Equity Valuation – The Kroger Co.

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Abstract

This paper conducts an equity valuation to determine a target share price for The Kroger Company, a U.S. food and retail company listed on the New York Stock Exchange. Based on extensive data regarding the target company's characteristics, macroeconomic developments as well as industry and market trends, the paper applies suitable intrinsic and relative valuation techniques. The grocery retail industry is characterized by its stable and predictable growth, which has enabled its main players to achieve strong returns in recent years, despite challenging macroeconomic factors and a highly competitive landscape with limited product differentiation opportunities. Kroger stands out through its focus on a fresh product offering and advancements of digital capabilities, which aligns its strategy with evolving customer trends and provides resilience during recent market shocks. However, Kroger continues to face substantial challenges due to the industry competitiveness and macroeconomic circumstances. Based on the thorough analyses, the paper issues a "BUY" recommendation, as it predicts a 1-year forward return of 19.4% compared to Kroger's share price of $57.30 as of 30.09.2024. The recommendation is in line with the findings of the LSEG Stock Report, which provides an accurate summary of the general market consensus.

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Resumo

O presente documento realiza uma avaliação de acções para determinar o preço-alvo das acções da The Kroger Company, uma empresa norte-americana de produtos alimentares e de retalho cotada na Bolsa de Valores de Nova Iorque. Com base em dados exaustivos sobre as caraterísticas da empresa-alvo, a evolução macroeconómica, bem como as tendências do sector e do mercado, o documento aplica técnicas de avaliação intrínseca e relativa adequadas. O sector do comércio retalhista de produtos alimentares caracteriza-se por um crescimento estável e previsível, que permitiu aos seus principais operadores obterem fortes rendimentos nos últimos anos, apesar de factores macroeconómicos difíceis e de um cenário altamente competitivo com oportunidades limitadas de diferenciação dos produtos. A Kroger destaca-se pela sua aposta numa oferta de produtos frescos e nos avanços das capacidades digitais, o que alinha a sua estratégia com a evolução das tendências dos clientes e proporciona resiliência durante os recentes choques do mercado. No entanto, a Kroger continua a enfrentar desafios substanciais devido à competitividade do sector e às circunstâncias macroeconómicas. Com base nas análises exaustivas, o documento emite uma recomendação de "COMPRA", uma vez que prevê uma rendibilidade futura a um ano de 19,4% em comparação com o preço das acções da Kroger de 57,30 dólares em 30.09.2024. A recomendação está em conformidade com as conclusões do LSEG Stock Report, que fornece um resumo exato do consenso geral do mercado.

Título: Avaliação de Acções - The Kroger Co.

Autor: Levin Kunkel

Palavras-chave: Avaliação de Acções, The Kroger Co., Indústria de Retalho de Mercearia dos EUA, Fluxo de Caixa Descontado, Avaliação Relativa, Valor Presente Ajustado

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List of Abbreviations

%	Percentage
Δ	Delta
β	Beta
AI	Artificial Intelligence
APV	Adjusted present value
Bn	Billion
CAGR	Compund annual growth rate
CAPEX	Capital expenditures
CAPM	Capital asset pricing model
CCC	Cash conversion cycle
Co.	Company
COGS	Cost of goods sold
Corp.	Corporation
D/V-ratio	Debt-to-value ratio
D&A	Depreciation & Amortization
DCF	Discounted cash flow
DDM	Divident discount model
DIO	Days inventory outstanding

DPO	Days payables outstanding
DSO	Days sales outstanding
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, taxes, depreciation and amortization
EIA	Energy Information Administration
EPS	Earnings per share
EV	Enterprise value
FCFF	Free cash flow to firm
FDC	Financial distress costs
FTC	Federal Trade Commision
FY	Financial year
GAAP	Generally accepted accounting principles
GDP	Gross domestic product
H	Half-year
ID sales	Identical sales
IFRS	International financial reporting standards
Inc.	Incorporated
ITS	Interest tax shield
LLC	Limited liability company
LSEG	London Stock Exchange Group
m	Million
M&A	Mergers and acquisitions
MV	Market value
NACS	National Association of Convenience Stores
NOPAT	Net operating profits after taxes
NWC	Net working capital
NYSE	New York stock exchange
P/BV	Price-to-book value
P/E	Price-to-earnings
PP&E	Property, plants & equipment
PV	Present value
Q	Quarter
ROE	Return on equity
ROIC	Return on invested capital

SG&A	Selling, general & administrative costs
TGR	Terminal growth rate
US/U.S.	United States
USD/$	US-Dollar
WACC	Weighted average cost of capita

1. Introduction

The objective of this dissertation is to issue an investment recommendation for The Kroger Company, based on an estimated one-year forward fair price derived through various valuation techniques and considerations. The analysis sheds light into the sources of value creation and serves as a basis for future strategic orientation and investment decisions.

The valuation is based on public information and includes various subjective yet well-reasoned assumptions about Kroger's future performance, which have a significant impact on the final share price. It is important to note that there is no universally correct approach to compute the value a company, and the final price can vary depending on the perspectives of different stakeholders and the applied methods.

Founded in 1883, Kroger has become one of the leading grocery retailers in the United States of America (<U.S.=), generating more than $150bn in annual sales in over 2,700 stores nationwide. While the company started by serving daily necessities and other groceries, the supermarkets evolved into combination stores during the 1980s, adding pharmacy, beauty and health care, as well as gas stations to its stores. Today, the retailer focusses on providing fresh and healthy foods and delivering superior customer experience, which enabled consistent growth while managing challenging market environments in a highly competitive industry. As of 30.09.2024, Kroger's share demonstrated a strong compound annual growth rate (<CAGR=) of 12.3% over the past 3 years, outperforming the benchmark S&P500 index, which recorded a 3-year CAGR of 10.2%.

To ensure a thorough and academically sound approach, the paper consists of a literature review, which examines the methodologies applied in the valuation, followed by an industry and company overview, a financial analysis of the company, a valuation including both the application of the models described in the literature overview and a detailed description of forecasting assumptions. Finally, a comparison is drawn to a published equity report covering Kroger.

2. Literature overview

Company valuations are a critical and widely used tool in finance. At its core, valuation is the process of determining the true worth of a project, asset or entire business, as well as identifying the source of its value. The most commonly used valuation techniques are intrinsic and relative valuations. Intrinsic valuation focusses on the inherent value of a target company based on its fundamentals, such as cash flows, growth, and risk. In contrast, relative valuation derives the value by comparing the company to similar assets under current market conditions using standardized financial metrics. Each valuation approach has its own advantages and disadvantages, and some methods are better suited than others, depending on the underlying asset and circumstances. Since results typically vary between methods, it is important not to focus excessively on determining a precise price, but rather establish a price range that is corroborated by the different suitable approaches (Damodaran, 2012).

2.1. Relative Valuation

Relative valuation methods commonly use two techniques, comparable company analysis and precedent transaction analysis. The former estimates a value based on similar publicly traded companies, while the latter derives a value from past merger and acquisition (<M&A=) transactions. Relative valuation is widely used in practice because of its simplicity, intuitiveness, and ability to reflect current market conditions. It is important to note that these models assume efficient markets, implying that similar assets should trade at similar prices (Damodaran, 2012).

2.1.1. Trading Multiples

The comparable company technique computes multiples from standardized financial metrics of peer companies, which are then applied to the target company's key financials to estimate its value. For calculating equity value, commonly used multiples are Price-to-Earnings (Share Price divided by Earnings per Share or <P/E=) and Price-to-Book (Share Price divided by Net Asset Value or <P/BV=). For enterprise value, popular multiples include Enterprise Value-to-EBITDA, Enterprise Value-to-Book and Enterprise Value-to-EBIT.

The EV/EBITDA multiple is considered the most popular because it is capital structure-neutral and focuses on the operative performance of the target company. For calculating equity value,

the P/E multiple serves as a good cross-check, but only if the peer group has a similar capital structure. In capital-intensive industries, characterized by continuous capital expenditures, EV/EBIT is widely used, as it provides a more accurate comparison of capital efficiency. Topline multiples like Price-to-Sales or EV-to-Sales multiples are only used as a last resort when the company has negative earnings or as a supplementary metric to provide additional context to the valuation, as they offer limited insight into the company's operative performance. Multiples are straightforward and easy to defend, with various alternative forms that help reinforce their results, making them a popular and standardized valuation tool. However, it is important to note that multiples are based on current results and not forward-looking, although they accurately reflect current market conditions. Their computation requires significant attention to detail, especially regarding accounting methods and peer group selection. Since companies use different accounting measures, adjustments must be made to account for the differences within the peer group. Standards regarding revenue recognition, inventory valuation and depreciation are especially prone to differences. To guarantee an accurate peer group, companies should be chosen based on profitability, growth rate, industry, maturity, size, geographic focus and capital structure.

2.1.2. Transaction Multiples

Similar to computing trading multiples, analysts research past M&A transactions involving companies in the same industry and geographic region as the target company to compute precedent transactions multiples. EV/EBITDA and EV/EBIT are considered the most popular. While this technique accurately captures market sentiment and strategic premiums, it is important to note that it is backward looking and may not adequately reflect current market conditions, especially if transactions are too far in the past. Additionally, the multiples derived from precedent transactions are usually higher than trading multiples, as they entail a takeover premium of 10%-30%, driven by strategic incentives, which makes them highly relevant for M&A deals, but less relevant for equity valuations.

2.2. Intrinsic Valuation

The rationale for intrinsic valuation methods is based on the present value rule, which states that the value of an asset is equal to the sum of all future cash flows it generates, discounted at a rate that reflects the riskiness of those cash flows. In theory, and if applied accurately, these

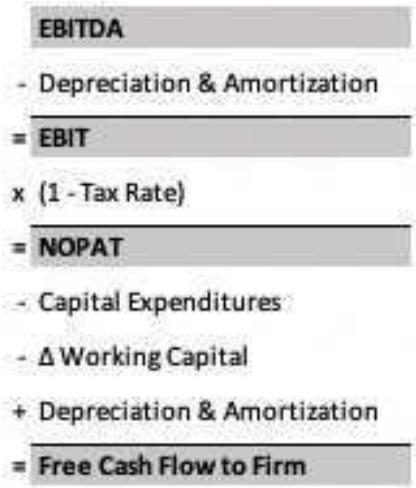
methods can determine the true worth of the target company, as they focus on the firm's fundamentals (Damodaran, 2012).

2.2.1. Discounted Cash Flow Model

Free Cash Flows

The Discounted Cash Flow (<DCF=) Model is based on the Free Cash Flows to the Firm (<FCFF=), which represent the cash flows available to all debt and equity holders of the target company. To derive FCFF, the following formula is applied:

Figure 1: FCFF Decomposition



It is worth noting is that Net operating profits after tax (<NOPAT=) is a hypothetical figure used to eliminate effects of the capital structure from the cash flows, as interest payments are taxed. A key assumption in DCF models is to value the target company based on its unlevered cash flows, i.e. under the assumption that it is solely equity-financed. This is necessary because the tax shield benefits of interest payments are already factored into the discount rate computations (Damodaran, 2012).

The area that leaves the most room for interpretation is cash flow forecasting. A common practice is to apply a two-stage growth model, consisting of an initial growth phase lasting 5-10 years, depending on the maturity as well as growth and investment assumptions of the target company, followed by a steady-state. In this steady-state, it is assumed that the target company will operate indefinitely, with cash flows growing into perpetuity at a terminal growth rate. As

a result, usually 50%-70% of the forecasted value comes from the terminal value, making the DCF model highly sensitive to the terminal growth rate and discount rate.

Equation 1: DCF Model

$$V_0^{Firm} = \sum_{t=1}^{T} \frac{FCFF_t}{(1 + r_{Aacc})^t} + \frac{\frac{FCFF_T(1+g)}{(r_{Aacc}\ 2\ g)}}{(1 + r_{Aacc})^T}$$

Where r_{Aacc} = weighted average cost of capital; g = terminal growth rate; V_0^{Firm} = Enterprise Value

This method is only useful for positive and relatively stable cash flows, as this helps to avoid having the majority of the value tied to the highly sensitive terminal value.

A thorough cash flow forecast should consider, but not limit itself to, the business model and strategy of the target company, macroeconomic developments as well as industry and market trends.

The sum of all future cash flows, discounted at the appropriate rate, results in the enterprise value, which is represents the entire value of the target company. Since the objective is to determine a share price, an additional step is required to derive the equity value of the company. This is done by applying an equity bridge:

Figure 2: Equity Bridge Decomposition

Finally, the share price can be computed by dividing the equity value by the company's total number of common shares outstanding on a fully diluted basis. Common sources of dilution include convertible bonds, warrants and employee stock options.

Weighted Average Cost of Capital (<WACC=)

To accurately assess the underlying risk of the company, an average of the after-tax cost of debt and cost of equity is computed, weighted by the current market values of both financing sources, to discount all future cash flows:

Equation 2: WACC

$$k_{Aacc} = \frac{E}{V} r_E + \frac{D}{V} r_D \, (1\ 2\ t)$$

Where E = market value of equity; D = market value of debt; V = D+E; r_E = cost of equity; r_D = cost of debt; t = marginal tax rate

By applying the after-tax cost of debt, the method recognizes the tax-shield benefits of debt financing.

The cost of debt represents the returns required by debtholders, given a specific level of risk, typically represented by the yield to maturity on a company's outstanding bonds. Since debtholders have a legal right to repayment and take priority over equity holders in terms of payouts, debt financing is considered less risky, though it is also limited in terms of potential returns.

A minor limitation of the WACC is that it simplifies debt capital as a single block, representing an average debt financing rate. In practice, however, a company is financed through various types of capital, such as bonds, loans and secured debt.

Similar to the cost of debt, the cost of equity represents the required return for equity investors. It is commonly calculated using the Capital Asset Pricing Model (<CAPM=), a single-factor risk model:

Equation 3: Cost of Equity

$$r_E = r_f + \beta * MRP$$

Where r_f = risk-free rate; β = Beta; MRP = Market Risk Premium

The basis of the risk model is the risk-free rate, commonly represented by government debt instruments, as they are considered to have no default or reinvestment risk (Damodaran, 2012).

However, not all governments are risk-free, in which case a country default spread should be added when necessary.

The CAPM assumes that the only risk factor for a company's excess returns is its co-movement to market excess returns, which is denoted by β. This can be computed either through a simple regression of the target company's stock on a benchmark market index or by deriving it from peers. The regression period should not exceed 3-5 years, as older market conditions may no longer be representative. However, it is important to note that, since the calculations are based on historical data, they may not accurately predict future performance.

The method for deriving the beta from peers involves retrieving the peer betas, de-levering them to achieve capital structure neutrality, and then applying the target company's capital structure to the average unlevered beta.

Equation 4: Unlevered Beta

$$\beta_{Unlevered} = \frac{\beta_{Levered}}{1 + (1\ 2\ Tax\ rate) * (\frac{Debt}{Equity})}$$

The beta increases with a higher debt portion, as an increasingly smaller equity share must bear the entire risk.

There are alternative approaches that, in addition to the beta, also consider other risk factors, such as size and intrinsic value (e.g. the Fama-French 3-factor model), to provide a more comprehensive view of risk. However, due to its simplicity and widespread acceptance, the CAPM model remains the most popular approach.

Historical analyses show there is a general tendency for company betas to converge towards one, as companies tend to grow in size and become more diversified. To account for the tendency towards mean reversion, the beta is adjusted following the Bloomberg technique to provide a more reliable estimate for future risk:

Equation 5: Beta Adjustment

$$\beta_{Adjusted} = (\frac{2}{3}) * \beta_{Unadjusted} + \frac{1}{3}$$

The market risk premium represents the yield premium of a benchmark market in excess of the risk-free rate. Zenner et al. (2008) introduced an implied market risk premium, which is forward-looking, opposed to the backward-looking historical figures.
Depending on the benchmark, observation period and market trends, the market risk premium typically ranges between 4% to 8%.
A major limitation of the CAPM is that it assumes a constant capital structure and does not account for possible changes over time.

2.2.2. Dividend Discount Model

Similar to the rationale behind the DCF, the Dividend Discount Model (<DDM=) calculates the equity value of a target company based on all future dividend payments, multiplied by all outstanding shares, assuming a share is held into perpetuity.
The Gordon Dividend Discount Model, which is most widely used, is applicable for mature, non-cyclical companies with a beta close to 1 and stable growth forecasts. The only two inputs required for the model are expected dividend payments, based on a stable growth rate, and the cost of equity.

Equation 6: Dividend Discount Model

$$Value\ per\ share = \frac{DPS_t * (1+g)}{g\ 2\ r_e}$$

Where DPS_t = Dividends per share; g = terminal growth rate; r_e = cost of equity

A major concern with dividend discount models is that payouts are subject to management decisions, meaning they may not accurately reflect the true financial performance or value of the target company. As a result, this technique has lost its significance in recent years.

2.2.3. Adjusted Present Value Model

The adjusted present value (<APV=) method serves as an alternative approach to the DCF. By allowing for a dynamic capital structure of the target company, the APV avoids restrictive assumptions of a constant capital structure posed by the DCF, making it especially useful for valuations involving transactions with significant leverage causing changes in the capital structure. Additionally, it offers insights into the different components of value creation by

separating financing decisions from the operating value to calculate the enterprise value of the target company:

Equation 7: Adjusted Present Value Model

$$V^{EV} = V^{U} + PV(Interest\ tax\ shield)\ 2\ PV(Financial\ distress)$$

Where V^{EV}= enterprise value; V^{U} = unlevered firm value; PV = present value

Similar to the DCF model, the unlevered firm value is calculated by discounting forecasted FCFF within a pre-specified forecasting horizon and into perpetuity at an unlevered cost of equity based on the CAPM model, instead of the WACC. As the interest tax shield behaves the same as the unlevered cash flows, they are also calculated into perpetuity:

Equation 8: Present Value of the Interest Tax Shield (<ITS=)

$$PV(ITS) = \frac{\tau_c * D * r_D}{r_D} = \tau_c * D$$

Where τ_c = corporate tax rate; D = book value of debt; r_D = cost of debt

Lastly, the present value of financial distress costs is calculated as a function of its probability and magnitude:

Equation 9: Financial Distress Costs (<FDC=)

$$E(FDC) = \pi_d * FDC$$

Where π_d = probability of default, E = expected value

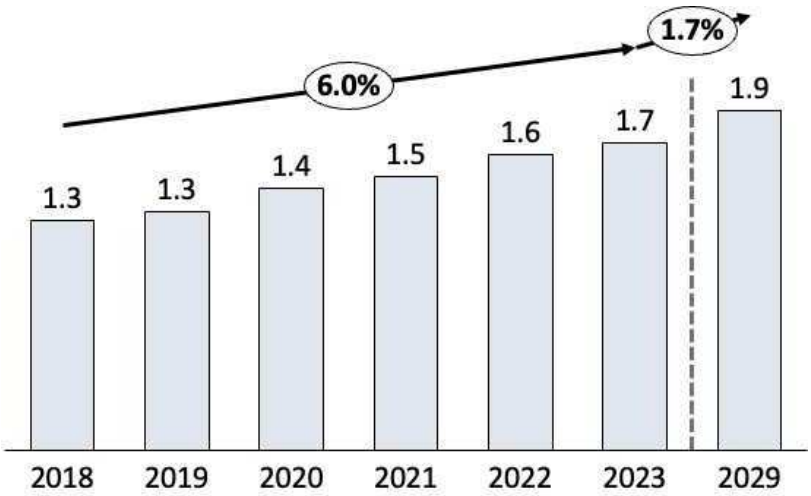
The projection of the FDC poses the greatest challenge, as neither its probability nor its magnitude can be obtained directly. The probability of default can be estimated indirectly based on credit ratings, making it relatively straightforward. The magnitude, on the other hand, is much more challenging to estimate due to the indirect costs resulting from financial distress like reputational loss, loss employees or consumer confidence, which must be based on assumptions.

3. Industry Overview

With a total revenue of $8.33 trillion in 2023, the broader online and in-store retail and food industry in the U.S. is a vast and essential sector of the economy that involves selling food and non-food products to consumers. With a 20-year compound annual growth rate (<CAGR=) of 4.27%, the US retail and food industry has seen slow but consistent growth over the years, defining it as a slow growing industry (Statista, 2024). As daily necessities, food items ensure a steady stream of purchases, with the primary growth drivers of the industry being inflation in food prices and population growth, which contribute to predictable and consistent cash-flows (Marketline, 2024). According to MarketLine, the more narrowly focused U.S. grocery retail industry is expected to grow at a CAGR of 1.7% through 2029.

Figure 3: Total Annual Revenue (in $trillion) of the Grocery Retail Industry

Source: MarketLine

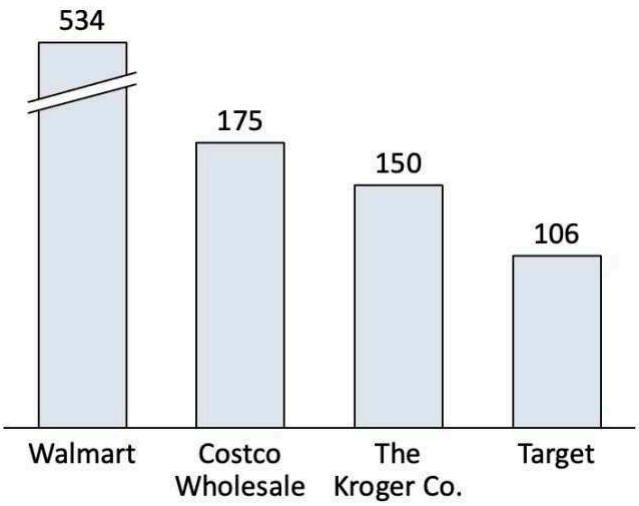


The main challenge for US retailers is product differentiation. With limited substitutes and significant product similarities among competitors, combined with strong competition and price-sensitive consumers, retailers must adopt efficient pricing strategies, manage costs, accurately predict consumption trends and explore alternative revenue sources to distinguish themselves and gain a competitive advantage. Leveraging their strong brand recognition, retailers also prioritize building trust and loyalty to retain customers (Handrinos, N., Rogers, S., Skelly, L., 2024). In a highly competitive landscape, grocery retailers must explicitly choose what they stand for if they are to stand out.

The main players within the grocery retail market in the US are The Kroger Co., Walmart Inc., Target Corp, Costco Wholesale Corp. and Amazon Fresh, all of which aim at differentiating themselves through value, quality, and/or experience. Walmart and Costo employ an <Everyday low-cost= strategy, leveraging their large-scale operations as mass retailers to achieve high sales volumes, albeit with comparably low gross margins. Similarly, Costco and Kroger also focus on their operational scale to offer competitive prices while also providing high-quality, healthy and local goods. As a new entrant, Amazon Fresh focuses on customer experience through innovative solutions as running cashier-less supermarkets and providing exceptional delivery service (Wang et al., 2024). Kroger operates solely in the US, differentiating itself through domestic focus. By contrast, its competitors have international operations but also derive a significant portion of their revenue from the US (see Appendix 8.1. for a Porters Five Forces Analysis).

Figure 4: Leading Grocery Retailers in the U.S. in 2023, based on Retail Sales (in $bn.)

Source: Statista



3.1. Pricing Pressure

Witnessing a 40-year inflationary high in 2022, both consumers and retailers face significant price pressure during recent years. The <Bang for Buck= mentality has become more dominant than ever as consumers, confronted with rapidly rising prices, started to hunt for the best deals possible as they face a cost-of-living squeeze. Simultaneously, government stimulus programs, pandemic-era savings and wage increases fuelled a surge in consumer spending throughout

2022 and 2023, which, in combination with inflation, triggered an increase in the average annual household food at-home expenditure between 2020 and 2023 of over $1000 (Statista, 2024). This decline in personal savings accumulated over the pandemic, combined with additional pressures from high rents, rising housing prices and repayment of student loan debt will likely weigh on consumer spending in 2024 and 2025 (Handrinos, N., Rogers, S., Skelly, L., 2024). Consequently, achieving a competitive advantage in the industry will largely depend on retailers' ability to leverage economies of scale and reduce operational costs through effective inventory management and logistics optimization to offer affordable products (MarketLine, 2024). Additionally, the strategic development of private label offerings is of crucial importance to not only mitigate supply chain risks and improve margins, but also meet consumers' preferences that are trading down from brand-name products to private-label and generic offerings as a cost mitigation action (Yu, 2024).

3.2. Customer Experience and eCommerce

In addition to pricing strategies, the second most significant lever for retailers to retain customers is to focus on customer experience. Driven by evolving customer demands during the pandemic and the growing influence of digital native shoppers, retailers were bound to embrace digitization and transform into seamless omnichannel mass merchandisers. Leveraging technology through the integration of online platforms, AI-driven personalized shopping experiences, and smart supply chain management, retailers seek to improve shopping experience, differentiate through superior customer engagement and increase loyalty. Thus, grocers are redesigning brick-and-mortar stores to optimise their assets in response to the new shopping habits, shifting their focus towards online retailing and recognizing that flaws or inaccuracies in their digital offerings can have detrimental influence on customer loyalty and retention (Grand View Research, 2023). According to Statista, the number of internet users in the US is projected to reach 337 million by 2029, presenting an increase of 5.2% compared to 2023. This growth is expected to further encourage the adoption of convenient digital solutions and drive online sales market growth (Statista Key Market Indicators, 2024). Continuous improvements in logistics and delivery make it more and more feasible for retailers to offer reliable delivery services, tailoring to the needs of urban customers with busy lifestyles or limited access to physical stores. This trend enabled the eCommerce food sales in the U.S. to grow from $44bn in 2019 to $144bn in 2023 and is expected to further increase online sales at a CAGR of 14.3% until 2029 (Statista Market Insights, 2024).

With the rise in smartphone penetration and internet connectivity, it is more important than ever to offer credible and valuable digital ecosystem. A recent study by Deloitte revealed that customers participating in loyalty programs reported an average of 61% higher trust in the associated brand compared to non-members. Furthermore, a Deloitte consumer industry case study found that increasing trust with existing loyalty program members could potentially boost annual spending by 30%, primarily through the implementation of personalized experiences at scale (Deloitte, 2024).

Thus, loyalty programs offer a significant opportunity to attract and retain price-sensitive and experience seeking customers in a highly competitive retail landscape through personalized offers, benefits and communication. Additionally, loyalty programs enable retailers to retrieve valuable information about customers' in-store and online shopping behaviour. This data is highly sought after by brands, as it can be leveraged to target customers more effectively through customized marketing strategies. Thus, loyalty programs create lucrative opportunities for alternative revenue streams for retailers like third-party media revenue and data analytics.

3.3. Healthy Lifestyle Shift

Another key factor influencing U.S. consumer behavior is the global lifestyle that has led consumers to become increasingly environment- and health-conscious, and accelerated during the pandemic (Innova Market Trends, 2024). After basic living standards are met, consumers prioritize spending on health and wellbeing, driving the demand for fresh, organic and sustainable food options. As consumers prioritize quality and nutrition in their diets, retailers must adapt by increasing the availability of plant-based and gluten-free products. Also, customers demand more transparency around their products, as labels such as <organic=, <fair trade= and <locally sourced= have become powerful selling points. Thus, customers balancing planet, wallet, health and convenience present a significant opportunity for retailers to expand their private label offerings. Mostly locally produced, private labels align with sustainability trends and allow retailers to offer quality products at competitive prices.

4. Company Overview

Kroger Co (Kroger), founded in 1883, is one of the largest food retailers in the United States, specializing in the manufacturing, processing, and distribution of goods. The company operates approximately 2,722, many of which are integrated with company-owned pharmacies and fuel stations, across 35 states. Kroger's operations are diversified across brands, product categories, channels of distribution, geographies and consumer demographics, providing the flexibility needed to navigate a challenging business environment while effectively serving its customers and associates. Kroger's combination of assets includes stores, a seamless digital ecosystem, merchandising and manufacturing capabilities as well as data-driven operations.

Kroger describes its go-to-market strategy by: Leading with Fresh, Accelerating with Digital. With more than 2,100 end-to-end fresh-certified stores and a brand promise of <Fresh for Everyone=, fresh products remain at the center of Kroger's product portfolio, which aligns with broader market trends toward fresh organic and locally sourced food. Further, Kroger identified customers' increasing demand for convenience, accessibility and flexibility in their shopping experience. Thus, the retailer focuses on offering a seamless omnichannel experience to enhance customer loyalty by providing products across all channels including in-store, pickup and delivery. Overall, Kroger's strategy is built on four pillars: Fresh, Our Brands, Personalization and Seamless.

4.1. Operations

The 2,722 supermarkets, of which 2,257 have pharmacies and 1,665 have fuel centers, can be differentiated into 4 formats: the combo store, multi-department store, marketplace store and price impact warehouse store. The combo store is the primary format and offers specialty departments, including natural food, pharmacies, general merchandise, pet centers and high-quality perishables. According to Kroger, its vast store network, which enables attaining significant market penetration, represents one of the company's key success drivers.

Kroger's substantial pre-COVID investments in its digital ecosystem to establish a seamless omnichannel experience positioned the company strategically to transition smoothly into online sales during the pandemic. These investments ensured operational continuity and agility and enabled the company to meet evolving customer needs and preferences. The integration of in-store and online business is facilitated through Kroger's pickup, delivery and shipping

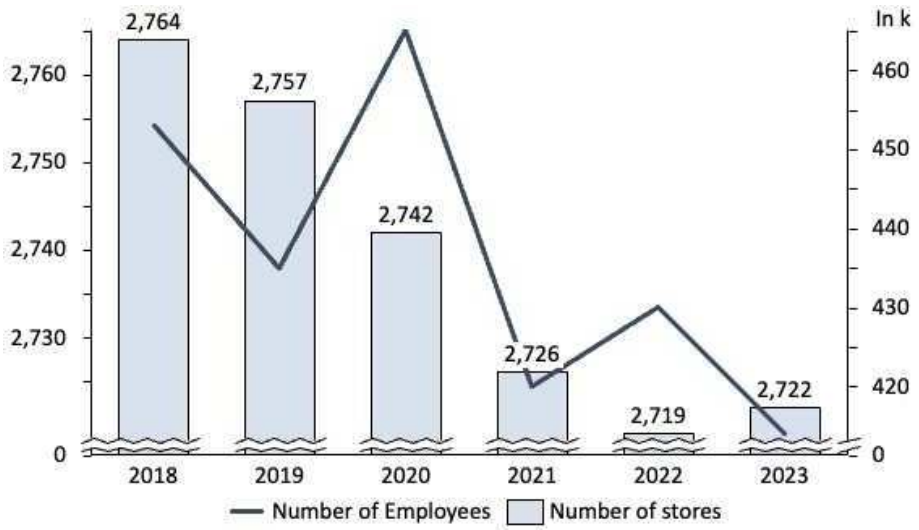
service, which are available at 2,350 supermarkets and effectively extend Kroger's digital solutions offering to nearly all customers.

Driven by Kroger's strategic focus on expanding its e-commerce presence since 2017, the retailer gradually reduced its number of operating stores, closing an average of 13 stores per year between 2017 and 2022. This trend accelerated during the COVID-19 pandemic in 2020. However, 2023 marked a shift, as the company increased its total number of operating stores for the first time since 2016. This change reflects Kroger's recent strategy to integrate sales channels, including in-store pickup and store-to-home delivery, which is expected to continue optimizing consumer convenience.

Over the past years, Kroger has established several partnerships with companies to build large fulfillment centers, accommodate smaller convenience orders and drive efficiencies through technological advancements in its warehouses to improve the quality of its delivery and pick-up services and improve the efficiency of its overall headcount.

Figure 5: Development of the Store Network

Source: Kroger Annual Report

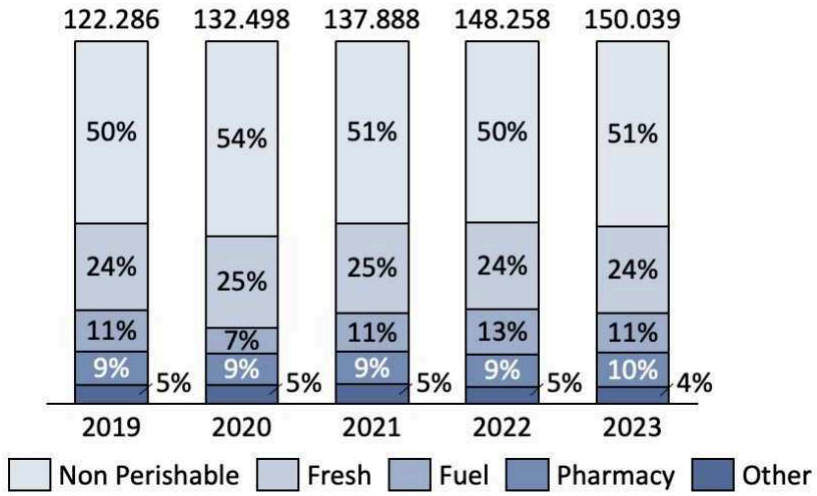


In 2023, Kroger's continually expanding private-label business, labeled by the company as the <Our Brands= segment, accounted for over $31 billion, or approximately 21% of its total sales, and is produced in its 33 food production plants. These plants include 14 dairies, nine deli or bakery facilities, five grocery product plants, two beverage plants, one meat plant, and two cheese plants. In H1 2024 alone, Kroger launched 569 new Our Brand items.

Kroger's investment in data science capabilities has enabled the company to leverage the data generated by its loyalty program, to which more than 95% of customer interactions are linked. Kroger’s <Boost= membership program is a fee based digital ecosystem which entails numerous benefits for its customers, including streaming option Disney+, unlimited free grocery delivery, fuel benefits and other member-exclusive offers. This data-driven approach drives Kroger’s delivery solutions growth, creates personalized experiences and value for its customers and enables fast-growing, high operating margin alternative profit businesses, including data analytic services and third-party media revenue (see Appendix 8.2. for a SWOT-Analysis).

Figure 6: Revenues (in $m) by Type of Product

Source: Kroger Annual Report



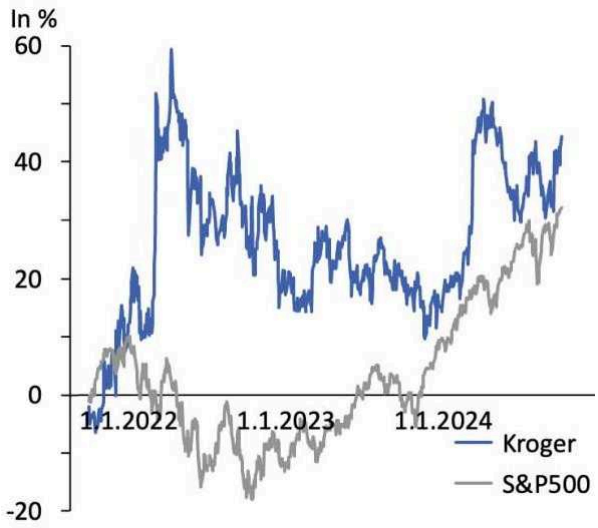
4.2. Share Price Performance

Kroger is listed on the New York Stock Exchange (<NYSE=) and is part of the S&P500 Index. Figure 7 shows that Kroger consistently outperformed the S&P500 Index during the past three years, experiencing two major spikes in early 2022 and 2024 following the publications of its annual reports. In 2021, Kroger achieved record performance for the second consecutive year by delivering $1 billion in cost savings and a two-year identical sales growth of 14.3%, despite rising inflation. Reinforcing that momentum was Kroger’s overall pandemic resilience and post-covid growth, enabled by its digital infrastructure investments and operational efficiency. Similarly in 2024, Kroger's share price has surged by over 30% since the beginning of the year, initially driven by the publication of a favorable annual report highlighting record cost savings and strong sales growth, which enabled the company to surpass earnings per share (<EPS=)

expectations significantly. This upward momentum was further reinforced by solid quarterly results, which sustained investor confidence.

Figure 7: Kroger Co. 3-year Total Returns (30.09.2024)

Source: Refinitiv Eikon



4.3. Ownership Structure

Kroger's ownership structure is a combination of institutional, retail and insider invenstors. As of 30.09.2024, institutional investors hold the majority of the company's outstanding shares. Key shareholders include The Vanguard Group (11.26%), Inc., BlackRock, Inc. (9.31%), and Berkshire Hathaway Inc. (6.91%). The diverse ownership structure ensures sound governance practices and aligns stakeholder interests with the company's long-term strategy.

Figure 8: Ownership Structure

Source: Kroger Website, Refinitiv Eikon

4.4. Proposed merger with Albertsons Companies, Inc.

On October 2022, Kroger entered into a merger agreement with Albertsons Companies, Inc. (<Albertsons=), agreeing to a per-share cash purchase price of $34.10 payable for Albertsons' shareholders. This amount is to be reduced by $6.85 due to a special pre-closing cash dividend paid in January 2023, resulting in an adjusted per share purchase price of $27.25.

Described as a strategic move to compete with its main competition Amazon, Walmart, Target and Costco by bringing lower prices, more associate investment, improved customer experience and deeper community connections, the merger would create one of the largest grocery chains in history with approximately 5,000 stores and over 700,000 employees.

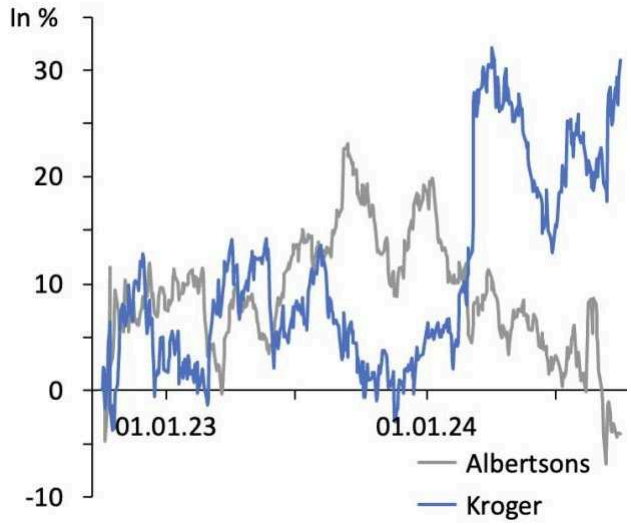
Kroger entered into an agreement of a $17,400m senior unsecured bridge loan facility and executed a $4,750m term loan credit agreement, contingent upon the completion of the merger with Albertsons to finance the merger.

In early 2024, the Federal Trade Commission (<FTC=), joined by nine states, filed suit in Oregon, Washington and Colorado to prohibit the merger. The FTC argues that the merger could stifle competition, potentially leading to higher prices, reduced product quality and fewer options for everyday essentials for millions of Americans. Dependent on the success of the merger, Kroger and Albertsons also plan to divest 579 stores to C&S Wholesale Grocers, LCC (<C&S=). However, the FTC alleges that the divestitute will harm tens of thousands of workers, raising concerns about store closings, the worker's ability to secure higher wage and improved working consitions, and C&S's lack of competence and experience to operate stores of such scale (FTC, 2024). A final decision is expected in 2025.

The fate of the Kroger-Albertsons merger has generated significant uncertainty among analysts, with mixed opinions about its likelihood of success. The market appears skeptical about the deal, as shown by the significant arbitrage gap between Albertsons' current stock price of $18.48 (as of September 30) and the agreed purchase price of $27.25 per share. Important to note is that Kroger and Albertsons agreed to a clause stating that Kroger must pay Albertsons $600m compensation, should the merger fail.

Figure 9: Total Return of Albertsons and Kroger since Merger Announcement

Source: Refinitiv Eikon



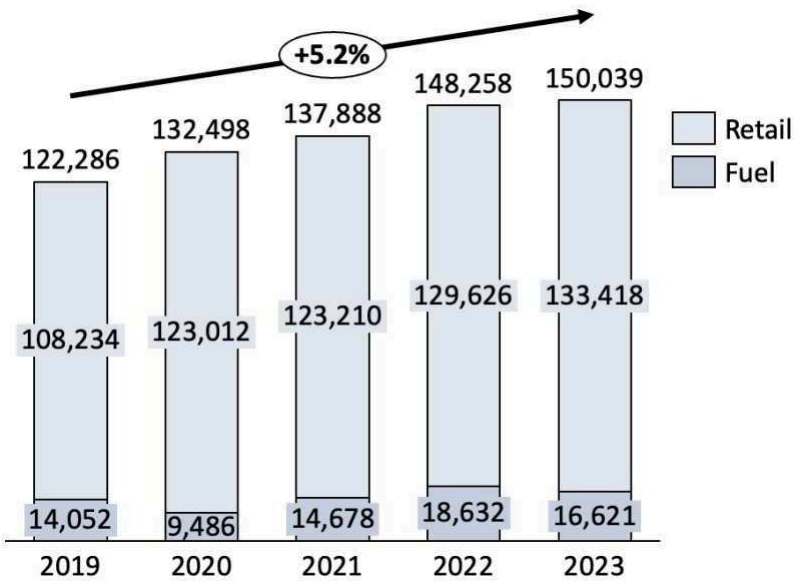
5. Financial Analysis

5.1. Revenue growth

With a CAGR of 5% and 3% in the last five and ten years, respectively, Kroger demonstrates resilience and stability in a competitive and mature grocery retail market. Meanwhile, the U.S. GPD and the retail and food industry demonstrated a five- and ten-year CAGR of 4.8% and 4.1%, and 6.2% and 4.8%, respectively. Thus, over the past five years, Kroger managed to grow faster than the U.S. economy but at a slower pace compared to the broader retail and food industry. As a result of the continuous revenue expansion for 5 consecutive years, the company's revenues exceeded $150bn for the first time in its history in 2023.

Figure 10: Revenue Split Development (in $m)

Source: Kroger Annual Report



5.2. Profitability

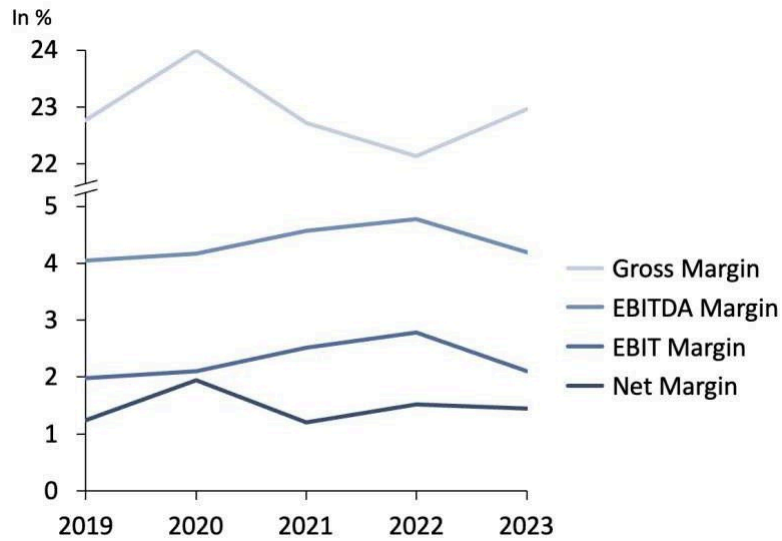
Not only did Kroger demonstrate steady revenue growth, but it has also been holding a stable profitability. Its gross margin moves around 23% with a minor decrease attributable to supply chain disruptions during covid restrictions. In 2023, Kroger's gross margin rebounded to 23%, being in line with industry standards (see Appendix 8.3.). This rebound was mainly driven by the retailers focus on expanding its private label product portfolio and a relief from increased supply chain costs, exemplified by the decrease of container shipping costs from Asia to US

by 90% in 2023 compared to early 2022 (Handrinos, N., Rogers, S., Skelly, L., 2024). This further demonstrates Kroger's strong sourcing processes and effective management of inflationary pressure since 2022.

Kroger's operating margin demonstrated consistent growth in recent years with a slight decrease in 2023, resulting primarily from planned investments in its labour force, costs related to strategic investments that are expected to drive future growth. As part of a labour-intensive sector with competitive hiring pressures, retailers are heavily affected by increases in labour costs and although Kroger is slightly outperformed by its closest peers, it manages to perform above industry standards (see Appendix 8.3.). The steady increase in operating margins in the years prior to 2023 is attributable to Kroger's broad-based cost savings initiatives, focused on simplifying processes and utilizing technology that drive administrative efficiencies, store productivity and lower incentive plan costs. This also partially offsets the adverse effects of increased labour costs in 2023. The consistent depreciation levels relative to revenue, depicted by the similar development of EBIT and EBITDA margins, indicate Kroger's sustained focus on renewing and expanding its fixed asset base.

Figure 11: Profitability Margins Development

Source: Kroger Annual Report



5.3. Cash Flow Generation

Since Kroger's primary expense drivers are production and labour costs, the company has prioritized operational optimization across inventory management, workforce efficiency, and production processes. Leveraging its extensive store network, digital capabilities, operational efficiency and industry experience, Kroger has achieved consistent positive free cash flow generation, accumulating $20 billion over the past decade, or an average of $2 billion annually. This stable cash flow underscores the company's ability to efficiently manage costs and sustain long-term financial health (see Appendix. 8.9. for a detailed FCFF derivation).

During recent years, Kroger strategically prioritized technological advancements to enhance operational efficiency and improve customer and employee experience. This commitment is reflected in its capital expenditures (<CAPEX=), which is largely directed toward technology-driven investments in its supermarkets, warehouses and online presence.

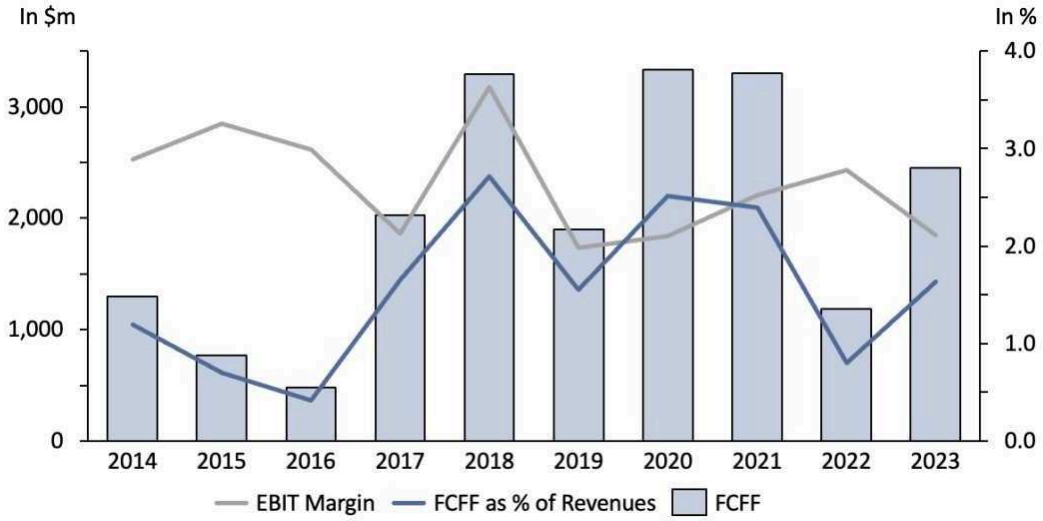
In supermarkets, Kroger has implemented technology such as self-checkout systems, smart shelves, and app-based shopping options that enable seamless and convenient experiences for customers. These features align with evolving consumer trends, such as demand for faster, personalized, and contactless shopping experiences.

In its distribution centers, Kroger has heavily invested in automation and robotics, exemplified by its exclusive partnership with logistic technology provider Ocado, established in 2018, to transform its warehouses into state-of-the-art fulfillment centers based on artificial intelligence and automated systems.

To strengthen its online presence, Kroger continually invests in data analytics and machine learning to offer personalized and seamless services to its customers.

Figure 12: Free Cash Flow Development

Source: Kroger Annual Report



A key area where Kroger excels in is its operating working capital management, which significantly contributes to its positive cash flow generation. Over the past decade, Kroger consistently maintained a cash conversion cycle (<CCC=) of below ten days, well below industry average (see Appendix 8.3.). A shorter CCC means the company's money is tied up in accounts receivables and inventories for less time, improving liquidity. The CCC is calculated as the sum of Days Sales Outstanding (<DSO=) and Days Inventories Outstanding (<DIO=), minus Days Payables Outstanding (<DPO=):

Equation 10: Cash Conversion Ratio

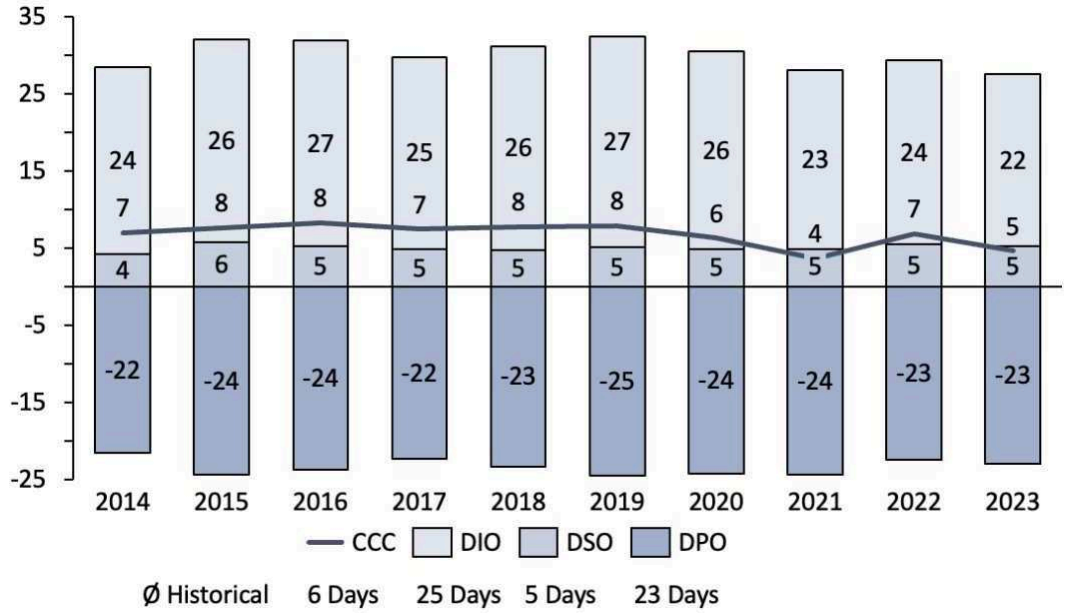
$$DIO_t = \frac{Inventory_t}{COGS_t} \qquad DSO_t = \frac{Receivables_t}{Revnue_t} * 365 \qquad DPO_t = \frac{Payables_t}{COGS_t}$$

$$CCC_t = DIO_t + DSO_t\, 2\, DPO_t$$

This efficiency is driven by advanced, data-enabled inventory management that minimizes storage costs and inventory obsolescence. Additionally, customer transactions involve immediate payment, with exception for corporate credit terms or online purchases, allowing for efficient cash collection for retailers. Kroger further enhances liquidity by negotiating favourable payment terms with suppliers, strategically extending payables to optimize working capital.

Figure 13: Cash Conversion Cycle Development

Source: Kroger Annual Report

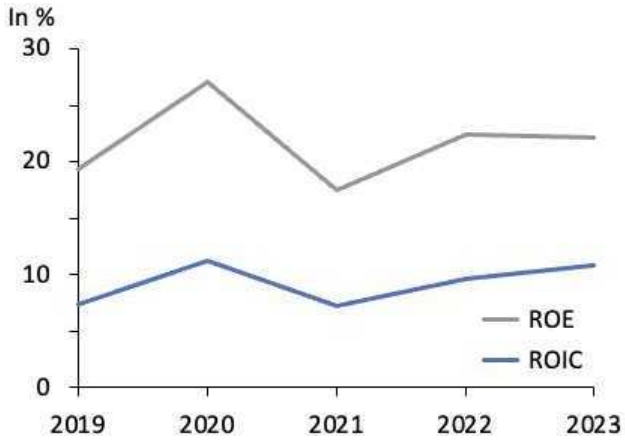


5.4. Returns

Kroger has consistently delivered strong returns on equity (<ROE=) and invested capital (<ROIC=), highlighting its ability to generate substantial profits. With a five-year average ROIC of 9.25%, the company consistently achieves returns that exceed its cost of capital, a clear indicator of value creation. This performance underscores the effectiveness of Kroger's vast store network, operational efficiency, and customer-centric strategies. Further, its robust and above industry median ROE (see Appendix. 8.3.) reflects effective utilization of shareholder funds to deliver competitive returns. Together, these metrics suggest that Kroger is not only maintaining profitability in a mature, low-margin industry but also consistently optimizing capital allocation to sustain long-term value for all stakeholders.

Figure 14: ROE and ROIC Development

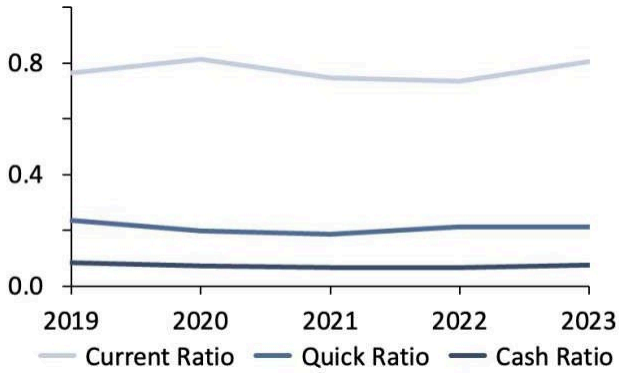
Source: Kroger Annual Report



The retail sector is characterized by low liquidity ratios, as companies prioritize efficient inventory turnover and minimal cash reserves to maintain operational efficiency and cost-effectiveness. Kroger's current ratio, which measures its current assets relative to its current liabilities, is below industry average, reflecting the retailer's tightly managed working capital cycle (see Appendix 8.3.). However, such a low current ratio may raise concerns about Kroger's ability to meet short-term obligations. Additionally, Kroger's cash-ratio, which measures its cash and cash-like items relative to its short-term liabilities, is very low. This reflects the company's limited liquid reserves and highlights its dependency on consistent operational cash flows to fund short-term obligations. While this operational approach enables effective capital utilization, it also increases Kroger's vulnerability to financial disruptions. Despite Kroger's resilience during the pandemic, its limited liquidity flexibility heightens Kroger's vulnerability to external risks.

Figure 15: Development of Key Liquidity Ratios

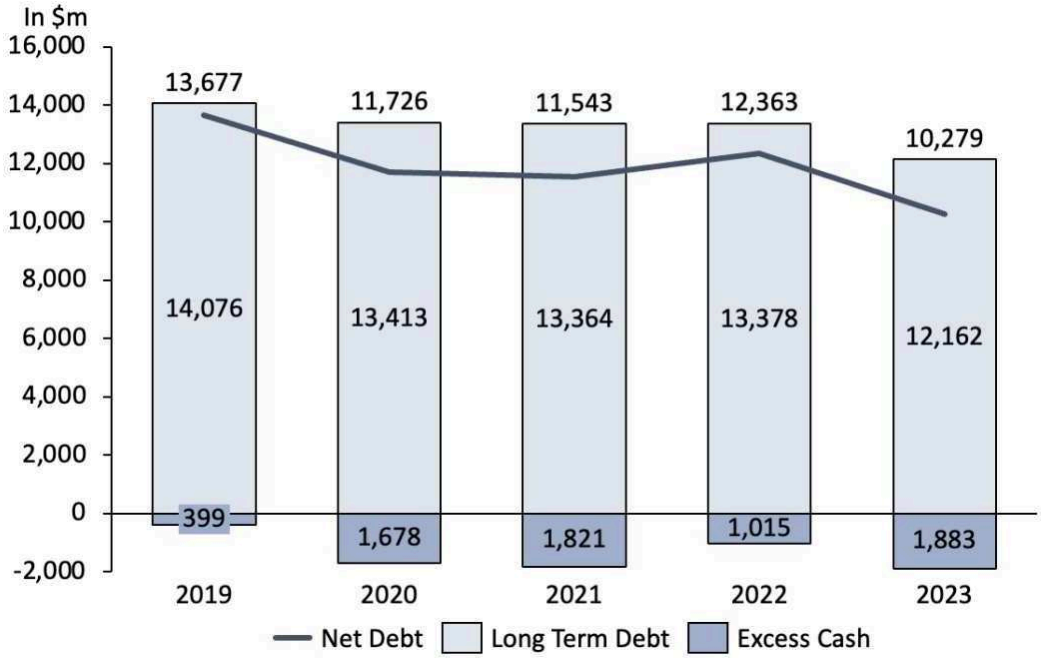
Source: Kroger Annual Report



5.5. Debt

Figure 16: Development of Net Debt

Source: Kroger Annual Report

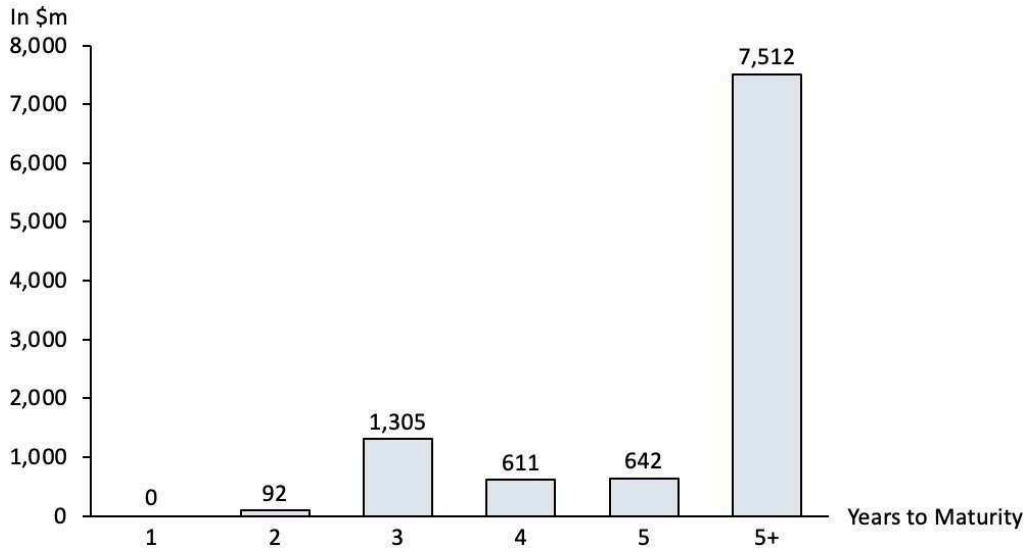


Kroger's long-term debt comprises of 1.7% to 8.0% non-convertible senior notes ($10,162m in FY23) due through 2050 and capitalized lease obligations ($1,864m in FY23). In 2023, the Company repaid $600m of senior notes bearing an interest rate of 3.85% and $500m. of senior notes bearing an interest rate of 4.00%, all using cash on hand. In preparation of the proposed

merger with Albertsons, Kroger's management pursued a deleveraging program, resulting in a slightly lower net debt position in 2023, compared to previous years.

Figure 17: Overview of Debt Maturity

Source: Kroger Annual Report



6. Valuation

6.1. Chosen Methods

Kroger's final valuation is based on a weighted average of three methods: a DCF model, a comparable company analysis and a precedent transactions analysis. For a bull case scenario, the APV method was applied to address the capital structure limitations of the DCF method. The DCF was chosen as it reflects the intrinsic value of the company, being based on the actual cash-flows of the company. Kroger's characteristics make it a fitting company for a DCF valuation, as it is a mature company with predictable and stable cash flows, which limits the need for large growth assumptions and reduces exposure to significant uncertainties about the company's future. To account for possible deviations from the base case, a scenario analysis was performed. This includes a bear case, representing more pessimistic outcomes, and a bull case, which considers the potential positive impact of the successful acquisition of Albertsons. This bull case was calculated using the APV method, as the merger significantly alters Kroger's capital structure by introducing a higher debt level, making the company less suitable for a DCF model. To corroborate the results of the base case, a Monte Carlo simulation was performed, which provides a statistical foundation by modelling possible variations in revenue, a key input factor. Additionally, a sensitivity analysis was performed on the base case to examine the impact of changes in other key input factors, namely the WACC and the steady-state growth rate.

In addition to the intrinsic valuation, multiples were included to incorporate current overall market and industry conditions into the valuation by comparing Kroger to similar assets. The valuation includes the EV/EBITDA, EV/EBIT, and P/E multiples, as well as a precedent transaction analysis. The EV/Revenues multiple was excluded, as it provides limited insights into the operational efficiency and profitability of a company, which are critical in the capital-intensive retail industry.

The DDM method was excluded because Kroger's dividend payments deviate from its actual cash flow generation and are subject to management decisions, making them an unreliable indicator of the firm's true performance.

6.2. DCF

6.2.1. Revenue forecast

The revenues of the target company are one of the most important inputs for the DCF valuation, as most income statement items are forecasted in relation to revenue. Consequently, significant attention is required when developing revenue growth assumptions to ensure accuracy.

Kroger's operating revenues are divided into two segments: retail revenues, which include fresh foods, non-perishable goods, pharmacy products and other items, and fuel revenues. The segmentation reflects the different economic characteristics and long-term performance patterns of the two segments. Within the retail segment, Kroger's divisions offer customers similar products, have similar distribution methods, operate in similar regulatory environments and serve similar types of customers. This distinction enables more precise forecasting and modelling in the valuation process.

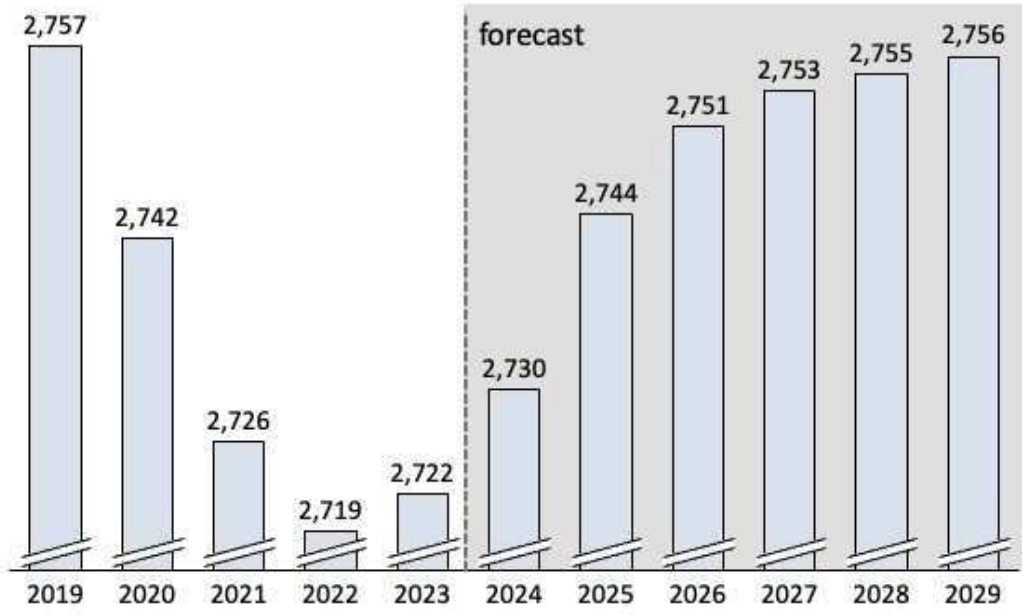
6.2.2. Retail Revenue

Regarding retail revenues, revenue per store was identified as Kroger's main revenue driver, providing two key input factors for retail revenue growth forecasts: the development of revenues per store and number of stores.

Notably, 2023 marked the first year since 2017 in which Kroger's overall store network grew. In that year's annual report, Kroger's management announced plans to build more new stores and initiate more renovation projects than in the past five years. This strategic move is part of Kroger's ongoing efforts to extend its store network and improving digital capabilities to grow customer base and increase sales. Recognizing the increasing trend towards more autonomy and flexibility, Kroger seeks to meet customer demands for shopping on their own terms without compromise, whether at brick-and-mortar stores or online, pickup or delivery. This growth trend is expected to accelerate in the next two years before stabilizing, ultimately leading to a steady-state growth of 0.05%.

Figure 18: Total Number of Stores Forecast

Source: Kroger Annual Report, Own Calculations



As a mature company operating within a highly competitive and mature industry, Kroger faces challenges in achieving strong organic revenue growth. In such an environment, differentiating itself from competitors to maintain and grow its customer base remains crucial. Kroger, being an early mover of the industry in shifting its focus toward digital capabilities during the late 2010s, is well-positioned to leverage evolving customer trends, enabling the company to grow revenues through its digital channels and alternative revenue streams. According to Statista Market Insights, U.S. grocery delivery revenues are estimated to grow at a CAGR of 12.3%, reaching $0.5 trillion by 2029. Kroger is benefiting from that trend already, as evidenced by its online sales reaching $12 billion in 2023, a 12% growth compared to 4% in 2022. This represents approximately 10% of the retailer's overall retail revenue. Kroger's latest annual report also highlights its commitment to deliver consistent shareholder return by expanding its operational margin and growing digital sales at a double-digit rate and at a faster pace than other food at home sales, over time. While this demonstrates substantial growth in revenues, it is important to note that a portion of this growth will likely come at the expense of traditional retail revenue streams. This cannibalization effect limits the overall growth in Kroger's total retail revenues.

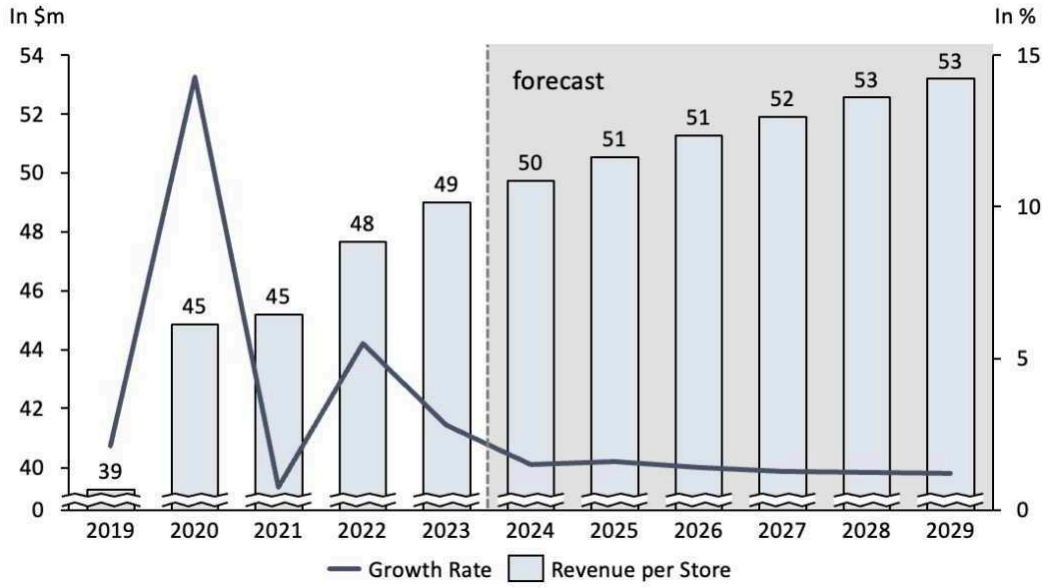
Thus, to account for Kroger's maturity and competitive position, revenue per store was forecasted using a multiple regression model, with inflation and grocery retail industry growth

as independent variables. The regression yielded a high degree of explanatory power, with an R^2 of 0.95 (see Appendix 8.10.). The industry growth forecast was retrieved from MarketLine, which attributes growth primarily to higher disposable income, population growth, the proliferation of quick-commerce and online grocery shopping, an increasing number of internet users, and technological advancements.

The 2024 Revenue forecast was based on management guidance, which predicts identical sales (<ID sales=) growth to fall between 0.75% to 1.75%. ID sales, which excludes fuel revenue, measure sales at supermarkets that have operated without expansion or relocation for five full quarters, representing a reliable measure of real growth. With ID sales growth reaching 1.2% in Q2 and management forecasts being rather conservative in the past, full year revenue per store growth is expected to reach 1.5%.

Figure 19: Revenue per Store Forecast

Source: Kroger Annual Report, Own Calculations



6.2.3. Fuel Revenue

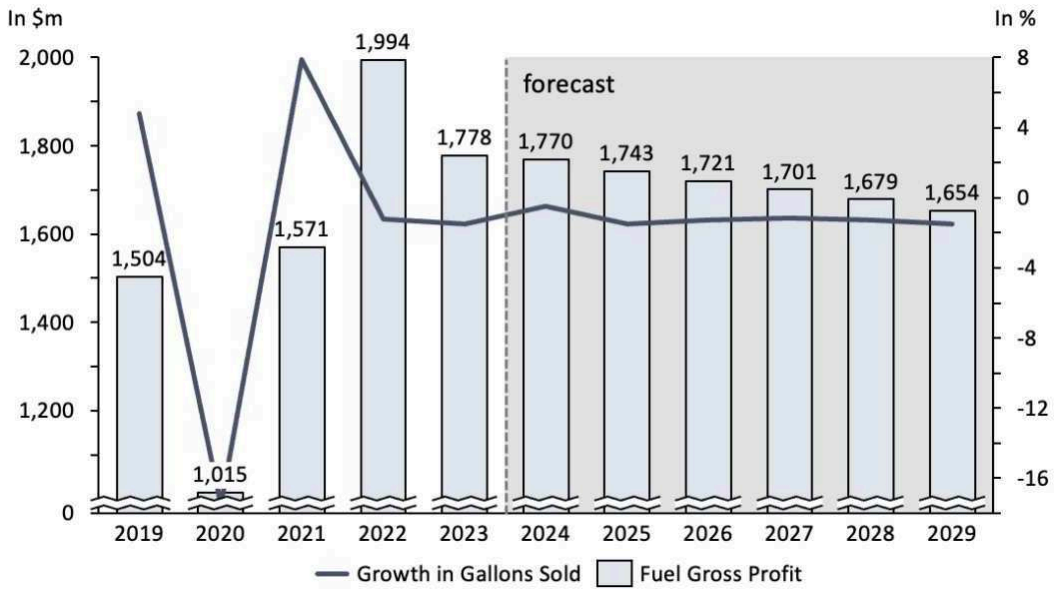
The high price volatility of fuel makes it challenging to accurately predict total revenue sales. To address this issue, the forecast focuses on the gross margin derived from fuel revenues rather than total sales volume. According to the National Association of Convenience Stores (<NACS=), the 5-year average gross margin of convenience stores selling fuel was 10.7%. As Kroger does not disclose specific data on its achieved fuel gross margins, it is assumed to be

aligned with the U.S. average. This approach allows the forecast to focus on the annual growth in gallons of fuel sold, a metric disclosed by Kroger.

To forecast Kroger's gallons of fuel sold, projections from the U.S. Energy Information Administration (<EIA=) on motor gasoline consumption growth rates were used as a benchmark. The EIA forecast anticipates a gradual decline in consumption over time, primarily driven by the increasing adoption of alternative transportation methods like public transportation, electric vehicles and bicycles due to societal efforts to reduce greenhouse gas emissions.

Figure 20: Fuel Gross Profit Forecast

Source: Kroger Annual Report, Own Calculations



6.3. Operating Costs

6.3.1. Costs of Goods Sold (<GOGS=)

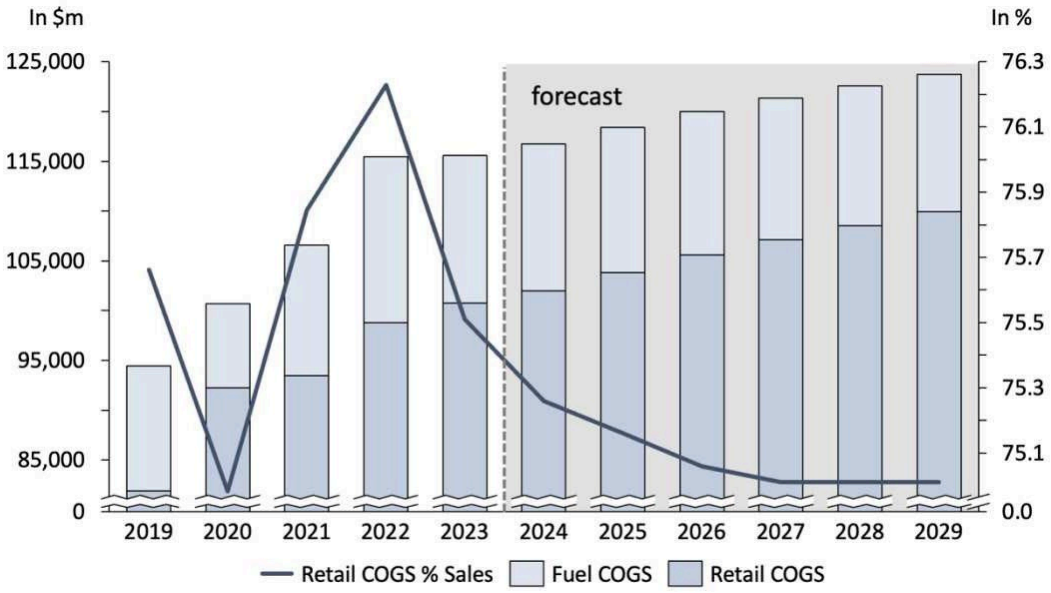
As it is challenging for mature retailers to achieve organic revenue growth due to industry saturation and intense competition, companies must also focus on operational efficiency to create value. In line with this strategy, Kroger aims to continuously enhance its private label offerings to reduce production costs and dependence on suppliers. For example, in 2023, Kroger launched *Mercado*, a new Hispanic-inspired brand under the *Our Brands* product line. Featuring more than 50 products, this initiative exemplifies the company's innovative approach to providing customers with a diversified product portfolio at an accessible price point.

According to management, Kroger plans to launch 800 new *Our Brands* products in 2024 alone. The company expects to continue delivering consistent shareholder returns in the coming years through long-term initiatives aimed at improving its gross margin.

A common challenge for retailers that hinders gross margin expansion is shrinkage, which refers to inventory losses caused by shoplifting, employee theft, return fraud, or operational errors. With worsening economic conditions and inflationary pressures, consumers' dwindling household budgets may contribute to higher rates of shrinkage. This trend is highlighted in Kroger's annual report, which noted that while the company experienced an increase in gross margin, it was partially offset by higher shrinkage in 2023. This issue is expected to continue impacting the retailer's margin in 2024 and 2025, reinforced by inflationary pressure weighing on consumer spending.

Figure 21: Cost of Goods Sold Forecast

Source: Kroger Annual Report, Own Calculations



6.3.2. Selling, General & Administrative Costs (<SG&A=)

Kroger's SG&A expenses consist primarily of employee-related costs such as wages, healthcare benefit costs, retirement plan costs as well as utilities expenses.

Kroger announced to continue making significant incremental investments in associates in 2024, which are included in its forward-looking financial model and aim to enhance both customer and associate experience. The planned initiatives include raising average hourly

wages, improving healthcare options, and establishing new training and development opportunities. In a labour-scarce environment, these investments are crucial for Kroger, as retaining high-quality employees is vital for retailers to diminish recruitment and training costs while boosting morale to increase customer service (CCRRC, 2024). Thus, Kroger recognizes the importance of employee satisfaction to sustain competitive advantages and meet evolving customer expectations. Notably, wages, healthcare, and pensions are governed by approximately 350 collective bargaining agreements, which cover around 64% of Kroger's associates.

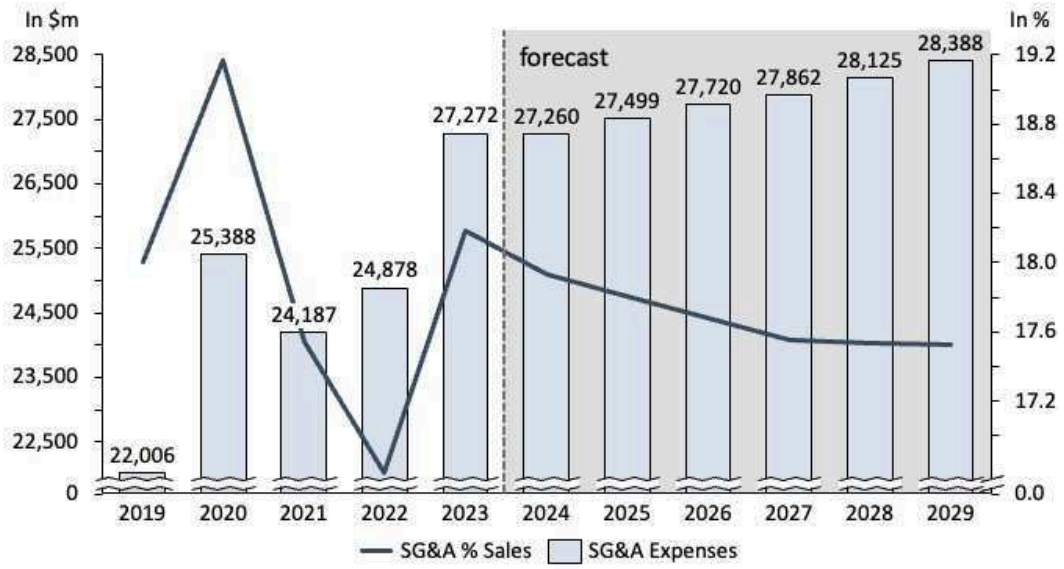
While Kroger continues to invest into its associates, increasing the average hourly wage to nearly $19 in 2023 (a 33% increase over the last five years), the retailer has also achieved consistent cost savings, exceeding $1 billion in the last six years, except for previous year. This has allowed the company to maintain stable operating margins while balancing strategic price investments for customers and associates, despite navigating a challenging operating environment. This trend is expected to continue, as Kroger announced cost-saving initiatives aimed at simplifying processes and utilizing technology to enhance the associate experience without affecting the customer experience as part of its future value creation model.

The increase in SG&A expenses as per cent of sale of 1.4% in 2023, compared to 2022, was primarily driven by planned investments in associates, costs related to strategic investments that are expected to drive future growth and merger related fees. However, these were largely one-off costs, and when comparing margin development between the first half of 2024 and the first half of 2023, SG&A costs are expected to stabilize, supported by the previously mentioned dynamics.

Furter, Kroger has entered fixed price contracts to purchase electricity and natural gas for a portion of its energy needs, which helps mitigate the impact of rising energy prices. As a result, its utility costs are expected to remain stable.

Figure 22: SG&A Costs Forecast

Source: Kroger Annual Report, Own Calculations

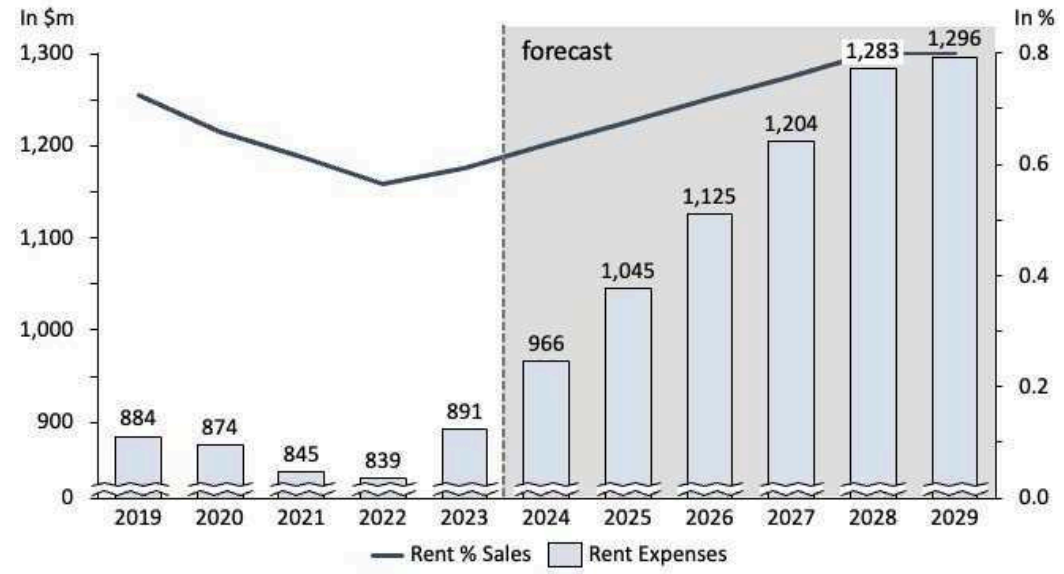


6.3.3. Rent Expenses

Rent expenses have historically been very stable, moving in line with Kroger's total number of stores. Since rent accounts for less than 1% of total sales, it has minimal impact on the operating margin. Rent is expected to continue aligning with the development of the total number of stores and is therefore projected to increase slightly over the forecasting period.

Figure 23: Rent Expenses Forecast

Source: Kroger Annual Report, Own Calculations



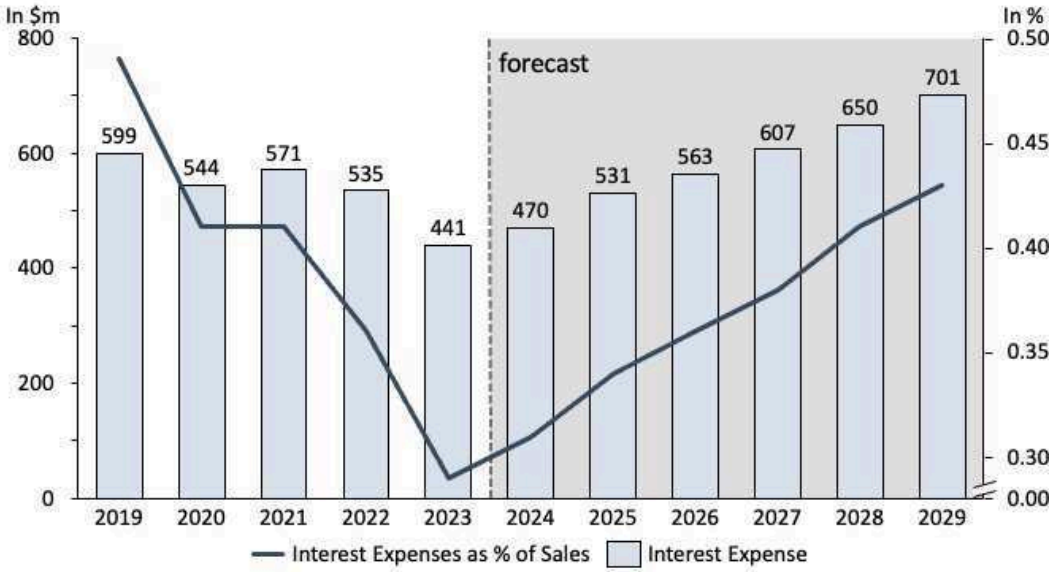
6.4. Other Income Statement Items

6.4.1. Interest Expenses

Due to Kroger's deleveraging program following the proposed merger with Albertsons', the company's interest expenses decreased slightly in recent years. However, since the merger is expected to be unsuccessful, Kroger's interest expenses are anticipated to normalize and return to their historical average over the next few years.

Figure 24: Interest Expenses Forecast

Source: Kroger Annual Report, Own Calculations

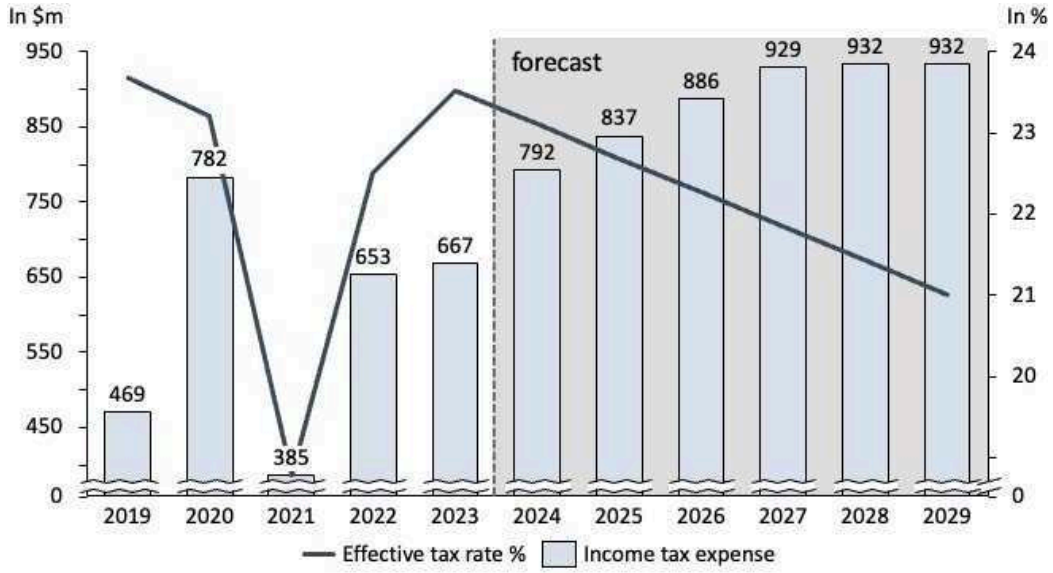


6.4.2. Income Tax Expenses

The deviation of Kroger's effective income tax rate (23.5% in 2023) from the U.S. federal statutory rate (21%) stems from the effect of state income taxes and non-deductible portion of settlement and impairment charges, partially offset by the utilization of tax credits. Since it is assumed that the deferred tax liabilities, net of assets, will be fully repaid when the company reaches its steady state (please refer to section 6.8. for further information), Kroger's effective tax rate shifts towards the statutory rate of 21% over time.

Figure 25: Income Tax Expenses Forecast

Source: Kroger Annual Report, Own Calculations



6.5. Balance Sheet Items

6.5.1. CAPEX

Kroger's Propoerty, Plants and Equipment (<PP&E=) are recorded at historical cost minus accumulated depreciation (<D&A=). The D&A period is based on the expected useful life of the asset, varying from 10 to 40 years for land and buildings, from 4 to 25 years for leasehold improvements, and 3 to 15 years for food production plants, fulfilment centers and distribution centers. Depreciation is calculated using the straight-line method. CAPEX is calculated based on the following formula and given its stable nature over time, can be forecasted as a function of revenue.

Equation 11: Capital Expenditures

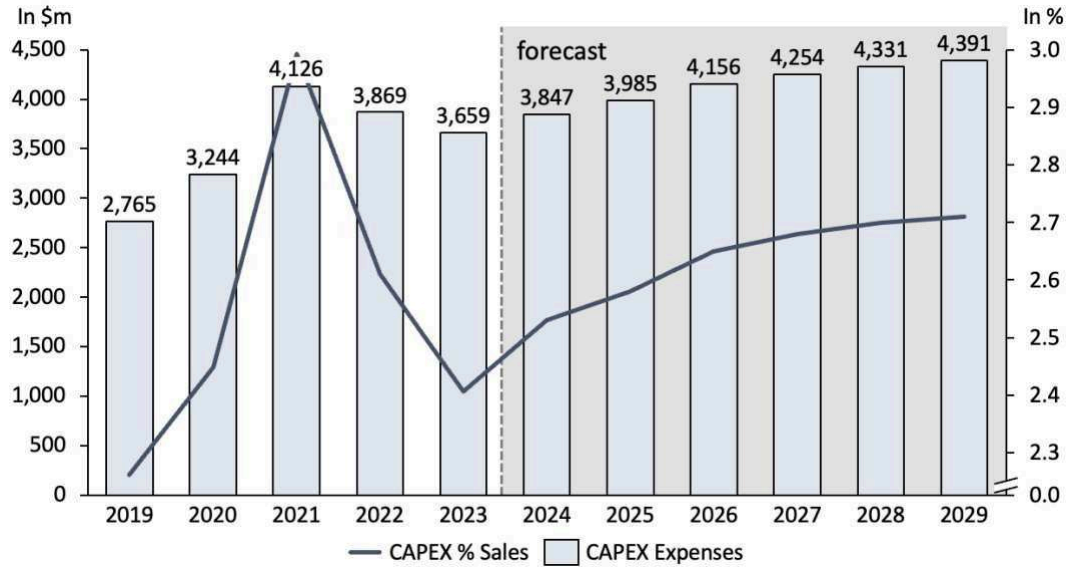
$$CAPEX_t = PP\&E_t \; 2 \; PP\&E_{t-1} + D\&A_t$$

Since Kroger plans further investments into refurbishments and additional stores, additional factories to facilitate the expansion of its private label product portfolio, as well as further technological advancements to facilitate the expansion of its digital sales and alternative revenue streams, CAPEX as % of revenues are expected to increase in the next five years. PP&E has increased by $900m from 09/YTD 2023 to 09/YTD 2024, while depreciation

remained stable around $1,700m, corroborating the likelihood of increased full-year CAPEX. The CAPEX-to-Depreciation ratio was above 1 during recent years, underlining Kroger's ongoing expansion strategy. This trend is expected to continue throughout the forecasting period and into the steady-state phase, indicating that Kroger's asset base is expected to grow in line with its revenue expansion. A CAPEX-to-Depreciation ratio of 1 in the steady state was deliberately avoided, as this would imply an unrealistic assumption of infinite capital efficiency growth (see Appendix 8.6. for more details).

Figure 26: CAPEX Forecast

Source: Kroger Annual Report, Own Calculations



6.5.2. Net Working Capital (<NWC=)

Net Working capital is calculated as the difference between total current assets and total current liabilities, excluding excess cash and cash equivalents, current position of long-term debt and current leasing liabilities, as they are not tied to short-term operational requirements. Thus, NWC is calculated as demonstrated in the table:

Figure 27: Net Working Capital Composition and Forecast

Source: Kroger Annual Report, Own Calculations

Values in $m	FY2020A	FY2021A	FY2022A	FY2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Operating Cash	1,096	1,082	1,127	1,215	1231.4	1,251	1,270	1,285	1,299	1,312
In % of Revenues	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
Inventory	7,063	6,783	7,560	7,105	7,075	7,096	7,109	7,102	7,082	7,063
Days inventory in hand	*28*	*26*	*28*	*26*	25	25	25	24	24	24
Accounts Receivable	1,781	1,828	2,234	2,136	2,105	2,139	2,171	2,198	2,221	2,243
Days Accounts Recevable in hand	5	5	5	5	5	5	5	5	5	5
Prepaid expenses & other Current	876	660	734	609	747.8	757.9	767.7	775.8	783.5	790.9
In % of OPEX	*1%*	*1%*	*1%*	*0%*	1%	1%	1%	1%	1%	1%
Working Capital Assets	**10,816**	**10,353**	**11,655**	**11,065**	**11,160**	**11,244**	**11,317**	**11,361**	**11,386**	**11,409**
Accounts Payable	6,679	7,117	7,119	7,281	7,392	7,559	7,721	7,864	7,996	8,130
Days accounts Payable in hand	26	28	26	26	26	27	27	27	27	27
Accrued Expenses	1,413	1,736	1,746	1,323	1,607	1,629	1,650	1,667	1,684	1,700
In % of OPEX	*1%*	*1%*	*1%*	*1%*	1%	1%	1%	1%	1%	1%
Other Current Liabilities	5,696	6,265	6,401	6,586	6,672	6,777	6,880	6,965	7,038	7,108
In % of Revenue	*4.3%*	*4.5%*	*4.3%*	*4.4%*	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
Working Capital Liabilities	**13,788**	**15,118**	**15,266**	**15,190**	**15,671**	**15,966**	**16,251**	**16,496**	**16,718**	**16,938**
Net Working Capital	**-2,972**	**-4,765**	**-3,611**	**-4,125**	**-4,511**	**-4,722**	**-4,934**	**-5,136**	**-5,333**	**-5,530**

For forecasting trade working capital components (accounts receivable, inventories, and accounts payable), the CCC was utilized. In recent years, Kroger has achieved improved inventory management by leveraging advanced technology and data analytics. This trend is expected to continue as Kroger further expands its technological capabilities. Consequently, DIO is projected to decline to 24 days in the upcoming years.

DSO has remained stable at around 5 days over the past decade and is not anticipated to deviate significantly, as Kroger primarily deals in direct cash and card payments. However, a slight increase in DSO is expected due to the growing popularity of the "Buy Now, Pay Later" business model, which enables online retailers to delay payments.

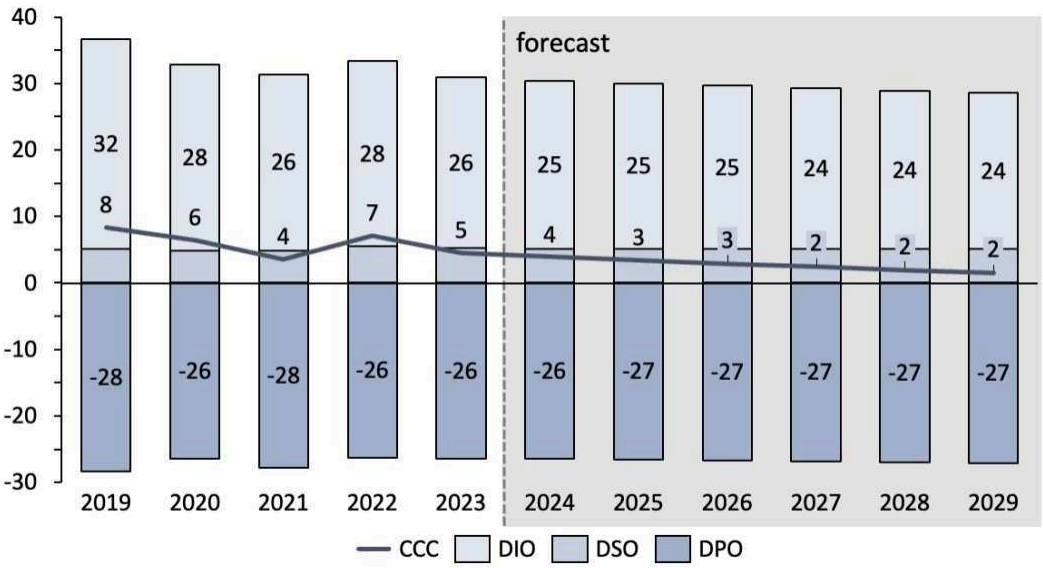
Finally, DPO is projected to remain stable, as Kroger has limited room to further improve its contract terms with suppliers.

Operational cash represents the cash that a company requires for its ongoing operations. For retailers, this is comparatively high, as they need cash readily available at their checkouts. Kroger discloses its operational cash in its annual statements under <cash in transit,= so no additional assumptions are necessary. This amount has consistently represented 1% of revenues over time and is not expected to deviate in the future.

Prepaid expenses and other current assets, as well as accrued expenses and other current liabilities, are forecasted based on their historical average percentage of revenues, as they typically grow in line with revenue trends.

Figure 28: Cash Conversion Cycle Forecast

Source: Kroger Annual Report, Own Calculations



6.6. Terminal Growth Rate (<TGR=)

Since the TGR assumes that the company reaches a steady state, at which it will operate indefinitely at perpetual growth, it must be below both its country's GDP growth rate and its industry's growth rate, as the company cannot outgrow either.

Due to Maturity and saturation of market, a relatively low industry growth rate is expected. Given that Kroger has historically grown slightly below industry growth rate, a TGR of 1.20% is projected.

This results in the terminal value representing 77.9% of the total enterprise value, which may be considered higher than average, with the typical range being around 60%-70%. However, this is a consequence of a relatively short forecasting horizon, which limits the number of annual cash flows before reaching steady state and results in a lower discount rate for the terminal value. Since Kroger is a mature company with steady and predictable cash flows, this higher terminal value share does not pose a significant issue, as the risk of high cash flow volatility is mitigated, making a shorter explicit forecast horizon reasonable.

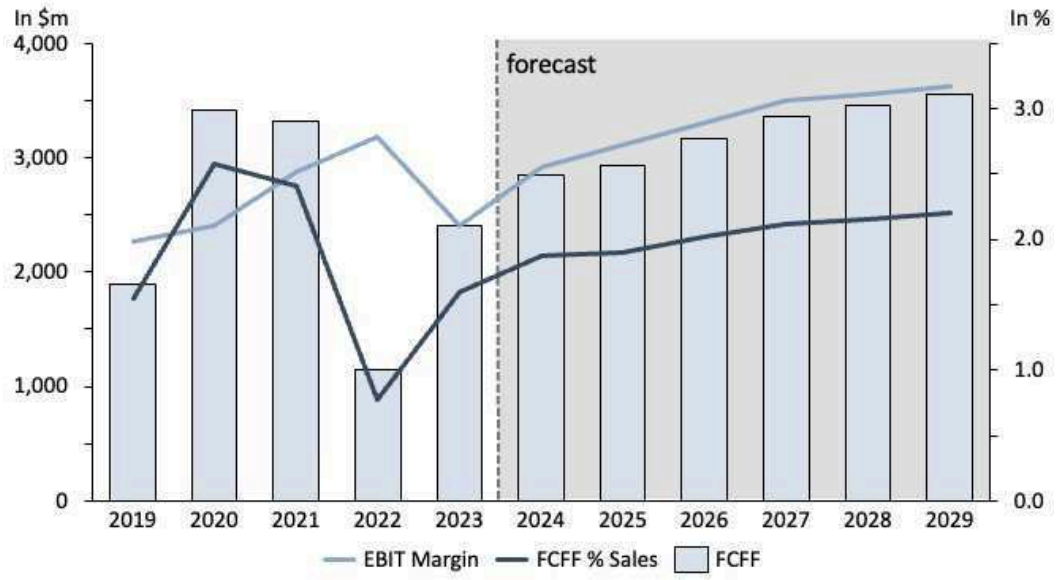
6.7. FCFF

As mentioned before, Kroger has historically demonstrated steady and positive cash flows, which is projected to continue in the future. This sustained growth is primarily driven by

Kroger's revenue expansion, which is supported by its strategic focus on growing its store network and digital capabilities, as well as improvements in operational efficiency.

Figure 29: Free Cash Flow Forecast

Source: Kroger Annual Report, Own Calculations



6.8. Discount Rate - WACC

6.8.1. Cost of Equity

As outlined in the literature review, the CAPM will be applied to determine the Cost of Equity. The model relies on three key input factors: the risk-free rate, beta and market risk premium. The risk-free rate was retrieved using the yield of 10-year U.S. Treasury bonds, which stood at 4.26% as of 30.09.2024.

Kroger's beta was computed based on a weighted average of its 5-year monthly historical beta and a peer comparison. The 5-year monthly regression provides a broader, more stable estimate of the market risk by smoothing short-term noise and capturing broader market trends. This approach is particularly well-suited for mature, stable companies and industries with historically low volatility. The regression yielded a beta of 0.46.

The peer group was constructed by starting with a broad selection of companies within the U.S. retail industry and then applying additional exclusion criteria based on Kroger's firm characteristics to arrive at a final peer group. It only includes firms incorporated in the U.S. to avoid discrepancies in accounting standards between IFRS and US GAAP. The exclusion

criteria considered are company maturity, growth projections, profitability, capital structure, and geographical focus. The final peer group comprised 9 companies and produced a beta of 0.63 (see Figure 39 for a detailed peer comparison):

Figure 30: Beta Computation

Source: Refinitiv Eikon, Own Calculations

Company Name	Ticker	D/E	lev. Beta	unlev. Beta	Mar. Corp. Tax Rate
Costco Wholesale Corp	COST.OQ	-0.16	0.97	1.11	21%
Walmart Inc	WMT.N	0.41	0.60	0.46	21%
Target Corp	TGT.N	0.91	1.10	0.64	21%
CVS Health Corp	CVS.N	0.65	0.48	0.32	21%
Academy Sports and Outdoors Inc	ASO.OQ	0.07	1.34	1.27	21%
Dollar General Corp	DG.N	0.96	0.49	0.28	21%
Best Buy Co Inc	BBY.N	-0.09	1.13	1.22	21%
Dollar Tree Inc	DLTR.OQ	0.37	1.00	0.77	21%
BJ's Wholesale Club Holdings Inc	BJ.N	0.51	0.56	0.40	21%
Equally Weighted Average				**0.54**	
Kroger Co	KR	0.23	**0.63**		21%

Method	lev. Beta
Peers	0.63
Refinitiv	0.46
Adjusted Average	**0.70**

Finally, to account for the reversion-to-the-mean dynamic, the adjusted beta method was applied, resulting in a final beta value of 0.70. This adjustment ensures that the beta reflects both the company-specific risk and the tendency for betas to converge toward the market average over time.

The market risk premium was sourced from Aswath Damodaran's latest country equity risk premium update (July 2024), which provides widely recognized and credible estimates. For the U.S., the market risk premium was reported at 4.12%.

Figure 31: Cost of Equity Computation

Source: Refinitiv Eikon, NYU Stern, Bloomberg

Cost of Equity	
Beta	0.698
Risk-Free (yearly)	4.26%
Market Risk Premium	4.12%
Cost of Equity	**7.137%**

6.8.2. Cost of Debt

To determine the cost of debt, a weighted average of Kroger's outstanding bonds' yield to maturity and the spread corresponding to its debt rating was computed. Given that Kroger has numerous long-term senior unsecured non-convertible bonds with fixed coupon outstanding, their weighted average yield serves as a good predictor for its borrowing cost. The resulting cost of debt is 5.23%. This is slightly lower than the alternative calculation obtained by adding the risk-free rate to the credit rating risk spread, which yields a cost of debt of 5.73%. To balance these two approaches, the combined average cost of debt is determined to be 5.48%.

Figure 32: Spread Conversion Table

Source: NYE Stern

Spread Conversion	
Rating	Spread
D2/D	20.00%
C2/C	17.00%
Ca2/CC	11.78%
Caa/CCC	8.51%
B3/B-	5.24%
B2/B	3.61%
B1/B+	3.14%
Ba2/BB	2.21%
Ba1/BB+	1.74%
Baa2/BBB	**1.47%**
A3/A-	1.21%
A2/A	1.07%
A1/A+	0.92%
Aa2/AA	0.70%
Aaa/AAA	0.59%

6.8.3. Capital structure

To determine Kroger's capital structure, market values of both equity and debt are computed, which reflect current market conditions and thus provide a more accurate and up to date values than book values. The market value of equity was calculated based on Kroger's market capitalization as of 30.09.2024, which is computed by multiplying total number of shares outstanding (720m) by the current share price ($55.27). The market value of debt was calculated by applying Damodaran's estimation technique, which <treats the entire debt on the books as one coupon bond, with a coupon set equal to the interest expenses on all the debt and

the maturity set equal to the face-value weighted average maturity of the debt, and then to value this coupon bond at the current cost of debt for the company= (Damodaran, 2012).

Equation 12: Market Value of Debt

$$MV(Debt) = I * (\frac{1\ 2\ \frac{1}{(1+r_D)^t}}{r_D}) + \frac{FV}{(1+r_D)^t}$$

Where MV = market value; I = total interest per year; t = weighted time to maturity; FV = book value of total debt; r_D = cost of debt

Figure 33: Market Value of Debt Computation

Source: Kroger Annual Report, Own Calculations

Market Value of Debt (in $m)	
Interest Expense	441
Cost of Debt	5.48%
Book Value of outstanding Bonds	10,162
PV(Book Value of outstanding Bonds)	4,950
Value weighted Maturity of Bonds	13.48
Market Value of Bonds	**9,078**
+ Value of Capital Leases	1,866
Market Value of Debt	**10,944**
- Cash & Short-term Investments	1,883
Market Value of Net Debt	**9,061**

The final weighted average discount rate based on all parameters presented above is 6.62%.

Figure 34: WACC Computation

Source: Kroger Annual Report, Own Calculations

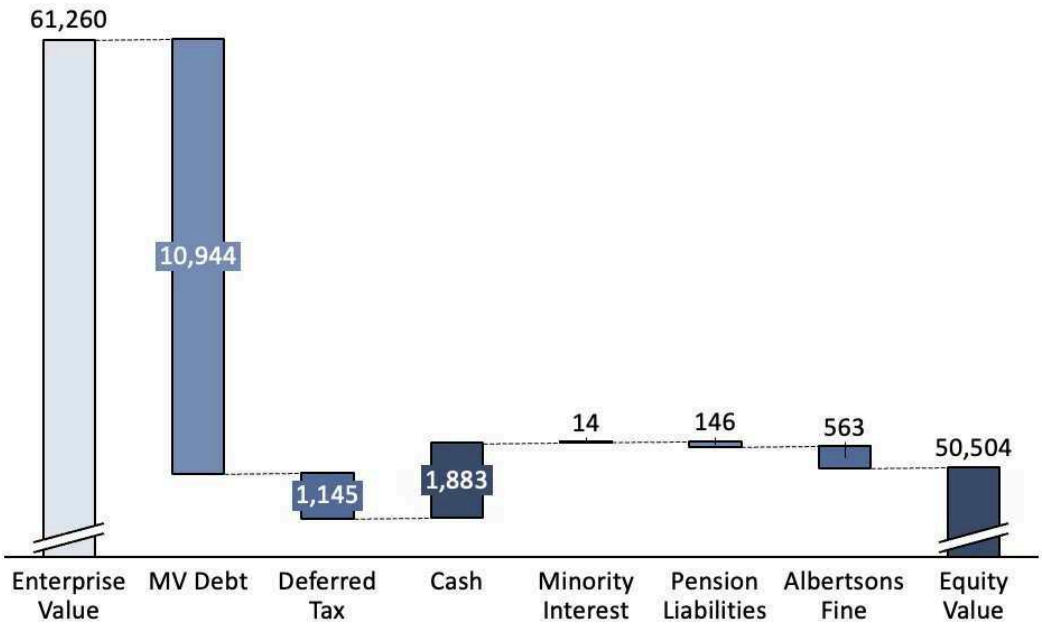
Weighted Average Cost of Capital	
Total Market Value of Equity (in $m)	39,794
Total Market Value of Debt (in $m)	9,061
Debt-to-Total Capital	0.19
Equity-to-Total Capital	0.81
D/E	0.23
Marginal Tax Rate	21%
Cost of Equity	7.14%
Cost of Debt	5.48%
WACC	**6.62%**

6.9. Equity Bridge

To arrive at the final share price, adjustments must be made to derive the equity value from the enterprise value. The equity value can then be divided by the diluted number of shares outstanding to calculate the final share price. Following Damodaran's recommendations regarding which items to subtract from the enterprise value beyond long-term debt and excess cash, the following equity bridge was formed:

Figure 35: Equity Bridge

Source: Own Calculations



According to Damodaran, the most sensible way of dealing with deferred tax liabilities, net of tax assets, is to assume the deferrals will come due when the company reaches its steady state. Therefore, its present value was discounted accordingly.

Minority interests were also subtracted to account for the fact that subsidiaries where Kroger holds a majority stake are fully consolidated, even though Kroger does not always own 100% of these companies.

In the base case, it is assumed that the proposed merger with Albertsons will be unsuccessful. As a result, Kroger would be required to pay the $600 million merger termination fee. A court decision is expected in 2025, which is when the payment is projected to be due.

Unfunded pension obligations are subtracted to represent Kroger's need to pay for these liabilities. Calculation is based on Kroger's Pension Liabilities description, indicating that plans in the red zone are less than 65 percent funded, plans in the yellow zone are less than 80 percent funded and plans in the green zine are at least 80 percent funded.

Figure 36: Unfunded Pension Liabilities Calculation

Source: Kroger Annual Report, own Calculations

Act Zone Status	Contribution (in $m)	Unfunded Proportion
Red	83	35.0%
Green	19	20.0%
Green	15	20.0%
Green	27	20.0%
Green	10	20.0%
Red	7	35.0%
Red	11	35.0%
Green	263	20.0%
Green	40	20.0%
Red	34	35.0%
Green	56	20.0%
Red	7	35.0%
Red	29	35.0%
	146	

The final equity value was divided by the total number of diluted shares outstanding to arrive at a final share price of $69.5.

6.10. Sensitivity Analysis

We conducted a two-way sensitivity analysis on the TGR and Kroger's beta, the primary input factors of the DCF, to evaluate the robustness of the assumptions and their impact on Kroger's final share price.

As the TGR is based on the projected industry growth rate of the U.S. grocery retail industry, the +/- 0.2% increments in the sensitivity analysis reflect possible fluctuations in economic conditions.

The +/-0.02 increments in Kroger's WACC reflect possible changes in Kroger's risk profile.

Figure 37: Sensitivity Analysis

Source: Own Calculations

WACC	Terminal Value Growth Rate						
	0.60%	0.80%	1.00%	1.20%	1.40%	1.60%	1.80%
6.02%	71.61	74.20	77.01	80.04	83.34	86.93	90.87
6.22%	68.50	70.88	73.45	76.23	79.24	82.50	86.06
6.42%	65.60	67.80	70.17	72.71	75.46	78.44	81.68
6.62%	62.90	64.93	67.12	69.46	71.98	74.71	77.66
6.82%	60.37	62.26	64.28	66.44	68.76	71.26	73.96
7.02%	58.00	59.75	61.62	63.62	65.77	68.06	70.54
7.22%	55.78	57.41	59.15	61.00	62.98	65.10	67.38

6.11. Scenario Analysis

Apart from the case presented so far, two additional scenarios, a bull and a bear case, were computed to give a more holistic view on possible fluctuations in underlying assumptions.

The base bear case presents a conservative case, projecting lower revenue growth and worse margin development. The former might be caused by reduced consumer spending, increased competition or other factors, whereas the latter might be caused by rising costs, shrinkage or other challenges.

The bull case is far more complex, as it depicts Kroger's projected performance in case of a successful merger with Albertsons, which is projected for 2025. As this scenario implies considerate changes in Kroger's capital structure, not only because of a mix between both companies' capital structure, but also the fact that Kroger will have to issue new debt to finance the deal, the APV valuation method was applied. This entails the consolidation of both companies' balance sheets and income statements to develop forecasting assumptions of the combined entity's future cash flows as well as funding costs.

6.11.1. Free Cash Flow Projections

The key factors affecting the forecast of cash flows are cost synergies, price reductions, and the sale of stores, all of which have been announced by the management of both companies as strategic moves following the successful merger. Revenue for 2024 is based on the combination of both companies' management projections, resulting in a growth rate of 1.8%, which is corroborated by the combined half-year results. For 2025, a sharp decline in revenues is projected due to the divestiture of close to 600 stores, accounting for around 12% of the companies' combined store network, resulting in a revenue growth of -9%. For the following years, a multiple regression model, with inflation and industry growth as independent variables was used, yielding a high degree of explanatory power, with an R^2 of 0.99 (see Appendix 8.12.3).

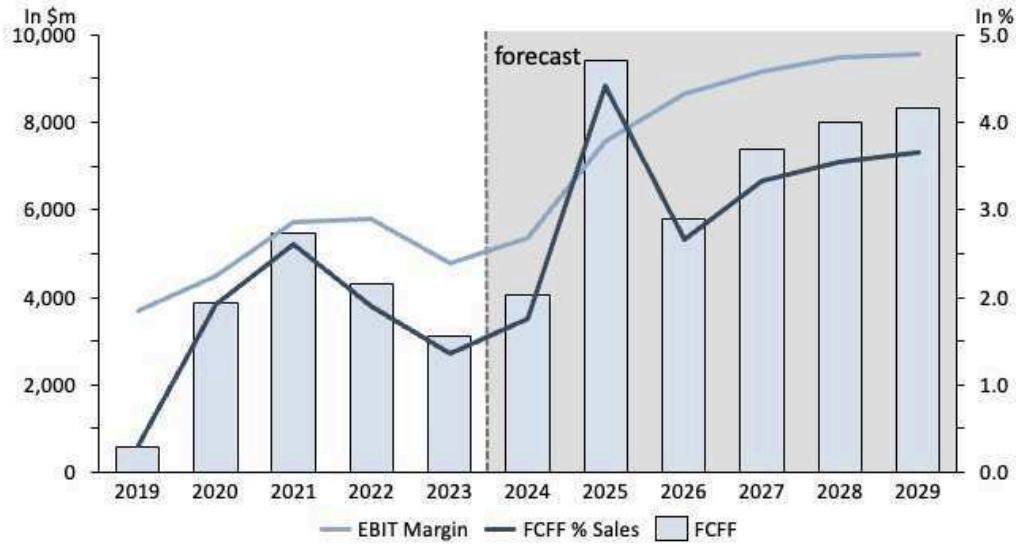
As management announced that the merger will result in significant cost synergies related to administrative, storage and other costs, operating margins are projected to increase throughout the forecasting horizon, with EBIT margins being additionally affected by a decrease in depreciation costs due to the sale of stores.

Subsequently, CAPEX is primarily driven by the divestiture, experiencing negative values in 2025, but otherwise a stable increase along revenue growth due to refurbishments and the expansion of both digital capabilities and private label offerings.

Changes in NWC are primarily driven by a projected decrease in inventory management efficiency due to the combination of both warehouse systems in 2025, followed by a recovery of efficiency driven by technological advancements (see Appendix 8.12.4. for more details).

Figure 38: Free Cash Flow Forecast Bull Case

Source: Own Calculation



6.11.2. Unlevered Cost of Capital

The consolidation of balance sheets yielded an average Debt-to-Value-ratio (<D/V-ratio=) prior to the merger of 26%. As Kroger plans to activate its bridge term loan facility of $17.4bn to finance the merger, the target D/V-ratio for the APV valuation is 40%.

Derived from the CAPM formula, the debt beta is computed by dividing the credit spread of BBB corporate bonds by the equity market risk premium, yielding a value of 0.36.

The market capitalization of the new entity is computed by taking the sum of both companies' outstanding shares multiplied by their share price as of 30 September 2024. The actual price per share paid by Kroger reflects the premium paid by Kroger and thus has no effect on Albertsons true share price and consequently its market share.

The same risk-free rate and market risk premium as for the DCF model were used, as both companies operate solely in the U.S.

The equity beta was computed based on the average of both companies' betas, weighted by the respective market capitalization.

6.11.3. Present Value of Financial Distress Costs

For the probability of default, a long-term weighted average of the default rates for BBB graded companies was used, as Kroger's debt is currently rated as BBB and is likely to maintain its rating after the merger. The data was retrieved from S&P Global.

The academic consensus regarding bankruptcy costs ranges between 20%-40% of total firm value, presenting a considerable margin. The main factors for determining the magnitude of bankruptcy costs include indirect and direct costs.

Due to the new entity's substantial fixed asset base, its direct costs of bankruptcy, including administrative and restructuring costs, are projected to be comparatively low, as it presents high asset recovery potential, which often reduces complexity and cost of the restructuring process. Further, a robust asset base is also associated with greater stability, which helps mitigating reputational damage, such as loss of trust among customers, suppliers and employees. However, the new entity would still be exposed to various direct and indirect adverse effects, including operational disruptions, weakened market position and reduced shareholder confidence.

Retailers are heavily dependent on their suppliers and in situations of financial distress, they are likely to demand premiums to offset payment uncertainty. Inabilities of short-term

payments can result in stock shortages, which may disrupt operations. However, this risk could be mitigated by the company's strong supplier relationship and favourable contract terms, providing short-term financial flexibility.

Additionally, financial distress can lead to reduced brand value, which is detrimental in the highly competitive retail industry, where customer loyalty is critical to maintaining market share. On the other hand, the grocery sector inherently provides some resilience in this regard, as customers typically receive products immediately upon purchase, reducing concerns about non-delivery of purchased goods.. If the company can manage to keep shelves stocked, customer trust is likely to remain intact.

Thus, the final bankruptcy costs are projected to be at 25% of total firm value, representing a value slightly below mean consensus, primarily driven by the company's robust asset base and broader industry dynamics.

6.11.4. Final Share Price

The APV valuation method yielded a final share price of $99.3. This significant upside potential reflects the strategic advantages the merger can enable Kroger. Consolidating both companies will likely result in substantial cost synergies due to increased efficiencies and reduced headcount. This enables the company to offer more competitive prices, enabling it to better perform in the highly competitive landscape.

6.12. Relative Valuation

6.12.1. Comparable Company Valuation

As the valuation outcome of multiples is highly affected by accounting standards and different company characteristics, it is important to construct an accurate peer group, with all constituents having similar characteristics based on key factors. Thus, the same peer group as for the beta construction was used, which determined its constituents based on company maturity, growth projections, profitability, capital structure, and geographical focus.

Figure 39: Peer Group Key Financial Metrics Comparison

Source: Refinitiv Eikon

Company Name	Sector	D/E	EBIT Margin	Beta	Long Term Growth	Cash Flow (in m $)
Costco Wholesale Corp	Retail Trade	-0.16	3.6%	0.97	9.8%	9,604
Walmart Inc	Retail Trade	0.41	4.2%	0.60	10.2%	28,123
Target Corp	Retail Trade	0.91	5.4%	1.10	8.1%	6,939
CVS Health Corp	Retail Trade	0.65	4.2%	0.48	-1.6%	12,768
Academy Sports and Outdoors Inc	Retail Trade	0.07	11.0%	1.34		630
Dollar General Corp	Retail Trade	0.96	6.3%	0.49	-3.3%	2,510
Best Buy Co Inc	Retail Trade	-0.09	4.0%	1.13		2,164
Dollar Tree Inc	Retail Trade	0.37	5.4%	1.00	7.7%	-157
BJ's Wholesale Club Holdings Inc	Retail Trade	0.51	4.1%	0.56		751
Kroger Co	Retail Trade	0.23	2.1%	0.70	8.0%	5,294
	Median (Peers)	**0.41**	**4.2%**	**0.69**	**7.9%**	**2,510**

It is important to bear in mind that multiples represent current market conditions and can change over time. For the final share price computation, the median multiple was used to reduce the skewness caused by excessively high multiples. As lower and upper bound, the 25th and 75th percentile, respectively, was used. Figure 40 presents the final output.

Figure 40: Comparable Company Analysis

Source: Refinitv Eikon, Own Calculations

Peer	P/E Multiple	EV/EBITDA	EV/EBIT	P/BV
Costco Wholesale Corp	50.76	31.05	39.11	14.29
Walmart Inc	34.39	17.09	24.53	6.45
Target Corp	15.93	9.17	13.55	4.96
CVS Health Corp	10.16	8.31	10.37	1.14
Academy Sports and Outdoors Inc	7.68	4.80	5.70	2.20
Dollar General Corp	13.00	7.80	11.40	3.66
Best Buy Co Inc	14.81	7.52	11.35	5.76
Dollar Tree Inc	11.92	6.43	10.40	3.08
BJ's Wholesale Club Holdings Inc	22.71	11.85	16.06	6.23
Median Value	**17.39x**	**9.73x**	**14.59x**	**4.06x**
Average Value	**20.13x**	**11.40x**	**15.93x**	**4.86x**
25th Percentile	12.19x	7.59x	10.64x	2.64x
75th Percentile	22.31x	11.91x	16.55x	6.11x
Share Price (Median)	**63.4**	**83.2**	**64.8**	**49.9**
Share Price (25th Percentile)	44.4	61.9	43.6	27.7
Share Price (75th Percentile)	81.3	104.9	75.3	81.9

6.12.2. Precedent Transactions

The list of precedent transactions (see Appendix 8.13) show that the multiples are derived from the deal value of the to compute the respective multiples. All target companies were active in

the U.S. food & grocery retailing industry. The Sales-to-Enterprise Value multiple was excluded, due to its limited insights into the operational performance of companies.

Figure 41: Precedent Transactions Analysis

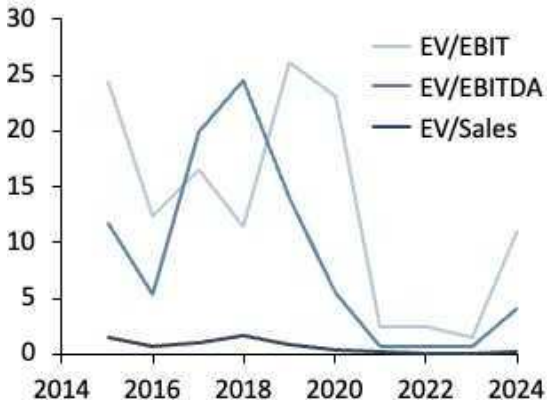
Source: Refinitiv Eikon, Own Calculations

Multiples	EV/Sales	EV/EBITDA	EV/EBIT
Multiple (Median)	0.76	9.91	15.59
Multiple (25th Percentile)	0.15	2.59	6.52
Multiple (75th Percentile)	1.43	12.66	23.24
Enterprise Value (Median)	115,487	71,460	60,607
Enterprise Value (25th Percentile)	23,215	18,706	25,355
Enterprise Value (75th Percentile)	218,129	91,236	90,343
Gross Debt Value (2024)	10,944	10,944	10,944
Excess Cash (2024)	1,883	1,883	1,883
Minority Interests (Exit)	14	14	14
Unfunded Pension Liabilities	146	146	146
PV of Albertson Merger Fine	563	563	563
Equity Value (Median)	**105,703**	**61,676**	**50,823**
Equity Value (25th Percentile)	13,431	8,922	15,571
Equity Value (75th Percentile)	208,346	81,452	80,559
Share Price (Median)	**145.80**	**85.07**	**70.10**
Share Price (25th Percentile)	18.53	12.31	21.48
Share Price (75th Percentile)	287.37	112.35	111.12

The development of multiples over time shows a steep decline in multiples in the post-covid era, which started to recover in 2024 and is expected to increase further in the near future. A key factor influencing these dynamics are changes in interest rates, impacting the cost of borrowing and thus financing opportunities for companies, which significantly impact market conditions. Before the COVID-19 pandemic, multiples were supported by very low borrowing costs and strong economic growth. In contrast, the past four years have been characterized by higher borrowing costs and economic uncertainty, which significantly compressed multiples. Current market conditions are positioned between these two extremes, as interest rates are declining again, and the economic outlook is generally improving. Thus, the current environment is well reflected by the combination of both the challenges of recent years and the prosperity of earlier times.

Figure 42: Development of Multiples

Source: Refinitiv Eikon



6.13. Valuation Summary

The results retrieved from the valuation methods give a final share price value of $68.4. Based on Kroger's share price of $57.3 on 30 September 2024, this represents a 1-year return of 19.4%. Thus, a BUY recommendation on The Kroger Co. stock is issued.

The final share price was retrieved from a weighted mix of the methods, reflecting a balanced consideration between expectations priced into the U.S. grocery retail market by the public market and the idiosyncratic drivers of Kroger's value.

Figure 43: Football Field Chart (in $)

Source: Own calculations

Method	Price (in $)	Weight
Precedent Transaction Multiples	77.6	10%
Comparable Company Multiples	65.3	45%
Discounted Cash Flow Model	69.5	45%
1-Year Target Price	**68.4**	

The industry has historically proven resilience to economic shocks, enabling consistent growth over time. Thus, it presents a safe haven during turbulent times for investors and a reliable source of stable returns. The value creation is primarily driven by increased economies of scale through consolidations and consistent technological advancements, both of which are expected to further increase operational efficiency and improve product offerings.

Kroger, as part of this stable industry, stands out with its go-to-market strategy of <Leading with Fresh, Accelerating with Digital=. With this strategy and its conveniently located +2,700 stores nation-wide, the retailer manages to retain its customer base by meeting evolving consumer needs, especially with the growing demand for fresh and healthy food and seamless digital shopping experiences. Simultaneously, Kroger supports improvements in operational efficiency and employee retention, positioning itself as a leader within the grocery retail industry. With this proven value creation model and its strong balance sheet, Kroger achieves competitive margins, stable earnings growth and resilient free cash flows, making it an attractive investment.

However, it is important to note that Kroger faces challenges and risks than can potentially harm its business. Even though the grocery retail industry demonstrates stable growth, it is also highly saturated and characterized by intense competition, posing difficulties for retailers to expand their market share. Thus, with little product differentiation opportunities and rapidly evolving customer trends, Kroger may face risks of losing customers to its competitors. Further, Kroger's low liquidity increases its dependency on consistent operational cash flows, which increases its exposure to cash flow disruptions and vulnerability to external risks.

The overall price spread based on the scenario and sensitivity analyses ranges from $16.9 to $111.7, representing a downside potential of -70.5% and 94.9%, respectively, with both extreme values stemming from the precedent transaction valuation.

7. Analyst Report Comparison

The valuation is compared to an equity report from LSEG Stock Reports, retrieved from Refinitiv Eikon, which aggregates and summarizes all available analyst reports, thus providing a good overview of the general market consensus. However, it is limited in its insights into the specific input parameters and underlying assumptions that were used by the analysts.

Kroger achieves a positive outlook with a score of 10/10 and an average <BUY= recommendation from 22 analysts, with 5, 6, 10 and 1 analysts issuing a strong buy, buy, hold and sell recommendation, respectively. Historically, companies with a 10/10 score have tended to significantly outperform the market over a 1-year period. The score is a weighted average of the factors Earnings, Fundamentals, Relative Valuation, Risk, Price Momentum and Insider Trading. LSEG weighs the factors according to market capitalization, with large cap stocks having put more weight on earnings and fundamentals, as these factors have historically provided the highest explanatory power.

Based on the price of $53.21 on 30 August 2024, the average analysts' 12-month return is 9.6%, implying a price target of $58.30, with an overall price spread ranging from $48.00 to $70.00. The main difference to this valuation's target returns of 19.4% can be attributed to a lower market expansion outlook and lower EPS growth predictions. The analysts' average annual revenue predictions are $150.0bn, $149.1bn and $152.1bn for 2024, 2025 and 2026, respectively, compared to this valuation's prediction of $152.0bn, $154.5bn and $156.8bn. Further, the analysts' predicted EPS growth is -6.79% for 2025 and 2.41% for 2026, compared to 8.2% and 8.4% from this DCF model.

8. Appendix

8.1. Porters Five Forces

Industry Rivalry – Very High

I. The U.S. grocery industry is highly saturated, with few dominant players (Walmart, Kroger, Target, Costco) and regional competitors fighting for market share, leading to low margins and high focus on operational efficiency, as well as customer loyalty.

Threats of new entrants – Low

I. The industry's high capital investment requirements and significant benefits of economies of scale have mainly prevented new competitors to enter the market.
II. The evolving trend of digital platforms have lowered the entry barrier, evidenced by Amazon's entry through Amazon Fresh.

Bargaining power of suppliers – Low

I. The main grocery retailers operate at significant scale, allowing for favourable negotiation positions
II. The continuous development of private-label products further reduces dependence on traditional suppliers

Bargaining power of buyers – High

I. Driven by recent macroeconomic trends and outlooks, consumers are highly price-sensitive, particularly for essential products
II. Customers can easily switch between retailers, further amplified by the improved online offerings

Threat of substitutes – Moderate

I. Improving digital offers provided by retailers, including delivery and pick-up services, mitigate competition of meal delivery services.
II. Cost considerations driven by macroeconomic trends and outlooks further limit the impact of delivery services and restaurants.
III. Groceries remain fundamentally necessary.

8.2. SWOT-Analysis

Strengths

I. Kroger's large store network enables high market penetration throughout the U.S. by meeting customer demands for shopping on their own terms without compromise at brick-and-mortar stores, pick-up or delivery.

II. Due to its focus on digital capabilities, fresh and healthy food, and affordable products, Kroger's strategy and product portfolio is aligned with the latest industry and consumer trends.

III. Kroger's strong financial performance, both in terms of revenue generation and operational efficiency, is further bolstering its market position and competitiveness.

Weaknesses

I. Kroger's low liquidity, evidenced by its current ratio of 0.81 compared to the industry median of 1.20, as well as its high debt to equity ratio of 1.05 in comparison to the average of its main competitors 0.78 leaves the company financially vulnerable to sudden macroeconomic shocks and limits its financial flexibility.

Opportunities

I. Kroger's significant pre-Covid investments in its digital capabilities placed the retailer in a strategically strong position to meet the still evolving consumer trend of eCommerce and personalization and enables the company to further achieve cost reductions.

Threats

I. The intense competition in the market creates substantial pricing pressure, leading to tight margins.

II. Rising labour costs and increasing labour scarcity create additional operational cost pressure.

III. The evolving trend of demand shifting away from fossil fuels, also driven by regulation, could restrict Kroger's future fuel sales.

8.3. Competition Ratio Analysis

Source: Refinitiv Eikon

Key Financial Ratios	Industry Median	The Kroger Co			Walmart Inc			Costco Wholesale Corp			Target Corp		
	FY 2023	FY 2021	FY 2022	FY 2023	FY 2021	FY 2022	FY 2023	FY 2021	FY 2022	FY 2023	FY 2021	FY 2022	FY 2023
Profitability Metrics													
Gross Margin	24.9%	22.7%	22.1%	23.0%	25.1%	24.1%	24.4%	12.8%	12.1%	12.6%	29.3%	24.6%	25.4%
EBITDA Margin	3.5%	4.6%	4.8%	4.2%	6.8%	5.8%	6.0%	4.6%	4.2%	4.5%	11.0%	6.1%	8.0%
Operating Margin	1.3%	2.5%	2.8%	2.1%	4.0%	3.3%	4.2%	3.4%	3.4%	3.6%	8.8%	3.5%	5.4%
eCommerce Sales	-	7.5%	8.3%	9.8%	11.3%	12.0%	12.5%	4.2%	4.3%	4.2%	15.5%	18.4%	20.8%
Liquidity Ratios													
Current Ratio	1.20	0.75	0.74	0.81	0.93	0.82	0.83	1.00	1.07	0.97	0.99	0.92	0.91
Quick Ratio	0.70	0.23	0.20	0.25	0.28	0.21	0.24	0.50	0.48	0.44	0.35	0.22	0.29
Opreating Ratios													
Inventoy Turnover	9.5	13.8	13.1	14.2	8.5	8.2	8.8	12.3	11.7	12.6	6.7	6.1	6.3
Cash Conversion Cycle	23.9	3.5	7.1	4.6	3.5	6.5	5.1	-0.1	2.6	2.6	-4.6	-4.9	3.8
Leverage Ratios													
Debt to Equity Ratio	0.78	1.41	1.33	1.05	0.47	0.53	0.52	0.45	0.32	0.31	1.7	1.44	1.19
Pre-tax ROA	-3.7%	3.4%	4.5%	4.3%	7.5%	7.0%	8.8%	12.7%	12.8%	14.0%	17.0%	6.4%	9.8%
Pre-tax ROE	-0.9%	17.6%	22.4%	22.8%	20.8%	19.4%	25.1%	40.5%	37.1%	40.0%	65.3%	28.4%	43.0%
Interest Coverage Ratio	1.68	6.09	7.71	7.18	14.3	11.5	10.1	40.77	51.31	54.94	22.05	8.05	11.57

8.4. Standardized Income Statement

Income Statement (US GAAP)								Forecast -->					
Values in $m	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	YTD-09/23	YTD-09/24	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Revenue	**122,286**	**132,498**	**137,888**	**148,258**	**150,039**	**79,018**	**79,181**	**152,062**	**154,473**	**156,818**	**158,744**	**160,422**	**162,018**
% Revenue growth	0.9%	8.4%	4.1%	7.5%	1.2%			1.3%	1.6%	1.5%	1.2%	1.1%	1.0%
Retail Revenues	108,234	123,012	123,210	129,626	133,418			135,521	138,182	140,732	142,843	144,728	146,557
% growth	1.9%	13.7%	0.2%	5.2%	2.9%			1.6%	2.0%	1.8%	1.5%	1.3%	1.3%
Fuel Revenues	14,052	9486	14,678	18632	16621			16,541	16,291	16,085	15,901	15,694	15,461
% growth	*-5.7%*	*-32.5%*	*54.7%*	*26.9%*	*-10.8%*			*-0.5%*	*-1.5%*	*-1.3%*	*-1.1%*	*-1.3%*	*-1.5%*
			77.3%	*77.9%*	*77.0%*								
Total Cost of Sales	94,440	100,709	106,555	115,450	115,586			*116,628*	*118,267*	*119,857*	*121,203*	*122,358*	*123,504*
Fuel Cost of Sales	12,548	8,471	13,107	16,638	14,843			*14,771*	*14,547*	*14,364*	*14,199*	*14,015*	*13,807*
COGS % Sales	89.3%	89.3%	89.3%	89.3%	89.3%			*89.3%*	*89.3%*	*89.3%*	*89.3%*	*89.3%*	*89.3%*
Retail Cost of Sales	81,892	92,238	93,448	98,812	100,743	61,555	61,385	101,857	103,719	105,492	107,003	108,343	109,698
COGS % Sales	75.7%	75.0%	75.8%	76.2%	75.5%	77.9%	77.5%	75.2%	75.1%	75.0%	74.9%	74.9%	74.8%
Gross Profit	**27,846**	**31,789**	**31,333**	**32,808**	**34,453**	**17,463**	**17,796**	**35,434**	**36,206**	**36,961**	**37,541**	**38,064**	**38,514**
Gross margin %	*22.77%*	*23.99%*	*22.72%*	*22.13%*	*22.96%*	*22.10%*	*22.48%*	*23.30%*	*23.44%*	*23.57%*	*23.65%*	*23.73%*	*23.77%*
Total Operating Expenses + /(-)	22,890	26,262	25,032	25,717	28,163	14,799	13,958	28,225	28,543	28,845	29,067	29,408	29,684
SG&A	22,006	25,388	24,187	24,878	27,272	14,328	13,490	27,260	27,499	27,720	27,862	28,125	28,388
SG&A as % of Sales	*18.0%*	*19.2%*	*17.5%*	*16.8%*	*18.2%*	*18.1%*	*17.0%*	*17.9%*	*17.8%*	*17.7%*	*17.6%*	*17.5%*	*17.5%*
Rent	884	874	845	839	891	471	468	966	1,045	1,125	1,204	1,283	1,296
Rent as % of Sales	*0.72%*	*0.66%*	*0.61%*	*0.57%*	*0.59%*	*0.60%*	*0.59%*	*0.6%*	*0.7%*	*0.7%*	*0.8%*	*0.8%*	*0.8%*
EBITDA	**4,956**	**5,527**	**6,301**	**7,091**	**6,290**	**2,664**	**3,838**	**7,209**	**7,663**	**8,116**	**8,475**	**8,657**	**8,830**
EBITDA-margin %	*4.05%*	*4.17%*	*4.57%*	*4.78%*	*4.19%*	*3.37%*	*4.85%*	*4.74%*	*4.96%*	*5.18%*	*5.34%*	*5.40%*	*5.45%*
Depreciation & Amortization	2,529	2,747	2,824	2,965	3,125	1,673	1,729	3,320	3,450	3,581	3,625	3,663	3,700
D&A as % of Sales	*2.1%*	*2.1%*	*2.0%*	*2.0%*	*2.1%*	*2.1%*	*2.2%*	*2.2%*	*2.2%*	*2.3%*	*2.3%*	*2.3%*	*2.3%*
EBIT	**2,427**	**2,780**	**3,477**	**4,126**	**3,165**	**991**	**2,109**	**3,888**	**4,213**	**4,535**	**4,850**	**4,993**	**5,130**
EBIT-margin %	*1.98%*	*2.10%*	*2.52%*	*2.78%*	*2.11%*	*1.25%*	*2.66%*	*2.56%*	*2.73%*	*2.89%*	*3.05%*	*3.11%*	*3.17%*
Other Income (Expense)	446	-590	1,426	1,224	329	-60	305	461	522	554	598	641	692
Interest Expense	599	544	571	535	441	246	207	470	531	563	607	650	701
Interest Expenses as % of Sales	0.49%	0.41%	0.41%	0.36%	0.29%	0.31%	0.26%	0.31%	0.34%	0.36%	0.38%	0.41%	0.43%
Loss (Gain) on investments	-153	-1,105	821	728	-151	-289	105	-9	-9	-9	-9	-9	-9
Other	0	-29	34	-39	39	-17	-7	0	0	0	0	0	0
EBT	**1,981**	**3,370**	**2,051**	**2,902**	**2,836**	**1,051**	**1,804**	**3,427**	**3,690**	**3,981**	**4,252**	**4,352**	**4,437**
EBT-margin %	*1.62%*	*2.54%*	*1.49%*	*1.96%*	*1.89%*	*1.33%*	*2.28%*	*2.25%*	*2.39%*	*2.54%*	*2.68%*	*2.71%*	*2.74%*
Income tax expense	469	782	385	653	667	268	383	792	837	886	929	932	932
Effective tax rate %	*23.67%*	*23.20%*	*18.77%*	*22.50%*	*23.52%*	*25.50%*	*21.23%*	*23.10%*	*22.68%*	*22.26%*	*21.84%*	*21.42%*	*21.00%*
Net income	**1,512**	**2,588**	**1,666**	**2,249**	**2,169**	**783**	**1,421**	**2,636**	**2,853**	**3,095**	**3,323**	**3,420**	**3,506**
Net income margin %	*1.24%*	*1.95%*	*1.21%*	*1.52%*	*1.45%*	*0.99%*	*1.79%*	*1.73%*	*1.85%*	*1.97%*	*2.09%*	*2.13%*	*2.16%*
Attributable to non-controlling interest	-147	3	11	5	5	1	8	6	6	6	6	6	6
Attributable to Kroger CO	**1,659**	**2,585**	**1,655**	**2,244**	**2,164**	**782**	**1,413**	**2,642**	**2,859**	**3,101**	**3,329**	**3,426**	**3,512**
% of revenue	*1.36%*	*1.95%*	*1.20%*	*1.51%*	*1.44%*	*0.99%*	*1.78%*	*1.74%*	*1.85%*	*1.98%*	*2.10%*	*2.14%*	*2.17%*

EPS (Non-diluted)	2.08	3.34	2.22	3.13	3.01			3.67	3.97	4.31	4.62	4.76	4.88
EPS (Diluted)	2.06	3.31	2.19	3.09	2.98			3.64	3.94	4.28	4.59	4.72	4.84

8.5. Standardized Balance Sheet

Condensed Balance Sheet (Kroger CO)													
Values in $mn	FY 2019 A	FY 2020 A	FY 2021 A	FY 2022 A	FY 2023 A	YTD-09/23	YTD-09/24	FY 2024 E	FY 2025 E	FY 2026 E	FY 2027 E	FY 2028 E	FY 2029 E
Ending operating working capital	**3,620**	**3,261**	**2,576**	**3,802**	**3,175**	**5,292**	**2,639**	**3,020**	**2,926**	**2,829**	**2,721**	**2,606**	**2,488**
OWC as % of revenue	*2.96%*	*2.46%*	*1.87%*	*2.56%*	*2.09%*			*1.99%*	*1.89%*	*1.80%*	*1.71%*	*1.62%*	*1.54%*
Operating cash	1,179	1,096	1,082	1,127	1,215	1,141	1,091	1,231	1,251	1,270	1,285	1,299	1,312
+ Trade Receivables	1,706	1,781	1,828	2,234	2,136	1,820	2,149	2,105	2,139	2,171	2,198	2,221	2,243
+ Inventories	7,084	7,063	6,783	7,560	7,105	6,828	6,643	7,075	7,096	7,109	7,102	7,082	7,063
- Trade Payables	-6,349	-6,679	-7,117	-7,119	-7,281	-4,497	-7,244	7,392	7,559	7,721	7,864	7,996	8,130
Ending net other current assets	**-5,407**	**-6,900**	**-7,991**	**-8,075**	**-7,970**	**-10,682**	**-7,695**	**-7,552**	**-7,672**	**-7,788**	**-7,884**	**-7,967**	**-8,046**
Ending net other current assets as % of revenue	*-4.42%*	*-5.21%*	*-5.80%*	*-5.45%*	*-5.24%*	*-6.92%*	*-4.91%*	*-4.97%*	*-4.97%*	*-4.97%*	*-4.97%*	*-4.97%*	*-4.97%*
+ Other Current Assets	522	876	660	734	609	642	805						
- Other Current Liabilities	-5,929	-7,776	-8,651	-8,809	-8,579	-11,324	-8,500						
Ending net non-current operating assets	**22,498**	**22,011**	**23,977**	**24,900**	**24,919**	**24,406**	**25,268**	**26,027**	**26,440**	**26,841**	**27,171**	**27,458**	**27,732**
Net non-current operating as % of revenue	*18.40%*	*16.61%*	*17.39%*	*16.80%*	*16.39%*	*15.80%*	*16.11%*	*17.12%*	*17.12%*	*17.12%*	*17.12%*	*17.12%*	*17.12%*
Non-Current Tangible Assets	28,685	29,182	30,484	31,388	31,922	31,591	32,494	32,449	32,984	33,558	34,188	34,856	35,546
+ Non-Current Intangible Assets	4,142	4,073	4,018	3,815	3,815	3,801	3,539						
- Deferred Tax Liabilities (net of assets)	-1,466	-1,542	-1,562	-1,672	-1,579	-1,452	-1,531						
- Other Non-Current Liabilities	-8,863	-9,702	-8,963	-8,631	-9,239	-9,534	-9,234						
Ending non-operating investments	***1,938***	***4,591***	***4,231***	***2,765***	***3,703***	***4,379***	***4,133***	***3,777***	***3,837***	***3,895***	***3,943***	***3,984***	***4,024***
Non-operating as % of revenue	*1.58%*	*3.46%*	*3.07%*	*1.86%*	*2.44%*	*2.83%*	*2.64%*	*2.48%*	*2.48%*	*2.48%*	*2.48%*	*2.48%*	*2.48%*
Excess Cash	399	1,687	1,821	1,015	1,883	2,420	2,786						
+ Other Non-Operating Investments	0	0	0	0	0	0	0						
+ Minority Equity Investments	1,539	2,904	2,410	1,750	1,820	1,959	1,347						
Total business assets	**22,649**	**22,963**	**22,793**	**23,392**	**23,827**	**23,395**	**24,345**	**25,272**	**25,531**	**25,777**	**25,951**	**26,082**	**26,197**
Ending debt	**14,076**	**13,413**	**13,364**	**13,378**	**12,226**	**12,791**	**12,230**	**12,793**	**13,604**	**14,458**	**14,636**	**14,790**	**14,938**
Debt as % of revenue	*11.51%*	*10.12%*	*9.69%*	*9.02%*	*8.04%*	*8.28%*	*7.80%*	*8.41%*	*8.81%*	*9.22%*	*9.22%*	*9.22%*	*9.22%*
Current Debt	1,965	911	555	1,310	198	716	196						
+ Non-Current Debt	12,111	12,502	12,809	12,068	12,028	12,075	12,034						
Ending group equity	**8,573**	**9,550**	**9,429**	**10,014**	**11,601**	**10,604**	**12,512**	**12,478**	**11,928**	**11,319**	**11,315**	**11,291**	**11,259**
Equity as % of revenue	*7.01%*	*7.21%*	*6.84%*	*6.75%*	*7.63%*	*6.86%*	*7.98%*	*8.21%*	*7.72%*	*7.22%*	*7.13%*	*7.04%*	*6.95%*
Ordinary Shareholder's Equity	8,602	9,576	9,452	10,042	11,615	10,626	12,518						
+ Non-Controlling Interest in Equity	-29	-26	-23	-28	-14	-22	-6						
+ Preference Shares	0	0	0	0	0	0	0						
- Net Assets Held for Sale	0	0	0	0	0	0	0						
Total invested capital	**22,649**	**22,963**	**22,793**	**23,392**	**23,827**	**23,395**	**24,742**	**25,272**	**25,531**	**25,777**	**25,951**	**26,082**	**26,197**

8.6. Additional Balance Sheet Items

Capital expenditures	**2,765**	**3,244**	**4,126**	**3,869**	**3,659**	**2,328**	**2,632**	**3,847**	**3,985**	**4,156**	**4,254**	**4,331**	**4,391**
CAPEX as % of revenue	*2.26%*	*2.45%*	*2.99%*	*2.61%*	*2.41%*	*1.51%*	*1.68%*	*2.53%*	*2.58%*	*2.65%*	*2.68%*	*2.70%*	*2.71%*
Δ PP&E	7,050	497	1,302	904	534	655	903	527	535	575	629	668	691
Adjustment for operating lease asset	-6,814												
+ Depreciation	2529	2747	2824	2965	3125	1673	1729	3320	3450	3581	3625	3663	3700
CAPEX/D&A-ratio	**1.09**	**1.18**	**1.46**	**1.30**	**1.17**	**1.39**	**1.52**	**1.16**	**1.16**	**1.16**	**1.17**	**1.18**	**1.19**
Calculated ROE	**19.35%**	**27.07%**	**17.55%**	**22.41%**	**22.77%**	**26.97%**	**24.78%**	**21.17%**	**23.97%**	**27.39%**	**29.42%**	**30.34%**	**31.19%**
Calculated ROC	**7.32%**	**11.26%**	**7.26%**	**9.59%**	**11.09%**	**12.22%**	**12.53%**	**10.45%**	**11.20%**	**12.03%**	**12.83%**	**13.13%**	**13.40%**
Sustainable Growth rate	**5.72%**	**5.73%**	**6.46%**	**7.08%**	**8.41%**	**9.03%**	**7.52%**	**7.09%**	**7.27%**	**8.31%**	**8.92%**	**9.20%**	**9.46%**

Cash Conversion Cycle	**8**	**6**	**4**	**7**	**5**			**4**	**3**	**3**	**2**	**2**	**2**
COGS	81,892	92,238	93,448	98,812	100,743			101,857	103,719	105,492	107,003	108,343	109,698
Inventories	7,084	7,063	6,783	7,560	7,105			7,075	7,096	7,109	7,102	7,082	7,063
Days inventory outstanding (DIO)	**32**	**28**	**26**	**28**	**26**			**25**	**25**	**25**	**24**	**24**	**24**
Revenue	122,286	132,498	137,888	148,258	150,039			152,062	154,473	156,818	158,744	160,422	162,018
Accounts receivable	1,706	1,781	1,828	2,234	2,136			2,105	2,139	2,171	2,198	2,221	2,243
Days accounts receivable in hand	**5**	**5**	**5**	**5**	**5**			**5**	**5**	**5**	**5**	**5**	**5**
COGS	81,892	92,238	93,448	98,812	100,743			101,857	103,719	105,492	107,003	108,343	109,698
Accounts Payable	6,349	6,679	7,117	7,119	7,281			7,392	7,559	7,721	7,864	7,996	8,130
Days accounts payables in hand	**28**	**26**	**28**	**26**	**26**			**26**	**27**	**27**	**27**	**27**	**27**

8.7. Income Statement Items Forecasting Assumptions

Sales Growth	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	YTD-09/23	YTD-09/24	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Retail revenues														
Base Case	-0.1%	1.9%	13.7%	0.2%	5.2%	2.9%			1.6%	2.0%	1.8%	1.5%	1.3%	1.3%
Bear Case	-0.1%	1.9%	13.7%	0.2%	5.2%	2.9%			0.6%	1.0%	0.8%	0.5%	0.3%	0.3%
Chosen Scenario									**1.6%**	**2.0%**	**1.8%**	**1.5%**	**1.3%**	**1.3%**
Fuel Revenues														
Base Case	-8.3%	-5.7%	-32.5%	54.7%	26.9%	-10.8%			-0.5%	-1.5%	-1.3%	-1.1%	-1.3%	-1.5%
Bear Case	-8.3%	-5.7%	-32.5%	54.7%	26.9%	-10.8%			-1.5%	-2.5%	-2.3%	-2.1%	-2.3%	-2.5%
Chosen Scenario									**-0.5%**	**-1.5%**	**-1.3%**	**-1.1%**	**-1.3%**	**-1.5%**

Operating Items	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	YTD-09/23	YTD-09/24	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Retail Cost of Goods Sold % Sales														
Base Case	76.8%	75.7%	75.0%	75.8%	76.2%	75.5%	77.9%	77.5%	75.2%	75.1%	75.0%	74.9%	74.9%	74.8%
Bear Case	76.8%	75.7%	75.0%	75.8%	76.2%	75.5%	77.9%	77.5%	75.7%	75.6%	75.5%	75.4%	75.4%	75.3%
Chosen Scenario									**75.2%**	**75.1%**	**75.0%**	**74.9%**	**74.9%**	**74.8%**
SG&A % Sales														
Base Case	15.3%	18.0%	19.2%	17.5%	16.8%	18.2%	18.1%	17.0%	17.9%	17.8%	17.7%	17.6%	17.5%	17.5%
Bear Case	15.3%	18.0%	19.2%	17.5%	16.8%	18.2%	18.1%	17.0%	18.4%	18.3%	18.2%	18.1%	18.0%	18.0%
Chosen Scenario									**17.9%**	**17.8%**	**17.7%**	**17.6%**	**17.5%**	**17.5%**
Rent % of Sales														
Base Case	0.7%	0.7%	0.7%	0.6%	0.57%	0.59%	0.6%	0.6%	0.6%	0.7%	0.7%	0.8%	0.8%	0.8%
Bear Case	0.7%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	0.7%	0.8%	0.8%	0.9%	0.9%	0.9%
Chosen Scenario									**0.6%**	**0.7%**	**0.7%**	**0.8%**	**0.8%**	**0.8%**
Depreciation % of PPE														
Base Case	2.0%	2.1%	2.1%	2.0%	2.0%	2.1%	2.1%	2.2%	2.2%	2.2%	2.3%	2.3%	2.3%	2.3%
Bear Case	2.0%	2.1%	2.1%	2.0%	2.0%	2.1%	2.1%	2.2%	2.7%	2.7%	2.8%	2.8%	2.8%	2.8%
Chosen Scenario									**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

8.8. Other Items Forecasting Assumptions

Cash Flow Items	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Capex as % Sales												
Base Case	2%	2%	2%	3%	3%	2%	2.9%	3.9%	2.5%	2.5%	2.5%	2.5%
Bear Case	2%	2%	2%	3%	3%	2%	2.4%	3.4%	2.0%	2.0%	2.0%	2.0%
Chosen Scenario							**2.9%**	**3.9%**	**2.5%**	**2.5%**	**2.5%**	**2.5%**

Net Working Capital	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Inventory, DIO												
Base Case	31	32	28	26	28	26	25.4	25.0	24.6	24.2	23.9	23.5
Bear Case	31	32	28	26	28	26	27.6	27.3	26.9	26.5	26.1	25.8
Chosen Scenario							**25.4**	**25.0**	**24.6**	**24.2**	**23.9**	**23.5**
Accounts Receivable, DSO												
Base Case	5	5	5	5	5	5	5.1	5.1	5.1	5.1	5.1	5.1
Bear Case	5	5	5	5	5	5	5.3	5.3	5.3	5.3	5.3	5.3
Chosen Scenario							**5.1**	**5.1**	**5.1**	**5.1**	**5.1**	**5.1**
Prepaid Expenses & Other Current Assets in % of OPEX												
Base Case	1%	0%	1%	1%	1%	0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Bear Case	1%	0%	1%	1%	1%	0%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Chosen Scenario							**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**	**0.5%**
Accounts Payable, DPO												
Base Case	27.1	28.3	26.4	27.8	26.3	26.4	26.5	26.6	26.7	26.8	26.9	27.1
Bear Case	27	28	26	28	26	26	25.6	25.7	25.9	26.0	26.1	26.2
Chosen Scenario							**26.5**	**26.6**	**26.7**	**26.8**	**26.9**	**27.1**
Accrued Expenses in % of OPEX												
Base Case	1%	1%	1%	1%	1%	1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Bear Case	1%	1%	1%	1%	1%	1%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Chosen Scenario							**1.1%**	**1.1%**	**1.1%**	**1.1%**	**1.1%**	**1.1%**
Other Current Liabilities in % of Sales												
Base Case	3%	3%	4%	5%	4%	4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
Bear Case	3%	3%	4%	5%	4%	4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Chosen Scenario							**4.4%**	**4.4%**	**4.4%**	**4.4%**	**4.4%**	**4.4%**

8.9. DCF

Consolidated Free Cash Flow € in millions											Forecast -->					
Values in $m	FY2014A	FY2015A	FY2016A	FY2017A	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Revenue	**108,465**	**109,830**	**115,337**	**122,662**	**121,162**	**122,286**	**132,498**	**137,888**	**148,258**	**150,039**	**152,062**	**154,473**	**156,818**	**158,744**	**160,422**	**162,018**
EBIT	**3,137**	**3,576**	**3,452**	**2,612**	**4,396**	**2,427**	**2,780**	**3,477**	**4,126**	**3,165**	**3,888**	**4,213**	**4,535**	**4,850**	**4,993**	**5,130**
EBIT x (1 - Effective Tax Rate)	2,069	2,368	2,318	1,702	3,401	1,852	2,135	2,824	3,198	2,421	2,990	3,257	3,525	3,790	3,924	4,053
Marginal tax rate	*34%*	*34%*	*33%*	*35%*	*23%*	*24%*	*23%*	*19%*	*23%*	*24%*	*23%*	*23%*	*22%*	*22%*	*21%*	*21%*
+ Depreciation	1,911	2,043	2,314	2,365	2,409	2,529	2,747	2,824	2,965	3,125	3,320	3,450	3,581	3,625	3,663	3,700
- Δ NWC	(217)	(177)	426	(132)	(438)	(281)	(1,782)	(1,793)	1,154	(514)	(386)	(210)	(212)	(202)	(197)	(197)
- Net CAPEX	2,930	3,750	3,711	2,420	2,973	2,765	3,244	4,126	3,869	3,659	3,847	3,985	4,156	4,254	4,331	4,391
FCFF	**1,267**	**838**	**495**	**1,779**	**3,275**	**1,897**	**3,420**	**3,315**	**1,140**	**2,401**	**2,850**	**2,933**	**3,162**	**3,363**	**3,453**	**3,559**

Discounting						
Discount Years					1	2	3	4	5
Discounted Value					2751	2782	2775	2672	2583
Terminal Value (Perpetual Growth Method)									65,706
Terminal Value Discounted (Perpetual Growth Method)									47,697

Inputs	2024
WAAC	6.6%
Median EBIT Multiple	14.59 x
Perpetual Growth	1.20%
Number of shares oustanding	720
Number of shares (diluted)	725

Enterprise Value to Equity Value Calculation	2024
Total Enterprise Value (Perpetual Growth Method)	**61,260**
Market Value of Debt (2023)	10,944
PV of Deferred Taxes	1,146
Cash & Short Term Investments	1,883
Non-controlling Interest (2023)	14
Unfunded Pension Liabilities	146
PV of Albertson Merger Fine	563
Equity Value (Perpetual Growth Method)	**50,358**

Share Price Calculation	2024
Share Price (Perpetual Growth Method)	**69.5**

8.10. Revenue Per Store Forecast – Base Case

	FY2018A	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
CPI - Food at Home	0.4%	0.9%	3.5%	3.5%	11.4%	5.0%	1.1%	0.8%	1.2%	1.6%	2.0%	2.0%
Industry Growth	1,256,394	1,301,939	1,430,519	1,494,127	1,617,158	1,680,462	1,718,315	1,750,488	1,778,985	1,805,467	1,831,173	1,856,809
Kroger Revenue per Store	**38.44**	**39.26**	**44.86**	**45.20**	**47.67**	**49.01**	**50.48**	**51.28**	**52.00**	**52.67**	**53.32**	**53.97**
growth	0.5%	2.1%	14.3%	0.7%	5.5%	2.8%	3.0%	1.6%	1.4%	1.3%	1.2%	1.2%

Regression - Linest		
2.51665E-05	0.441953	7.227481
4.77927E-06	20.27365	6.382346
0.959423478	1.128456	#N/A
35.46719003	3	#N/A
90.32872625	3.820238	#N/A

8.11. DDM

	FY19	FY20	FY21	FY22	FY23	FY24
Dividends per share (in $)	0.6	0.68	0.78	0.94	1.1	1.22
Dividend growth rate	4.6%	5.0%	6.0%	9.0%	8.2%	5.7%
Number of shares (diluted)	818	805	781	754	727	725
Total Dividends	490.8	547.4	609.18	708.76	799.7	884.5
Net income contributable to existing shareholders	1,659	2,585	1,655	2,244	2,164	2,642
Payout Ratio	29.58%	21.18%	36.81%	31.58%	36.95%	33.48%
Retention Ratio	70.42%	78.82%	63.19%	68.42%	63.05%	66.52%

If not indicated otherwise, values are stated in $millions

Long-run annual industry growth rate	1.26%
Cost of equity	7.14%
Dividend at time zero	1.22
Dividend at time zero * (1 + growth rate)	1.235
Value of Share (in €)	21.02
Amount of shares outstanding (in m)	725
Calculated value (in €m)	15,240
Excess cash	1,883
Value of Equity (in €m)	**17,123**
Final share price (in €)	**23.62**

8.12. Scenario Analysis – Bull Case – APV Method

8.12.1. Income Statement

Income Statement (US GAAP)													
Values in $m	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	YTD-09/23	YTD-09/24	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Revenue	**184,741**	**202,188**	**209,775**	**225,908**	**229,277**	**121,359**	**121,998**	**231,569**	**213,044**	**216,610**	**219,522**	**222,340**	**225,151**
% Revenue growth	1.7%	9.4%	3.8%	7.7%	1.5%			1.0%	-8.0%	1.7%	1.3%	1.3%	1.3%
Total Cost of Sales	139,301	149,985	157,720	171,344	172,780	**92,196**	**92,339**	**174,276**	**160,121**	**162,585**	**164,551**	**166,441**	**168,545**
Gross Profit	**45,440**	**52,204**	**52,055**	**54,564**	**56,497**	**29,163**	**29,659**	57,293	52,923	54,025	54,971	55,899	56,606
Gross margin %	*24.60%*	*25.82%*	*24.81%*	*24.15%*	*24.64%*	**24.03%**	**24.31%**	24.7%	24.8%	24.9%	25.0%	25.1%	25.1%
Total Operating Expenses + /(-)													
SG&A	39,498	43,554	41,701	43,371	46,219	**24,408**	**23,917**	*46450*	*41882*	*41933*	*42277*	*42598*	*43136*
SG&A as % of Sales	*21.38%*	*21.54%*	*19.88%*	*19.20%*	*20.16%*	**20.11%**	**19.60%**	*20.1%*	*19.7%*	*19.4%*	*19.3%*	*19.2%*	*19.2%*
EBITDA	**5,942**	**8,650**	**10,354**	**11,192**	**10,277**	**4,755**	**5,742**	*10,843*	*11,041*	*12,092*	*12,694*	*13,301*	*13,470*
EBITDA-margin %													
Depreciation & Amortization	2,529	4,111	4,341	4,660	4,784	**2,560**	**2,633**	*4777*	*3330*	*3494*	*3651*	*3809*	*3969*
D&A as % of Sales	*1.37%*	*2.03%*	*2.07%*	*2.06%*	*2.09%*	**2.11%**	**2.16%**	2.1%	1.6%	1.6%	1.7%	1.7%	1.8%
EBIT	**3,413**	**4,538**	**6,013**	**6,532**	**5,494**	**2,195**	**3,109**	**6,066**	**7,711**	**8,598**	**9,043**	**9,493**	**9,500**
EBIT-margin %	*1.85%*	*2.24%*	*2.87%*	*2.89%*	*2.40%*	**1.81%**	**2.55%**	*2.62%*	*3.62%*	*3.97%*	*4.12%*	*4.27%*	*4.22%*
Other Income (Expense)	833	40	1,863	1,694	1,069	**327**	**808**	1,225	1,130	1,149	1,164	1,178	1,193
Interest Expense	1,297	1,082	1,053	940	933	**513**	**456**	1,187	1,092	1,110	1,125	1,139	1,154
Interest Expenses as % of Sales	*0.70%*	*0.54%*	*0.50%*	*0.42%*	*0.41%*	**0.42%**	**0.37%**	*0.5%*	*0.5%*	*0.5%*	*0.5%*	*0.5%*	*0.5%*
(Loss) Gain on investments	-715	-1,174	775	575	-150	**-280**	**154**	-138	-138	-138	-138	-138	-138
Other	251	131	35	179	285	**94**	**198**	177	177	177	177	177	177
EBT	**2,580**	**4,499**	**4,150**	**4,838**	**4,425**	**1,869**	**2,300**	**4,841**	**6,581**	**7,450**	**7,879**	**8,315**	**8,308**
EBT-margin %	*1.40%*	*2.23%*	*1.98%*	*2.14%*	*1.93%*	**1.54%**	**1.89%**	*2.09%*	*3.09%*	*3.44%*	*3.59%*	*3.74%*	*3.69%*
Income tax expense	602	1,061	865	1,075	960	**402**	**493**	1,049	1,423	1,609	1,699	1,790	1,786
Effective tax rate %	*23.32%*	*23.57%*	*20.84%*	*22.22%*	*21.69%*	**21.49%**	**21.44%**	*21.7%*	*21.6%*	*21.6%*	*21.6%*	*21.5%*	*21.5%*
Net income	**1,978**	**3,438**	**3,286**	**3,763**	**3,465**	**1,467**	**1,807**	**3,792**	**5,157**	**5,841**	**6,180**	**6,524**	**6,522**
Net income margin %	*1.07%*	*1.70%*	*1.57%*	*1.67%*	*1.51%*	**1.21%**	**1.48%**	*1.64%*	*2.42%*	*2.70%*	*2.82%*	*2.93%*	*2.90%*
Attributable to non-controlling interest	-147	3	347	308	6	**2**	**8**	5	5	5	5	5	5
Attributable to Kroger CO	2,125	3,435	2,939	3,454	3,459	**1,465**	**1,799**	3,787	5,153	5,836	6,176	6,520	6,517
% of revenue	*1.15%*	*1.70%*	*1.40%*	*1.53%*	*1.51%*	**1.21%**	**1.47%**	1.64%	2.42%	2.69%	2.81%	2.93%	2.89%

8.12.2. Balance Sheet

Values in $mn	FY 2019 A	FY 2020 A	FY 2021 A	FY 2022 A	FY 2023 A
ASSETS					
Current Assets					
Cash and temporary cash investments	2,049	4,500	5,805	2,619	3,310
Inventory	11,437	11,364	11,284	12,342	12,050
Receivables	2,231	2,332	2,389	2,922	2,860
Prepaid and other current assets	905	1,295	1,063	1,058	1,015
Total Current Assets	**16,621**	**19,491**	**20,540**	**18,940**	**19,236**
Non-Current Assets					
Property, Plant & Equipment	43,764	44,610	45,742	46,626	47,474
as % revenue	23.7%	22.1%	21.8%	20.6%	20.7%
Operating Lease Assets					
Intangibles, net	3,153	3,106	3,227	3,364	3,334
Goodwill	4,259	4,259	4,277	4,117	4,117
Other Assets	2,193	3,794	3,423	2,744	2,566
Total Non-Current Assets	**53,370**	**55,769**	**56,669**	**56,851**	**57,491**
Total Assets	**69,991**	**75,260**	**77,209**	**75,791**	**76,726**

Values in $mn	FY 2019 A	FY 2020 A	FY 2021 A	FY 2022 A	FY 2023 A
LIABILITIES					
Current Liabilities					
Current Long-term debt	2,186	1,123	1,384	2,386	483
Current Leasing Liabilities	1,160	1,272	1,291	1,327	1,348
Account Payables	10,684	11,980	13,253	12,992	13,127
Accrued Accounts	1,168	1,413	1,736	1,746	1,323
Other Current Liabilities	4,949	6,409	7,008	7,217	7,235
Total Current Liabilities	**20,147**	**22,198**	**24,672**	**25,667**	**23,516**
Non-Current Liabilities					
Long-term debt	**20,604**	**20,603**	**19,945**	**19,902**	**19,811**
Non-current operating lease liabilities	11,908	12,055	11,846	11,758	11,844
Deferred income taxes	2,080	2,076	2,362	2,526	2,387
Pension & other long-term benefits	1,447	1,373	1,316	1,315	1,285
Other long-term liabilities	2,954	4,482	3,337	2,953	3,535
Total Non-Current Liabilities	**38,993**	**40,588**	**38,805**	**38,454**	**38,862**
Total Liabilities	**59,140**	**62,787**	**63,477**	**64,121**	**62,378**
EQUITY					
Common Stock	4,196	3,242	4,943	3,529	4,666
Preferred Stock	3,337	5,060	4,936	3,851	3,922
Accumulated Compehensive Loss	-640	-630	-467	-632	-489
Retained Earnings	20,978	23,018	24,066	25,601	26,946
Treasury Common Shares	-16,991	-18,191	-19,722	-20,650	-20,682
Total Shareholder Equity	**8,602**	**9,576**	**9,452**	**10,042**	**11,615**
Non-Controlling Interest	-29	-26	-23	-28	-14
Total Equity	**10,851**	**12,473**	**13,732**	**11,670**	**14,349**
Total Equity and Liabilities	**69,991**	**75,260**	**77,209**	**75,791**	**76,726**

8.12.3. Revenue Forecast

	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
CPI - Food at Home	0.4%	0.9%	3.5%	3.5%	11.4%	5.0%	1.1%	0.8%	1.2%	1.6%	2.0%
Industry Growth	1,301,939	1,430,519	1,494,127	1,617,158	1,680,462	1,718,315	1,750,488	1,778,985	1,805,467	1,831,173	1,856,809
Revenues	**184,741**	**202,188**	**209,775**	**225,908**	**229,277**	**238,966**	**246,060**	**250,179**	**253,541**	**256,797**	**260,043**
growth		9.4%	3.8%	7.7%	1.5%	4.2%	3.0%	1.7%	1.3%	1.3%	1.3%

Regression - Linest		
0.137326	-68592.701	6426.54423
0.00274587	9352.27517	3835.69178
0.99968635	455.500651	#N/A
3187.2853	2	#N/A
1322601281	414961.685	#N/A

8.12.4. Adjusted Present Value Model

Consolidated Free Cash Flow € in millions						Forecast -->					
Values in $m	FY2019A	FY2020A	FY2021A	FY2022A	FY2023A	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E
Revenue	**184,741**	**202,188**	**209,775**	**225,908**	**229,277**	**231,569**	**213,044**	**216,610**	**219,522**	**222,340**	**225,151**
EBIT	**3,413**	**4,538**	**6,013**	**6,532**	**5,494**	**6,066**	**7,711**	**8,598**	**9,043**	**9,493**	**9,500**
EBIT x (1 - Effective Tax Rate)	2,605	3,485	4,885	5,062	4,202	4,665	5,962	6,684	7,068	7,459	7,505
Marginal tax rate	*24%*	*23%*	*19%*	*23%*	*24%*	*23%*	*23%*	*22%*	*22%*	*21%*	*21%*
+ Depreciation	2,529	4,111	4,341	4,660	4,784	4,777	3,330	3,494	3,651	3,809	3,969
- Δ NWC	(217)	(1,235)	(1,732)	(124)	254	148	894	681	91	(38)	(104)
- Net CAPEX	4,765	4,957	5,472	5,544	5,632	5,354	(754)	4,013	4,029	4,162	4,316
FCFF	**586**	**3,874**	**5,485**	**4,302**	**3,100**	**3,940**	**9,153**	**5,484**	**6,599**	**7,144**	**7,263**

Discounting					
Discount Years	1.00	2.00	3.00	4.00	5.00
Discounted Value	8588	4828	5451	5537	5282
Terminal Value (Perpetual Growth Method)					135,047
Terminal Value Discounted (Perpetual Growth Method)					98,209

Inputs	
Unlevered cost of capital	6.6%
Median EBIT Multiple	14.59 x
Perpetual Growth	1.20%
Number of shares (diluted)	1,306

Unlevered CoC	
Target D/V	40.00%
Debt Beta	0.36
Market cap	50,501
Rf-rate	4.26%
Market RP	4.12%
Equity Beta	0.70
Unlevered Beta	0.56
Unlevered CoC	**6.58%**
PV(Unlevered Company)	**127,894**

Interest tax shield	
Long-Term Debt	35,472
Effective tax rate	21.00%
PV(ITS)	**7449.12**

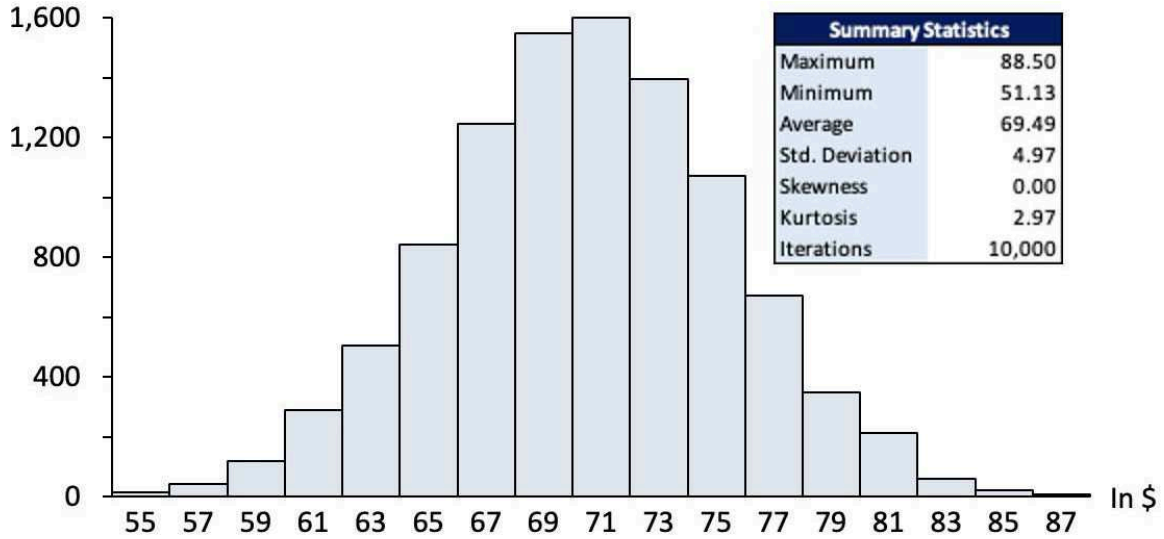
Financial Distress Costs	
Probability of Default	18%
Bankruptcy Costs	31,973
FDC	**5595.35**

Share Price Calculation	2024
Total Equity value	**129,747**
Share Price (Perpetual Growth Method)	**99.3**

8.13. Precedent Transactions List

Date Announced	Target Full Name	Deal Value($	EV/Sales	EV/EBITDA	EV/EBIT
17.07.24	Chuy's Holdings Inc	659	1.4	11.3	18.0
26.04.24	Yum! Brands Inc	2,000	0.3	0.8	0.8
16.01.24	Carrols Restaurant Group Inc	510	0.3	3.5	7.2
07.08.23	Fiesta Restaurant Group Inc	231	0.6	12.7	
03.05.23	Ruth's Hospitality Group Inc	700	1.4	9.0	13.0
20.03.23	Franchise Group Inc	709	0.2	1.9	2.4
09.08.22	BBQ Holdings Inc	190	0.9	10.5	21.0
02.07.21	J Alexanders Holdings Inc	211		33.4	62.0
25.10.20	Dunkin Brands Group Inc	11,300		33.9	38.0
18.09.20	GNC Holdings Inc	770	0.4	10.8	19.5
01.05.20	BJs Restaurants Inc	70	0.1	0.7	2.5
18.02.20	Granite City Food & Brewery Ltd	4	0.0	0.7	
10.02.20	Noble Roman's Inc	1	0.1	0.5	0.6
06.01.20	Habit Restaurants Inc	371	0.8	10.6	51.4
06.11.19	Diversified Restaurant Holdings Inc	130	0.8	9.9	41.8
16.08.19	Aramark Corp	75	0.0	0.1	0.1
08.08.19	Vitamin Shoppe Inc	156		4.7	11.5
24.06.19	Del Frisco's Restaurant Group LLC	650	1.7	44.3	
04.02.19	Papa Johns International Inc	200	0.1	2.6	6.5
06.11.18	Bojangles' Inc	617		13.6	18.2
25.09.18	Sonic Corp	1,588	3.7	10.9	14.8
02.08.18	Jamba Inc	203	2.9	94.4	
19.03.18	ONE Group Hospitality Inc	6	0.1	1.5	5.7
07.03.18	Bravo Brio Restaurant Group Inc	99	0.2	4.1	39.0
20.02.18	Fogo De Chao Inc	456	1.4	8.6	13.5
13.02.18	GNC Holdings Inc	300	0.1	1.2	1.5
28.11.17	Buffalo Wild Wings Inc	2,441	1.2	9.4	23.1
16.10.17	Ruby Tuesday Inc	145		11.6	46.8
19.09.17	Bob Evans Farms Inc	1,541	3.9	26.3	34.6
16.06.17	Whole Foods Market Inc	13,561	0.9	9.9	15.6
05.04.17	Panera Bread Co	7,160	2.6	17.0	27.3
21.02.17	Popeyes Louisiana Kitchen Inc	1,651	6.1	18.6	21.0
09.05.16	Krispy Kreme Doughnuts Inc	1,309	2.5	18.0	23.2
14.03.16	Fresh Market Inc	1,341	0.7	7.0	11.0
11.11.15	Roundy's Inc	178	0.0	1.7	5.0
15.07.15	Susser Holdings Corp	1,924	0.3	12.5	22.2
25.06.15	J Alexanders Holdings Inc	161	0.8	10.1	20.0
04.06.15	Biglari Holdings Inc	242	0.3	5.6	14.4
22.05.15	Frisch's Restaurants Inc	174	0.8	8.0	15.4

8.14. Base Case Monte Carlo Simulation



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