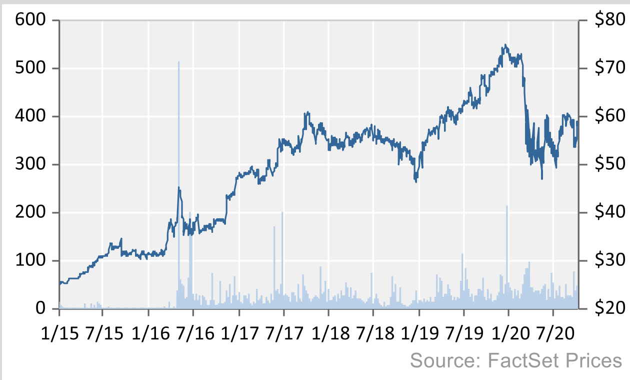
Recommendation: Hold				
Current Price	**$69.26**	---	Ticker	NCBS
1 Year Bear	$48	*-31%*	Sh. Out. (M)	10.1
1 Year Base	**$66**	***-5%***	M.Cap. ($M)	707
1 Year Bull	$77	*11%*	EV ($M)	696

Bank holding, Commercial and Retail Banking, Wealth Management

Nicolet Bankshares, Inc.

Price History



	5Y	3Y	2Y	LTM	YTD	3M	1M
Return	17.1%	7.2%	39.8%	-6.9%	-6.24%	17.0%	1.8%

Financials

	2016	2017	2018	2019	2020	2021F	2022F
Sales($B)	**1.0**	**1.4**	**1.7**	**1.9**	**2.0**	**2.5**	**2.6**
Gr. %	54.1%	40.9%	14.7%	16.3%	6.2%	-3.0%	3.1%
v. Cons.	-	-	-	-	-	-6.0%	-10.5%
Industry	2.5%	10.4%	8.8%	16.3%	2.8%	-14.0%	11.0%
EPS	**$2.82**	**$3.51**	**$4.26**	**$5.71**	**$6.11**	**$5.04**	**$5.28**
Gr. %	84.8%	36.2%	21.2%	34.2%	7.0%	-17.5%	4.8%
v. Cons.	-	-	-	-	-	4.6%	4.2%
Industry	11.2%	16.5%	14.1%	10.6%	-16.2%	-14.3%	-12.8%

Ratios

	2016	2017	2018	2019	2020	2021F	2022F
NPM	**18.1%**	**23.0%**	**24.9%**	**28.5%**	**29.0%**	**27.9%**	**22.8%**
Industry	18.9%	18.6%	21.4%	25.6%	28.4%	29.9%	27.3%
ROE	9.6%	10.4%	10.9%	10.9%	12.1%	9.4%	7.7%
Industry	8.7%	8.2%	10.3%	10.3%	10.9%	8.0%	7.5%
ROA	1.0%	1.3%	1.4%	1.4%	1.6%	1.4%	1.2%
Industry	1.0%	1.0%	1.2%	1.2%	1.3%	1.0%	1.0%
A T/O	0.06	0.06	0.06	0.05	0.06	0.05	0.04
A/E	9.11	8.16	8.01	7.38	6.97	6.95	6.83

Valuation

	2016	2017	2018	2019	2020	2021F	2022F
P/E	20.7	17.5	12.5	13.0	14.0	13.0	14.5
Industry	18.3	17.1	12.4	12.8	13.6	13.6	13.4
P/S	3.72	3.64	3.54	3.72	3.62		
P/B	1.48	1.49	1.24	1.56	1.33		
P/CF	33.9	12.4	10.7	15.0	11.8		
EV/EBITDAA	6.8	4.8	4.2	3.6	3.4		
D/P	0.0%	0.0%	0.0%	0.0%	0.0%		

Summary

I recommend a hold rating with a target price of $66. Nicolet has growth potential as it continues to penetrate the small- to mid-sized bank market by focusing on building relationships with communities that the firm already serves and acquiring other community banks to penetrate new areas. The company also seeks to grow its wealth management business. Nicolet's sales growth has taken a hit with the global pandemic, but will recover. The stock seems to be fairly valued based on relative analysis and overvalued on DCF analysis.

Key Drivers

- Local and regional market competition: Nicolet serves local communities and provides loans to small- to mid- sized companies that big banks do not serve.
- Acquisition-related growth: Nicolet has grown by acquiring other local community banks. Nicolet rebrands the acquired banks' branch locations without the extra cost of opening new locations, plus it gains administrative savings.
- Increase wealth management services: Nicolet is also focusing on expanding its wealth management business, which grew 35.1% in 2018 to 2019.
- Fewer small banks: The number of small banks is decreasing due to M&A, and this benefits Nicolet as the number of competitors serving small businesses declines.
- Interest rates: Nicolet's profitability is dependent on interest rates as its bank subsidiary is the largest contributor to revenue. Rates have fallen to perhaps cyclical lows.

Valuation

Using a relative valuation approach, Nicolet Bankshares appears to be fairly valued in comparison to other local, small-sized commercial banks. DCF analysis implies that the stock is worth $65.74. A combination of the approaches suggests that Nicolet is valued fairly, as the stock's value is about $66 and is trading at $69.26.

Risks

- Subjected to extensive regulation that may limit activities.
- Profitability is heavily influenced by interest rates.
- Reliance on third-party for technology increases uncertainty due to system and cybersecurity failures beyond Nicolet's control.

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Company Overview

Nicolet Bankshares, Inc. (NCBS) is a registered bank holding company where its primary operations are conducted with its wholly owned subsidiary Nicolet National Bank that opened for business on November 1, 2000 and is headquartered in Green Bay, Wisconsin. Nicolet provides service based on five core values: Be Real, Be Responsive, Be Personal, Be Memorable, and Be Entrepreneurial. Below are Nicolet's subsidiaries and its principal functions:

Nicolet National Bank

- Lending and deposit gathering
- Ancillary banking-related products and services to businesses and individuals in served communities
- Trust, brokerage, and other investment management services for individuals
- Retirement plan services for businesses

Brookfield Investment Partners, LLC (Brookfield)

- Investment strategy and transactional services to select community banks

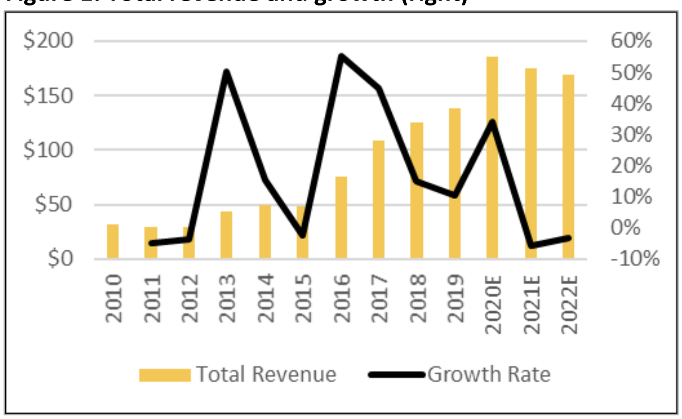
The bank subsidiary contributes the most to Nicolet's profitability

Nicolet Advisory Services, LLC (Nicolet Advisory)

- Brokerage and financial advisory services primarily for individual consumers

As of 2020, Nicolet operates 43 Nicolet National Bank branch locations across northeast and central Wisconsin and Menominee, Michigan.[1] Nicolet also has a diverse customer base; it provides services for industries such as manufacturing, retail, and service. The majority of Nicolet's revenue is generated through its banking services. This makes lending and interest rates critical to Nicolet's revenue. As of the year-end 2019, Nicolet generated $116.1 million in net interest income. Figure 1 depicts total revenue growth.

Figure 1: Total revenue and growth (right)



Source: Fact Set, Company Filings

The revenue spikes for 2013 and 2016 are due to Nicolet's acquisition of Mid-Wisconsin Financial Services, inc. in 2013 and Baylake Corp. in 2016 for $10.19 million and $167.16 million, respectively[2]. In 2019, NCBS completed the acquisition of Choice Bancorp, which boosted revenues in 2020 when the entire year of the acquisition was reported.

[1] Nicolet will gain four more locations in the Wausau area upon completing its acquisition of Advantage Community Bancshares, Inc.
[2] https://investors.nicoletbank.com/news-market-information/mergers-and-acquistions/default.aspx

Business/Industry Drivers

Though several factors may contribute to Nicolet's future success, the following are the most important business drivers:

1) Local and regional market competition
2) Acquisition-related growth
3) Increase investment management services
4) Decreasing number of small banks
5) Interest rates (macroeconomic trends)

<u>Local and regional market competition</u>

Nicolet provides services to local communities in northeast and central Wisconsin and Menominee, Michigan, and primarily serves individuals and small- to medium-sized businesses. Of the small- to medium-size businesses, the core industries in Nicolet's market area are manufacturing, wholesaling, paper, packaging, food production and processing, agriculture, forest products, retail, service, and businesses supporting the general building industry. Figure 2 compares Nicolet's loan composition as of year-end 2019 to the National loan composition.

Figure 2: Nicolet loan composition vs. National

Nicolet	% of Total	Amount (in millions)	National	% of Total	Amount (in millions)
Commercial	52%	$1,338,543	Commercial & Industrial	24%	$2,368,400
Commercial real estate	23%	595,656	Real estate	46%	4,584,100
Residential real estate	24%	609,341	Consumer loans	16%	1,585,900
Retail & other	1%	30,211	All other loans	15%	1,457,800
Total	**100%**	**$2,573,751**	**Total**	**100%**	**$9,996,200**

Source: Company Filings, Federal Reserve

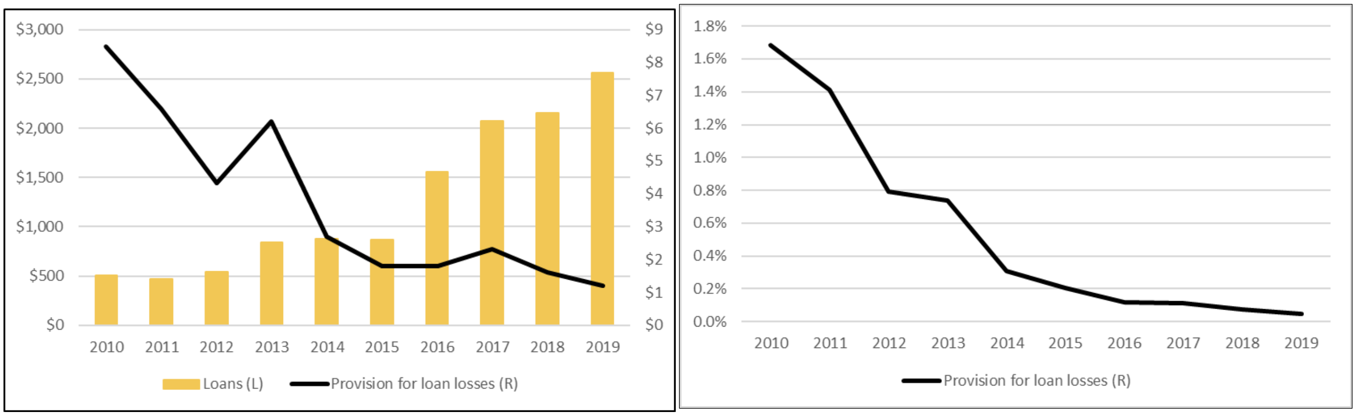
Commercial-based loans are considered to be riskier than retail-based loans

Nicolet's loan composition varies a bit from the nation. Overall, commercial-based loans (commercial and commercial real estate) make up about 75% of Nicolet's loan composition, while retail-based loans (residential real estate and retail & other) cover the other 25%. Commercial loans for Nicolet's loans are 52% versus 24% for the country, a difference by 28%.

Subcategories for Nicolet's commercial loans include commercial & industrial loans that contributes 31% (above 24% for the U.S.), owner-occupied commercial real estate (CRE) at 19%, and agricultural (AG) production at 2%. In commercial real estate, its subcategories include 2% agricultural (AG) real estate, 17% commercial real estate (CRE) investment, and 4% construction and land development. Residential real estate loans include 2% residential construction, 17% residential first mortgage, and 5% residential junior mortgage. Retail and other loans are mainly consumer loans in nature.

Combining the two real estate categories together yields 47% in real estate loans, 1% higher than the national average. Nicolet only has about 1% of loans from other types of loans, such as automobile loans, versus 15% of the country.

Figures 3 & 4: Provision for loan losses relative to loans in millions (L) and provision for loan losses as a percentage (R)



Source: Company Filings

Nicolet's provision for loan losses as a percentage of loans is lower than national averages

Provision for loan losses for the nation average is 1.12% of total loans.[3] Despite its higher percent of loans in commercial real estate and small businesses, Nicolet is at 0.1%, significantly lower than the national average. Figure 3 shows the decrease in provision of loan losses relative to loans, figures in millions. Figure 4 shows provision for loan losses as a percentage decrease.

<u>Acquisition-related growth</u>

As part of Nicolet's growth strategy, management regularly evaluates merger and acquisition opportunities with other financial institutions and financial services companies. Nicolet seeks for M&A partners that are culturally similar, have experienced management, and possess either significant market presence or have potential for improved profitability through financial management, economies of scale, and expanded services. Figure 4 lists most recent acquisitions, starting in 2017.[4]

Figure 5: Recent acquisitions

Close Date	Target Company	Price ($M)	Total Assets Acquired
November 8, 2019	Choice Bancorp, Inc. (Choice)	$83.95	$457
April 28, 2017	First Menasha Bancshares, Inc. (First Menasha)	$84.40	$480

Source: Company Filings

The final purchase price for First Menasha was $84.4 million:

Acquisitions allow Nicolet to penetrate new communities

- Common stock consideration of $62.2 million (based on $47.52 per share, the volume weighted average closing price of the Company's common stock over the preceding 20 trading day period). Issuance of 1,309,885 shares of the Company's common stock (final stock-for-stock exchange ratio was 3.126).
- Cash consideration of $19.3 million.
- Approximately $0.2 million in direct stock issuance costs for the merger were incurred and charged against additional paid-in capital.

The acquisition of First Menasha added $480 million in assets, $351 million in loans, $375 million in deposits, $4 million in core deposit intangible, and $41 million of goodwill. On a percentage scale, assets increased by 16%, loans by 17%, deposits by 15%, and goodwill and other intangibles by 35%. With the acquisition, Nicolet gained five branches of The First National Bank-Fox Valley, the wholly owned

[3] https://www.federalreserve.gov/releases/h8/current/default.htm
[4] Nicolet completed their acquisition of Advantage Community Bancshares, Inc. in their Q3 2020 earnings. Nicolet has not disclosed the value of this transaction, which is why Advantage is not in the table above.

Both Choice and Menasha were good deals for Nicolet as it gained more assets and loans than it gave in market value

commercial bank subsidiary of First Menasha. This expanded Nicolet's presence in the Calumet and Winnebago counties. The price of $84 million was about 11.8% of NCBS's market cap, so the firm gained more assets and loans than it gave in market value (the acquisition was a good deal).

As for Choice, this added $457 million in assets, including $348 million in loans, $289 million in deposits, $1.7 million in core deposit intangible, and $45 million of goodwill. This means that assets increased by 16%, loans by 19%, deposits by 13%, and goodwill and other intangibles by 34%. Along with these added assets, the acquisition of Choice allowed Nicolet to increase its presence in Oshkosh, and it became the leading community bank for the Oshkosh marketplace as the two Choice Bank branches were integrated into Nicolet's system. The price again was less than the growth in assets and loans acquired (it was about 11.9% of market cap).

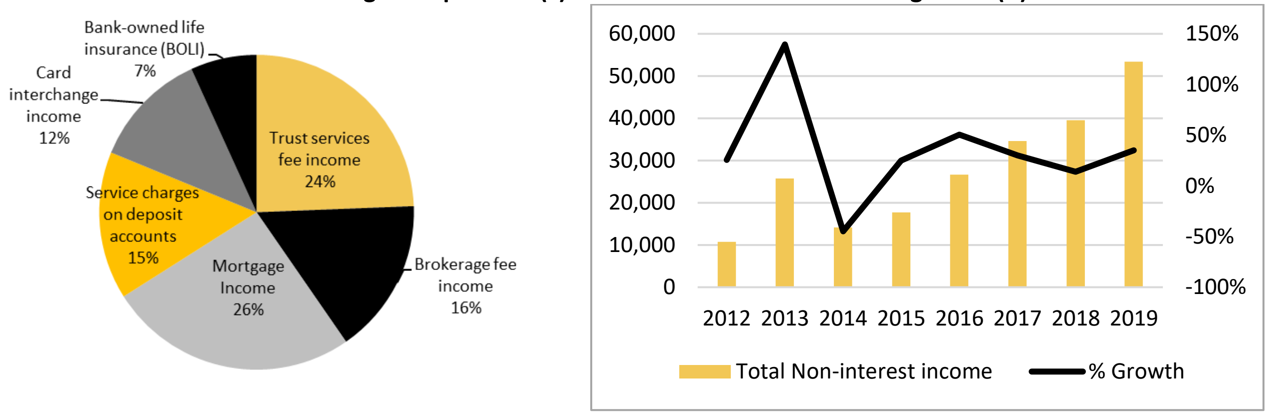
The final purchase price for Choice was $84.0 million:

- Common stock consideration of $79.8 million (based on $67.39 per share, the volume weighted average closing price of the Company's common stock over the preceding 30 trading day period). Issuance of 1,184,102 shares of the Company's common stock (given the final stock-for-stock exchange ratio of 0.497).
- Cash consideration of $1.7 million.
- Approximately $0.2 million in direct stock issuance costs for the merger were incurred and charged against additional paid-in capital.

Increase wealth management services

As mentioned earlier, Nicolet is growing its wealth management business. Over the years, non-interest income has increased significantly. Nicolet's wealth management business (i.e., trust services and brokerage fees) has grown by roughly 35% in 2019. Along with Choice Bancorp and First Menasha, Nicolet also acquired a small brokerage book of business during the third quarter of 2018 from a retiring financial advisor. Figure 6 shows the average composition of noninterest income for the year-end 2019 while Figure 7 shows non-interest income growth from 2012 to 2019.

Figures 6 & 7: Noninterest income average composition (L) and total non-interest income growth (R)



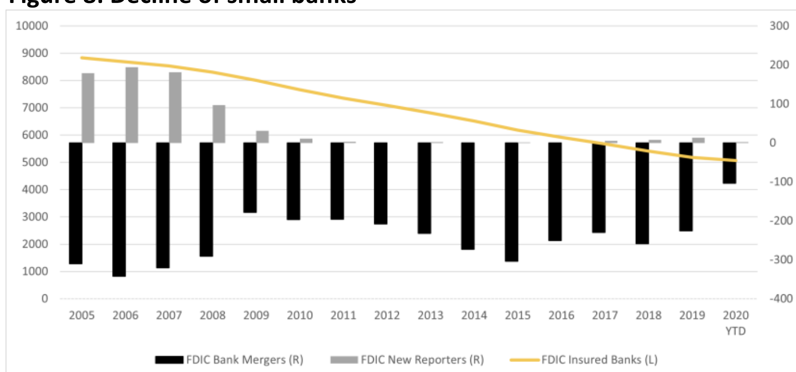
Source: Company Filings

Overall, the most notable non-interest income increases in 2019 were trust and brokerage fees combined (up $1.8 million or 15%), card interchange income (up $1.0 million or 22%), and net mortgage income (up $1.0 million or 18%), all benefiting from increased business. Trust services fee income and brokerage fee income combined were $14.3 million for 2019, up $0.8 million or 6% from 2018, consistent with the growth in assets under management.

Decreasing number of small banks

As shown in figure 8, the number of small banks is decreasing, with a good number of these small banks going through a M&A—like Nicolet acquiring other small banks. Additionally, new regulations imposed on banks following the Great Recession, most notably the Dodd-Frank Act, increased banks' regulatory compliance requirements needed to make loans to businesses, essentially disincentivizing banks from lending to small, growing businesses and startups. As the number of small banks decreases, this opens a growth opportunity for Nicolet. While it faces fierce competition from bigger banks in the industry, Nicolet can capitalize on lending to small businesses since big banks do not usually loan to these customers. Additionally, Nicolet already services to small- to mid-sized businesses, so it should not be a challenge for Nicolet to appeal to this customer base as customers may already know of Nicolet, and Nicolet knows how to serve them. Plus, these businesses may have fewer choices.

Figure 8: Decline of small banks[5]



Source: FDIC

Small loans' growth rose from 0.5% to 3.6% from March 2017 to March 2018

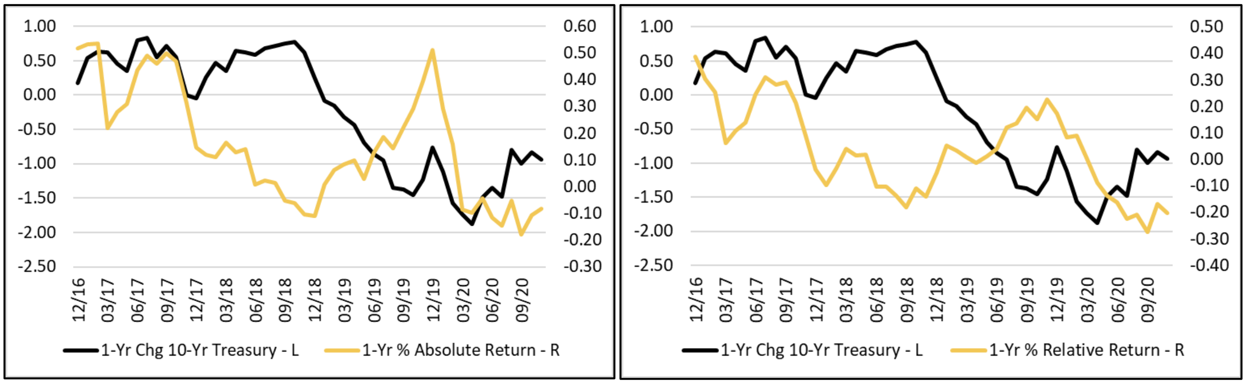
In recent years, small banks' loans are growing faster than large banks. Small banks' loan growth jumped from 0.5% to 3.6% growth from March 2017 to March 2018.[6] Growing total loans divided between fewer competitors means Nicolet's organic loan growth should be perhaps in the middle single digits.

Interest rates (macroeconomic trends)

Nicolet's earnings are significantly dependent on net interest income, and net interest income should be directly correlated with interest rates. Figures 9 & 10 depicts the absolute and relative returns for Nicolet to the S&P 500 versus the 1-year change 10-year Treasury yield. Surprisingly, as rates rose and fell, Nicolet performed worse and better, respectively. This implies that company-specific issues mattered more than interest rates. See figure 1, the stock performed in line with revenue growth. Growth slowed in 2018 after the 2017 acquisition of First Menasha. Growth then rose in 2019 to 2020 after the firm bought Choice.

[5] Figure is provided courtesy of Kenneth Zacher, Fiserv (FISV) analyst
[6] https://www.cnbc.com/2018/06/13/bove-big-banks-are-losing-lending-business-to-smaller-competitors.html

Figures 9 & 10: Absolute return (left) and relative return (right)



Source: FactSet, IMCP

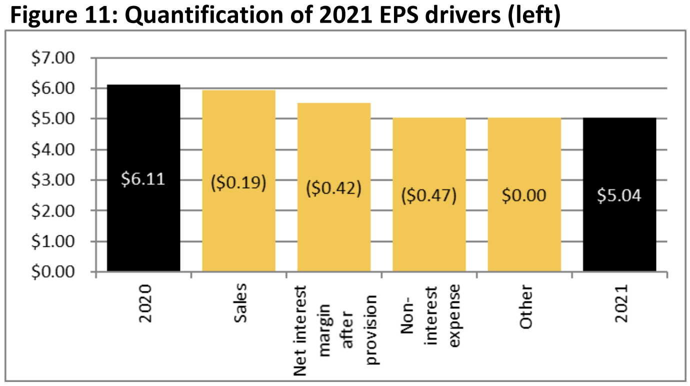
Financial Analysis

<u>Quantification of Drivers</u>

Based on my forecasts, I anticipate that EPS will decrease slightly by $1.07 to $5.04 in 2021. Sales will decline and lower EPS by $0.19 due to impact from the COVID-19 pandemic. Net interest margin after provision will also decline and detract $0.42 from EPS. Non-interest expense declining will cost EPS of $0.47.

Nicolet's interest income is heavily influenced by interest rates, which may be about to rise. Also, growth in non-interest income from services such as trust, brokerage, retirement plans, and other investment management services should boost EPS. Last, Nicolet can probably still grow through acquisitions.

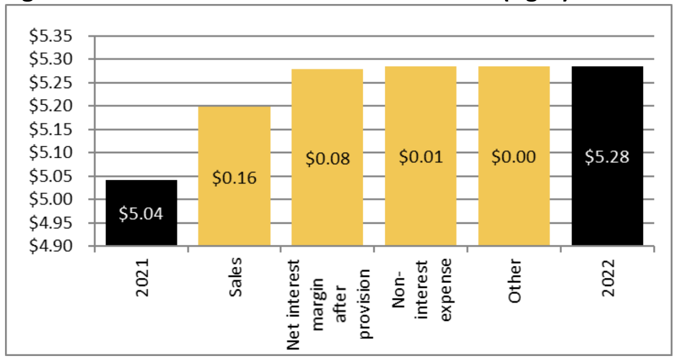
Figure 11: Quantification of 2021 EPS drivers (left)



Source: Company Filings, IMCP

In 2022, sales and net interest margin after provision will both increase and add $0.16 and $0.08 to EPS, respectively. Non-interest expense will also boost EPS by $0.01. Like 2021, Other (wire transfer income, securities with readily determinable fair values, etc.) will remain unchanged. Finally, EPS will rise from $5.04 to $5.28, a $0.24 change.

Figure 12: Quantification of 2022 EPS drivers (right)



Source: Company Filings, IMCP

Estimate & Consensus Comparison

I am slightly more optimistic than consensus. My estimates are slightly bullish for both 2021 and 2022 EPS growth and sales. While I believe 2021 will be worse than consensus as loan losses grow, I also expect growth in 2022 while consensus expects a decline.

Figure 13: NCBS estimates vs. market consensus

My Estimates	2021	2022	Consensus	2021	2022
EPS	$5.04	$5.28	EPS	$5.32	$4.76
Growth	-2.0%	4.8%	Growth	-6.0%	-10.5%
Sales ($M)	198	204	Sales ($M)	179	171
Growth	-3.0%	3.1%	Growth	-6.3%	-4.5%

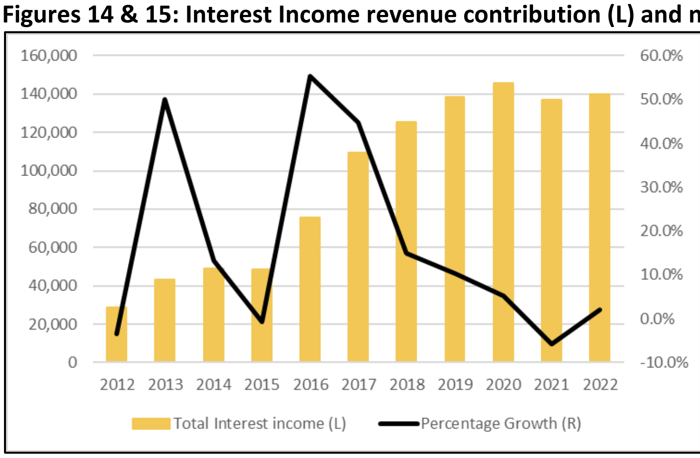
Source: IMCP

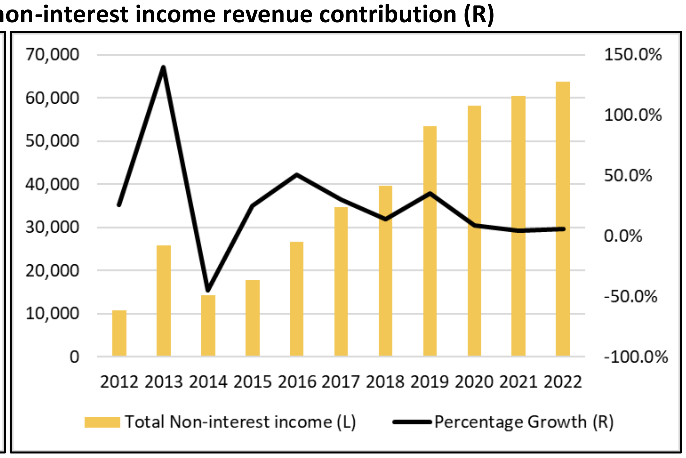
Revenue

Before 2018, Nicolet's revenue grew greatly before slowing in 2018. At that time, Nicolet completed and acquired Choice Bancorp, Inc. Interest income peaked in 2020, and I expect it to decline as interest rates have come down.

Non-interest income has been growing quickly, which aligns with Nicolet's goals to grow its non-interest income services. Based on my estimates non-interest income will continue to grow in 2021 and 2022.

Figures 14 & 15: Interest Income revenue contribution (L) and non-interest income revenue contribution (R)





Source: Company filings

Return on Equity

Nicolet's ROE relative to comps (specifically, Wisconsin-based banks) are relatively close to each other, with Nicolet's ROE being the third highest of seven (see figure 19). Nicolet's ROE grew from 10.3% to 12.1% from 2017 to 2019 due to rising margins and asset turnover. However, moving forward, I expect that margins and asset turnover will decrease. This, plus declining leverage, will drive ROE down.

Figure 16: ROE Breakdown, 2017 - 2022E

3-stage	2017	2018	2019	2020E	2021E	2022E
Net income / sales	23.0%	24.9%	28.5%	28.8%	24.5%	24.9%
Sales / avg assets	0.05	0.05	0.06	0.06	0.05	0.05
ROA	1.3%	1.4%	1.6%	1.6%	1.3%	1.2%
Avg assets / avg equity	8.16	8.01	7.38	6.70	6.46	6.42
ROE	10.3%	10.9%	12.1%	10.8%	8.1%	7.9%

Source: IMCP

Free Cash Flow

Figure 17: Free cash flow calculations

Free Cash Flow	2016	2017	2018	2019	2020	2021E	2021E
NOPAT	$18,694	$33,433	$41,353	$54,988	$59,050	$48,748	$51,083
Growth		*78.8%*	*23.7%*	*33.0%*	*7.4%*	*-17.4%*	*4.8%*
NOWC	119,798	184,809	209,189	282,770	305,000	364,755	404,368
Net fixed assets	211,095	276,560	273,208	340,037	373,500	362,143	373,263
Total net operating capital	$330,893	$461,369	$482,397	$622,807	$678,500	$726,898	$777,631
Growth		*39.4%*	*4.6%*	*29.1%*	*8.9%*	*7.1%*	*7.0%*
- Change in NOWC		65,011	24,380	73,581	22,230	59,755	39,612
- Change in NFA		65,465	(3,352)	66,829	33,463	(11,357)	11,120
FCFF		-$97,043	$20,325	-$85,422	$3,357	$350	$350
Growth			*-120.9%*	*-520.3%*	*-103.9%*	*-89.6%*	*0.0%*
- After-tax interest expense		10,943	10,147	12,667	14,489	11,961	12,534
+ Net new short-term and long-term debt		40,429	(741)	(9,676)	871	-	-
FCFE		-$67,557	$9,437	-$107,765	-$10,261	-$11,611	-$12,184
Growth			*-114.0%*	*-1241.9%*	*-90.5%*	*13.2%*	*4.9%*
Sources of cash (FCFE)		-$67,557	$9,437	-$107,765	-$10,261	-$11,611	-$12,184
Uses of cash							
Other expense		$283	$317	$347	$350	$350	$350
Increase mkt sec		-	-	-	-	-	-
Dividends		-	-	-	-	-	-
Change in other equity		(55,364)	18,563	(74,997)	5,690	(0)	0
		($55,081)	$18,880	($74,650)	$6,040	$350	$350
Change in other liab		1,533	(704)	20,448	1,812	-	-
Total		($56,614)	$19,584	($95,098)	$4,228	$350	$350

Source: Company Reports, IMCP

Nicolet had to compensate Commerce State Bank for terminating the acquisition

NCBS's free cash flow has been remarkably volatile over the last several years. NOPAT growth has been positive but volatile. I forecast NOPAT to decline in 2021 in 2022. The firm announced that it terminated its acquisition plan of Commerce State Bank, a Milwaukee-based ank. Following the termination, NCBS paid Commerce State Bank $0.5 million and surrendered $0.1 million in Commerce common stock. However, as mentioned earlier, NCBS completed the transaction of another bank, Advantage Community Bancshares, Inc., through an all-cash transaction. I anticipate that while the firm may make acqusitions in 2021, NFA will fall as depreciation is greater than new assets. Overall, FCFE in 2021 and 2022 should be about zero.

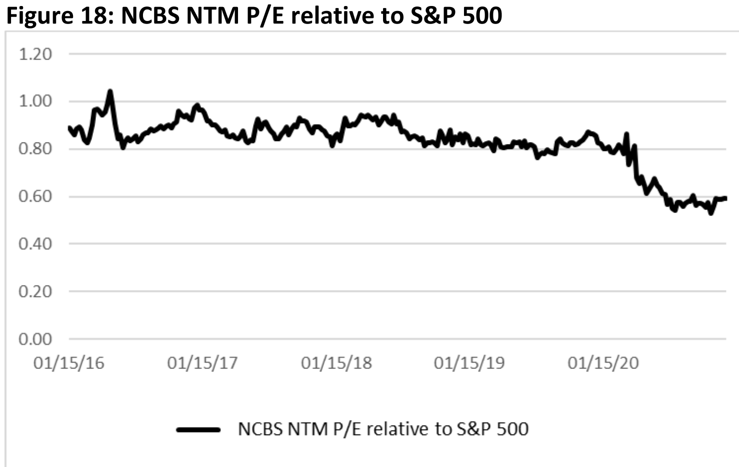
Valuation

NCBS was valued using multiples and a 3-stage discounting cash flow model. Based on earnings multiples, the stock is priced in line with other comparative firms and is worth $61. Relative valuation shows NCBS to be slightly undervalued based on its fundamentals versus those of its peers in the small banking industry. A P/B valuation yielded a price target of $74. A detailed DCF analysis values NCBS lower, at $66. Based on these valuations, I believe the firm is worth $66.

Trading History

NCBS is currently trading at a lower, and declining, P/E relative to the S&P 500. This is the result of recent earnings dip and the fact that most analyst believe that earnings will continue to decrease in 2022. NCBS's current NTM P/E is at 12.6 compared to its five-year average of 14.2. While I expect some reversion to the mean, I believe EPS and NCBS stock to eventually bounce back.

Figure 18: NCBS NTM P/E relative to S&P 500



Source: FactSet

Assuming the firm maintains a 12.6 NTM P/E at the end of 2021, it should trade at $66.53 by the end of the year:

- Price = P/E x EPS = 12.6 x $5.28 = $66.53.

Discounting $66.53 back to today at a 9.0% cost of equity (explained in Discounted Cash Flow section) yields a price of $61.03. Considering that NCBS is currently trading at $69, this valuation indicates that the stock is overvalued.

Relative Valuation

Nicolet is currently trading at a P/E relatively close to its peers. Nicolet's P/E of 13.4 to the average of 14.9 shows that the stock is currently trading just a little lower than market expectations. Nicolet does not pay out dividends, so in comparison to its peer, it scores as the lowest with a 0% dividend yield. P/S for Nicolet is well over the average; however, this is most likely the case since a lot of its peers have a low to no P/S. Its debt-equity ratio is slightly lower than market expectations and has one of the highest P/B, losing just to Bank First Corp (BFC).

Figure 19: NCBS comparable companies

Ticker	Name	Current Price	Market Value	Price Change 1 day	1 Mo	3 Mo	6 Mo	52 Wk	YTD	Earnings Growth LTG	NTM	2019	2020	2021	2022	Pst 5yr	Beta	LT Debt/ Equity	S&P Rating	LTM Dividend Yield	Payout
NCBS	NICOLET BANKSHARES INC	$69.26	$699	0.3	5.9	17.2	26.2	(6.5)	(6.2)	0.0	6.4%	34.0%	2.5%	-6.0%	-10.5%	23.7%	0.70	75.4%		0.00%	0.0%
ASB	ASSOCIATED BANC-CORP	$16.46	$2,528	0.5	6.7	21.3	13.0	(26.1)	(25.3)	7.5	-41.2%	-4.8%	-43.7%	-0.9%	29.1%	7.5%	1.20	87.3%	B	4.70%	38.0%
BFC	BANK FIRST CORP	$69.33	$536	0.7	4.4	10.4	15.2	2.3	(1.0)	0.0	6.2%	2.6%	23.5%	-6.8%	-4.2%	16.0%	0.38	9.2%		1.16%	17.5%
WSBF	WATERSTONE FINANCIAL INC	$17.99	$453	(0.4)	0.3	16.8	23.1	(5.1)	(5.5)	0.0	-31.9%	23.4%	104.4%	-50.4%	-12.2%	4.8%	0.30	118.7%	B-	2.73%	19.1%
FBIZ	FIRST BUSINESS FINL SRV INC	$18.75	$160	(2.2)	1.5	22.9	15.0	(27.8)	(28.8)	0.0	16.5%	51.4%	-30.2%	18.2%	10.0%	7.0%	0.98	138.9%	B+	3.49%	33.5%
ICBK	COUNTY BANCORP INC	$21.39	$134	(1.1)	8.5	10.2	(1.8)	(19.2)	(16.5)	0.0	130.9%	13.7%	-60.8%	52.7%	1.4%	14.0%	0.99	78.5%		1.21%	43.2%
Average			$752	(0.4)	4.6	16.5	15.1	(13.7)	(13.9)	1.3	14.5%	20.1%	-0.7%	1.1%	2.3%	12.2%	0.76	84.7%		2.22%	25.2%
Median			$494	(0.1)	5.2	17.0	15.1	(12.9)	(11.4)	0.0	6.3%	18.6%	-13.8%	-3.5%	-1.4%	10.7%	0.84	82.9%		1.97%	26.3%
SPX	S&P 500 INDEX	$3,647		(0.4)	1.7	7.8	19.9	15.1	12.9			1.4%	-19.5%	23.6%	17.0%						

Ticker	Website	2020 ROE	P/B	P/E 2018	2019	2020	TTM	NTM	2021	2022	2020 NPM	2020 P/S	NM	OM	ROIC	EV/ EBIT	P/CF Current	Sales Growth NTM	STM	Pst 5yr	Book Equity
NCBS	http://www.nicoletbank.com	10.7%	1.31	11.8	13.4	12.2	13.4	12.6	13.0	14.6	0.0%	3.55	28.4%	3.1%	10.5%	9.8	11.7	-10.8%	-6.9%	27.1%	$52.77
ASB	http://www.associatedbank.com	4.6%	0.68	9.6	11.2	14.8	8.7	14.8	15.0	11.6	0.0%	1.56	20.9%	2.3%	4.5%	7.8	7.9	-24.8%	2.1%	5.7%	$24.04
BFC	http://www.bankfirstnational.com	13.0%	1.87	12.2	17.9	14.4	15.1	14.2	15.4	16.1	0.0%	4.74	27.5%	3.8%	10.9%	16.1	14.8	-5.8%	-3.4%	19.5%	$37.01
WSBF	http://www.wsbonline.com	17.7%	1.14	15.1	13.9	6.4	7.2	10.5	12.9	14.7	0.0%	1.77	17.1%	2.6%	4.2%	10.7	13.7	-19.1%	-12.3%	14.2%	$15.84
FBIZ	http://www.firstbusiness.com	8.0%	0.80	11.0	9.8	10.0	9.7	8.3	8.5	7.7	0.0%	1.89	18.2%	3.1%	6.0%	7.7	6.7	-14.5%	-2.5%	6.9%	$23.45
ICBK	http://www.investorscommunityba	3.5%	0.83	8.5	11.0	23.5	35.5	15.4	15.4	15.2	0.0%	1.92	20.6%	2.4%	6.8%	6.6	8.0			9.1%	$25.72
Average		9.6%	1.11	11.4	12.9	13.6	14.9	12.7	13.4	13.3	0.0%	2.57	22.1%	2.9%	7.1%	9.8	10.5	-15.0%	-4.6%	13.8%	
Median		9.3%	0.98	11.4	12.3	13.3	11.6	13.4	14.0	14.6	0.0%	1.90	20.8%	2.8%	6.4%	8.8	9.9	-14.5%	-3.4%	11.7%	
SPX	S&P 500 INDEX			15.6	19.8	27.8			22.5	19.2											

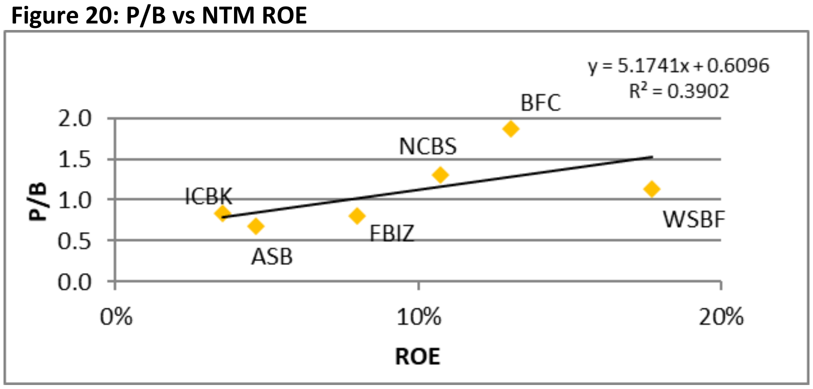
Source: IMCP

A more thorough analysis of P/B and ROE is shown in figure 19. The calculated R-squared of the regression indicates that over 70% of a sampled firm's P/B is explained by its NTM ROE. NCBS has the second highest P/B and third highest ROE of this grouping, and according to this measure, is overvalued.

- Target P/B = Estimated 2020 ROE (10.7%) x 5.1741 + .6096 = 1.163
- Target Price = Estimated P/B (1.163) x 2022E BVPS (66.53) = $81.05

Discounting back to the present at a 9.0% cost of equity leads to a target price of $74.35 using this metric.

Figure 20: P/B vs NTM ROE



Source: IMCP

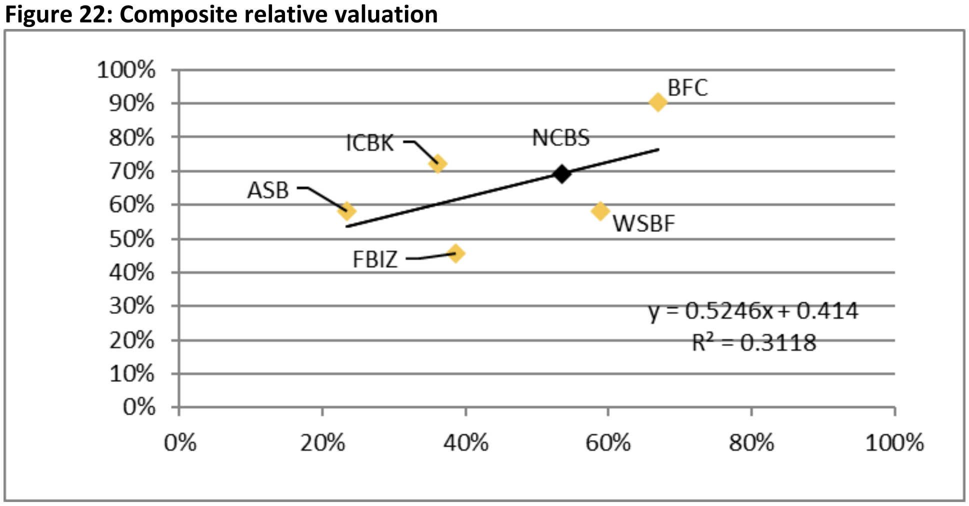
For a final comparison, I created a composite ranking of several valuation and fundamental metrics. Since the variables have different scales, each was converted to a percentile before calculating the composite score. The regression line had an R-squared of 0.3118. One can see that NCBS is partially on the regression line, so based on this fundamental, NCBS is fairly valued.

Figure 21: Composite valuation, % of max

				Fundamentals			Valuation		
		Weight		20.0%	40.0%	40.0%	25.0%	25.0%	50.0%
				EPS G	2020	2020	P/E		
Ticker	Name	Fund	Value	2021	ROE	NPM	2020	2021	P/B
NCBS	NICOLET BANKSHARES INC	53%	69%	-11%	61%	79%	52%	85%	70%
ASB	ASSOCIATED BANC-CORP	23%	58%	-2%	26%	33%	63%	97%	37%
BFC	BANK FIRST CORP	67%	90%	-13%	74%	100%	61%	100%	100%
WSBF	WATERSTONE FINANCIAL INC	59%	58%	-95%	100%	95%	27%	84%	61%
FBIZ	FIRST BUSINESS FINL SRV INC	39%	46%	34%	45%	34%	43%	55%	43%
ICBK	COUNTY BANCORP INC	36%	72%	100%	20%	20%	100%	100%	44%

Source: IMCP

Figure 22: Composite relative valuation



Source: IMCP

<u>Discounted Cash Flow Analysis</u>

A three-stage discounted cash flow model was also used to value NCBS.

For the purpose of this analysis, the company's cost of equity was calculated to be 9.0% using the Capital Asset Pricing Model (CAPM). The underlying assumptions used in calculating this rate are as follows:

- The risk-free rate, as represented by the ten-year Treasury bond yield, is 1.00%.
- A ten-year beta of 0.80 was utilized since the company seems to have lower risk
- A long-term market rate of return of 11% was assumed, since historically, the market has generated an annual return of about 11%.

Given the above assumptions, the cost of equity is 9.0% (0.01+0.8 (0.11-0.01)).

Stage One - The model's first stage simply discounts fiscal years 2021 and 2022 free cash flow to equity (FCFE). These per share cash flows are forecasted to be ($1.21) and ($1.27), respectively. Discounting these cash flows per share, using the cost of equity calculated above, results in values of ($1.11) and ($1.07). Thus, stage one of this discounted cash flow analysis contributes ($2.18) to value.

Stage Two - Stage two of the model focuses on fiscal years 2023 to 2027. During this period, FCFE is calculated based on revenue growth, NOPAT margin and capital growth assumptions. The resulting cash flows are then discounted using the company's 9.0% cost of equity. I assume volatile sales growth figures through 2023 to 2027. My estimates for sales growth as follow: 2023 -> -4%, 2024 -> -2%, 2025 -> 2%, 2026 -> 5%, 2027 -> 5.7%. The NFA turnover ratio will remain at 2021 levels, but NOWC will increase from 0.75 in 2023 to 1.02 in 2027 as new debt is added. NOPAT margin is expected to rise and fall with respective sales growth figures and return to nearly 29% (from 25% in 2022), like in 2020.

Figure 23: FCFE and discounted FCFE, 2021 – 2027

	First Stage		Second Stage				
Year ending January	2021	2022	2023	2024	2025	2026	2027
FCFE	($1.21)	($1.27)	$19.95	$6.58	$4.22	$5.10	$3.36
Discounted FCFE	($1.11)	($1.07)	$15.40	$4.66	$2.74	$3.04	$1.84

Source: IMCP

Added together, the second stage discounted cash flows total $25.50.

Stage Three – Net income for the years 2023 – 2027 is calculated based upon the same margin and growth assumptions used to determine FCFE in stage two. EPS is expected to fall from $6.11 in 2020 to $5.07 in 2027.

Figure 24: EPS estimates for 2020 – 2027

	2020	2021	2022	2023	2024	2025	2026	2027
EPS	$6.11	$5.04	$5.28	$3.72	$3.76	$4.10	$4.65	$5.07

Source: IMCP

Stage three of the model requires an assumption regarding the company's terminal price-to-earnings ratio. The stock's TTM P/E is 13.4, lower than the peer average of 14.9 (see figure 19). Its P/E has also declined versus the market (see figure 18). By 2027, margins will be back to 2020 levels and growth should stabilize. Assuming a normal market P/E of 17, banks trading at a discount, and NCBS being an above average but smaller (more risk) bank, a P/E of 14.5 is warranted.

Given the assumed terminal earnings per share of $5.07 and a price to earnings ratio of 14.5, a terminal value of $73.56 per share is calculated. Using the 9.0% cost of equity, this number is discounted back to a present value of $67.49.

Total Present Value – given the above assumptions and utilizing a three stage discounted cash flow model, an intrinsic value of $65.74 is calculated (-2.18 + 27.68 + 40.24). Given NCBS's current price of $69.26, this model indicates that the stock is overvalued.

Scenario Analysis

The cyclicality of financials and banking sector can cause significant changes to my valuation assumptions. To try to understand how these fluctuations could change my valuation, I adjusted my DCF model assumptions for two scenarios. In each of my scenarios, I adjusted the beta and the terminal P/E. For the bull case scenario, beta and P/E were adjusted to 1.2 and 12, respectively. This scenario gave a target price of $76.83. Similarly, the beta and P/E for the bear case were adjusted to 0.7 and 17, respectively, and had a target price of $47.84.

Figure 25: Bull case

Summary (using P/E multiple for terminal value)		
First stage	($2.21)	Present value of first 2 year cash flow
Second stage	$28.72	Present value of year 3-7 cash flow
Third stage	$50.32	Present value of terminal value P/E
Value (P/E)	**$76.83**	

Source: IMCP

Figure 26: Bear case

Summary (using P/E multiple for terminal value)		
First stage	($2.06)	Present value of first 2 year cash flow
Second stage	$24.03	Present value of year 3-7 cash flow
Third stage	$25.87	Present value of terminal value P/E
Value (P/E)	**$47.84**	

Source: IMCP

Business Risks

Local and regional economic lending risks

Being a community bank, Nicolet has lending risks and market limitations. Nicolet's main customers are composed of individuals and small- to mid-sized businesses, which may expose it to greater lending risks than larger, more established competitors that lend to larger, better-capitalized businesses with longer operating histories. If the communities in which Nicolet operate in lacks growth or are affected by prevailing economic conditions locally or nationally and end being less favorable than assumed, Nicolet's ability to maintain a low volume of nonperforming loans and other real estate owned may be adversely affected and actual financial performance may be materially different from my projections.

May experience increased delinquencies and credit losses

Customers may not be able to repay loans that Nicolet issues. Additionally, collateral securing of the payment for these loans may be insufficient to assure repayment. Allowances are determined by using historical loss experience, volume and types of loans, trends in classification, volume and trends in delinquencies and nonaccruals, national and local economic conditions, and other pertinent information. However, if the allowance is miscalculated, it may not be able to cover Nicolet's future loan losses.

Subjected to extensive regulation that may limit activities

Nicolet is subjected to examination, supervision, and comprehensive regulation by various regulatory agencies. These regulations include compliance with regulatory commitments, which includes the declaration and payment of cash dividends to stockholders, mergers and acquisitions, investments, loans and interest rates charged, interest rates paid on deposits, and locations of offices. Laws and regulations for the banking industry are subjected to be changed at unpredictable times. The unpredictability makes it difficult for Nicolet to properly prepare or predict for any changes that could negatively affect its business and profitability.

Profitability is heavily influenced by interest rates (macroeconomic risks)

Interest income composes the bulk of Nicolet's earnings. When interest rates are high, this would mean high profitability. However, if interest rates are too high, this can also impact Nicolet's mortgage banking business since higher interest rates could cause customers to request fewer refinancing and purchase money mortgage originations. If interest rates are extremely low, this could negatively impact Nicolet's earnings on a general basis. Interest rates also change at unpredictable times.

Transition from LIBOR interest rate index

A lot of Nicolet's trust preferred securities, loans, and investment securities are currently indexed to the LIBOR index to calculate the interest rate. However, LIBOR is being replaced. With this uncertainty and the fact that Nicolet's LIBOR-based contracts and financial instruments were developed over time in correlation with the LIBOR index, this may trigger various events with the SOFR rate replacing LIBOR.

<u>Operational and technology risks</u>
The financial industry and Nicolet are becoming more and more reliant to technology, especially communications and information systems to conduct its business. Nicolet currently outsources its technology and rely on third party vendors to provide key components to its technology system, which includes core application processing. If there was a breach in security of these systems, this could make Nicolet lose customer loyalty and lose consumer confidence.

Source: Company Filings, IMCP

Appendix 1: Porter's 5 Forces

Threat of New Entrants – Low
The banking industry is quite saturated at this point with a lot of big, regional banks with reputable branding. The threat of a new bank is relatively low, especially in traditional banking. Additionally, the number of smalls banks is declining. On the other hand, new sources of non-bank financing could arrive due to advances in fintech.

Threat of Substitutes – High
Traditional banking is getting less popular. Banks that are still in the traditional banking model will need to adapt to the ever-changing world of technology (such as fintech companies) or risk losing customers. For example, a threat to Nicolet would be like bionic banks that have AI supporting to enhance its customer relationship with advanced technology. Most customers now usually prefer being able to do all their banking needs on their mobile devices versus having to visit a branch location to do simple tasks such as checking one's account balance. If Nicolet's customers believe that Nicolet's services are not up to par to their expectations, these customers may look elsewhere for their banking needs.

Supplier Power – Medium
By utilizing four major suppliers' sources (customer deposits, mortgages and loans, mortgage-backed securities, and loans from other financial institutions), Nicolet can be sure that it has the necessary resources required to service customers' borrowing needs while maintaining enough capital to meet withdrawal expectations. Nicolet's supplier power will be heavily dependent on the market, such as interest rates.

Buyer Power – High
Nicolet's ability to diversify economic risks is limited by local markets and communities it serves in Wisconsin and Michigan. Nicolet primarily lends to individuals and small- to mid-sized businesses, which may expose it to greater lending risks compared established banks that can lend to larger, better-capitalized businesses with longer operating histories. On the same note, consumers may trust to conduct business transactions with bigger, more established banks that have a higher network and availability between states—this is especially crucial for customers who travel frequently.

Intensity of Competition – Very High
In all markets where Nicolet participates, competition is high. There are already many firms that handle investment management services, and of these firms, they may have a more reputable history of investment management services as well as resources to serve clients. The banking industry is a highly saturated industry with one of Nicolet's biggest competitors being Associated Bank, another Wisconsin-based bank, and the largest Wisconsin-based bank.

Appendix 2: SWOT Analysis

Strengths	Weaknesses
Ability to lend to customers that larger, more well-known banks would not lend to Local knowledge to offer competitive fees and rates	Limited resources to invest in technological improvements Profitability is based on macroecomic trends, which can be unpredictable
Opportunities	**Threats**
Expand customer base to other communities and counties Continue expansion of wealth management business	Strong competition from larger, more established competitors Interest rates significantly determines profitablity

Appendix 3: Sales Forecast

Sales						BaseCase		Bull Case		Bear Case	
Items	**Dec-16**	**Dec-17**	**Dec-18**	**Dec-19**	**Dec-20**	**Dec-21**	**Dec-22**	**Dec-21**	**Dec-22**	**Dec-21**	**Dec-22**
Sales	102,141	143,892	165,046	191,955	203,833	197,635	203,704	197,635	203,704	197,635	203,704
Growth		*40.9%*	*14.7%*	*16.3%*	*6.2%*	*-3.0%*	*3.1%*	*-3.0%*	*3.1%*	*-3.0%*	*3.1%*
Interest Income	75,467	109,253	125,537	138,588	145,698	137,175	139,918	137,175	139,918	137,175	139,918
Growth		*44.8%*	*14.9%*	*10.4%*	*5.1%*	*-5.9%*	*2.0%*	*-5.9%*	*2.0%*	*-5.9%*	*2.0%*
% of sales	*73.9%*	*75.9%*	*76.1%*	*72.2%*	*71.5%*	*69.4%*	*68.7%*	*69.4%*	*68.7%*	*69.4%*	*68.7%*
Noninterest Income	26,674	34,639	39,509	53,367	58,135	60,460	63,786	60,460	63,786	60,460	63,786
Growth		*29.9%*	*14.1%*	*35.1%*	*8.9%*	*4.0%*	*5.5%*	*4.0%*	*5.5%*	*4.0%*	*5.5%*
% of sales	*26.1%*	*24.1%*	*23.9%*	*27.8%*	*28.5%*	*2.0%*	*31.3%*	*30.6%*	*31.3%*	*30.6%*	*31.3%*

Appendix 4: Income Statement

Income Statement (in thousands)							
Items	**Dec-16**	**Dec-17**	**Dec-18**	**Dec-19**	**Dec-20**	**Dec-21**	**Dec-22**
Interest Income	$75,467	$109,253	$125,537	$138,588	$145,698	$137,175	$139,918
Non-interest Income	26,674	34,639	39,509	53,367	58,135	60,460	63,786
Sales	$102,141	$143,892	$165,046	$191,955	$203,833	$197,635	$203,704
Interest expense	7,334	10,511	18,889	22,510	23,450	25,724	28,226
Provision for loan losses	1,800	2,325	1,600	1,200	3,500	5,720	3,146
Net interest income after provision	93,007	131,056	144,557	168,245	176,883	166,191	172,332
Non-interest expense	64,942	81,356	89,758	96,799	98,633	101,592	104,640
EBT	28,065	49,700	54,799	71,446	78,250	64,599	67,692
Taxes	9,371	16,267	13,446	16,458	19,200	15,850	16,609
Income	18,694	33,433	41,353	54,988	59,050	48,748	51,083
Other	232	283	317	347	350	350	350
Net income	18,462	33,150	41,036	54,641	58,700	48,398	50,733
Basic Shares	7,158	9,440	9,640	9,562	9,600	9,600	9,600
Fully Diluted Shares	7,514	9,958	9,956	9,900	9,995	9,995	9,995
EPS	$2.58	$3.51	$4.26	$5.71	$6.11	$5.04	$5.28
EPS Fully Diluted	$2.46	$3.33	$4.12	$5.52	$5.87	$4.84	$5.08
DPS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Appendix 5: Balance Sheet

Balance Sheet (in thousands)							
Items	**Dec-16**	**Dec-17**	**Dec-18**	**Dec-19**	**Dec-20**	**Dec-21**	**Dec-22**
Cash	68,056	86,191	85,896	75,433	130,000	142,154	144,442
Loans	1,574,638	2,079,938	2,154,667	2,562,485	2,600,000	2,860,000	3,146,000
Operating assets ex cash and loans	447,090	489,744	582,764	599,305	600,000	612,669	631,482
Operating assets	2,089,784	2,655,873	2,823,327	3,237,223	3,330,000	3,614,823	3,921,924
Interest-bearing demand deposits	1,487,686	1,839,233	1,861,073	2,135,398	2,200,000	2,420,000	2,662,000
Operating liabilities ex deposits	482,300	631,831	753,065	819,055	825,000	830,067	855,556
NOWC	119,798	184,809	209,189	282,770	305,000	364,755	404,368
NOWC ex cash (NWC)	51,742	98,618	123,293	207,337	175,000	222,601	259,926
NFA	211,095	276,560	273,208	340,037	373,500	362,143	373,263
Invested capital	*$330,893*	*$461,369*	*$482,397*	*$622,807*	*$678,500*	*$726,898*	*$777,631*
Marketable securities	-	-	-	-	-	-	-
Total assets	*$2,300,879*	*$2,932,433*	*$3,096,535*	*$3,577,260*	*$3,703,500*	*$3,976,966*	*$4,295,188*
S-T and L-T debt and financing leases	$37,617	$78,046	$77,305	$67,629	$68,500	$68,500	$68,500
Other liabilities	16,911	18,444	17,740	38,188	40,000	40,000	40,000
Debt/equity-like securities	-	-	-	-	-	-	-
Equity	276,365	364,879	387,352	516,990	570,000	618,398	669,131
Total supplied capital	*$330,893*	*$461,369*	*$482,397*	*$622,807*	*$678,500*	*$726,898*	*$777,631*
Total liabilities and equity	*$2,300,879*	*$2,932,433*	*$3,096,535*	*$3,577,260*	*$3,703,500*	*$3,976,966*	*$4,295,188*

Appendix 6: Ratios

Ratios	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22
Profitability							
Gross margin	91.1%	91.1%	87.6%	87.6%	86.8%	84.1%	84.6%
Operating (EBIT) margin	27.5%	34.5%	33.2%	37.2%	38.4%	32.7%	33.2%
Net profit margin	18.1%	23.0%	24.9%	28.5%	28.8%	24.5%	24.9%
Activity							
NFA (gross) turnover		0.59	0.60	0.63	0.57	0.54	0.55
Total asset turnover		0.05	0.05	0.06	0.06	0.05	0.05
Liquidity							
Op asset / op liab	4.33	4.20	3.75	3.95	4.04	4.35	4.58
NOWC Percent of sales		105.8%	119.4%	128.1%	144.2%	169.4%	188.8%
Solvency							
Debt to assets	1.6%	2.7%	2.5%	1.9%	1.8%	1.7%	1.6%
Debt to equity	13.6%	21.4%	20.0%	13.1%	12.0%	11.1%	10.2%
Other liab to assets	0.7%	0.6%	0.6%	1.1%	1.1%	1.0%	0.9%
Total debt to assets	2.4%	3.3%	3.1%	3.0%	2.9%	2.7%	2.5%
Total liabilities to assets	23.3%	24.8%	27.4%	25.9%	25.2%	23.6%	22.4%
Debt to EBIT	1.34	1.57	1.41	0.95	0.88	1.06	1.01
EBIT/interest	2.99	3.06	4.08	4.34	4.08	4.08	4.08
Debt to total net op capital	11.4%	16.9%	16.0%	10.9%	10.1%	9.4%	8.8%
ROIC							
NOPAT to sales	18.3%	23.2%	25.1%	28.6%	29.0%	24.7%	25.1%
Sales to NWC		1.91	1.49	1.16	1.07	0.99	0.84
Sales to NFA		0.59	0.60	0.63	0.57	0.54	0.55
Sales to IC ex cash		0.45	0.43	0.41	0.37	0.35	0.33
Total ROIC ex cash		10.5%	10.7%	11.7%	10.8%	8.6%	8.4%
NOPAT to sales	18.3%	23.2%	25.1%	28.6%	29.0%	24.7%	25.1%
Sales to NOWC		0.94	0.84	0.78	0.69	0.59	0.53
Sales to NFA		0.59	0.60	0.63	0.57	0.54	0.55
Sales to IC		0.36	0.35	0.35	0.31	0.28	0.27
Total ROIC		8.4%	8.8%	10.0%	9.1%	6.9%	6.8%
NOPAT to sales	18.3%	23.2%	25.1%	28.6%	29.0%	24.7%	25.1%
Sales to EOY NWC	1.97	1.46	1.34	0.93	1.16	0.89	0.78
Sales to EOY NFA	0.48	0.52	0.60	0.56	0.55	0.55	0.55
Sales to EOY IC ex cash	0.39	0.38	0.42	0.35	0.37	0.34	0.32
Total ROIC using EOY IC ex cash	7.1%	8.9%	10.4%	10.0%	10.8%	8.3%	8.1%
NOPAT to sales	18.3%	23.2%	25.1%	28.6%	29.0%	24.7%	25.1%
Sales to EOY NOWC	0.85	0.78	0.79	0.68	0.67	0.54	0.50
Sales to EOY NFA	0.48	0.52	0.60	0.56	0.55	0.55	0.55
Sales to EOY IC	0.31	0.31	0.34	0.31	0.30	0.27	0.26
Total ROIC using EOY IC	5.6%	7.2%	8.6%	8.8%	8.7%	6.7%	6.6%
ROE							
5-stage							
EBIT / sales		34.5%	33.2%	37.2%	38.4%	32.7%	33.2%
Sales / avg assets		0.05	0.05	0.06	0.06	0.05	0.05
EBT / EBIT		37.9%	37.9%	42.5%	44.2%	38.9%	39.3%
Net income /EBT		66.7%	74.9%	76.5%	75.0%	74.9%	74.9%
ROA		0.5%	0.5%	0.7%	0.7%	0.5%	0.5%
Avg assets / avg equity		8.16	8.01	7.38	6.70	6.46	6.42
ROE		3.9%	4.1%	5.1%	4.8%	3.2%	3.1%
3-stage							
Net income / sales		23.0%	24.9%	28.5%	28.8%	24.5%	24.9%
Sales / avg assets		0.05	0.05	0.06	0.06	0.05	0.05
ROA		1.3%	1.4%	1.6%	1.6%	1.3%	1.2%
Avg assets / avg equity		8.16	8.01	7.38	6.70	6.46	6.42
ROE		10.3%	10.9%	12.1%	10.8%	8.1%	7.9%
Payout Ratio		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Retention Ratio		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Sustainable Growth Rate		10.3%	10.9%	12.1%	10.8%	8.1%	7.9%

Appendix 7: 3-Stage DCF Model

	Year							
		1	2	3	4	5	6	7
		First Stage			Second Stage			
	2020	2021	2022	2023	2024	2025	2026	2027
Sales Growth	*6.2%*	*-3.0%*	*3.1%*	*-4.0%*	*-2.0%*	*2.0%*	*5.0%*	*5.7%*
NOPAT / S	*29.0%*	*24.7%*	*25.1%*	*24.4%*	*25.0%*	*26.3%*	*27.9%*	*28.6%*
S / NOWC	*0.67*	*0.54*	*0.50*	*0.75*	*0.80*	*0.84*	*0.96*	*1.02*
S / NFA (EOY)	*0.55*	*0.55*	*0.55*	*0.55*	*0.55*	*0.55*	*0.55*	*0.55*
S / IC (EOY)	*0.30*	*0.27*	*0.26*	*0.32*	*0.32*	*0.33*	*0.35*	*0.36*
ROIC (EOY)	*8.7%*	*6.7%*	*6.6%*	*7.7%*	*8.1%*	*8.7%*	*9.7%*	*10.2%*
ROIC (BOY)		*7.2%*	*7.0%*	*6.1%*	*7.7%*	*8.7%*	*9.7%*	*10.5%*
Share Growth	*0.4%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Sales	$203,833	$197,635	$203,704	$195,556	$191,645	$195,478	$205,251	$216,951
NOPAT	$59,050	$48,748	$51,083	$47,716	$47,911	$51,411	$57,265	$62,048
Growth	*7.4%*	*-17.4%*	*4.8%*	*-6.6%*	*0.4%*	*7.3%*	*11.4%*	*8.4%*
- Change in NOWC	22230	59755	39612	-143627	-21185	-6844	-18908	-1107
NOWC EOY	*305000*	*364755*	*404368*	*260741*	*239556*	*232711*	*213804*	*212697*
Growth NOWC	*7.9%*	*19.6%*	*10.9%*	*-35.5%*	*-8.1%*	*-2.9%*	*-8.1%*	*-0.5%*
- Chg NFA	33463	-11357	11120	-14931	-7167	7023	17909	21438
NFA EOY	*373,500*	*362,143*	*373,263*	*358,333*	*351,166*	*358,190*	*376,099*	*397,537*
Growth NFA	*9.8%*	*-3.0%*	*3.1%*	*-4.0%*	*-2.0%*	*2.0%*	*5.0%*	*5.7%*
Total inv in op cap	55693	48398	50733	-158557	-28352	179	-998	20331
Total net op cap	678500	726898	777631	619074	590722	590901	589903	610233
FCFF	$3,357	$350	$350	$206,273	$76,263	$51,232	$58,263	$41,717
% of sales	*1.6%*	*0.2%*	*0.2%*	*105.5%*	*39.8%*	*26.2%*	*28.4%*	*19.2%*
Growth		*-89.6%*	*0.0%*	*58835.1%*	*-63.0%*	*-32.8%*	*13.7%*	*-28.4%*
- Interest (1-tax rate)	14489	11961	12534	12033	11792	12028	12629	13349
Growth	*14.4%*	*-17.4%*	*4.8%*	*-4.0%*	*-2.0%*	*2.0%*	*5.0%*	*5.7%*
+ Net new debt	871	0	0	-2740	-1315	1289	3287	3934
Debt	68500	68500	68500	65760	64445	65734	69020	72955
Debt / tot net op capital	*10.1%*	*9.4%*	*8.8%*	*10.6%*	*10.9%*	*11.1%*	*11.7%*	*12.0%*
FCFE w debt	($10,261)	($11,611)	($12,184)	$191,500	$63,156	$40,493	$48,921	$32,302
% of sales	*-5.0%*	*-5.9%*	*-6.0%*	*97.9%*	*33.0%*	*20.7%*	*23.8%*	*14.9%*
Growth		*13.2%*	*4.9%*	*-1671.7%*	*-67.0%*	*-35.9%*	*20.8%*	*-34.0%*
/ No Shares	9600.0	9600.0	9600.0	9600.0	9600.0	9600.0	9600.0	9600.0
FCFE	($1.07)	($1.21)	($1.27)	$19.95	$6.58	$4.22	$5.10	$3.36
Growth		*13.2%*	*4.9%*	*-1671.7%*	*-67.0%*	*-35.9%*	*20.8%*	*-34.0%*
* Discount factor		0.92	0.84	0.77	0.71	0.65	0.60	0.55
Discounted FCFE		($1.11)	($1.07)	$15.40	$4.66	$2.74	$3.04	$1.84
Terminal value P/E								
Net income	$58,700	$48,398	$50,733	$35,683	$36,119	$39,383	$44,636	$48,699
% of sales	*28.8%*	*24.5%*	*24.9%*	*18.2%*	*18.8%*	*20.1%*	*21.7%*	*22.4%*
EPS	$6.11	$5.04	$5.28	$3.72	$3.76	$4.10	$4.65	$5.07
Growth	*7.0%*	*-17.5%*	*4.8%*	*-29.7%*	*1.2%*	*9.0%*	*13.3%*	*9.1%*
Terminal P/E								14.50
* Terminal EPS								$5.07
Terminal value								$73.56
* Discount factor								0.55
Discounted terminal value								$40.24

First stage	($2.18)	Present value of first 2 year cash flow
Second stage	$27.68	Present value of year 3-7 cash flow
Third stage	$40.24	Present value of terminal value P/E
Value (P/E)	**$65.74**	

Cost of equity	
Market return	11.0%
- Risk free rate	1.00%
= Market risk premium	10.0%
* Beta	0.80
= Stock risk premium	8.0%
r = r_f+ stock RP	**9.0%**