ROA:	10.3%	EPS (\$Cal)	\$0.67	\$0.85	\$0.96
Dividend (\$):	\$0.12	ROE:	21.0%	FCF/Share (\$)	0.58	0.74	0.82
Div. Yield:	0.90%	ROIC:	15.1%	P/E (Cal)	19.88	15.67	13.88

Recommendation

Federal Signal Corporation has been in business for over 100 years, developing leading positions in niche governmental and industrial markets. They have established valuable brands, high quality products, and well-established distribution. This has allowed FSS to become a well-respected market leader with each segment controlling significant market share. The Environmental segment makes up about 30%-50% of the market share in the U.S., the Safety segment has about 30% of the market share in the U.S., and the Fire Rescue segment makes up about 50% of the global market share. The diversified product portfolio among these three segments revolves around the idea that the company's core competency is in personal and environmental protection technologies. The diverse revenue base from their many products is a strength of the company and when one niche is having a tough year it can be balanced out by the rest of the product mix. Demand for FSS's products has increased with total orders increasing 21% for the six months ending June 30, 2014. Each of the segments have seen an increase in orders of 28%, 27%, and 4% in the Environmental Solutions, Fire Rescue, and Safety Security Systems segments, respectively. This has resulted in a \$50.2M (16%) increase in backlog from \$305.8M on December 31, 2013 to \$356M on June 30, 2014. FSS also recently refinanced their debt, lowering the interest rate on their long-term borrowings from 12% to under 3%. FSS also announced a share repurchase program of up to \$15M in April 2014. This new capital structure will provide liquidity and flexibility to support their businesses and invest in profitable growth. Based on these reasons and a favorable valuation, it is recommended that FSS be added to the AIM Equity Fund with a price target of \$16.63, representing a 24.8% upside. The firm pays a dividend of \$0.12, representing a 0.9% yield

Investment Thesis

- Refinancing of Balance Sheet.** FSS completed their refinancing in March 2013, and now the business stands on a solid foundation with a healthy balance sheet. The interest on their long-term borrowings is now under 3%, compared to an interest rate of 12% at the end of 2012. This has drastically decreased their interest expense from \$21.4M in 2012 to \$8.8M in 2013, which is a YoY decrease of 59%. Cash generated from improved performance has helped FSS significantly

reduce their debt balances from \$157.8M in 2012 to \$92.1M in 2013, a YoY decrease of 42%. With this new capital structure, FSS has the flexibility to support their businesses and invest in profitable growth opportunities. As of June 2014, they have \$123.6M of net availability for borrowings from their \$150M domestic revolver, compared to \$25.7M at the end of 2012.

- **Margin Expansion through Manufacturing Efficiencies and Costs.** Two out of the three operating segments significantly improved operating margins. The Environmental Solutions segment was able to improve operating margin from 12.3% in Q2 2013 to 16.6% in Q2 2014. Improvement was due to higher operating leverage and increased sales volume. The Safety and Security Systems segment was also able to substantially increase operating margins from 6.3% in Q2 2013 to 12.2% in Q2 2014. The increase was largely due to improved gross profit and a \$1M reduction in SG&A expenses. Only the Fire Rescue segment saw a reduction in operating margin. In Q2 2013 it was 9.1% and in Q2 2014 it was -0.9%. This change was due to lower gross profit from operational issues resulting in several deliveries being postponed into the second half of 2014. The Fire Rescue segment is expected to recover, especially with a 28% YoY increase in backlog as of June 30, 2014.
- **Diversify Customer Base More into Industrial Markets.** Historically, FSS receives 60% or more of domestic sales from municipal markets. Municipalities will continue to be a priority customer, however, growth initiatives will focus on expanding their industrial consumer base. In 2013, U.S. industrial orders grew faster than municipal orders, increasing 8.6% YoY compared to municipal orders increasing 1.7% YoY. Management expects that by expanding into the industrial markets FSS will be able to further improve operating margins, as well as, reduce earnings volatility in the long-term.

Valuation

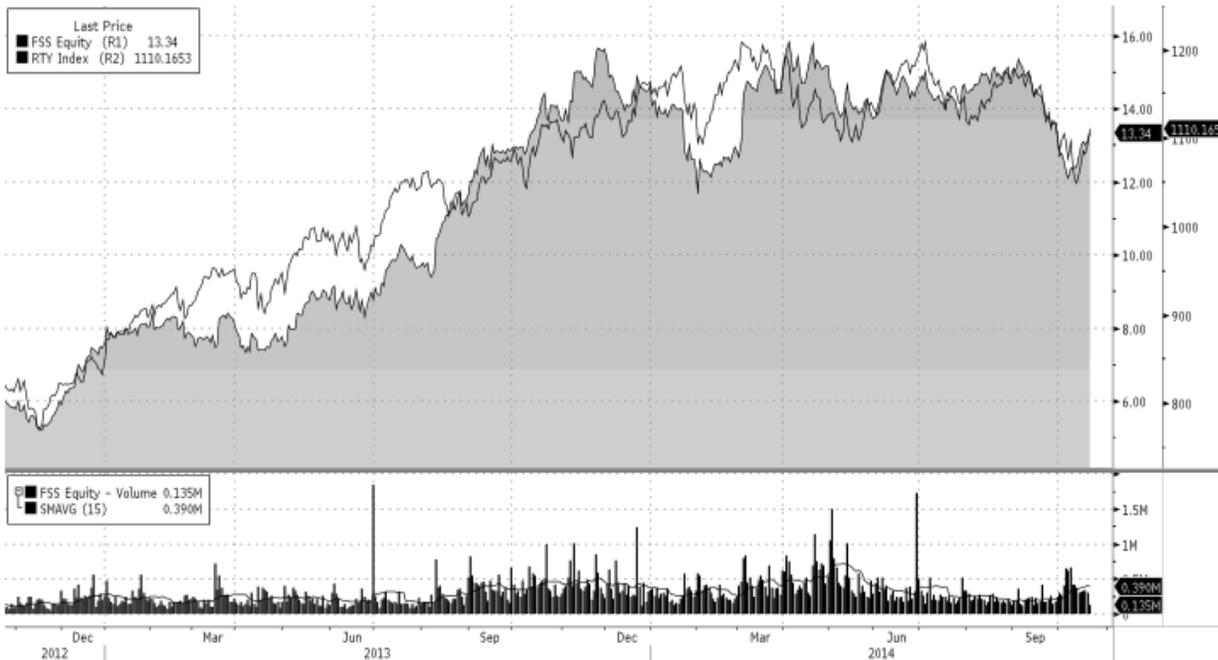
In order to obtain an intrinsic value for FSS, a five year discounted cash flow model was conducted. Using a terminal growth rate of 2.5% and a WACC of 10.34% resulted in a valuation of \$16.80, an upside of 26.2%. Sensitivity analysis on both the terminal growth rate and WACC provided for a range between \$13.12 and \$19.33. Additionally, a P/E comparison and valuation of the company was analyzed. Using a forward looking earnings of \$0.85 in 2014 and a P/E of 18.93x on the industry average, a value of \$16.09 was obtained. By weighting the DCF model 75% and the P/E multiple 25%, a price target of \$16.63 was obtained offering a potential upside of 24.8%. FSS pays a dividend of \$0.12.

Risks

- **Municipal Government Spending.** Many of FSS's customers are municipal government agencies, and therefore, are dependent on municipal government spending. Municipal customers can be affected by local political circumstances, budgetary constraints, and other factors. The U.S. government and municipalities depend heavily on tax revenues as a source of their spending and typically, there is a one or two year lag between the overall strength of the U.S. economy and sales to U.S. municipalities.
- **Economic Uncertainty.** In 2013, FSS generated approximately 65% of their net sales in the U.S. and 35% outside of the U.S. Their ability to be profitable is heavily dependent on global economic and political conditions. The industrial markets in which they compete are subject to considerable cyclical, and move in response to cycles in the overall business environment.

Management

Mr. Dennis Martin, 63, has been the Chief Executive Officer and President of Federal Signal Corporation since November 1, 2010 and joined the Board of Directors in March 2008. He has been an independent business consultant since 2005. Mr. Brian Cooper, 57, was appointed Chief Financial Officer on May 28, 2013 and has over 20 years of business experience in public and private companies.



Ownership

% of Shares Held by All Insider and 5% Owners:	1%
% of Shares Held by Institutional & Mutual Fund Owners:	80%

Source: Yahoo! Finance

Top 5 Shareholders

Holder	Shares	% Out
Heartland Advisors Inc.	7,571,270	12.07
Franklin Resources, Inc.	4,724,401	7.53
Dimensional Fund Advisors LP	3,872,042	6.17
BlackRock Fund Advisors	3,358,417	5.35
Vanguard Group, Inc. (The)	2,285,407	3.64

Source: Yahoo! Finance