

## Applied Investment Management (AIM) Program

### AIM Class of 2019 Equity Fund Reports Spring 2018

*Date: Friday, March 23<sup>rd</sup> | Time: 3:00 P.M. | Location: AIM Research Room 488*

3:00 PM Presenter	Company Name	Ticker	Sector	Page
Kyran Young	Radnet, Inc.	RDNT	Healthcare	2
Philip Suess	Horizon Bancorp, Inc.	HBNC	Financial Services	5
Michael Vidovic	Mitek Systems	MITK	Information Technology	8
Nathaniel D'Amato	NMI Holdings	NMIH	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](mailto:AIM@marquette.edu)

Website: [MarquetteBuz/AIM](#) AIM Blog: [AIM Program Blog](#)  
 Twitter: [Marquette AIM](#) Facebook: [Marquette AIM](#)

## Radnet, Inc. (RDNT)

March 23, 2018

Kyran Young

Domestic Healthcare

*Radnet, Inc. (NASDAQ: RDNT) is an independent outpatient diagnostic imaging firm specializing in radiology services. Their services include MRI, CT, and PET scans, nuclear medicine, mammography, ultrasound, X-ray, fluoroscopy and other imaging procedures. As of December 31, 2017, they had 257 MRI systems, 157 CT systems, 47 PET systems, 48 nuclear medicine systems, 479 X-ray systems, 279 mammography systems, 551 ultrasound systems, and 104 fluoroscopy systems in operation. They currently operate in 305 centers across the US mainly in California, Delaware, Florida, Maryland, New Jersey, New York, and Rhode Island. Radnet, Inc. was founded in 1980 and is headquartered in Los Angeles, California.*

Price (\$):	13.09	Beta:	0.92	FY: Dec	FY2016	FY 2017	FY2018	FY 2019
Price Target (\$):	18.78	M-Term Rev. Gr Rate Est:	5.8%	Revenue (Mil)	929.92	968.74	1,024.84	1,084.20
52WK H-L (\$):	13.40 - 5.33	M-Term EPS Gr Rate Est:	25.6%	% Growth	9.96%	-4.17%	5.79%	5.79%
Market Cap (mil):	611.97	Debt/Equity:	8.71x	Oper Inc	42.12	53.01	60.41	67.15
Insider Holdings	7.83%	Debt/EBITDA (ttm):	4.0x	% Growth	-0.07%	25.85%	13.96%	11.14%
Avg. Daily Vol (mil):	766,360.0	WACC	6.83%	Op Margin	4.53%	5.47%	5.89%	6.19%
Yield (%):	0.0	ROA (%):	0.01%	EPS*	\$0.21	\$0.28	\$0.42	\$0.52
ESG Rating	BBB	ROE (%):	19.21%	P/E (Cal)	63.63x	46.19x	30.92x	24.97x
		ROIC (%):	7.37%	EV/EBITDA	8.48x	8.74x	7.67x	7.30x

### Recommendation

Today, diagnostic imaging is a necessary service to ensure proper diagnosis and treatment; therefore, RDNT is well positioned for long-term profitability. As a result of being independent from hospitals and clinics, they are able to offer imaging services at a lower cost, nearly 2x to 5x less expensive than hospital based imaging services. Thus, the firm has consistently been able to produce higher patient volumes and procedures. Total procedures in 2017 amounted to 7,101,086 compared to 6,109,622 in 2016, a 16.23% increase (specifically, there were 957,752 MRIs compared to 913,971 in 2016; 706,164 CTs compared to 661,890 CTs in 2016; 35,428 PET/CTs compared to 32,988 PET/CTs in 2016; and 5,401,742 routine imaging exams compared to 5,276,426 in 2016). RDNT's main source of revenue is derived from fees collected from the services they provide and collected from a diverse group of payors, including private, managed care, and government payors. In 2016, RDNT received about 70% of payments from commercial insurance payors and managed care payors, 20% from Medicare, 3% from Medicaid, 4% from workers compensation, and 3% from other sources. No single client accounted for more than 5% of their revenue. RDNT's revenue has grown from \$731M in 2013 to \$967M in 2017, representing a 5-year CAGR of 5.8%. In 2016 and 2017, RDNT has been less concentrated on M&A activity and more focused on integrating their acquisitions and reducing their debt. Over the past 18 months, management has improved their financial position by improving liquidity and decreasing their leverage from 4.8x to 4.0x debt/EBITDA. Due to the necessity of diagnostic imaging within the healthcare industry and RDNT's improved performance, it is recommended RDNT be added to the AIM Small Cap Fund with a price target of \$18.78, representing a 43.5% upside. RDNT does not pay a dividend.

### Investment Thesis

- Outsourcing Radiology Services:** In a cost conscious healthcare environment, RDNT provides imaging services about 2x to 5x less expensive than hospital rates. Health care providers continually seek for ways to reduce costs, resulting in more services being outsourced. For instance, Anthem, a major health insurance company, recently implemented a new policy stating they will no longer pay for MRIs and CT scans performed at hospitals as patients can receive the

same services at independent imaging centers at a reduced cost. Other major insurance companies are likely to follow Anthem's strategy in attempting to reduce costs, which could result in significant increases in the amount of procedures RDNT provides.

- **The Increase of Radnet's eRad Teleradiology Services:** Teleradiology is the practice of taking diagnostic images from one location and sending it to radiologists in another location to be viewed and interpreted. In the U.S., there is a shortage of in-house radiologists able to read scans, creating a growing demand in teleradiology services. These remote services provide many benefits including 24-hour services, cost benefits, and a faster ability to interpret scans. The global teleradiology market is estimated to increase from \$2.14 billion in 2016 to \$3.78 billion in 2019. This expected growth will provide RDNT a larger market - both domestic and foreign. Their eRad Teleradiology services require lower capital requirements than traditional methods resulting in higher margins.
- **Strategic Joint Ventures:** Radnet has over 17 joint ventures with hospitals and health system partners. Recently, in December 2017, Radnet, Inc. formed a joint venture with MemorialCare and this will become Southern California's largest imaging network. RDNT will contribute 24 of their outpatient imaging centers and MemorialCare will contribute 10 locations. RDNT will be the majority owner and the JV will include the use of RDNT's eRAD technology at all locations. This joint venture will allow for greater efficiencies and will increase patient volume and procedures.

### Valuation

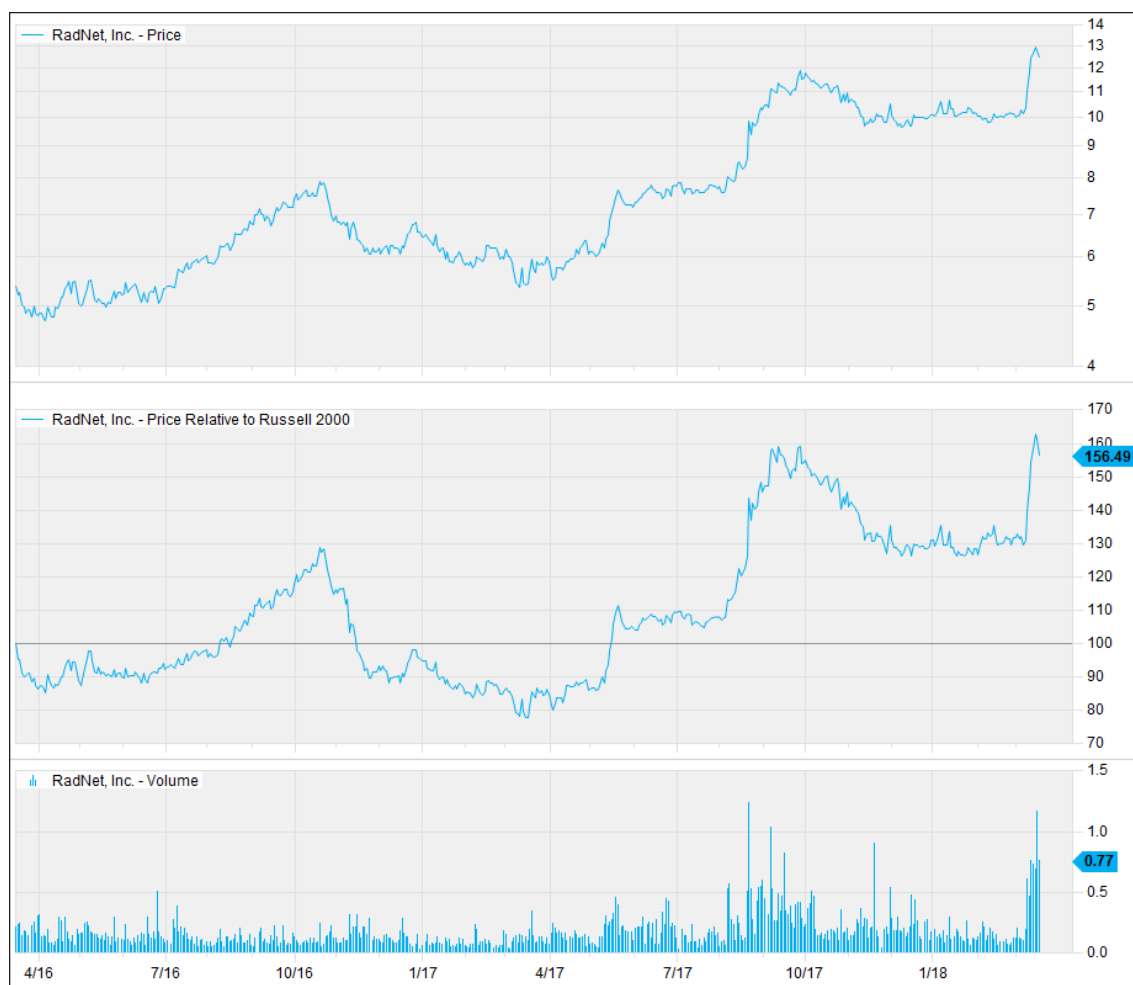
To reach an intrinsic value for RDNT, a five year DCF model was constructed. Using a terminal growth rate of 2% and a WACC of 6.83%, an intrinsic value of \$31.02 was reached. Additionally, an EV/EBITDA multiple was calculated using a comparable EV/EBITDA multiple of 14.13x. A price target of \$17.93 was reached. Finally, a P/E multiple valuation was calculated. Using a forward EPS of \$0.42, and a comparable average P/E multiple of 17.46x, an intrinsic value of \$7.39 was reached. By equally weighting the DCF, P/E multiple valuation, and the EV/EBITDA multiple valuation, an intrinsic value of \$18.78 was reached, resulting in a 43.5% upside.

### Risks

- **Substantial Debt Levels:** Currently, RDNT has about \$609.13 million of debt outstanding on their balance sheet; however, management is committed to deleveraging. In 2016, their debt/EBITDA was about 4.8x. At December 31, 2017, RDNT was able to lower their debt/EBITDA ratio to 4x. They are currently on track to lower their debt/EBITDA ratio to below 4x.
- **Increasing Interest Rate Environment:** RDNT has a significant amount of long-term debt on their balance sheet. With an increasing interest rate environment, RDNT is subject to paying more interest expense. As of December 31, 2017, RDNT had about \$620 million of debt outstanding subject to an adjusted Eurodollar rate on their first lien term loans. This may negatively affect their operating cash flows and may have to forgo opportunities in order to repay their debt.
- **Health Care Policy:** President Trump's decision to repeal Obamacare could decrease the number of people insured and could raise premium rates for already insured payors. Ultimately, this could affect repayment and coverage of imaging services.

### Management

Howard G. Berger, M.D. has served as the President, CEO, and the Chairman of the company since 2011. He is the Co-Founder of the company and has over 25 years of experience in the radiology and healthcare industry.



Peer Analysis						
Name	Ticker	Market Cap (mil)	P/S	Price/Earnings	EV/EBITDA	P/B
Radnet, Inc.	RDNT	611.97	0.60x	46.19x	7.70x	9.90x
Medpace Holdings Inc.	MEDP	1,276.00	3.20x	24.19x	13.70x	2.93x
Quest Diagnostics Inc.	DGX	14,204.00	1.86x	18.27x	12.46x	2.53x
Envision Healthcare Corp.	EVHC	4,182.50	0.60x	10.58x	19.68x	0.76x
LHC Group Inc.	LHCG	1,087.20	1.02x	25.41x	15.18x	2.43x
<b>Weighted Peer Averages</b>		<b>20,749.70</b>	<b>1.64x</b>	<b>17.46x</b>	<b>14.13x</b>	<b>2.19x</b>

Peer Fundamentals						
Name	Ticker	Revenue (mil)	ROE (%)	ROA (%)	Debt/Equity (%)	Est. 3 Year NI Growth
Radnet, Inc.	RDNT	968.7	19.21	0.01	871.11	49.13%
Medpace Holdings Inc.	MEDP	436.2	7.02	4.05	44.01	68.75%
Quest Diagnostics Inc.	DGX	7,709	16.11	7.49	76.37	9.49%
Envision Healthcare Corp.	EVHC	7,819.30	-3.6	-1.37	90.7	41.69%
LHC Group Inc.	LHCG	1,072.10	11.87	7.12	27.75	32.98%
<b>Weighted Peer Averages</b>		<b>17036.60</b>	<b>6.56</b>	<b>3.31</b>	<b>79.06</b>	<b>27.26%</b>

## Horizon Bancorp, Inc. (HBNC)

March 23, 2018

Philip Suess

Domestic Financial Services

*Horizon Bancorp, Inc. (NASDAQ: HBNC) is a bank holding company with 65 branch locations concentrated in central and northern Indiana (49 branches) as well as parts of Michigan's lower peninsula (16 branches). HBNC operates as a commercial bank offering commercial and retail banking services, individual trust and agency services, and other bank related services. In 2017, revenue from loans accounted for 69.5% and revenue from investment securities accounted for 10.00% of total revenue. Their current loan portfolio exceeds \$2.8 billion and consists of commercial (57.1%), real estate (21.4%), consumer (18.1%), and mortgage warehouse (3.4%). HBNC is headquartered in Michigan City, Indiana and was founded in 1873.*

Price (\$):	30.16	Beta:	0.87	FY: Dec	12/31/2016	12/31/2017	12/31/2018	12/31/2019
Price Target (\$):	37.10	M-Term Rev. Gr Rate Est:	6.50%	Revenues (\$):	141,984	161,619	178,362	193,959
52WK H-L (\$):	30.94 - 24.41	M-Term EPS Gr Rate Est:	5.02%	Growth	38.55%	13.83%	10.36%	8.74%
Market Cap (mil):	788	Financial Leverage (Non-bank):	49.67%	Net Interest Income (\$):	85,992	112,100	124,474	136,922
Insider Holdings	5.29%	WACC:	5.27%	Growth	15.06	30.36%	11.04%	10.00%
Avg. Daily Vol (mil):	0.09	ROA:	0.93%	Net Interest Margin	3.29%	3.75%	3.94%	4.13%
Yield:	1.68%	ROE:	8.32%	Efficiency Ratio	61.20%	58.66%	57.53%	56.79%
ESG Rating	N/A	Tier 1 Capital Ratio	12.35%	Diluted EPS	1.19	1.43	1.73	1.83
		Credit Provisions/Loans	2.47%	P/E	19.44	17.90	17.44	16.48

Source: FactSet

### Recommendation

Horizon Bancorp is an established regional bank that is poised to benefit from their series of recent acquisitions and an expanding regional economy. Their loan portfolio has grown by a 5-year CAGR of 21.74%. In 2017, their total loans grew by 32.2% (11.3% of this loan growth was organic and 20.9% was inorganic). In the past two years, HBNC has acquired six other regional banks operating in Indiana allowing HBNC to aggressively grow their loan portfolio, as well as improve their efficiency ratio through the consolidation of branches. From 2016 to 2017, their efficiency ratio improved from 61.20% to 58.66% and is expected to continue improving as synergies result from their recent acquisitions. In addition to reducing costs, HBNC is increasing profitability as their net interest margin improved from 3.29% in 2016 to 3.75% in 2017. This is a significant improvement and serves as a competitive advantage - in December 2017, the average net interest margin for all U.S. banks with total assets under \$5 billion was 3.31%. HBNC's location should also drive future growth as Indiana is the largest steel producing state in the U.S. and stands to benefit from the possible implementation of new federal government policies designed to protect domestic steel producers. As of February 2018, steel production in the U.S. only operated at 73% of capacity. These policies are projected to increase steel production to 80% of capacity and improve already strong economic conditions for workers and local businesses. Given the combination of loan growth, improving profitability and cost cutting, as well as favorable economic policy changes, it is recommended that HBNC be added to the AIM Domestic Equity Fund with a price target of \$37.10 representing a 23.01% upside. HBNC currently pays a dividend yield of 1.68%.

### Investment Thesis

- **Strengthening Local Economies.** HBNC's business is well positioned to benefit from improving local economies. The January 2018 unemployment rate for Indiana was 3.3%, well below the national unemployment rate of 4.1%. Indiana's low unemployment rate signals that more individuals are working in the region resulting in greater income and wealth – which increases the demand for banking services. The region is expected to continue to improve as a result of the expected enactment of the Trump Administration's policies to protect domestic steel producers. An expansion in this industry is anticipated to benefit other businesses and workers in the region further improving the outlook for banking services.

- **Four for the Fed.** In his first testimony before congress, new Fed Chair, Jerome Powell, reiterated the likelihood of three to four rate increases in 2018 and two to three rate increases in 2019. Increases in the Federal Funds rate pushes overall interest rates in the U.S. market higher thereby allowing banks to improve their profitability through higher net interest margins. HBNC benefited from rate increases in 2017 as their net interest margin improved from 3.29% to 3.75%. Further increases in interest rates would provide improvements to HBNC's net interest margin and bottom line.
- **Successful M&A.** Due to their numerous acquisitions of banks, HBNC has been able to expand their loan portfolio faster than their overhead costs by consolidating branch locations and benefiting from economies of scale. Given the success of previous acquisitions, it is expected that their most recent acquisitions at the end of 2017 will result in additional decreases to their efficiency ratio. Additionally, management's three year strategic growth plan calls for continued of acquisitions of banks in Indiana and Michigan due to favorable regional economic conditions.

### Valuation

To find an intrinsic value for HBNC, a five-year excess earnings model was constructed. Using the excess earnings model with a terminal growth rate of 2.5% and a cost of equity of 7.04%, an intrinsic value of \$37.72 was reached. A sensitivity analysis with a terminal growth rate  $\pm 1\%$  and a cost of equity  $\pm 1\%$  resulted in a price range of \$33.61-\$48.19. Additionally, a P/E multiple valuation was calculated using a peer average of 20.2x and 2018E EPS of \$1.73, which resulted in a price of \$34.85. Finally, a P/B multiple using a peer average of 1.89x was calculated and resulted in a target price of \$37.50. Weighting the models 60/20/20, a price target of \$37.10 was reached representing an upside of 23.01%. HBNC pays a dividend yield of 1.68%.

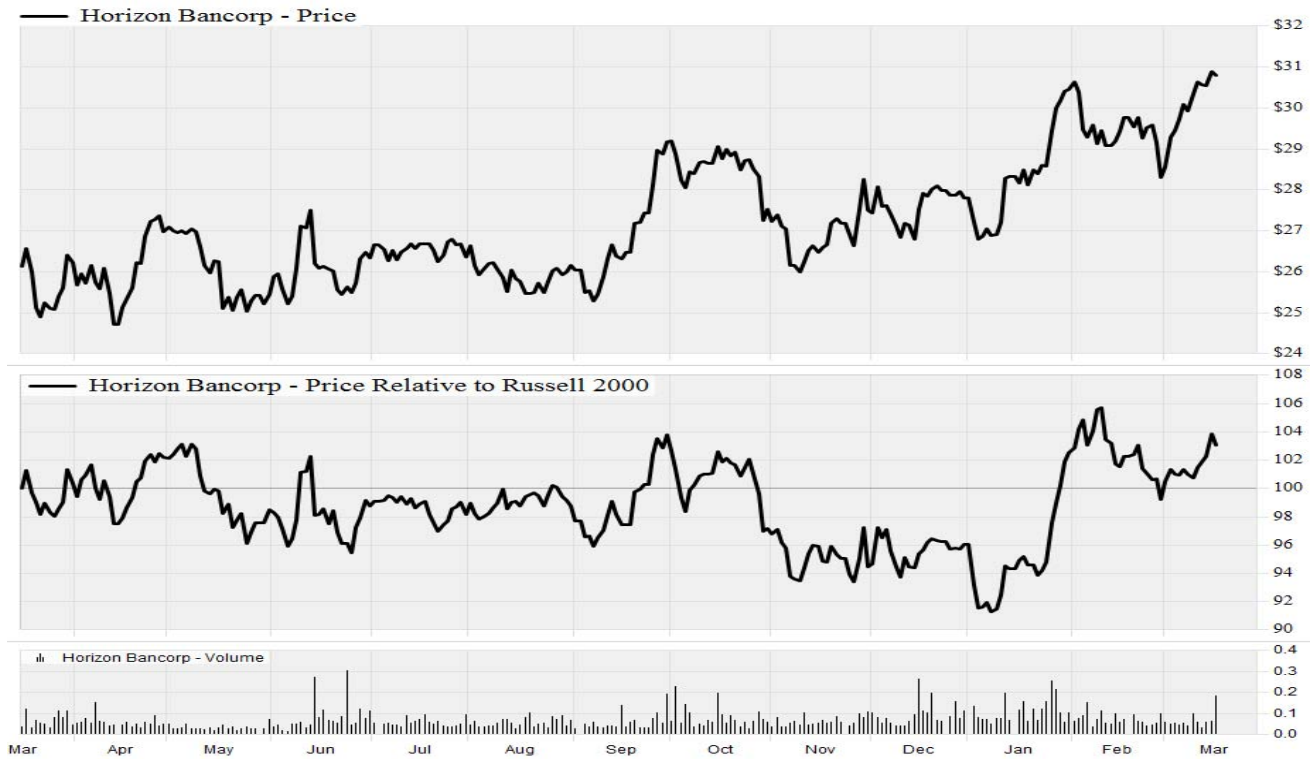
### Risks

- **Bottom of the Ninth.** Any deterioration of economic conditions would be detrimental to HBNC's growth outlook as they are dependent on deposits and purchases by businesses and individuals to increase their loan portfolio. Worsening economic conditions would cause individuals and businesses to take out fewer loans and spend less. This would be harmful to economic forecasts and potentially raise policy questions favoring more dovish monetary policy. A decrease in interest rates or fewer than projected rate hikes could harm the net interest margin of banks and decrease profitability.
- **Disruptive Technology.** The emergence of online lending platforms and cryptocurrencies poses a disruptive risk to HBNC's traditional banking model. Increases in the use of these technologies could deter people from utilizing the services of traditional banks and force HBNC to drastically shift their business model. Additionally, online lending platforms have lower overhead costs posing a threat to both margins and future growth.
- **Cybersecurity.** HBNC does provide online banking services and relies on outsourced information systems to conduct business – which are subject to the risks posed by hackers. Processing debit card and credit card transactions provides added exposure to hacking threats. A breach in cybersecurity would greatly tarnish the reputation of HBNC and harm their ability to attract new customers as well as retain current customers.

### Management

Craig M. Dwight has served as Chairman and CEO of Horizon Bancorp since July 2014 and January 2003, respectively. Prior to his current roles, Mr. Dwight served as President from 1998 to 2003. Thomas H. Edwards served as President of Horizon Bancorp from January 2003 until his retirement on December 31, 2017 and was succeeded by James D. Neff. Mr. Neff joined Horizon Bancorp in October 1999 and has held several management positions.





Source: FactSet

<u>Name</u>	<u>Ticker</u>	<u>Market Cap</u>	<u>P/E</u>	<u>P/B</u>	<u>P/TBV</u>	<u>Div Yld</u>
Horizon Bancorp	HBNC	788	17.44	1.58	2.43	1.68%
1st Source Corporation	SRCE	1,417	20.92	1.90	2.17	1.70%
Lakeland Financial Corporation	LKFN*	1,221	20.10	2.58	2.60	1.80%
Mutual Financial INC	MFSF	313	19.20	1.79	1.81	2.00%
German American Bancorp Inc.	GABC	805	20.92	2.21	2.61	1.70%
First Merchants Corporation	FRME	2,180	19.63	1.66	2.62	1.60%
<b>Peer Averages</b>		<b>1,187</b>	<b>20.15</b>	<b>2.03</b>	<b>2.36</b>	<b>1.76%</b>

\*Excluded from P/B Valuation

Source: Bloomberg

<u>Name</u>	<u>Ticker</u>	<u>Net Margin</u>	<u>ROE</u>	<u>ROA</u>	<u>Tier 1 Capital Ratio</u>	<u>Operating Efficiency</u>
Horizon Bancorp	HBNC	3.75%	8.32%	0.93%	12.35%	57.53%
1st Source Corporation	SRCE	3.50%	9.70%	1.20%	13.40%	60.80%
Lakeland Financial Corporation	LKFN*	5.00%	12.80%	1.30%	12.10%	45.30%
Mutual Financial INC	MFSF	3.30%	8.50%	0.80%	12.50%	69.40%
German American Bancorp Inc.	GABC	5.50%	11.70%	1.30%	13.00%	56.80%
First Merchants Corporation	FRME	4.00%	8.70%	1.20%	11.90%	56.20%
<b>Peer Averages</b>		<b>4.26%</b>	<b>10.28%</b>	<b>1.16%</b>	<b>12.58%</b>	<b>57.70%</b>

\*Excluded from P/B Valuation

Source: Bloomberg

## Mitek Systems (MITK)

March 23, 2018

Michael Vidovic

Domestic Information Technology

*Mitek Systems, Inc (NASDAQ: MITK) is a mobile capture and identity verification software solutions based-company that engages in identity verification and remote financial transactions. MITK has 84% of its revenue generated in the US, while the remainder is spread throughout EMEA, APAC, and Latin America. MITK primarily operates in mobile services, and functions through the following platforms: Mobile Verify, Mobile Fill, Mobile Docs, Mobile Deposit, and Multi Check Capture. Mitek Systems, Inc. was founded in 1986 and is headquartered in San Diego, CA.*

Price (\$):	7.8	Beta:	1.05	FY: Sept	09/30/2016	09/30/2017	09/30/2018	09/30/2019
Price Target (\$):	10.96	M-Term Rev. Gr Rate Est:	27.0%	Revenue (Mil)	34.70	45.39	57.87	72.62
52WK H-L (\$):	10.75 - 5.8	M-Term EPS Gr Rate Est:	76.0%	% Growth	36.79	30.80	27.49	25.50
Market Cap (mil):	272	Debt/Equity:	0.0	Oper Inc	1.03	2.45	4.32	8.74
Insider Holdings	5%	Debt/EBITDA (ttm):	0.00	% Growth	22.71	136.65	76.38	102.43
Avg. Daily Vol (mil):	0.4	WACC	9.18%	Op Margin	2.98	5.39	7.46	12.03
Yield (%):	0.0	ROA (%):	13.22	EPS	\$0.03	\$0.40	0.13	0.23
ESG Rating	N/A	ROE (%):	15.96	P/E (Cal)	222.9	19.7	59.68	33.20
		ROIC (%):	15.96	EV/EBITDA	45.7	48.9	33.58	22.89

### Recommendation

Mitek Systems is a global leader in the Consumer Identity and Access Management (CIAM) Market, and is well positioned in an increasingly data protection driven global environment. The MITK has experienced a 38% revenue CAGR since 2012, and the CIAM market is expected to grow by an additional 16% CAGR through 2020. Over 90% of MITK's revenue is recurring, and has grown their customer base to over 6,100 customers and 80m consumers. The financial industry has experienced over 1600+ bank branch closings in 2016 as consumers become more attuned to e-payments, and move away from physical banks. Online check deposits have grown by 20% in 2017, and banks are moving more towards this electronic system from a cost standpoint as proper reader and recognition software enters the market. In May of 2015, MITK acquired the facial recognition and document verification company IDchecker for \$10.6m, which has allowed the MITK to enter the facial recognition space as electronic loans and applications become more commonplace. MITK's Mobile Verify platform saw over 1,000 customers per day being verified last year, and stands to increase further with the rise in data breaches. In 2016, the US experienced over 1,100 data breaches resulting in 171m records being stolen, and over \$3 billion in resulting losses for the financial industry. Data breaches were a relatively rare event just 10 years ago, but tremendous growth in global data usage has created the need for higher security. MITK has over 90% of its business recurring each year, with the potential still to expand into healthcare, travel, and telecom markets. The electronic payment and data centric environment of the world is only becoming more apparent, and with this comes the need for MITK's mobile deposit and verification capabilities. Because of MITK's superb market positioning and importance in a technology dominated world, it is recommended that Mitek Systems, Inc. be added to the AIM Equity Fund with a price target of \$12.71 representing a potential upside of over 62%.

### Investment Thesis

- **Expansion into Facial Recognition Markets:** Financial Institutions are beginning to offer electronic features that encompass mortgage obligations, mobile check deposit, and loan obligations that require the party recognition software offered by MITK. With consumers having the ability to enter into 30-year binding contracts while sitting on their couch, the need for ensuring parties are properly represented is imperative given the severity of the contracts.



Physical banks are becoming unnecessary as the market is seeing large scale branch closures and the emergence of purely online banks.

- **Rise in US Data Breaches:** The world is becoming increasingly technology based and data centric with over 90% of millennials owning smart phones. In 2005 only 157 security breaches were reported, whereas last year the nation experienced over 1,100 breaches and over 171m records being exposed. 2017 has proved to be even worse with the Equifax breach that released 145m records on its own. MITK stands as the benefactor as the market turns to identity protection services to protect against the threat of data hacks.
- **Multiple Long-Term Growth Avenues.** MITK is primely positioned given their past ability to generate strong recurring revenue while sticking almost purely to the financial industry. The company is beginning to expand globally, and into sectors like healthcare and telecom that offer ample opportunities for MITK to capitalize on electronic demand.

### Valuation

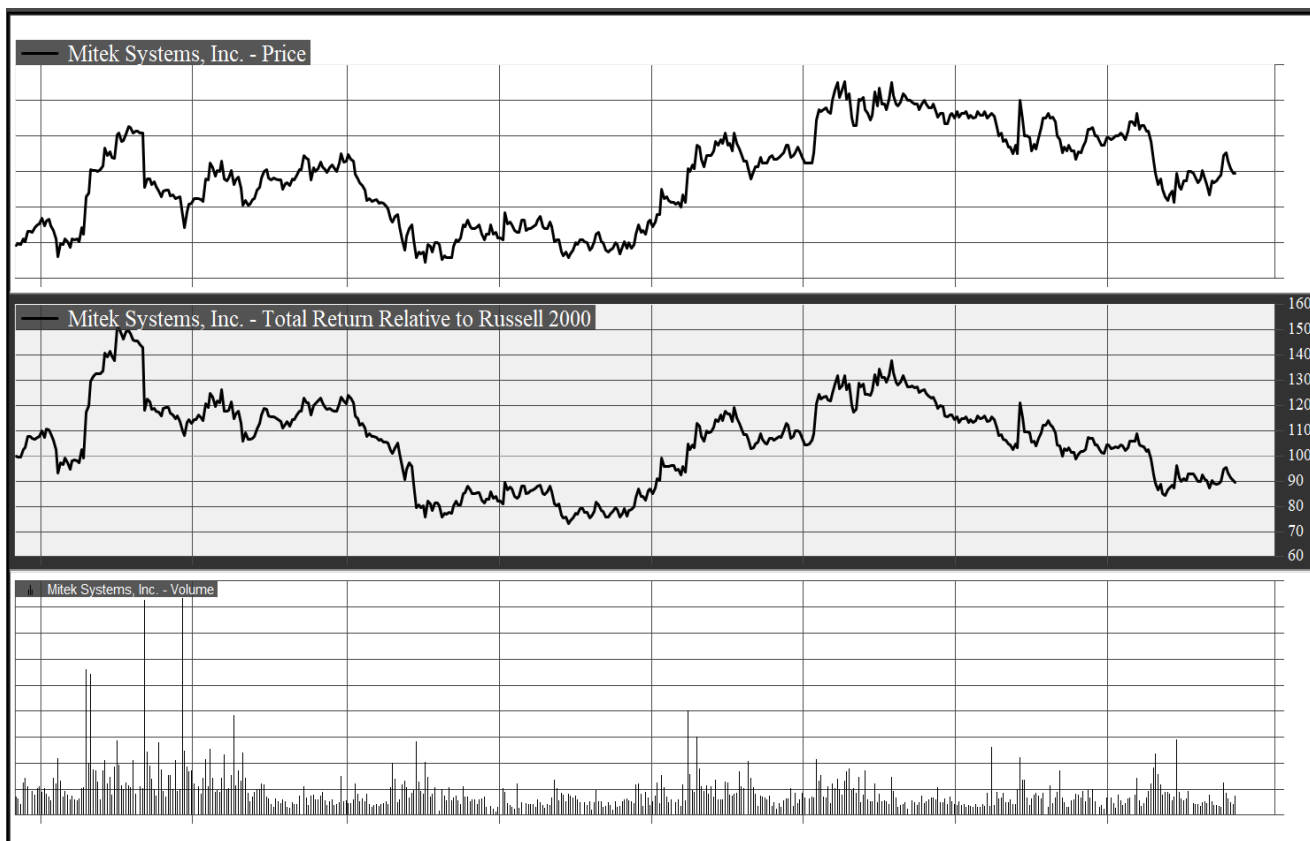
In order to reach an intrinsic value for MITK, a five year DCF model was constructed. Using a terminal growth rate of 3% and a WACC of 9.14%, a valuation of \$10.55 was reached. A sensitivity analysis for the DCF was computed using a  $\pm 1\%$  WACC and a  $\pm 50$ bps terminal growth rate, resulting in a price range of \$8.32 – \$14.00. Additionally, a PS relative valuation was calculated using estimated 2018 Sales of \$57.87m, and a blended peer average multiple of 7.6x to produce an intrinsic value of \$12.60. By weighing the two models 80/20, a price target of \$10.96 was reached, resulting in a 40.49% potential upside.

### Risks

- **Data Breaches.** MITK serves to guarantee the safety of customer information, and stores highly sensitive information as a result. If the company's security is breached, then MITK will have failed in the company's core business function and will struggle to convince customers of its ability to protect data. The company has no history of breaches itself, but in 2017 the US realized a record 1,120 company breaches with over 171m records becoming exposed up from 36.6m in 2016. This continual rise in breaches acts as a driver for MITK so long as the company is able to maintain internal security.
- **IDchecker Implementation.** In December of 2017 MITK finished implementing the acquisition of IDchecker for cloud-based identification and document verification. However, MITK has not previously operated in such a space, and may face additional headwinds related to entry. This acquisition allowed for MITK's expansion into the facial recognition market, and represents a large portion of the company's growth opportunity. Failure to timely meet revenue projections and failure to integrate with MITK's current offerings would serve as additional headwinds for the company.
- **Intellectual Property Concerns.** MITK has over 35 patents with 16 more pending, and relies on the company's ability to operate its business underneath the protection of its trademarks, copyrights, and patents. Failure to secure future necessary patents or contention over current ones could cause major expenses for the company, and may fundamentally change the way MITK is able to operate. Additionally, as the company expands more internationally the company relies further on the international protection of IP. Nations have different patent protection laws, and US law protection may not flow to the company's international operations.

### Management

James DeBello has been the current President and CEO of Mitek Systems since 2003, and has served as Chairman of the board since March of 2016. Kalle Marsal has been the COO since 2016, and previously served as HP, Inc's Project Management VP. Jeffrey Davison serves as CFO, and previously served as CFO of Outbrain Inc.



#### Peer Valuation

Name	Ticker	Market Cap (mil)	P/S	P/E	EV/EBITDA	P/B
Mitek Systems, Inc.	MITK	\$ 272.24	4.71	33.91	48.86	3.76
Splunk Inc.	SPLK	\$ 15,561.79	9.56	149.00	75.30	20.10
Ultimate Software Group, Inc.	ULTI	\$ 7,624.60	6.90	291.00	28.10	14.51
Workday, Inc. Class A	WDAY	\$ 18,231.96	6.78	116.40	66.40	18.14
HubSpot, Inc.	HUBS	\$ 4,482.39	9.26	353.60	127.10	21.11
Alteryx, Inc. Class A	AYX	\$ 1,011.06	5.66	-	-	14.20
Peer Averages		\$ 9,382.36	7.6*	227.5	74.23	17.6

\*Weighted by MV

Source: Factset

#### Peer Fundamentals

Name	Ticker	Revenues	ROE	ROA	Debt/Equity	Coverage
Mitek Systems, Inc.	MITK	\$ 45.39	15.96	13.22	-	-
Splunk Inc.	SPLK	\$ 1,270.79	10.90	4.40	-	-
Ultimate Software Group, Inc.	ULTI	\$ 940.73	3.02	1.12	0.02	54.79
Workday, Inc. Class A	WDAY	\$ 2,141.54	14.60	4.90	0.94	-6.84
HubSpot, Inc.	HUBS	\$ 375.61	4.40	1.40	1.42	-3.04
Alteryx, Inc. Class A	AYX	\$ 131.61	-4.20	-2.20	-	-
Peer Averages		\$ 972.06	5.74	1.92	\$ 0.79	\$ 14.97

Source: Factset

## National Mortgage Insurance Holdings Inc. (NMIH)

March 23, 2018

Nathaniel D'Amato

Domestic Financials

NMI Holdings Inc. (NASDAQ: NMIH) provides private mortgage insurance. The services provided by NMI Holdings stimulates the housing market by protecting lenders against loss if a borrower defaults. This allows homeowners to acquire mortgages that would otherwise be unaffordable. The company was founded on May 19, 2011 and is headquartered in Emeryville, CA.

Price (\$):	15.9	Beta:	0.99	FY: Dec 31	12/31/16	12/31/17	12/31/18	12/31/19
Price Target (\$):	19.86	M-Term Rev. Gr Rate Est:	27.0%	Revenues	124.50	182.50	261.50	332.00
52WK H-L (\$):	10.1 - 21.92	M-Term EPS Gr Rate Est:	41.5%	% Growth	136%	47%	43%	27%
Market Cap (mil):	1,032	Financial Leverage	1.75	Pretax Income	14	56.7	76.37	87.82
Insider Holdings	3%	WACC	8.79	Pretax Margin	9.39	29.55	45.79	52.33
Avg. Daily Vol (mil):	719,594.7	ROA (%):	2.54	EPS	1.08	0.61	1.47	2.08
Yield (%):	0.0	ROE (%):	11.00	P/E	9.9	25.7	7.70	7.00
ESG Rating	BB	Persistency Ratio	86.1	BVPS	8.1	8.4	12.29	15.18
		Combined Ratio	61.2	P/BV	1.32	1.91	1.60	1.30

### Recommendation

NMI Holdings has had a very strong year in 2017 growing its primary insurance-in-force to \$48.5 billion at year end, growing 61% in Q4'17 y/y. This significant growth was due to NMI Holding's ability to generate a record setting new insurance written (NIW) of \$6.9 billion in the fourth quarter. This momentum is expected to continue into 2018 considering that NMI Holdings now has 1,275 approved master policies and activated 127 new accounts in 2017 representing approximately \$20 billion in NIW opportunity going into 2018. NMI Holdings' master policies are agreements with lenders that reduce their risk of rescission by requiring only 12 timely consecutive mortgage payments instead of the industry-standard 36 payments before a loan is safe from denial of coverage. This service is very attractive to lenders and NMI Holdings was ahead of the competition by being the first to offer this plan. NMIH is able to offer this service due to the improving credit performance on mortgage loans. Even with mortgage refinancing activity declining in the industry due to rising interest rates- NMI Holdings is able to offset this decline and continue to grow with mortgage originations remaining strong which account for 83% of the NIW. NMI Holdings is not only rapidly growing but is also retaining new customers, which is evident in its 12-month persistency ratio - growing to 86% up from 85% last quarter. Long term, rising mortgage rates will eventually become a catalyst for the private mortgage insurance (PMI) industry's growth in volume due to the less borrowers being unable to provide at least 20% down with higher monthly mortgage payments. NMIH has been experiencing a low amount of claims with 533 out of the 928 notices of default in 2017 being related to hurricanes Harvey and Irma and the California wildfires. The default claims that NMI Holdings experienced in 2017 would have been on track with expectations if not for these unexpected disasters. Based on the continued growth in NIW, credit performance of mortgage loans, and unemployment trends, it is recommended that NMIH be added to the AIM Equity Fund with a price target of \$20.29, representing a potential upside of 28%.

### Investment Thesis

- **Record setting New Insurance Written (NIW):** NIW of \$6.9 billion. Over the last two years NMI Holdings has acquired over 300 new customers ending 2017 with 840 active lender relationships. This was driven by a strong economy and the tailwinds of millennials buying their first homes but being unable to provide a down payment of 20% or more considering rising student debt for the new homeowners.
- **12-month Persistency Rate:** NMI Holdings 4Q rate was 86.1% increasing by 1% since the previous quarter. The 12-month persistency rate is a reliable measure of customer retention and profitability for insurance companies, revealing that NMI Holdings currently retains customers 6.1% over the industry average.

- **Master Policy:** NMI Holdings has made their services even more attractive to lenders by shortening the duration for rescission to 12 months on all loans they insure. NMI Holdings is able to offer this competitive product by supporting delegated and non-delegated channels with their underwriting capabilities.

### Valuation

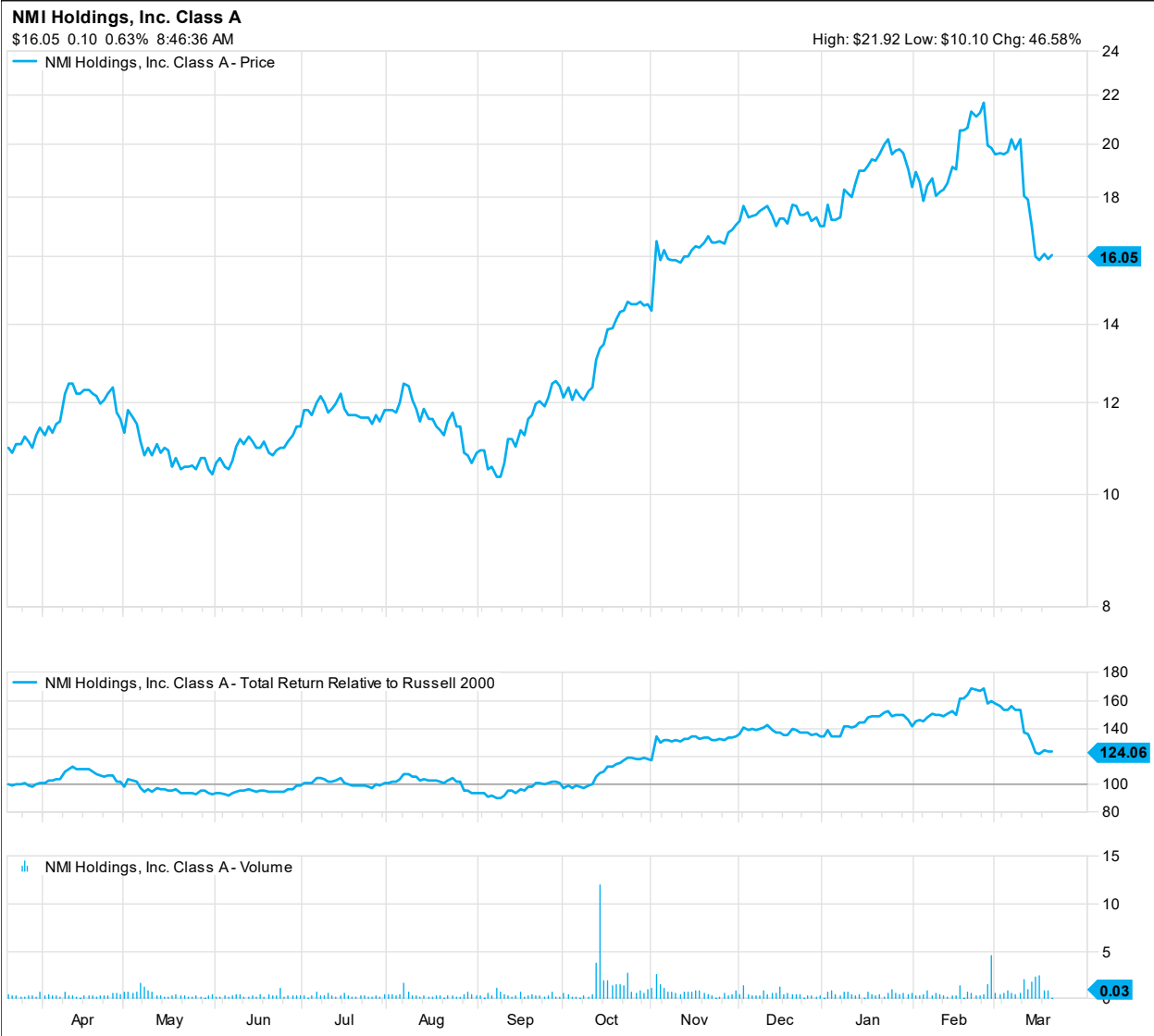
To find the intrinsic value of NMIH, an excess earnings model was used, as well as a price to book and a price to earnings multiple. The price to book and price to earnings multiple was derived from taking the average P/E and P/B multiples from the selected peers. By doing this, a predicted P/E and P/B multiple of 9.37x and 1.8x was calculated, respectively. These predicted multiples were then multiplied by NMIH's estimated EPS and BVPS for 2018, of 1.47 and 8.41. These peer valuations were weighted equally with the excess return model using a WACC of 8.79% and an estimated ROE of 15% tapering down to 10% over the 10 year projection - resulting in the 28% upside.

### Risks

- **Changing regulations on PMI tax deductions:** Due to the 2008 housing crisis PMI was made tax deductible. As the housing market has recovered there is speculation that this benefit will be removed by the Trump administration making PMI less attractive. Management expressed that there is no immediate changes in regulation and that the earliest change wouldn't take effect until the fourth quarter of this year.
- **Rising Mortgage Rates:** Mortgage rates tend to react to the price of mortgage-backed-securities (MBS). Since the economy has recovered from the 2008 housing crisis and with unemployment trends declining, the Federal Reserve has decided to reduce their reinvestments in MBS through the Fed's normalization plan. This will lead to rising mortgage rates creating a greater demand for PMI due to increasing default risks associated with higher payments.
- **Natural Disasters:** 2017 4Q claims expenses related to the hurricane and wildfire impacted areas accounted for over a third of the total claim expenses for the quarter. Severe weather emergencies can increase insurers expenses substantially.

### Management

Bradley M. Shuster has been the CEO of NMI Holdings for the past 6 years. NMIH believes strongly in independent board leadership; establishing the position of, Lead Director, independent of the board who is responsible for assisting the CEO in all decisions creating a strong leadership structure for the company. Steven L Scheid has served as the Lead Director since the position was established in 2012.



Name	Ticker	Market Cap	Net Income	P/B	P/E	Dividend Yield %
NMI Holdings Inc.	NMIH	1,032	22.05	1.89	27.12	0.00
MGIC Investment Corp.	MTG	4,595	355.80	1.66	14.85	0.00
Radian Group Inc.	RDN	3,964	121.10	1.48	37.47	0.00
Safety Insurance Group	SAFT	1,185	62.00	1.75	19.61	0.00
Essent Group Ltd	ESNT	3,930	379.75	2.20	10.88	0.00
Peer Averages		3,419	229.7	1.77	20.7	

Name	Ticker	Persistency Ratio (%)	Loss Ratio	ROA	ROE
NMI Holdings Inc.	NMIH	86.1	3.2	2.54	11.00
MGIC Investment Corp.	MTG	80.1	5.7	6.27	12.48
Radian Group Inc.	RDN	81.1	3.2	2.06	4.12
Safety Insurance Group	SAFT	97.1	66.5	3.5	9.04
Essent Group Ltd	ESNT	83.9	2.8	16.67	23.13
Peer Averages		85.66	16.28	6.208	12.2