Best Practices Discussion

Best Practices for Analyzing Economic Variables in Periods of Economic Uncertainty and Volatility

Charles A. Wilhoite, CPA

Valuation, damages, and transfer price analyses—whether developed for transaction, litigation, taxation, financial accounting, regulatory compliance, or business planning purposes—should encompass (1) a reasonableness assessment of the relevant facts and circumstances, (2) compliance with relevant professional standards and application of generally accepted approaches and methods, and (3) due diligence related to the selected economic analysis variables. These selected economic analysis variables are sometimes referred to as analysis assumptions or analysis inputs. Insufficient due diligence of and inadequate support for the selected economic analysis variables can cause a transaction counterparty, another analyst, the Internal Revenue Service, a judicial finder of fact, a government regulator, or any other party to doubt the analyst's conclusions. Supporting the selected economic variables with appropriate due diligence procedures is an important procedure in any valuation, damages, or transfer price analysis. Such due diligence may be particularly challenging during periods of significant economic uncertainty and volatility.

Introduction

Valuation, damages, and transfer price analyses—including analyses developed for transaction, taxation, regulatory compliance, financial accounting, and other purposes—are usually rendered as of a specific point in time. That specific point in time represents the date on which the valuation, damages, or transfer price analysis opinion is effective (i.e., the "as-of date").

In most valuation, damages, or transfer price analyses, the analyst has to develop and document due diligence procedures related to numerous economic factors. Such economic factors may affect both the analysis procedures performed and the analysis conclusion reached.

The following list of illustrative economic factors is not exhaustive. This list introduces some of the economic factors that the analyst may consider in the due diligence phase of the valuation, damages, or transfer price analysis:

1. The historical and prospective operating performance or financial performance of the subject entity (i.e., the business interest or the property subject to analysis)
2. The historical and prospective performance of the relevant economy (e.g., international, national, regional, local)
3. The historical and prospective performance of the subject company's—or the subject property's—industry (with consideration of the industry overall and, possibly, of specific competitive companies or properties)

For purposes of the above list (and for purposes of this discussion), the term company includes both (1) the entire business enterprise and (2) the component debt and equity securities of the subject business enterprise.

Also, for purposes of this discussion, the term property includes both (1) real estate and tangible personal property and (2) intangible personal property.

Typically, the average industry operating cycle that may be relevant for developing the above-referenced due diligence ranges from 5 years to 10 years. Typically, the duration of the operating cycle considered in the due diligence includes both an uptrend and a downtrend in a cyclical industry.

Consideration of an entire industry operating cycle allows an analyst to:

1. establish a baseline regarding the company's or property's operating results given the economic and industry conditions existing when these results were achieved and
2. develop reasonable projection variables regarding prospective operational and financial performance metrics regarding the subject company or subject property.

In many industries, the industry operating cycle often encompasses unexpected events and circumstances. Based on their nature, the recurrence of such industry events and circumstances may be difficult for the analyst to predict.

For example, in the five-year period between 2018 and 2022, many business operating cycles were affected by:

1. the COVID-19 pandemic ("COVID"), which resulted in significant economic disequilibrium and related supply-chain and industry disruptions, and
2. the escalation of the Russo-Ukrainian War in February 2022 (the "Russo-Ukrainian Escalation"), which resulted in significant economic disruptions in trade and in food and fuel prices (which contributed to high inflation rates and increased interest rates).

A valuation, damages, or transfer price analysis with an effective date (or measurement date) subsequent to the declaration of the COVID pandemic in March 2020 or the Russo-Ukrainian Escalation in 2022 may include consideration of the impact of each event on the historical and expected performance of the subject company or subject property.

The following list includes several economic analysis variables that may be incorporated in the due diligence related to valuation, damages, or transfer price analyses:

1. Subject company or subject property operating performance metrics
2. Subject company or subject property financial performance metrics
3. Normalization adjustments to historical operational or financial performance metrics
4. Present value discount rates and direct capitalization rates
5. Market-derived valuation pricing multiples or other price indications
6. The weighting (or reconciliation) of various analysis method indications or conclusions
7. Analysis synthesis and conclusion adjustments

The following discussion summarizes the due diligence and other procedures that an analyst can consider to ensure that the selected economic variables are supported and credible, particularly when considering the impact of unpredictable events such as COVID and the Russo-Ukrainian Escalation.

The following discussion does not describe generally accepted valuation analysis, damages measurement, or transfer price determination methods. Such descriptions are beyond the scope of this discussion. And, such descriptions are readily available in the relevant professional literature.

This discussion focuses on best practices related to the analyst's due diligence procedures in the assessment and the selection of the economic variables considered in a valuation, damages, or transfer price analysis.

A Period of Economic Uncertainty and Volatility

Because of the previously identified economic and industry impacts attributable to COVID and the Russo-Ukrainian Escalation, analysts may consider calendar years 2017 through 2022 (the "Operating Period") to be a period of economic uncertainty and volatility.

Exhibit 1 presents a summary of certain economic indicators and selected industry indices for the Operating Period.

The following observations summarize the comparison of (1) economic indicators and industry indices reported for the pre-COVID period of 2019 and (2) the corresponding measures reported as of September 30, 2022 ("the current period"):

- Inflation increased materially, from an annual rate of 2.3 percent in 2019 to an annual rate of 8.2 percent in the current period
- Unemployment was fairly consistent, at 3.6 percent in 2019 and 3.5 percent in the current period
- The gross domestic product ("GDP") growth rate decreased from an annual rate of 2.29 percent in 2019 to 1.77 percent in the current period
- The federal funds rate increased materially, from 1.75 percent in 2019 to 3.25 percent in the current period

Exhibit 1
Selected Economic Indicators and Industry Indices
For the Period of January 1, 2017, through September 30, 2022

	12/31/2017	12/31/2018	12/31/2019	*3/31/2020*	12/31/2020	*3/31/2021*	12/31/2021	*3/31/2022*	9/30/2022
Inflation - CPI (%)	2.1	1.9	2.3	*1.5*	1.4	*2.6*	7.0	*8.5*	8.2
Unemployment Rate (%)	4.1	3.9	3.6	*4.4*	6.7	*6*	3.9	*3.6*	3.5
GDP Growth (%)	2.26	2.92	2.29	*0.82*	-3.40	*1.19*	5.67	*3.68*	1.77
Federal Funds Rate (%)	1.50	2.50	1.75	*1.25*	0.25	*0.25*	0.25	*0.50*	3.25
Prime Rate (%)	4.40	5.35	4.75	*3.73*	3.25	*3.25*	3.25	*3.38*	5.73
30-Day Treasury Bond (%)	1.28	2.44	1.48	*0.05*	0.08	*0.01*	0.06	*0.17*	2.79
1-Year U.S. Treasury Bond (%)	1.76	2.63	1.59	*0.17*	0.09	*0.07*	0.39	*1.63*	4.05
5-Year U.S. Treasury Bond (%)	2.20	2.51	1.69	*0.37*	0.36	*0.92*	1.26	*2.42*	4.06
Moody's Aaa Corp. Bond (%)	3.53	4.01	3.00	*3.07*	2.25	*3.04*	2.71	*3.47*	4.92
10-Year U.S. Treasury Bond (%)	2.40	2.69	1.92	*0.7*	0.93	*1.74*	1.52	*2.32*	3.83
20-Year U.S. Treasury Bond (%)	2.58	2.87	2.25	*1.15*	1.45	*2.31*	1.94	*2.59*	4.08
30-Year U.S. Treasury Bond (%)	2.74	3.02	2.39	*1.35*	1.65	*2.41*	1.90	*2.44*	3.79
Retail Grocery Index	575.50	464.60	585.41	*504.78*	599.21	*625.01*	672.69	*702.19*	651.77
% Change vs. 12/31/19				*-14%*	*2%*	*7%*	*15%*	*20%*	*11%*
Crude Oil-Avg. Closing Price	$50.80	$65.23	$56.99	*$29.21*	$39.68	*$62.33*	$68.17	*$108.50*	$87.55
% Change vs. 12/31/19				*-49%*	*-30%*	*9%*	*20%*	*90%*	*54%*
DJIA	24,837.51	23,062.40	28,462.14	*21,917.16*	30,409.56	*32,981.55*	36,398.08	*34,678.35*	28,725.51
% Change vs. 12/31/19				*-23%*	*7%*	*16%*	*28%*	*22%*	*1%*
S&P 500	2,673.61	2,506.85	3,230.78	*2,584.59*	3,756.07	*3,972.89*	4,766.18	*4,530.41*	3,585.62
% Change vs. 12/31/19				*-20%*	*16%*	*23%*	*48%*	*40%*	*11%*
Nasdaq	6,903.39	6,635.28	8,972.60	*7,700.10*	12,888.28	*13,246.87*	15,644.97	*14,220.52*	10,575.62
% Change vs. 12/31/19				*-14%*	*44%*	*48%*	*74%*	*58%*	*18%*

Sources: U.S. Bureau of Labor Statistics, Federal Reserve Bank, U.S. Department of the Treasury, and Bloomberg.

- The 20-year U.S. Treasury Bond interest rate increased from 2.25 percent in 2019 to 4.08 percent in the current period
- The Retail Grocery Index increased 11 percent in the current period relative to the 2019 level
- The average closing price for a barrel of crude oil increased 54 percent in the current period relative to the 2019 price level
- The Dow Jones Industrial Average ("DJIA") index increased 1 percent in the current period relative to the 2019 level
- The S&P 500 Index (the "S&P 500") increased 11 percent in the current period relative to the 2019 level
- The Nasdaq Index (the "Nasdaq") increased 18 percent in the current period relative to the 2019 level

With the exception of inflation, interest rates and oil prices, the changes in the above-listed economic indicators and industry indices suggest that economic conditions in the current period are comparable to economic conditions at year-end 2019. However, the economic outlook as of the current period is quite different from the economic outlook that existed as of year-end 2019.

The difference in the economic outlook as of each time period is largely attributable to the trend in economic indicators leading to each period end. The 2017 through 2019 time period generally reflected stable trends in inflation, unemployment, interest rates and market indices. The 2019 through current period end—including the impacts of COVID and the Russo-Ukrainian Escalation—reflects escalating inflation and interest rates and volatile oil prices, bracketed by a stable unemployment rate.

The combined impact of low and stable unemployment, increasing inflation, increasing interest rates, and volatile oil prices created investor unrest between 2019 and the current period. That investor unrest is reflected in the volatile stock market indices during that time period.

While the DJIA, S&P 500, and Nasdaq indices increased 1 percent, 11 percent, and 18 percent, respectively, between year-end 2019 and the current period, the various index levels increased 28 percent, 48 percent, and 74 percent, respectively, between year-end 2019 and year-end 2021.

Between year-end 2021 and the current period, the DJIA, S&P 500, and Nasdaq indices experienced decreases of 21 percent, 25 percent, and 32 percent, respectively.

An analyst developing a valuation analysis, damages measurement, or transfer price determination as of the current period would consider the subject company or subject property, the subject economy, and the subject industry actual performance levels during a period of significant economic volatility.

In addition, the analyst may have to estimate the expected performance levels for the subject company or subject property while contending with an outlook of continuing economic uncertainty and volatility as of the current period.

Estimating Subject Company or Subject Property Operating Performance Variables

Depending on many factors, analysts often assess a historical 5-year or 10-year operating history as the basis for developing projections of prospective results of operations for a subject company or property. The objective of such an assessment of historical operating and financial data is to project prospective operating and financial metrics for the subject company or property.

Depending on the analytical approaches and methods applied, such prospective results of operations may be considered in the valuation, damages, or transfer price analysis.

Illustrative Analysis of and Selection of Economic Variables

Let's assume that an analyst is retained to develop a business valuation and to estimate the fair market value of a hypothetical subject business enterprise as of September 30, 2022. This discussion summarizes the analyst's due diligence process and describes the analyst's selection of the relevant economic variables.

For purposes of this illustrative business enterprise valuation, the term business enterprise is defined to include (1) all long-term interest-bearing debt and (2) all equity accounts.

Exhibit 2 presents summary operating results for Good Grocery Group ("GGG"). GGG is a hypothetical regional grocery store chain operating in the northwest United States. During the Operating Period, GGG experienced revenue, gross profit, operating income, and pretax income increases at a compound annual growth rate ("CAGR") of 11.5 percent, 12.9 percent, 45.4 percent, and 64.1 percent, respectively.

The GGG revenue growth rate increased materially, at 17.7 percent in fiscal year ("FY") 2020—the first year of COVID—and 10.9 percent in FY 2021. In FY 2020, the GGG gross profit margin reached the highest level over the period (and in the GGG history), at 30.3 percent, and the GGG operating income margin more than doubled, from 3.5 percent in FY 2019 to 7.8 percent in FY 2020. The GGG operating income continued to increase in FY 2021, increasing to 8.8 percent, before decreasing in FY 2022 to 8.4 percent.

The reported, unadjusted (i.e., not normalized) GGG operating results during the Operating Period present a picture of revenue growth and increasing profit margins. Based solely on consideration of the GGG unadjusted operating results during the Operating Period, an analyst

Exhibit 2
Good Grocery Group
Historical and Common Size Income Statements

	Fiscal Year Ended September 30					*CAGR*	Fiscal Year Ended September 30					*Average*
	2022	2021	2020	2019	2018	*2018-2022*	2022	2021	2020	2019	2018	*2018-2022*
	$000	$000	$000	$000	$000	*%*	%	%	%	%	%	*%*
Revenue	524,023	482,228	434,864	369,393	339,134	*11.5*	100.0	100.0	100.0	100.0	100.0	*100.0*
Change from Prior Period	*8.7%*	*10.9%*	*17.7%*	*8.9%*	*9.4%*							
Gross Profit from Operations	153,724	143,725	131,951	102,416	94,652	*12.9*	29.3	29.8	30.3	27.7	27.9	*29.1*
Income from Operations	43,872	42,257	34,041	12,765	9,804	*45.4*	8.4	8.8	7.8	3.5	2.9	*6.6*
Pretax Income	40,104	38,641	30,262	8,763	5,531	*64.1*	7.7	8.0	7.0	2.4	1.6	*5.7*

Sources: Based on GGG audited financial statements and analyst calculations.

may conclude that the value of GGG increased during that time period.

However, the GGG operating results that may be included in a valuation, damages, or transfer price analysis may require consideration of "normalization" adjustments. Such normalization adjustments remove the impact of unusual and/or nonrecurring revenue or expense amounts. Such normalization adjustments may indicate financial performance that is more representative of the future financial or operational metrics for the subject company or subject property.

Exhibit 3 presents the GGG "normalized" financial fundamentals. After normalization adjustments, the GGG pretax income ranged from $7.1 million in FY 2018 to $46.3 million in FY 2022, representing a CAGR approximating 60 percent and averaging $27.1 million over the Operating Period. Normalized operating income, or earnings before interest and taxes ("EBIT"), ranged from $9.1 million in FY 2018 to $48.8 million in FY 2022, representing a CAGR of just over 52 percent and averaging $29.4 million.

Normalized operating cash flow, or earnings before interest, taxes, depreciation and amortization ("EBITDA"), ranged from $11.6 million in FY 2018 to $52 million in FY 2022, representing a CAGR approximating 46 percent and averaging (approximately) $32.2 million.

Exhibit 3 also presents the GGG historical operating fundamentals related to depreciation and amortization expense, capital expenditures, and interest-bearing debt, among other information. As presented in Exhibit 3, and over the Operating Period, annual depreciation and amortization expense and annual capital expenditures averaged approximately $2.7 million and $2.6 million, respectively.

Exhibit 3
Good Grocery Group
Normalized Financial Fundamentals

	Fiscal Year Ended September 30,					5-Year	*CAGR*
	2022	2021	2020	2019	2018	Average	*2018-2022*
	$000	$000	$000	$000	$000	$000	*%*
Reported Operating Results:							
Revenue	524,023	482,228	434,864	369,393	339,134	429,929	*11.5*
Change from Prior Period	*8.7%*	*10.9%*	*2.6%*	*8.9%*	*NA*		
Pretax Income	40,104	38,641	30,262	8,598	5,531	24,627	*64.1*
Total Normalization Adjustments:	6,190	1,585	1,612	1,612	1,561		
Normalized Pretax Income	46,294	40,226	31,874	10,210	7,093	27,139	*59.8*
(1 - Estimated Corporate Income Tax Rate)	0.79	0.79	0.79	0.79	0.79		
Normalized Net Income	36,572	31,779	25,180	8,066	5,603	21,440	*59.8*
Normalized Net Income Margin	*7.0%*	*6.6%*	*5.8%*	*2.2%*	*1.7%*		
Deprerication and Amortization Expense	3,208	3,095	2,550	2,401	2,457	2,742	*6.9*
Interest Expense	2,500	2,400	2,300	2,200	2,000		*5.7*
Normalized Income Measures:							
Earnings before Interest and Taxes	48,794	42,626	34,174	12,410	9,093	29,419	*52.2*
Change from Prior Period	*14.5%*	*24.7%*	*175.4%*	*36.5%*	*NA*		
Margin	*9.3%*	*8.8%*	*7.9%*	*3.4%*	*2.7%*	6.4%	
Earnings before Interest, Taxes, Depreciation, and Amortization	52,003	45,721	36,724	14,811	11,550	32,162	*45.7*
Change from Prior Period	*13.7%*	*24.5%*	*147.9%*	*28.2%*	*NA*		
Margin	*9.9%*	*9.5%*	*8.4%*	*4.0%*	*3.4%*	7.1%	
Capital Requirements:							
Capital Expenditures	5,920	3,488	1,809	949	586	2,550	*78.3*
Operating Working Capital Increase (Decrease)	2,924	(3,817)	(7,019)	(705)	NA		
Balance Sheet Fundamentals:							
Interest-Bearing Debt	50,000	52,174	54,762	53,659	50,000	52,119	-
Tangible Accounting Book Value of Equity	36,373	25,746	12,881	6,196	3,556	16,950	*78.8*
Tangible Accounting Book Value of Invested Capital	86,373	77,920	67,642	59,855	53,556	69,069	*12.7*

Sources: Based on GGG audited financial statements and analyst calculations.

Considering the Impact of Unusual Events

The Operating Period includes at least two unusual events—COVID and the Russo-Ukrainian Escalation. Because of these unusual events, the general economy experienced low unemployment, continuing global trade and supply-chain issues, high inflation rates, and increasing interest rates.

During the due diligence process, the analyst develops an understanding of the impact of these two significant events on the GGG operating results. Unusual and/or nonrecurring revenue items and/or expense items are considered during a typical normalization process. Unusual events that are continuing in nature as of the analysis date may require special consideration during the due diligence process.

Let's assume that the analyst's due diligence discussions with GGG management indicated that the most significant impact relating to the two unusual events was represented by an expected increase in personnel costs in FY 2023. The analyst learned that the impact of the expected increase in personnel costs was incorporated in FY 2023 projected operating results, with historically based cost escalation projected in subsequent years.

At this point in the due diligence process, the analyst has (1) completed an internal review of the GGG historical operating results, (2) normalized historical and prospective GGG operating results, and (3) developed an understanding regarding the potential impact that unusual events may have on the GGG continuing operating results.

Based on the due diligence, and after assessing the relevant economic and industry conditions, the analyst will develop the subject company or subject property operating performance variables.

Selecting and Supporting Operating Performance Variables

GGG experienced favorable growth in revenue and operating margin during the Operating Period, on both a reported and an adjusted (or normalized) basis. As a result of the due diligence procedures developed, the analyst concluded that future GGG operating results will trend downward, moving closer to pre-COVID (i.e., FY 2019) performance levels.

Exhibit 4 presents the GGG prospective income statements for FY 2023 through FY 2026 (the "Projected Operating Period"). The analyst concluded the following observations regarding the Projected Operating Period:

- Annual revenue growth trends downward, from 5.3 percent in FY 2022 to 2.8 percent by FY 2026 (compared to a CAGR of 11.5 percent over the Operating Period).
- Gross profit margin averages 28.1 percent annually (compared with an average of 29.1 percent over the Operating Period and 27.7 percent in FY 2019).
- Adjusted operating income averages 4.7 percent annually (compared with an average of 6.4 percent over the Operating Period and 3.4 percent in FY 2019)
- Adjusted pretax income averages 4.3 percent annually (compared with an average of 5.7 percent over the Operating Period and 2.8 percent in FY 2019)

Generally, a business valuation may assign greater emphasis to operating results achieved in the more recent reporting periods. However, and based primarily on consideration of the impact of unusual events (e.g., COVID), the analyst's due diligence supports applying greater emphasis to the GGG operating performance variables that are less favorable than the operating results achieved in the recent reporting periods.

Exhibit 5 presents the analyst's illustrative discounted cash flow ("DCF") valuation analysis related to GGG. The analyst's considerations regarding the DCF valuation analysis include the following:

1. GGG projected, adjusted operating income is based on moderate revenue and earnings growth rates relative to the growth rates experienced in the most recent operating periods.
2. GGG projected, adjusted operating income represent operating margins that are more comparable to the FY 2019 (i.e., pre-COVID) performance levels than to the operating margins recognized in the most recent operating periods (i.e., post-COVID).
3. Capital expenditures are significant in the early years of the projection period and are projected to offset depreciation and amortization expense in the normalized FY 2027 period.
4. Net working capital requirements are projected at 2.5 percent of annual revenue growth.
5. Net cash flow is projected to be realized evenly throughout each year of the projection period (resulting in the application of the midyear discounting convention).
6. A 14 percent weighted average cost of capital ("WACC") discount rate is applied to convert the projected cash flow to a present value.
7. The 14 percent WACC is converted to a direct capitalization rate of 12 percent based on a 2 percent expected long-term growth rate in net cash flow.

Exhibit 4
Good Grocery Group
Business Enterprise Valuation
Income Approach
Discounted Cash Flow Valuation Method
Prospective Income Statements

	Actual FYE 9/22 $000	Projected Fiscal Year Ended September 30 2023 $000	2024 $000	2025 $000	2026 $000	CAGR 2023-2026 %	Actual FYE 9/22 %	Projected Fiscal Year Ended September 30 2023 %	2024 %	2025 %	2026 %	*4-Year Average %*
	[a]											
								As a Percentage of Revenue				
Revenue	524,023	551,705	567,356	583,477	600,081	2.8	100.0	100.0	100.0	100.0	100.0	
Change from Prior Year	*8.7%*	*5.3%*	*2.8%*	*2.8%*	*2.8%*							
Cost of Revenue	379,485	406,781	417,480	429,554	441,991	2.8	72.4	73.7	73.6	73.6	73.7	*73.6*
Gross Margin	144,538	144,924	149,876	153,923	158,090	2.9	27.6	26.3	26.4	26.4	26.3	*26.4*
Other Operating Income	9,186	9,606	9,887	10,184	10,489	3.0	1.8	1.7	1.7	1.7	1.7	*1.7*
Gross Profit from Operations	153,724	154,529	159,764	164,107	168,580	2.9	29.3	28.0	28.2	28.1	28.1	*28.1*
Total Operating Expenses	109,851	128,745	133,978	138,018	142,445	3.4	21.0	23.3	23.6	23.7	23.7	*23.6*
Income from Operations	43,872	25,784	25,786	26,089	26,135	0.5	8.4	4.7	4.5	4.5	4.4	*4.5*
Pretax Income	40,104	21,911	21,613	21,915	21,962	0.1	7.7	4.0	3.8	3.8	3.7	*3.8*
Change from Prior Year	*3.8%*	*-45.4%*	*-1.4%*	*1.4%*	*0.2%*							
Adjustments to Pretax Income:												
Total Adjustments	6,190	2,361	2,749	3,136	3,522	14.3	1.2	0.4	0.5	0.5	0.6	*0.5*
Adjusted Pretax Income	46,294	24,272	24,361	25,051	25,484	1.6	8.8	4.4	4.3	4.3	4.2	*4.3*
Plus Interest Expense	2,500	2,500	2,500	2,500	2,500	-	0.5	0.5	0.4	0.4	0.4	*0.4*
Equals: Adjusted Operating Income (EBIT)	48,794	26,772	26,861	27,551	27,984	1.5	9.3	4.9	4.7	4.7	4.7	*4.7*
Change from Prior Year	*14.5%*	*-45.1%*	*0.3%*	*2.6%*	*1.6%*							
Other Financial Data:												
Capital Expenditures	5,920	6,000	6,000	2,000	2,000	(30.7)	1.1	1.1	1.1	0.3	0.3	*0.7*

Notes:
Based on management-prepared financial projections and analyst due diligence discussions.
Operating expenses increased in fiscal year 2023 as a result of normalized, higher personnel costs attributable to COVID-impacted recruitment and retention.
Total adjustments relate to projected employee stock ownership plan expenses and normalized lease expenses.

As presented in Exhibit 5, the indicated total GGG business enterprise value—or market value of the invested capital ("MVIC")—based on the DCF valuation analysis, is $182 million.

In addition to projected revenue and earnings growth rates, operating margins, and capital requirements, the estimated present value discount rate and expected long-term growth rate are economic variables incorporated in the DCF valuation analysis. These economic variables, and certain considerations affecting the economic variables in circumstances of economic uncertainty, are discussed below.

Estimating the Present Value Discount Rate, Expected Long-Term Growth Rate, and Direct Capitalization Rate

A discount rate is a risk-adjusted required rate of return used to convert cash flow expected to be received in the future to a present value. A direct capitalization rate may be calculated as (1) the discount rate minus (2) the expected long-term growth rate in the measurement of income subject to capitalization.

The GGG DCF valuation analysis previously discussed incorporated a 14 percent WACC as the discount rate. A WACC is based on the weighted cost (i.e., required rate of return) of the debt and equity capital comprising a company's capital structure. The WACC represents the weighted cost of financing the operations of a company, with the weights represented by the relative percentage of debt and equity capital in the subject company's capital structure.

Exhibit 6 presents the calculation of the GGG WACC. As presented, the cost of equity capital is estimated at 15.3 percent, and the cost of debt capital is estimated at 3.9 percent. Based on a debt-to-equity capital structure including 90 percent equity and 10 percent debt, the WACC is estimated at 14 percent (on an after-tax basis).

Inflation rates and interest rates increased significantly over the Operating Period. As presented in Exhibit

Exhibit 5
Good Grocery Group
Business Enterprise Valuation
Income Approach
Discounted Cash Flow Valuation Method
Value Summary
As of September 30, 2022

	Projected Fiscal Years Ended September 30				Normalized Fiscal
	2023	2024	2025	2026	2027
Present Value of Discrete Projection Period Net Cash Flow:	$000	$000	$000	$000	$000
Adjusted Operating Income	26,772	26,861	27,551	27,984	28,544
Multiplied by: (1 - Estimated Income Tax Rate)	0.79	0.79	0.79	0.79	0.79
Net Operating Income	21,150	21,220	21,765	22,107	22,550
Net Operating Income	21,150	21,220	21,765	22,107	22,550
Normalized Depreciation and Amortization Expense	3,975	4,100	4,225	4,350	3,175
Capital Expenditures	(6,000)	(6,000)	(2,000)	(2,000)	(3,175)
Additions to Net Working Capital	(692)	(391)	(403)	(415)	(300)
Net Cash Flow to Invested Capital	18,433	18,929	23,587	24,042	22,249
Discounting Periods	0.50	1.50	2.50	3.50	
Present Value Factor @ 14 Percent	0.9366	0.8216	0.7207	0.6322	
Present Value of Discrete Projection Period Net Cash Flow	17,264	15,551	16,998	15,199	
Present Value of Discrete Projection Period Net Cash Flow	65,012				
Present Value of Terminal Projection Period Net Cash Flow:					
Fiscal 2027 Net Cash Flow	22,249				
Direct Capitalization Rate	12.0%				
Terminal Value	185,412				
Present Value Factor @ 14 Percent	0.6322				
Present Value of Terminal Period Net Cash Flow Value	117,212				
Value Summary:					
Discrete Projection Period Net Cash Flow Value	65,012				
Terminal Projection Period Net Cash Flow Value	117,212				
Indicated Market Value of Invested Capital on a Controlling, Marketable Ownership Interest Basis (rounded)	182,000				

Notes:
Based on management-prepared financial projections and analyst due diligence discussions.
Normalized fiscal 2027 adjusted operating income represents fiscal year 2026 adjusted operating income increased by the 2 percent expected long-term growth rate.
Depreciation expense and capital expenditures are estimated to offset over the long-term operating horizon.
Additions to working capital are estimated at 2.5 percent of annual revenue growth based on consideration of GGG historical working capital turnover and industry-based working capital turnover rates.
Discounting is based on a 14 percent weighted average cost of capital discount rate and the midyear convention.
The direct capitalization rate is based on the 14 percent weighted average cost of capital, reduced by the 2 percent expected long-term growth rate in net cash flow.

1, the 20-Year U.S. Treasury Bond rate almost doubled between calendar year-end 2019 and September 30, 2022, increasing from 2.25 percent to 4.08 percent. As presented in Exhibit 6, the 20-Year U.S. Treasury Bond rate is the proxy for the risk-free rate of return. Increases in the risk-free rate of return typically result in an increase in the overall WACC. This conclusion is based on the fact that a higher risk-free rate at any point in time typically increases the cost of equity capital and reflects an upward trend regarding the cost of debt capital.

Estimating the WACC often involves the analyst developing a functional analysis. The analyst's WACC-related due diligence procedures may include the following:

- Consider baseline costs of equity capital as of the analysis date, as represented by risk-free securities (i.e., the 20-Year US Treasury Bond rate), and incremental risks associated with an investment in GGG relative to an investment in a risk-free security
- Analyze the risk of GGG relative to the broad investment market, as well as the retail grocery industry and relevant participants classified in the industry
- Analyze the historical operating results, focusing on growth and variability in growth and returns

Exhibit 6
Good Grocery Group
Weighted Average Cost of Capital
As of September 30, 2022

Cost of Equity Capital:			
Modified Capital Asset Pricing Model			**Source**
Risk-Free Rate of Return		4.1%	20-year U.S. Treasury bond, *The Federal Reserve Statistical Release* as of September 30, 2022
General Equity Risk Premium (Historical)	7.46%		Kroll Cost of Capital Navigator (December 31, 2021)
Multiplied by: Industry Beta	0.50		Based on analysis of the guideline publicly traded companies
Industry-Adjusted General Equity Risk Premium		3.7%	
Small Stock and Company-Specific Risk Premium		7.5%	Kroll Cost of Capital Navigator (December 31, 2021) and analyst functional analysis considering GGG size, recent store expansion, historical and projected financial results, operating focus, relative returns, geographic operating concentration, and dependence on long-term, key management
Indicated Cost of Equity Capital		15.3%	
Cost of Debt Capital:			
Before-Tax Cost of Debt Capital		4.9%	Based on consideration of the GGG current and expected borrowing rates
Income Tax Rate		21.0%	Equals the effective corporate income tax rate
Indicated Cost of Debt Capital		3.9%	
Weighted Average Cost of Capital Calculation:			
Indicated Cost of Equity Capital	15.3%		
Multiplied by: Equity/Invested Capital	90.0%		Based on analysis of the guideline publicly traded companies, and the industry average capital structure
Equals: Weighted Cost of Equity Capital		13.8%	
Indicated Cost of Debt Capital	3.9%		
Multiplied by: Debt/Invested Capital	10.0%		Based on analysis of the guideline publicly traded companies, and the industry average capital structure
Equals: Weighted Cost of Debt Capital		0.4%	
Weighted Average Cost of Capital (rounded)		14%	
Less: Expected Long-Term Growth Rate (rounded)		2%	Analyst estimate considering GGG historical and projected gorwth, projected industry and economic growth, and long-term inflation
Direct Capitalization Rate (rounded)		**12%**	

- Analyze risks specific to GGG, including risks relating to size, geographic operating concentration, historical performance relative to projected operating results, access to capital, and any key employee dependence
- Analyze historical and prospective effective borrowing rates and the historical weighted average cost of debt

The analyst may consider the relevant variables, or inputs, required to estimate a WACC on or near the analysis date. The expected long-term growth rate also typically is estimated based on data that is known or knowable as of the relevant date.

Unusual events—such as COVID and the Russo-Ukrainian Escalation—and their related impacts may disrupt segments of the economy and the industry so significantly that the analyst may have to consider alternative procedures when estimating a discount rate. Such an alternative procedure may be considered in order to reduce the impact of significant, but temporary, volatility from the analysis.

Let's recall the economic indicators presented in Exhibit 1. As presented in Exhibit 1, real GDP growth at calendar year-end 2021, March 31, 2022, and September 30, 2022, was approximately 5.7 percent, 3.7 percent, and 1.8 percent, respectively. Similar volatility is reflected in the 20-year US Treasury rate, which was reported at approximately 1.9 percent, 2.6 percent, and 4.1 percent for the same periods, respectively. The reported inflation rate over the three periods ranged from 7 percent to 8.5 percent.

The observed GDP growth rate ranged from approximately 1.8 percent to 5.7 percent. Similarly, the analyst may incorporate a risk-free rate ranging from 1.9 percent to 4.1 percent when calculating the cost of equity capital.

As presented in Exhibit 1, over the three-year period through calendar year-end 2019 (i.e., pre-COVID), the inflation rate, the GDP growth rate, and the 20-year U.S. Treasury rate averaged, 2.1 percent, 2.5 percent, and 2.6 percent, respectively. Best practices would indicate that the analyst will develop economic analysis variables only if they are supported by facts and circumstances.

Let's assume the analyst developing the GGG business valuation concluded that it is supportable to incorporate a "normalized" risk-free rate and expected long-term growth rate, rather than the prevailing spot rates, to calculate the discount rate and the direct capitalization rate.

If the analyst reverted to historical, pre-COVID economic indicators, a risk-free rate of 2.6 percent could be selected, with the expected long-term growth rate remaining at 2.0 percent. Incorporating a risk-free rate of 2.6 percent into the discount rate analysis presented in Exhibit 6 would reduce the indicated cost of equity capital from 15.3 percent to 13.8 percent.

As a result, the discount rate would decrease from 14 percent to 13 percent, and the direct capitalization rate would decrease from 12 percent to 11 percent.

The net impact of this illustrative change would be an increase in the GGG value, based on the DCF valuation method, from $182 million to $198 million, or approximately 9 percent. The facts and circumstances regarding the GGG business valuation would indicate whether such a procedure was supportable.

Estimating and Selecting Market-Based Valuation Pricing Multiples

The market approach to valuation—whether applied through the stock and debt valuation method (sometimes called the guideline public company method) or the guideline transactions method (sometimes called the sales comparison method)—is based on the principle that market-based transactions provide informational guidance to investors.

This guidance is in the form of market-based pricing indicators that reflect relationships between (1) the prices that investors are willing to pay to acquire companies or company ownership interests and (2) the operational metrics or financial metrics of the subject companies.

Illustrative Guideline Transactions Method Valuation Analysis

Exhibit 7 presents a summarized guideline transactions method valuation analysis related to the hypothetical GGG. As presented in Exhibit 7, the analyst identified seven guideline transactions that closed between 2016 and 2021. These guideline transactions involved the transfer of companies classified in the various segments of the retail grocery industry. According to the analyst's due diligence considerations, these guideline companies were sufficiently comparable to GGG—from an investment risk and expected return perspective—to provide meaningful pricing guidance to the analyst.

The analyst's due diligence considerations regarding the guideline transactions method valuation analysis include the following:

1. The revenue level of the guideline transaction group ranged from $450 million to $15.9 billion, with a median revenue level of $4.1 billion. GGG reported annual revenue of $524 million in fiscal year 2022, exceeding the revenue level of one company in the guideline transaction group.
2. EBIT profit margins for the guideline transaction group ranged from 1.0 percent to 6.6 percent, with a median of 3.1 percent. The GGG normalized EBIT profit margin (based on the five-year average over the Operating Cycle) was 5.6 percent.
3. EBITDA profit margins for the guideline transaction group ranged from 2.4 percent to 10.3 percent, with a median of 5.9 percent. The GGG normalized EBITDA profit margin (based on the five-year average over the Operating Cycle) was 6.1 percent.
4. MVIC/revenue pricing multiples indicated by the guideline transaction analysis ranged from 0.15x to 0.92x, with a median multiple of 0.44x.
5. MVIC/EBIT pricing multiples indicated by the guideline transaction analysis ranged from 11.3x to 36x, with a median multiple of 18.5x.
6. MVIC/EBITDA pricing multiples indicated by the guideline transaction analysis ranged from 3.7x to 13.2x, with a median multiple of 9.4x.
7. Based on the analyst's assessment of GGG historical and prospective revenue, revenue growth, earnings, earnings growth, and operating margin, GGG normalized EBIT and EBITDA were estimated based on five-year average measures recognized over the Operating Period.
8. Only two of the identified guideline transactions occurred post-COVID, and insufficient data were available to enable the calculation of an MVIC/EBIT pricing multiple for either transaction.
9. Based on the analyst's due diligence consideration of all available information, particularly relative size and relative operating margins for GGG and the guideline transaction group, the analyst selected GGG MVIC/revenue and MVIC/EBITDA pricing multiples between the low-end and median multiples observed for the guideline transaction group.
10. The value indications from applying the selected pricing multiples to the GGG operating fundamentals indicated a value range of approximately $193 million (MVIC/ EBITDA) to $210 million (MVIC/revenue).

Exhibit 7
Good Grocery Group
Market Approach
Guideline Transactions Method
Value Summary
As of September 30, 2022

Selected Sales Comparison Transactional Data:

Target Company Name	Buyer Company Name	Primary SIC Code	Sale Date	Target Company Location	LTM Revenue ($000)	LTM EBIT ($000)	LTM EBITDA ($000)	Return on Revenue EBIT	Return on Revenue EBITDA	MVIC	Pricing Multiples MVIC/ Revenue	Pricing Multiples MVIC/ EBIT	Pricing Multiples MVIC/ EBITDA
Smart & Final Stores, Inc.	Bodega Latina Corporation	5411	7/28/2021	United States	4,100,000	NA	167,000	NA	4.1%	620,000	0.15	NA	3.7
Smart Foodservice Stores LLC	US Foods, Inc.	5409	4/24/2020	United States	1,100,000	NA	85,000	NA	7.7%	970,000	0.88	NA	11.4
Smart & Final Stores, Inc.	Apollo Management IX LP	5411	6/17/2019	United States	4,770,337	57,766	157,414	1.2%	3.3%	2,077,520	0.44	36.0	13.2
Martin's Super Markets, Inc.	SpartanNash Company	5410	12/31/2018	United States	450,000	NA	NA	NA	NA	84,300	0.19	NA	NA
SUPERVALU INC.	United Natural Foods, Inc.	5411	10/22/2018	United States	15,458,000	157,000	367,000	1.0%	2.4%	2,879,860	0.19	18.3	7.8
Whole Foods Market, Inc.	Amazon.com, Inc.	5411	8/28/2017	United States	15,878,000	785,000	1,324,000	4.9%	8.3%	14,617,750	0.92	18.6	11.0
The Fresh Market, Inc.	Apollo Global Management, LL(	5411	4/21/2016	United States	1,857,033	121,926	190,770	6.6%	10.3%	1,373,860	0.74	11.3	7.2
				Low	450,000	57,766	85,000	1.0%	2.4%	84,300	0.15	11.3	3.7
				Median	4,100,000	139,463	178,885	3.1%	5.9%	1,373,860	0.44	18.5	9.4
				High	15,878,000	785,000	1,324,000	6.6%	10.3%	14,617,750	0.92	36.0	13.2

Value Summary:

	Revenue	EBIT	EBITDA	EBIT	EBITDA
GGG Normalized Financial Fundamentals	524,023	29,419	32,162	5.6%	6.1%
Selected Pricing Multiples	0.40	NA	6.0		
Indicated Value	209,609		192,969		
Value Measure Weight	40%		60%		
Weighted Value	83,844		115,782		
Indicated Value of Invested Capital on a Controlling, Marketable Ownership Interest Basis (rounded)	200,000				

Notes:

Based on consideration of the impacts of COVID, due diligence discussions with GGG management, and projected GGG operating results, GGG normalized EBITDA is represented by the five-year average, adjusted EBITDA.

The analyst selected pricing multiples between the observed low end and median pricing multiples.

Selected pricing multiples are based on transaction timing considerations relative to the valuation date, relative size, relative growth rates, relative profit margins, and relative returns on investment metrics. The analyst did not consider EBIT because no EBIT-based pricing multiples were observed subsequent to COVID.

Based on GGG adjusted financial operating results and guideline transactions valuation analysis; S&P Capital IQ; DealStats; FactSet Mergerstat, LLC; and PitchBook.

11. Based on the analyst's due diligence consideration of all available information, including the GGG operating focus, the GGG operating outlook, and the basis for the GGG fundamental, the analyst applied a weight of 60 percent and 40 percent to the value indications resulting from the MVIC/EBITDA multiple and the MVIC/revenue multiple, respectively.

As presented in Exhibit 7, the indicated MVIC of GGG, based on the guideline transactions method analysis, is $200 million.

The analyst's due diligence considerations affecting the selection of market-based pricing multiples in the guideline transactions analysis considered the impacts of COVID. Generally, COVID exerted a positive impact on participants in the retail grocery sector during the Operating Period, based on an observable shift in consumer behavior. As a result of both required and elective social distancing practices, food consumption at home increased as restaurant dining decreased.

Though supply-chain issues created inventory challenges for many industry participants, the shift in consumer behavior driving higher demand, in conjunction with inflationary pricing, generally offset increasing labor and operating costs.

Generally, the retail grocery sector fared well through the pandemic. However, continuing inflation, increasing interest rates, and high fuel costs created downward pressure on operating results as of the valuation date.

In a typical valuation circumstance, best practices indicate that market-based pricing multiples should be applied in a consistent manner to operating fundamentals for the subject company. In other words, a market-based pricing multiple developed using a current acquisition price and current earnings for the acquired company should be applied to current earnings for the subject company (e.g., GGG).

However, in order to account for the impact of economic disequilibrium on the subject company (or subject property) value, the analyst may consider applying a market-based pricing multiple to a "normalized" operational or financial metric level.

Regarding GGG, the analyst concluded that average, adjusted EBITDA over the five-year Operating Period represents a more supportable income level to incorporate in the valuation analysis. Specifically, applying a five-year average EBITDA level gives equal weight to operating results occurring before and after the COVID outbreak.

The result is a normalized EBITDA level that is lower than the EBITDA level GGG actually achieved in the most recent periods. The normalized EBITDA level reflects the operational and financial performance level

expected by GGG management in FY 2023 and beyond, when personnel costs are expected to increase.

As presented in Exhibit 7, the normalized EBITDA level of $32.2 million represents an EBITDA profit margin of 6.1 percent relative to FY 2022 sales of $524 million. Based on the GGG projected operating results presented in Exhibit 4, and the related depreciation and amortization expense presented in Exhibit 5, the adjusted EBITDA projected for FY 2023 is approximately $30.7 million. The FY 2023 projected EBITDA represents a profit margin of 5.6 percent relative to FY 2023 projected revenue of $551.7 million.

Illustrative Stock and Debt Method Valuation Analysis

Exhibits 8 and 9 present a summarized stock and debt method valuation for the hypothetical GGG. As presented in Exhibit 9, the analyst selected three guideline public companies that were classified in the retail grocery industry as of the valuation date.

The analyst's due diligence considerations related to the stock and debt method valuation analysis include the following:

1. As presented in Exhibit 9, the revenue level of the guideline public company group ranges from $2.1 billion to $5.4 billion, with a median revenue level of $4.3 billion. GGG reported annual revenue of $524 million in fiscal year 2022, well below the revenue level for each guideline company.
2. As presented in Exhibit 9, EBIT profit margins for the guideline public company group range from 2.1 percent to 7.0 percent, with a median of 3.6 percent. The GGG normalized EBIT profit margin for fiscal year 2022 was 9.3 percent.
3. As presented in Exhibit 9, EBITDA profit margins for the guideline public company group range from 3.8 percent to 9.2 percent, with a median of 6.0 percent. The GGG normalized EBITDA profit margin for fiscal year 2022 was 9.9 percent.

Exhibit 8
Good Grocery Group
Market Approach
Stock and Debt Method Valuation Analysis
Value Summary
As of September 30, 2022

Value Measure	Good Grocery Group $000	Guideline Publicly Traded Company Pricing Multiples Low	High	Median	Selected Pricing Multiple	Market Value of Invested Capital $000	Value Measure Weight	Weighted Value $000
MVIC/EBIT:								
Latest 12 Months	48,794	6.9	17.8	16.0	6.0	292,764	0.05	14,638
5-Year Average	29,419	10.1	22.5	20.0	9.0	264,774	0.25	66,194
MVIC/EBITDA:								
Latest 12 Months	52,003	5.3	9.8	9.6	5.0	260,013	0.05	13,001
5-Year Average	32,162	7.0	12.1	11.1	7.0	225,131	0.25	56,283
MVIC/Revenue:								
Latest 12 Months	524,023	0.37	0.57	0.49	0.35	183,408	0.40	73,363
							1.00	
Indicated Value of Invested Capital on a Controlling, Marketable Ownership Interest Basis (rounded)								223,000

Notes:
The analyst calculated guideline company pricing multiples by applying a 10 percent ownership control price premium to the share price of the guideline companies, based on current market conditions, and consideration of GGG revenue and earnings levels and historical trends.
The analyst selected EBIT and EBITDA pricing multiples at or slightly below the indicated range based on consideration of GGG smaller size, recent store expansion and expected growth, limited geographic diversification, the state of the relevant local economies, and relative performance factors between GGG and the guideline companies.
The analyst calculated the selected revenue pricing multiple based on consideration of the previously identified factors, with emphasis on consideration of the GGG and the guideline company relative revenue growth and profitability.
Based on GGG adjusted financial operating results and guideline company analysis, including the analyst's due dilingence review of SEC Forms 10-K and 10-Q for the guideline companies.

Exhibit 9
Good Grocery Group
Market Approach
Selected Guideline Public Companies
Comparison of Operating Performance

Size (LTM revenue, $000)	
Ingles Markets, Incorporated	5,381,570
Weis Markets, Inc.	4,322,146
Village Super Market, Inc.	2,069,864
Good Grocery Group	**524,023**

Size (LTM total assets, $000)	
Ingles Markets, Incorporated	21,241,747
Weis Markets, Inc.	1,896,938
Village Super Market, Inc.	913,778
Good Grocery Group	**126,945**

Growth Rate (EBITDA 5-year CAGR)	
Good Grocery Group	**43.5%**
Ingles Markets, Incorporated	17.4%
Weis Markets, Inc.	11.4%
Village Super Market, Inc.	2.9%

LTM Profitability (EBIT to revenue)	
Good Grocery Group	**9.3%**
Ingles Markets, Incorporated	7.0%
Weis Markets, Inc.	3.6%
Village Super Market, Inc.	2.1%

LTM Profitability (EBITDA to revenue)	
Good Grocery Group	**9.9%**
Ingles Markets, Incorporated	9.2%
Weis Markets, Inc.	6.0%
Village Super Market, Inc.	3.8%

Growth Rate (Revenue 5-year CAGR)	
Good Grocery Group	**11.0%**
Ingles Markets, Incorporated	6.8%
Village Super Market, Inc.	5.5%
Weis Markets, Inc.	5.3%

Liquidity (current ratio)	
Ingles Markets, Incorporated	1.9
Weis Markets, Inc.	1.9
Good Grocery Group	**1.9**
Village Super Market, Inc.	1.3

Activity (working capital turnover)	
Village Super Market, Inc.	51.7
Ingles Markets, Incorporated	24.0
Good Grocery Group	**22.2**
Weis Markets, Inc.	13.9

Leverage (equity to total capital)	
Weis Markets, Inc.	85.8%
Ingles Markets, Incorporated	60.9%
Village Super Market, Inc.	46.1%
Good Grocery Group	**38.6%**

Sources: Based on GGG adjusted financial operating results and stock and debt method analysis, including the analyst's due diligence review of SEC Forms 10-K and 10-Q for the guideline companies.

4. As presented in Exhibit 9, the five-year CAGR in revenue for the guideline public company group ranged from 5.3 percent to 6.8 percent. GGG experienced a five-year CAGR in revenue of 11 percent.
5. As presented in Exhibit 9, the five-year CAGR in EBITDA for the guideline public company group ranged from 2.9 percent to 17.4 percent. GGG experienced a five-year CAGR in EBITDA of 43.5 percent.
6. As presented in Exhibit 8, MVIC/EBIT pricing multiples resulting from the guideline public company analysis ranged from 6.9x to 17.8x, with a median multiple of 16x for the latest 12 months ("LTM"), and 10.1x to 22.5x, with a median multiple of 20x, for the five-year average.
7. As presented in Exhibit 8, MVIC/EBITDA pricing multiples resulting from the guideline public company analysis ranged from 5.3x to 9.8x, with a median multiple of 9.6x for the LTM, and 7x to 12.1x, with a median multiple of 11.1x, for the five-year average.
8. As presented in Exhibit 8, MVIC/revenue pricing multiples resulting from the guideline public company analysis ranged from 0.37x to 0.57x, with a median multiple of 0.49x for the LTM.
9. As presented in Exhibit 8 and based on the analyst's due diligence consideration of all available information, particularly relative size and relative operating margins for GGG and the guideline public company group, the analyst selected MVIC/EBIT, MVIC/EBITDA, and MVIC/revenue pricing multiples for GGG at or slightly below the low-end pricing multiples observed for the guideline public company group.
10. As presented in Exhibit 8, the value indications resulting from applying the analyst's selected pricing multiples to the GGG relevant operating fundamentals indicated an MVIC range of approximately $183 million (MVIC/LTM revenue) to $293 million (MVIC/LTM EBIT).
11. Based on the analyst's due diligence consideration of all available information, including the GGG operating focus, the GGG operating outlook, and the basis for the GGG operating fundamentals, the analyst applied a weight of 60 percent and 40 percent, respectively, to the indications of value based on earnings (i.e., EBIT and EBITDA) and on revenue.
12. As presented in Exhibit 8, within the MVIC/EBIT and MVIC/EBITDA value indications, the analyst applied weights of 5 percent and 25 percent to LTM and five-year average fundamentals, respectively, based on the analyst's consideration of expected financial results in FY 2023.

As presented in Exhibit 8, the GGG indicated MVIC, based on the stock and debt method valuation analysis, is $223 million.

The analyst's considerations affecting the selection of market-based pricing multiples in the stock and debt method valuation analysis considered the impacts of COVID. COVID had an impact on the guideline public companies analyzed related to favorable demand and pricing impacts as well as supply-chain constraints and inflationary pressures.

However, one difference between the stock and debt method analysis and the guideline transactions method analysis is that market-based pricing information developed in the guideline public company analysis is current as of the valuation date. Such pricing reflects investors' valuation date perspectives regarding the expected impact of COVID, continuing supply-chain issues, inflation, interest rates, fuel, and personnel costs.

Additionally, the stock and debt method analysis reflects the impact of informed investors operating and making decisions with the benefit of all available public information. Based on this fact, the analyst considered both LTM and five-year average operating fundamentals for GGG.

As presented in Exhibit 8, the analyst applied the lowest weight—a total of 10 percent—to the value indications based on the GGG LTM earnings fundamentals (i.e., EBIT and EBITDA).

The analyst applied a total of 50 percent weight to the GGG value indications based on the GGG five-year average earnings fundamentals. The analyst applied a weight of 40 percent to the value indication based on the GGG LTM revenue fundamental.

The analyst's weighting emphasizes GGG management expectations that, even though revenue growth is expected, FY 2023 earnings are expected to decrease relative to FY 2022 earnings as operating costs—specifically, personnel costs—are expected to increase in response to the pandemic.

Valuation Synthesis and Conclusion Due Diligence Considerations

Exhibit 10 presents the analyst's GGG business enterprise valuation summary. As presented in Exhibit 10 and based on the income approach discounted cash flow method and the market approach guideline transactions method and stock and debt method, the indicated value of the GGG business enterprise ranges from $182 million to $223 million.

Exhibit 10
Good Grocery Group
Business Enterprise (Total Invested Capital) Value
Valuation Synthesis and Conclusion
As of September 30, 2022

Valuation Approach and Valuation Method	Indicated Value $000	Relative Emphasis	Weighted Value $000
Income Approach—Discounted Cash Flow Method	182,000	65%	118,300
Market Approach—Guideline Transactions Method	200,000	20%	40,000
Market Approach—Stock and Debt Method	223,000	15%	33,450
		100%	
Market Value of Invested Capital on a Controlling, Marketable Ownership Interest Basis (rounded)			192,000

Notes:
Based on the analysis and the indicated values presented in the identified valuation approach and method summary exhibits.
The analyst applied relative emphasis to each valuation method based on the GGG size relative to the companies considered in each market approach method, and projected operating results that reflect a trend toward pre-COVID operating growth and margins. The market approach methods are based on GGG historical, normalized revenue and earnings.

As indicated in Exhibit 10, the analyst applied a weight to each value indication in order to estimate the GGG market value of invested capital.

Based on the analyst's due diligence consideration of the quantity and quality of the data supporting each valuation method, and the fact that the discounted cash flow method directly includes adjustments to expected earnings based on the estimated impact of COVID, the analyst applied 65 percent of the total weight to the value indication based on that method.

Based on the analyst's due diligence consideration of size differences between GGG and the typical company in the two market approach guideline company groups, the analyst applied more weight—20 percent—to the value indication based on the guideline transaction method than to the value indication based on the stock and debt method—15 percent.

Based on the analyst's weighting applied, the business enterprise value for the hypothetical GGG, on a controlling, marketable ownership basis, is estimated at approximately $192 million as of the valuation date.

Summary and Conclusion

There are generally accepted approaches and methods with regard to valuation analyses, damages measurements, and transfer price determinations. A description of these generally accepted approaches and methods is beyond the scope of this discussion.

Unusual events and circumstances, such as COVID and the Russo-Ukrainian Escalation, may create significant and continuing disruption on economic and industry conditions. It is a best practice for analysts to develop sufficient due diligence in order to incorporate the impact of the economic and industry disequilibrium in the valuation, damages, or transfer price analyses.

This discussion identified economic analysis variables that may affect all three types of economic analyses. Such economic variables include inputs regarding (1) revenue and earnings growth rates and operating margins; (2) present value discount rate and direct capitalization rate calculations; and (3) the development, selection, and application of market-based valuation pricing multiples.

Analysts should develop and document their due diligence procedures related to unusual events such as COVID and the Russo-Ukrainian Escalation. Such due diligence procedures allow analysts to account for economic uncertainty and volatility in the valuation, damages, or transfer price analyses and conclusions.

Charles Wilhoite is a managing director at Willamette Management Associates and national director of the tax-exempt entity and health care services practice. Charles has been with the firm for over 32 years and has provided business valuation, intangible asset valuation, economic damages analysis and related testifying expert services regarding businesses and business interests across a wide range of industry classifications. Charles can be reached at (503) 243-7500, or at cawilhoite@willamette.com.