

CPAs / ADVISORS



**2024**  
**YEAR IN REVIEW**  
**Agribusiness**



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## WHO WE ARE

Blue & Co., LLC has provided services to the agricultural cooperative sector for the past 25 years. Blue's agricultural cooperative client base comprises entities serving over 250 counties in Missouri, Iowa, Illinois, Indiana, Kentucky, Michigan, Mississippi, Ohio, Tennessee and North Carolina. Blue annually accumulates certain operational and financial data from these entities as part of preparing peer analyses which are presented to management and boards.

The following high-level analysis is a summary of selected information from Blue's ag cooperative client base from 2019 – 2023, broken down by area of interest. Our goal in sharing this overview is to help our clients, their board members, and others, better understand trends we see in our client base. These trends are unique to this set of entities and may not be representative of entities not included herein.

This overview includes information related to a majority of the entities included. For example, while a number of entities have marketing activities, the majority do not. Similarly, several entities have feed or livestock operations, but the majority do not. Some entities have these operations in joint ventures or other entity structures. As such, this summary focuses on areas of commonality across the group to ensure the population of data is sufficiently broad to offer meaningful insights.

our clients serve

**250<sup>+</sup>**

counties

**10**

states

**25**

years serving  
Ag Co-Ops



# OVERVIEW

2022 was a year heavily influenced by the price appreciation in agronomy products. This theme will show up throughout this overview as it had a significant impact not just on revenue mix, but many other aspects of operations as well. Volatility in the energy markets also drove liquid fuel sales dollars in 2022 impacting the mix.

The combined impact of these forces drove strong increases in total operating income (TOI) which serves as the base for many of the included analyses. As such, while every cooperative also suffered from cost inflation, the growth in TOI simply outpaced the cost inflation impact. 2023 was relatively consistent with the 2022 revenue mix.

	2019	2020	2021	2022	2023
Supply % total sales	83.6%	82.9%	79.2%	81.8%	83.4%
Marketing % total sales	16.4%	17.1%	20.8%	18.2%	16.6%

	2019	2020	2021	2022	2023
Margin % total operating income (TOI)	77.9%	77.2%	79.1%	82.4%	79.1%
Service revenue % TOI	22.1%	22.8%	20.9%	17.6%	20.9%

	2019	2020	2021	2022	2023
Supply - Petroleum	28.8%	24.8%	23.1%	26.4%	28.6%
Supply - Propane	4.6%	4.6%	3.8%	3.6%	3.7%
Supply - Plant Food	21.1%	21.4%	22.0%	26.4%	26.6%
Supply - Chemical	11.6%	12.8%	11.8%	10.9%	11.3%
Supply - Seed	6.4%	6.7%	5.6%	4.1%	4.6%
Supply - Other	11.1%	12.6%	12.9%	10.4%	8.5%
Total Marketing Sales	16.4%	17.1%	20.8%	18.2%	16.6%



# REVENUE & MARGINS

Energy volumes have remained relatively consistent over this timeframe. Bulk plant food had seen decent growth as the group grew this category by almost 150,000 tons from 2019 – 2021 and then saw moderation in tons in 2022 impacted by the market price appreciation in the category. 2023 saw little growth. Ammonia sales are relatively consistent and also subject to variation based on pricing and planting season constraints. Chemical sales saw strong growth with over \$100 million of increase from 2021 to 2022. Seed sales have seen modest growth in 2022 and 2023.

Sales of gas and diesel reported herein relate to bulk plant, transport or wholesale sales, and do not include retail fuel operations. All energy margins saw improvement during 2023, which is not unexpected during times of price volatility based on the related margin opportunities. Propane margins, in particular, saw incredibly strong results in 2023 based on contract positions and market opportunity. Bulk plant food (liquid and dry, excluding direct sales) and ammonia saw the most margin movement in 2022 based on price appreciation in the market. 2023 saw bulk plant food margins return to normal while ammonia margins remained strong.

	2019	2020	2021	2022	2023
Gas gallons (millions)	33	32	30	32	30
Diesel gallons (millions)	100	101	98	109	100
Propane gallons (millions)	56	58	53	57	54
Bulk plant food tons (thousands)	875	967	1,017	964	973
Ammonia tons (thousands)	130	170	170	164	165
Chemical sales (millions)	240	264	286	390	375
Seed sales (millions)	134	137	130	142	158

	2019	2020	2021	2022	2023
Gas CPG margin	0.275	0.313	0.313	0.355	0.374
Diesel CPG margin	0.325	0.332	0.324	0.399	0.424
Propane CPG margin	0.633	0.626	0.633	0.691	0.894
Bulk plant food \$ / ton margin	72	68	81	149	77
Ammonia \$ / ton margin	102	88	92	156	137
Chemicals % margin	29.5%	26.9%	27.3%	32.4%	32.6%
Seed % margin	11.9%	12.6%	13.1%	13.8%	14.0%
Overall % margin	14.5%	15.2%	14.3%	14.1%	12.9%

One of the key differences seen among cooperatives in this area was based on the extent of risk taken relative to price volatility. Cooperatives which engaged their customers in prepaying and locking in pricing and margins realized lower margins and operating results than cooperatives which did not do so based on the timing of price appreciation. This led to wide variations among cooperative results, making it harder for boards to understand peer group results depending on the cooperative's risk management policies. Given that the group includes a mix of summer and calendar year-ends, the summer year-end cooperatives benefited the most from price appreciation with calendar year-end cooperatives seeing some of this impact in the prior year.





Chemical and seed margins in 2023 remained relatively consistent. The overall margin percent fell in 2023 due to the impact of lower margins in the major categories. The following chart illustrates the impact of the change in margins from 2022 to 2023 highlighting the sheer dollar impact of the change in bulk fertilizer margins:

		2022	2023		Dollar
	<i>Gal/Ton/\$</i>	<i>Margin</i>	<i>Margin</i>	<i>Change</i>	<i>Effect</i>
Gas	29,585,605	0.355	0.374	0.019	550,788
Diesel	99,671,571	0.399	0.424	0.025	2,494,978
Propane	53,953,395	0.691	0.894	0.203	10,946,681
Bulk plant food	973,318	149	77	(72)	(69,622,915)
Ammonia	165,431	156	137	(18)	(3,057,077)
Chemicals	375,081,735	32.4%	32.6%	0.3%	1,027,161
Seed	158,404,848	13.9%	14.0%	0.0%	78,815
					(57,581,569)



# EXPENSES

	2019	2020	2021	2022	2023
Employee costs % TOI	47.1%	48.4%	47.2%	41.2%	44.2%
Group insurance % TOI	5.9%	5.7%	5.5%	4.4%	5.0%
Repairs and vehicle expense % TOI	13.7%	13.8%	13.3%	12.3%	14.0%
Depreciation % TOI	13.6%	14.4%	13.2%	10.5%	11.3%

The above analysis includes several major expense categories of interest. Total employee costs (salaries, bonuses, payroll taxes, retirement, group insurance, and other employee costs) saw a modest increase as a % of TOI in 2023 after a significant drop in 2022 as TOI increased faster than the dollars in this cost category increased. Employee costs represent the largest cost category and the ability to manage these costs relative to TOI growth is a primary determinant of profitability change. The consensus in 2023 was employee recruiting remained difficult, offset by margins holding stronger than expected when compared to 2022, allowing this percentage to remain lower than historical levels.

The other 3 cost items presented (group insurance, repairs and vehicle expense and depreciation) saw increases based on lower 2023 margins. Overall group insurance dollar costs continued to increase despite the drop as a percent of TOI in 2022 and 2023. Cooperatives also saw the impact of rising energy and repair costs negatively impact operating results. Depreciation remains lower than historical levels due to higher margin levels.



# RETURN

	2019	2020	2021	2022	2023
Local income % TOI	8.9%	6.2%	11.7%	21.2%	14.0%
Return on local equity	6.3%	4.3%	8.7%	20.1%	10.4%
Return on local assets	3.0%	2.2%	3.8%	8.0%	5.3%
TOI inflation	100%	102%	116%	157%	143%
Operating expense inflation	100%	105%	114%	135%	134%
Fixed facility expense inflation	100%	108%	113%	123%	129%
Employee expense inflation	100%	105%	116%	138%	134%

Local income saw an expected decline in 2023 compared to 2022 after the marked improvement in 2021 and 2022 results which reached record levels for most cooperatives. The continued growth in energy margins coupled with stronger than anticipated crop nutrient margins resulted in strong 2023 local income and return metrics.

Inflation analysis sets a base year and measures changes from that base year forward. This type of analysis can be meaningful in environments where expenses are expected to move relatively in proportion to revenues or some other base amount. Expanded versions of such analyses allow profitability impacts to be measured over time and evaluated as to causes and potential solutions. If the related inflation in expenses is more fixed than variable in nature, then the focus may need to be on growing total operating income more so than addressing changes in expenses.

TOI has grown 43% since 2019 which continues to outpace the growth of major expense categories. Given the magnitude of employee costs, this relationship is key to the improved profit and return. Fixed facility costs, including depreciation, had been a primary expense growth area in prior years. The group had historically seen profitability suppressed by this effect with improvement noted over the past 2 years driven more by market conditions than seeing a return on the investment in facilities (volume growth).

# WORKING CAPITAL

	2019	2020	2021	2022	2023
Current ratio	1.68	1.84	1.57	1.60	1.88
Working capital (millions)	291.39	324.87	325.53	406.43	388.29

The group saw its aggregate current ratio grow to its highest level of this timeframe in 2023. Despite the slight dollar decrease from 2022 to 2023, aggregate working capital grew substantially in 2022 and 2023 due to local profitability. The strong aggregate current ratio is a reflection of the overall balance sheet strength of the group. A current ratio approaching 2 to 1 is suggestive of potentially excess working capital, positioning the group well for organic or acquisitive growth.





# CREDIT RISK MANAGEMENT

	2019	2020	2021	2022	2023
Days supply sales in A/R	50.1	49.4	48.7	40.8	37.7
A/R > 90 days	13.5%	13.6%	8.3%	3.5%	5.1%
Net write-offs % TOI	0.6%	0.9%	0.2%	0.1%	0.2%
Allowance % A/R	7.4%	7.5%	6.7%	6.1%	6.8%

Credit risk management varies significantly across this group. Some cooperatives require customer payment in 30 days while others carry unsecured trade credit from planting season through harvest. Some offer internal financing programs while others have varying relationships with outside lenders with varying degrees of recourse. The group has seen a relatively consistent number of days of supply sales in A/R from 2019 – 2021, noting improvements in 2022 and 2023 to the lowest levels of this timeframe. A/R over 90 days reversed its downward trend in 2023 but remains at historically low levels due to a combination of write-offs, better credit management efforts and improved farm income.

2021 – 2023 have seen the lowest levels of net write-offs of the past five (5) years. 2020 saw aggregate net write-offs of \$3.6 million compared to \$1.0 million in 2023. Despite the consistency and improvements noted, the allowance percentage has not changed significantly over this period.

# INVENTORY RISK MANAGEMENT

	2019	2020	2021	2022	2023
Days in supply inventory	58.8	58.4	71.8	68.0	45.0
Days in prepaid supply inventory	23.9	25.2	38.4	21.1	11.4
Customer deposits / inventory & prepaid supply inventory	19.1%	18.7%	23.8%	17.2%	19.0%
Days supply sales in customer deposits	12.4	12.0	20.2	12.0	8.3

The supply chain issues which occurred in 2021 and continued into 2022 led the group to increase the investment in both inventories and prepaid inventories. 2023 saw a significant drop in inventories and prepaid inventories due to market price levels around summer year-ends and expectations for future supply availability and pricing. While pricing increases impact the calculation, the group was taking affirmative steps to secure inventories to meet customer demands. The group also shifted strategy in 2021 and engaged its customer base to a greater degree than in prior years. In prior years, the cooperatives were accepting a higher degree of price risk on behalf of the customer base and certain cooperatives were purposely engaging customers in 2021 in shifting this risk to the extent possible. Clearly, the cooperatives continue to retain the major portion of price risk in this area though and saw 2022 customer deposits return to historical levels. 2023 saw the lowest levels of customer deposits on hand at year-end corresponding to the lower inventory and prepaid inventory levels.





## ASSET LEVERAGE

	2019	2020	2021	2022	2023
Fixed asset investments (millions)	69.5	54.3	66.6	70.0	94.1
Fixed asset investments % depreciation	132%	96%	113%	110%	150%
TOI / net fixed assets	1.0	1.1	1.1	1.5	1.3
TOI / working capital	1.3	1.2	1.4	1.5	1.4
TOI / local assets	0.34	0.35	0.33	0.38	0.38
Working capital % equity	40.8%	43.5%	39.3%	44.2%	39.5%

2023 saw the largest investment by the group in fixed assets of the past five (5) years. In the years leading up to this period, the group had seen large investments in feed mills and marketing-related assets, in particular. The group had also seen a number of organic expansions in new facilities. 2020 – 2022 saw much lower investments when comparing fixed asset purchases to depreciation expense demonstrating more of a maintenance posture than a growth posture. This approach was responsive to the need to capture the value of the prior investments to address their impact on profitability.

TOI leverage to net fixed assets saw a significant increase in 2022 based on margin impact, with some moderation in 2023, while TOI leverage to working capital and local assets have been relatively unchanged over the entire timeframe. The group has maintained a relatively consistent trend of working capital relative to the growth in equity over the past five (5) years.





## DEBT LEVERAGE

	2019	2020	2021	2022	2023
Debt to equity	0.78	0.70	0.84	0.93	0.64
Fixed charge coverage	3.92	4.02	4.39	6.07	4.18
Interest % TOI	3.1%	2.1%	1.7%	1.9%	2.9%
Term debt to net fixed assets	24.9%	25.9%	20.9%	30.7%	22.2%
Debt capacity at 2.5x leverage (millions)	1,227.9	1,346.1	1,376.3	1,448.7	1,835.2

The aggregate debt to equity ratio increased in 2021 and 2022 due to the growth in accounts payable and lines of credit which supported the related increase in inventories and prepaid inventories on the other side of the balance sheet. 2023 saw a large drop based on the related large decrease in these asset classes. Fixed charge coverage saw tremendous growth in 2022 due to strong operating results for the group. 2023 returned to more normal levels compared to the rest of this timeframe. The increase in interest rates in 2023 cost the group \$5.6 million of net savings based on the one (1) percent overall increase. The group continues to see significant debt capacity, calculated by taking equity times a leverage factor less existing debt, to support new investments and growth. This indicator of borrowing capacity suggests considerable balance sheet strength to pursue appropriate opportunities.





# EQUITY MANAGEMENT

	2019	2020	2021	2022	2023
Equity % total assets	56.1%	58.8%	54.4%	51.9%	61.1%
Allocated equity % total equity	18.3%	17.3%	17.0%	14.4%	12.8%
Allocated equity % local assets	11.6%	11.5%	10.3%	8.2%	8.7%
Cash patronage & redemptions % local income	36.0%	36.0%	43.3%	28.9%	32.4%
Average years to redeem allocated equity	12.3	14.5	11.7	10.3	6.9

The large increase in equity as a percent of assets in 2023 was caused by the decline of inventories and prepaid inventories over 2022 levels. The amount of equity allocated to members continues to decrease. While there is a wide range from high-to-low for this relationship among the group, the group is focused on paying a higher cash patronage percentage and has not been growing its members' investment in the cooperatives.

The extent of member versus non-member business for the group also impacts this as this relationship varies widely among the cooperatives. The slight rebound in allocated equity as a percent of local assets is a reflection of the decline in local assets, not an increase in allocated equity.

The spike in cash patronage and redemptions in 2021 was caused by one entity which approved special redemptions in this year. The 2022 drop was driven by the sharp rise in local income offset by conservatism and consistency in the patronage process by boards and management. The long-term trend in this area remains a return of roughly 35% of pre-tax local income to members. The average years to redeem allocated equity has dropped to its lowest level impacted by strong 2022 local income and related increases in equity redemptions in 2023.

# PATRONAGE

	2019	2020	2021	2022	2023
% member income returned in patronage	61.0%	48.9%	61.9%	47.4%	49.1%
Cash % of total patronage	62.8%	65.3%	64.9%	63.1%	64.6%

Except for 2019 and 2021, the amount of member taxable income returned in the form of patronage has been very consistent around 50%. The percentage returned in cash has also been consistent ranging from 62% to 65%. While the impact of certain tax deductions and credits have impacted this calculation for the group, the approach taken has seen little change over this timeframe.



# OTHER

	2019	2020	2021	2022	2023
Inflation impact on earnings (3% inflation) (millions)	9.2	9.6	10.5	12.6	12.5
Local income (millions)	32.0	21.8	45.9	106.9	54.7
Local income inflation	100%	68%	144%	334%	171%
Recast local income at TOI growth rate (millions)	32.0	32.6	37.1	50.3	45.8
Local income actual versus recast	-	(10.8)	8.8	56.5	8.8

One of the primary challenges for this group, prior to 2022, had been TOI growth. Growth of TOI is necessary to ensure the long-term sustainability of the cooperatives. While growing TOI is challenging, the impact of inflation on operating expenses is certain. It is critical the group be able to grow TOI at a pace to offset the effects of expense inflation. The largest concerns entering 2024 are normalized margins coupled with the effect of inflation and higher interest costs causing downward pressure on local income.

Recasting local income at the same inflation rate as TOI shows the underperformance of the group in profitability in 2020 and the aggregate improvement to a positive relationship by \$8.8 million in 2021. 2022 saw \$56.5 million of outperformance on this method of calculation which demonstrates the immense impact price appreciation and volatility had on local income. 2023 saw a return to more normal levels of local income, but still demonstrated outperformance against TOI inflation by \$8.8 million.





## SUMMARY

2021 saw market conditions and cooperative strategic investments produce improved results over the prior two (2) years. After a couple years of expense growth in-line with or outpacing TOI growth, 2021 saw this trend flip and the gains in TOI provided the basis for better local profitability. Market conditions in 2022 resulted in record profitability for the group, despite the supply chain, personnel and inflation impacts seen. 2023 exceeded expectations with margins outperforming most management outlooks. Despite the impact of inflation and interest, local earnings remained stronger than historical returns.

Cooperatives are diverse, complex entities impacted by a multitude of factors. We hope this overview provides some insight into the trends experienced by our client base. Benchmarking against peer groups and trend analysis are important metrics to use in defining the direction and focus for any organization. Identifying gaps in performance or negative trends versus the industry are key so management and boards of ag cooperatives can evaluate their next steps.

If you have any questions on the information in this overview, please reach out to Blue & Co.'s agricultural cooperative team.

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