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Target Corporation, Inc.

Equity Valuation

Catarina Vinhas Monteiro

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Resumo

O objetivo principal desta dissertação é realizar a avaliação da Target Corporation, uma empresa de retalho com sede nos Estados Unidos da América que pertence ao índice S&P 500, para a qual será determinado o preço por ação. Para iniciar este estudo, foi realizada uma análise à indústria onde a empresa se insere, deste modo, o mercado norte americano foi caracterizado, os principais concorrentes identificados, bem como as oportunidades e os desafios do sector, tendo em conta o contexto económico mundial e o seu impacto no sector do retalho. Consequentemente, foi também analisado o histórico financeiro de alguns indicadores da empresa de forma a aprofundar o conhecimento sobre a mesma e escolher os métodos de avaliação mais adequados. O principal método de análise utilizado foi o Discounted Cash Flow (DCF), tendo sido apurado um valor intrínseco de \$124.64. Comparando este valor com o valor de mercado, \$129.94 (16 de Novembro de 2023), a recomendação emitida sobre as ações da Target Corporation é de HOLD. Contudo, foi ainda realizada uma avaliação relativa recorrendo aos múltiplos, tendo a mesma sido descartada devido à dificuldade em identificar um grupo semelhante que pudesse ser comparável à Target Corporation.

Palavras-chave: Avaliação, Valor intrínseco, Target Corporation, Retalho, EUA, DCF

Abstract

The main objective of this dissertation is to carry out the equity valuation of Target Corporation, a retail company based in the United States of America that belongs to the S&P index 500, in order to determine the price per share. Firstly, an industry analysis in which the company operates was carried out, thus, the North American market was characterized, the main competitors identified, as well as the opportunities and challenges of the sector. It was also analyzed the global economic context and its impact on the retail sector. On the other hand, the financial history of some company indicators was analyzed in order to deepen knowledge about it and choose the most suitable methods. The main method used was Discounted Cash Flow (DCF), having been determined an intrinsic value of \$124.64. Comparing this value with the market value, \$129.94 (16th November 2023), a HOLD recommendation on the shares of Target Corporation share's was issued. A relative assessment using multiples was performed, however it was discarded due to the difficulty in identifying a peer group that could be compare to Target Corporation.

Keywords: Equity Valuation, Intrinsic Value, Target Corporation, Retail, US, DCF

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List of Abbreviations

APV	Adjusted Present Value
CAPEX	Capital Expenditures
CAPM	Capital Asset Pricing Model
D&A	Depreciation and Amortization
DCF	Discounted Cash Flow Model
DDM	Dividend Discount Model
DIY	Do-It-Yourself
EBIT	Earnings before Interests and Taxes
ESG	Environmental, Social and Corporate Governance
EUA	Estados Unidos da América
EV	Enterprise Value
FCFE	Free Cash Flow to the Equity
FCFF	Free Cash Flow to the Firm
GDP	Gross Domestic Product
NWC	Net Working Capital
PP&E	Property Plant and Equipment
PV	Present value
SG&A	Selling, General and Administrative Expenses
TV	Terminal Value
US	United States
WACC	Weighted Average Cost of Capital

Chapter 1

Introduction

In the stock market, millions of trades take place every day. Some investors are searching for chances to purchase stock, or a stake in a business. Some investors are prepared to sell their investment and find other opportunities. The peculiarity is that the current share price at which the stock is traded, the market value, can be different from fair value, the actual worth of the stock. Thereby the aim of equity valuation is to provide a fair and objective assessment of company's worth. This way, investors can identify whether a stock is overvalued, undervalued, or priced fairly in the market in order to buy, sell or hold stocks.

Thus, in this dissertation an Equity Valuation to determine the fair value of Target Corporation stock as of 16th 2023 November 2023 will be performed. That is crucial to consider that different analyst may use different methods and assumptions, based on Damodaran (2012): "The models that we use in valuation may be quantitative, but the inputs leave plenty of room for subjective judgments. Thus, the final value that we obtain from these models is colored by the bias that we bring into the process."

For the purpose of an factual and unbiased valuation approach, three main steps will be carried out. First a literature review will be conducted to evaluate different approaches, following a deep analysis to understand both the Company and the industry in which it operates, since its important to accomplish more informed assumptions, projections and risk assessments. Forecast future financial performance is the third step. After these three steps, the price target value can be computed based on selected valuations methods.

After comparing the fair value determination with the market price, this conclusion will produce a recommendation regarding whether to buy, sell or hold the stock.

Chapter 2

Literature Review

2.1 Introduction

Valuation models are methods used to determine the intrinsic value of an asset, such as a company, a stock, or a project. Using these models, analysts and investors can determine if an asset is appropriately valued, overvalued, or undervalued in relation to their predictions of future growth rates, cash flows, and risk considerations.

According to Luehrman (1997), there is no one-size-fits-all valuation method, the author suggests that a combination of different valuation approaches can provide a more comprehensive and accurate picture of a company's value.

Thus, as stated by Damodaran (2012), there are three general approaches to valuation:

1. Discounted Cash Flow (DCF) valuation which "relates the value of an asset to the present value (PV) of expected future cash flows on that asset."
2. Relative Valuation which "estimates the value of an asset by looking at the pricing of comparable assets relative to a common variable such as earnings, cash flows, book value, or sales."
3. Contingent claim valuation, that "uses option pricing models to measure the value of assets that share option characteristics."

For Damodaran (2012), Discounted Cash Flow (DCF) valuation is the foundation of all other valuation methodologies, even though it is only one of the three methods of approaching value and the majority of real-world valuations are relative valuations. Thus, it is essential to

understand the principles of Discounted Cash Flow (DCF) valuation in order to do an accurate relative valuation.

2.2 Discounted Cash Flow (DCF) valuation

2.2.1 Basis

Discounted Cash Flow (DCF) refers to a valuation method that estimates the value of a company, using its expected future cash flows. This model involves forecasting a company's future cash flows, discounting those cash flows back to their present value, to finally get a present value estimate for the company.

This method has its basis in the present value rule, where the value of any asset is the present value of expected future cash flows on it:

$$Value = \sum_{t=1}^{t=n} \frac{CF_t}{(1+r)^t}$$

where:

n = Life of the asset,

CF_t = Cash flow in period t ,

r = Discount rate reflecting the riskiness of the estimated cash flows.

However, Discounted Cash Flow (DCF) models may have some variations in certain dimensions, as well as Equity Valuation versus Firm valuation. Both are useful in different contexts.

While equity valuation assesses the value of the ownership stake in a company, firm valuation considers the value of the entire enterprise, considering both equity and debt. Although expected cash flows are discounted in both methods, each method has distinct relevant cash flows and discount rates.

Thereby, relatively to the cash flows, depending on the chosen approach, two different cashflows can be calculated, Free Cash Flow to Equity (*FCFE*) and Free Cash Flow to Firm (*FCFF*):

$$FCFE = Net\ Income + Depreciation - \Delta NWC - CAPEX + Borrowing - Repayment\ of\ Debt$$

or

$$FCFF = EBIT - Taxes + Depreciation\ \&\ Amortization - \Delta NWC - CAPEX$$

Then, after calculating the cash flow value, using the appropriate approach, it is necessary to discount expected cash flow at the right discount rate, to calculate the present value of future cash flows.

While the value of equity is obtained by discounting expected cash flows to equity at the cost of equity, the value of the firm is obtained by discounting expected cash flows to the firm at the weighted average cost of capital, WACC.

$$Value\ of\ equity = \sum_{t=1}^{t=n} \frac{CF\ to\ equity_t}{(1 + K_e)^t}$$

where:

n = Life of the asset,

$CF\ to\ equity_t$ = Expected cash flow to equity in period t ,

K_e = Cost of equity.

$$Value\ of\ firm = \sum_{t=1}^{t=n} \frac{CF\ to\ firm_t}{(1 + WACC)^t}$$

where:

n = Life of the asset,

$CF\ to\ firm_t$ = Expected cash flow to firm in period t ,

WACC = Weighted average cost of capital.

Mismatching cash flows and discount rates is the main mistake to avoid because, according to Damadoran (2012), “discounting cash flows to equity at the cost of capital will lead to an upwardly biased estimate of the value of equity, while discounting cash flows to the firm at the cost of equity will yield a downwardly biased estimate of the value of the firm.”

Another crucial step on DCF Valuation is the calculation of Terminal Value (TV) since it is necessary to find the Enterprise Value (EV). The terminal value captures the value of the investment beyond the forecast period, and can be calculated with Gordon Growth Model, which assumes that cash flows will grow at a stable rate indefinitely.

$$TV = \frac{FCFE \text{ or } FCFE \times (1 + g)}{(d - g)}$$

where:

FCFE or *FCFF* is the free cash flow for the last forecast period,

g is the terminal growth rate,

d is the discount rate.

2.2.2 Adjusted Present Value

A variation of DCF, known as the Adjusted Present Value (APV) technique, allows us to disentangle the impact of debt financing on a business's worth from its asset value. As a result, we begin by valuing the company as though it was entirely funded by equity and then separately evaluate the impact of debt, first calculating the tax benefits from the debt and then deducting the anticipated expenses of bankruptcy (Damadoran,2012).

The firm's debt-free value is the starting point for the Adjusted Present Value (APV) method. The net effect on value is evaluated when debt is introduced to the company by taking into account both the advantages and disadvantages of borrowing. It is assumed that the main advantage of borrowing is tax benefits, and the main disadvantage of borrowing is the increased chance of bankruptcy.

$$\text{Adjusted Present Value} = \text{Unlevered Firm Value} + NE$$

where:

NE = Net effect of debt.

According to Luerhrman (1997) "APV unbundles components of value and analyzes each one separately. In contrast, WACC bundles all financing side effect into the discount rate."

However, Luerhrman (1997) also said that APV can create bias into the analysis. On the one hand, the income from stocks may be subject to different taxes when an investor files a personal tax return, in contrast to income from bonds. This typically leads to an analyst overestimating the net benefit of business borrowing when calculating interest tax shield's present value. On the other, most analysts tend to overlook the costs of financial distress linked to business leverage, as they also may overlook other noteworthy financial side effects.

2.2.3 Dividend Discount Model

The dividend discount model (DDM) is a method for valuing a stock by assuming that “the value of a stock is the present value of expected dividends on it”, Damodaran (2012) and it is the most straightforward approach to equity valuation.

$$\text{Value per share of stock} = \sum_{t=1}^{t=\infty} \frac{E(DPS_t)}{(1 + K_e)^t}$$

where:

DPS_t = Expected dividends per share in year t ,

K_e = Cost of equity.

The model has two inputs, expected dividends and the cost of equity.

There are different versions of the DDM, but one common form is the Gordon Growth Model, which assumes a constant growth rate in dividends.

$$P_0 = \frac{D_0 \times (1 + g)}{(r - g)}$$

where:

D_0 = the most recent dividend payment,

r = the required rate of return or discount rate,

g = the constant growth rate of dividends.

The Gordon growth model offers a straightforward method for valuing equity, but it can only be used to businesses that are growing at a stable growth rate. However, to overcome this limitation, The Two-Stage Dividend Discount Model that is an extension of the basic Dividend

Discount Model (DDM) can be used. This model is used to value a stock that is expected to have different dividend growth rates over distinct periods. This model accounts for a transition in the growth pattern of dividends, typically assuming a higher growth rate in the initial stage (early years) followed by a lower, more sustainable growth rate in the later stage.

Value of the stock = PV of dividends during extraordinary phase + PV of terminal price

$$P_0 = \sum_{t=1}^{t=n} \frac{DPS_t}{(1 + K_{e,hg})^t} + \frac{P_n}{(1 + K_{e,hg})^n}$$

where:

$$P_n = \frac{DPS_{n+1}}{K_{e,st} - g_n}$$

DPS_t = Expected dividends per share in year t ,

K_e = Cost of equity ($_{hg}$: high grow period; $_{st}$: stable grow period),

P_n = Price at end of year n ,

g = Extraordinary growth rate for the first n years,

g_n = Growth rate forever after year n .

But still, according to Damodaran (2012), this model's emphasis on dividends may cause skewed value estimates for companies who aren't paying out as much in dividends as they could. Specifically, we will undervalue companies that accumulate cash and distribute too little in dividends.

2.2.4 Discount Rates

The choice of discount rate is a crucial parameter in valuation models. It represents the rate of return used to determine the present value of future cashflows.

As previously verified, different valuation models may use different discount rates.

2.2.4.1 Risk-Free Rate

The theoretical rate of return on an investment thought to be free of default risk, is known as the "risk-free rate". A common substitute for the risk-free rate is a government bond, especially one issued by a stable government. One benchmark that is frequently used is the yield on US Treasury bonds.

2.2.4.2 Cost of Equity

Cost of Equity is the rate of return required by equity investors in the firm, that can be estimate using various methods, with the Capital Asset Pricing Model (CAPM) being a common approach. CAPM establishes a relationship between the expected return of an asset and its systematic risk. CAPM was developed by William Sharpe, Jonh Lintner and Jan Mossin (1960) and the formula essentially states that the expected return on an asset is equal to the risk-free rate plus a risk premium based on the asset's beta and the market's risk premium.

$$\text{Cost of Equity} = \text{Risk Free Rate}(R_f) + \text{Beta}(\beta) \times \text{Market Risk Premium}$$

Beta (β)

Beta measures the sensitivity of a stock's returns to the overall market movements. It represents the systematic risk or market risk of an asset.

Market Risk Premium

The market risk premium represents the additional return that investors expect to receive for holding a risky asset (such as the overall stock market) compared to a risk-free asset.

2.2.4.3 Cost of Debt

The cost of debt is the return required by lenders for providing capital to a company. It is often represented by the yield to maturity on the company's existing debt.

2.2.4.4 Weighted Average Cost of Capital (WACC)

The WACC is the average rate of return a company is expected to provide to all its investors, including equity and debt holders. It is calculated by weighting the cost of equity and the cost

of debt based on the proportion of each in the company's capital structure. WACC sums up the return that investors and bondholders require in exchange for their capital being provided to the business. If a company's debt is viewed as hazardous or its stock is relatively volatile, investors will likely demand larger returns, which will raise the WACC of the company.

$$WACC = \frac{E}{D + E}(r_e) + \frac{D}{D + E}(r_d)(1 - t)$$

where:

E = Market value of equity,

D = Market value of debt,

r_e = Cost of equity,

r_d = Cost of debt,

t = Corporate tax rate.

Market Value of Equity (E)

The market value of equity represents the total market capitalization of a company and is calculated by multiplying the current market price per share by the total number of outstanding shares. It reflects the total value that investors in the equity markets assign to a company's common stock.

$$E = \text{Current Market Price per Share} \times \text{Number of Outstanding Shares}$$

Market Value of Debt (D)

The market value of debt represents the total market value of a company's outstanding debt, including bonds and other debt instruments. Unlike the book value of debt (which is based on the face value of the debt instruments), the market value of debt reflects the current market price of the debt in the secondary market.

To estimate the market value of debt and convert the book value of debt to market value, all the debt on the balance sheet can be treated as one coupon bond. That bond would have a coupon set equal to the interest expenses on all the debt and have the maturity of the debt set to the face value-weighted average maturity of the debt.

The bond pricing formula to calculate market value of debt is:

$$C[(1 - (1/((1 + K_d)^t)))/K_d] + [FV/((1 + K_d)^t)]$$

where:

C = the interest expense (in dollars),

K_d = the current cost of Debt (in percentages),

T = the weighted average maturity (in years),

FV = represents the total debt.

2.3 Relative Valuation

Relative valuation is an approach to valuation that involves comparing the value of an asset to the values of similar assets in the market. Instead of focusing on intrinsic characteristics and cash flow projections, relative valuation relies on the assumption that the market prices assets in a way that reflects their relative value based on comparable metrics. This approach is also known as market-based valuation. There are two components to take into account.

The first is that, to value assets on a relative basis, values must be standardized, usually calculating the relevant financial multiples for both the target company and the comparable companies. The most used multiples include P/E ratio, P/B ratio, P/S ratio, $EV/EBITDA$ ratio, and others.

The second is to find a peer group, to compare the target company's financial performance to those of its peers for the purpose of analysis and valuation. It can be a very difficult task to do, since there are not two identical firms and firms in the same business can still differ on risk, growth potential and cash flows.

Chapter 3

Industry Overview

Conducting an industry overview is an essential step in valuation process since it provides a contextual foundation for valuation analysis and assumed assumptions.

The main goal of this chapter is to understand industry dynamics, to better project forecasts and choose the most appropriate valuation approach.

3.1 United-States Retail Market

The retail market in the US is very diverse and dynamic, with a wide range of products, channels, and consumer preferences. Overall, it is characterized for being one of the largest and most competitive in the world. There is a wide variety of retailers, from large chains to small independent stores, and they compete on factors such as price, quality, convenience, and product selection. In addition to that, it is also quite fragmented, with no company dominating the industry. Instead, there are many retailers that specialize in different products, customer segments, and distribution channels.

Another key characteristic of the retail market in the US is the existence of an omni-channel retail environment, where consumers can shop for products both in-store and online. This happened due to the rise of e-commerce and mobile technology and many retailers have adapted to this trend by developing robust e-commerce platforms and integrating them with their physical stores.

Due to the high level of competition in the retail market, retailers in the US must be highly customer-focused to succeed. This means offering a high level of customer service, providing personalized experiences, and responding quickly to changing consumer preferences.

Finally, the retail market in the US is highly innovative, with retailers constantly introducing new products, services, and business models to stay ahead of the competition. This has led to a culture of experimentation and rapid change in the industry, with new ideas and trends emerging regularly.

3.2 Main Players

According to Deloitte’s Report “Global Powers of Retailing 2023 – Revenue growth and continued focus on sustainability”, Target Corporation belongs to the list of top 10 worldwide retailers of 2023, based on analysis of financial performance and operations for fiscal years ended between 1st July 2021 to 30th June 2022.

Top 10 retailers, FY2021

Top 250 rank	Change in rank	Name of company	Country/Geography of origin	FY2021 retail revenue (US\$M)	FY2021 retail revenue growth	FY2021 net profit margin ¹	FY2021 return on assets	FY2016-2021 retail revenue CAGR ²	# countries/geographies of operation	% retail revenue from foreign operations
1	0	Walmart Inc	United States	572,754	2.4%	2.4%	5.7%	3.3%	24	31.3%
2	0	Amazon.com, Inc.	United States	239,150	12.0%	7.1%	7.9%	20.4%	21	33.2%
3	0	Costco Wholesale Corporation	United States	195,929	17.5%	2.6%	8.6%	10.5%	12	27.8%
4	0	Schwarz Group	Germany	153,754	5.5%	n/a	n/a	7.8%	33	73.0%
5	0	The Home Depot, Inc.	United States	151,157	14.4%	10.9%	22.9%	9.8%	3	8.1%
6	0	The Kroger Co.	United States	136,971	4.1%	1.2%	3.4%	3.5%	1	0.0%
7	▲ 2	JD.com, Inc	China	126,387	25.1%	-0.5%	-0.9%	28.0%	1	0.0%
8	▼ -1	Walgreens Boots Alliance, Inc.	United States	122,045	3.7%	1.9%	3.1%	4.7%	6	8.2%
9	▼ -1	Aldi Einkauf GmbH & Co. oHG and Aldi International Services GmbH & Co. oHG	Germany	120,947	-0.4%	n/a	n/a	4.8%	19	72.8%
10	0	Target Corporation	United States	104,611	13.2%	6.6%	12.9%	8.5%	1	0.0%

Figure 3.1: Top 10 retailers, FY2021 (source: Deloitte Global. Global Powers of Retailing 2023)

From the top 10 retailers, seven are from US, which shows the size and the competitiveness of US market.

Target offers a very diversified product category, which makes it have several competitors. The main competitors of Target are Walmart, the major retail giant that competes with Target

across various product categories, including groceries, electronics and general merchandise; Amazon, as a dominant e-commerce platform, competes with Target in online retail; Costco, competes with Target in areas like groceries and household goods; The Kroger Co., competes with Target mainly in grocery segment and Home Depot, compete with Target in categories like home furnishings and DIY products. In the figure 3.2, US retail 2022 sales are shown by retailer.

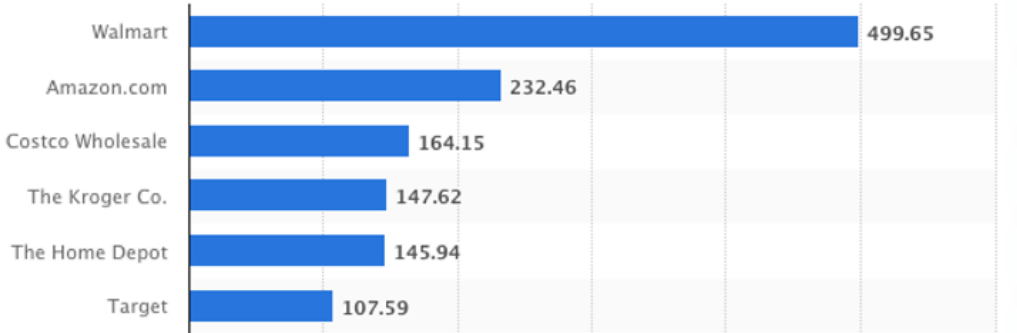


Figure 3.2: Leading Retailers in the US in 2022, based on U.S. retail sales (source: Statista)

3.3 Key Business Opportunities and Challenges

In the retail industry, finding new opportunities is essential for retailer’s growth, adaptability, and long-term success. The ability to recognize and act on these opportunities can define a retailer’s ability to remain relevant and prosperous in a rapidly changing business landscape.

At the same time, currently the retail industry faces a variety of challenges. According to the “CGS 2023 Supply Chain Trends and Technology report”, the three largest issues for 2023 are labor shortages and rising labor costs, the price and margin pressure, and the inflation and economic uncertainty.

On the other hand, e-commerce, digital and online sales are the biggest opportunity for growth in 2023. According to the report, this makes sense given that digital sales of consumer goods in the US alone reached \$1 trillion in 2022, up 21% from the previous year, according to research from analytics company Comscore’s Digital Commerce Measurement.

Sustainability is seen as an opportunity too, top retailers are strongly committed with ESG strategies and goals, through establishing challenging carbon emission targets, reducing single-use plastics, and providing consumers with the tool to make environmentally responsible purchasing decisions. Although retailers still have a long way to go in terms of sustainability, there

will be opportunities along the way, since there's the prospect of sales growth since consumers are becoming more concerned about the environmental and social impact of their purchases. Sustainable products and practices resonate with this growing segment of environmentally conscious shoppers. According to "Bain & Company Report", recent research conducted in US revealed that 40% of consumers intended to increase their spending on sustainable brands over the next three years. For younger people in particular, sustainable shopping is a mainstream concern, half of EU spending on sustainable insurgent brands is done by millennials, for instance.

3.4 COVID-19, Inflation and War Impacts

The COVID-19 pandemic had a profound impact on the retail industry, causing significant disruptions and changes on consumer behavior. With physical stores limited or closed, there was a rapid acceleration in online shopping. Consumers changed their spending habits due to health concerns and financial uncertainties. There was an increased focus on essential goods like groceries, health and wellness products, and home office equipment, while spending on discretionary items like fashion and luxury goods decreased. On the other hand, global supply chain disruptions caused delays in production, shipping, and distribution goods. This led to shortages of certain products and longer delivery times. The retail industry faced significant challenges, and in general demonstrated resilience and adaptability. The pandemic accelerated trends and pushed retailers to innovate to meet the evolving needs of consumers.

However, when the world seemed recovered after a global pandemic, a war broke out in central Europe. Russia's invasion of Ukraine continues to unfold, and its long-term global economic impact remains uncertain. One of the first effects of the war were issues at supply level. The direct supply chain with Russia and Ukraine, but also supply chains via Russia to Asia have broken down. As a result, the cost of various raw materials, energy, intermediate goods, and transportation services have dramatically increased. Supply chain issues set off a domino effect which led to significant increases in gas prices worldwide. In turn, that also intensified the global inflation which started during the early months of the pandemic. Inflation has been rising for several months, and as consumers struggle to afford basic products, their spending habits are changing, having a direct impact on general sales.

Geopolitical tensions on a global scale, particularly the war in Ukraine do not appear to be ending. As a result, the prices of numerous goods and commodities would continue to remain

high. For instance, the war and a lack of storage have driven up energy prices, which do not yet seem to have stabilized. This indicates that consumers will continue to face pricing pressure, at least in the near future.

However, according to “Deloitte: 2023 United States Economic Forecast” despite the challenges posed by a global pandemic, severe supply chain disruptions, and geopolitical tensions impacting a key energy supplier, the current state of the US economy is surprisingly robust. While inflation remains in consideration, its severity has notably diminished from a year ago. Barring any detrimental policy decisions, such as failing to raise the debt ceiling, promising indicators suggest that following a few quarters of gradual expansion, the US economy will persist in its innovation and the generation of employment opportunities, goods, and services.

In Deloitte Baseline scenario, in 2023, economic growth experiences a marked slowdown, but it avoids the recession label as it remains relatively steady. As 2023 progresses, inflation gradually recedes to around 2%, with reduced demand for goods and businesses resolving supply chain disruptions.



Figure 3.3: Historical and Forecasted Real GDP (source: Deloitte: 2023 United States Economic Forecast)

Chapter 4

TARGET Business Overview

In this chapter, an overview of Target will be carried out to be able to choose the most appropriate evaluation method.

Target Corporation (Target, the corporation, or the Company) is a general merchandise retail company headquartered in Minneapolis, Minnesota, USA. The company was founded in 1902 and since then has grown, grown to become one of the largest retailers in the US. The company operates over 1,900 stores in all 50 US states, 56 supply chain facilities and employs more than 400,000 employees. Target has a strong online presence as well, having released its e-commerce site in 1999.

Target offers to their customers (referred as “guests”), “everyday essentials and fashionable, differentiated merchandise at discounted prices” (Annual Report 2022). Target’s tagline is “Expect More. Pay Less.”

4.1 Sales

According to the 2022 Annual Report, in 2022, \$107,6 million sales were reached. Target’s online sales are a significant part of the company’s overall operations and contribute to its strong financial performance.

The global sales increased compared to the previous year, however growth rate slowed down. While in 2021, the global sales have grown 12.7%, in 2022 sales slowed down and have grown only 2.2%. According to the annual report, a significant part of 2022 growth has been driven by traffic, as the figure 4.2 shows.

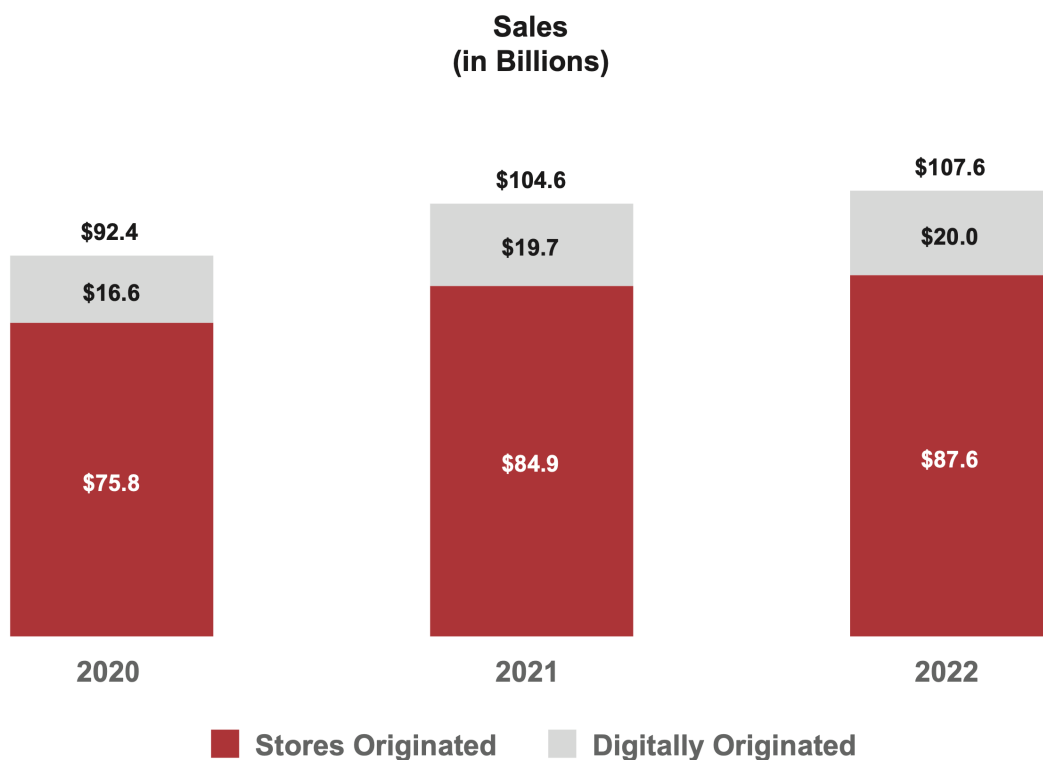


Figure 4.1: Sales (source: 2022 Form 10-k)

Comparable Sales	2020	2021	2022
Comparable sales change	19.3%	12.7%	2.2%
Drivers of change in comparable sales			
Number of transactions (traffic)	3.7	12.3	2.1
Average transaction amount	15.0	0.4	0.1

Figure 4.2: Comparable Sales (source: 2022 Form 10-k)

4.2 Stores

Target currently has 1948 stores across all 50 states and over the years, the number of stores has increased. A typical Target store usually covers an area of around 125,000 square feet, however it is possible to open and run stores at any place and of any size, from crowded urban areas to broad suburbs to college campuses. Even though this is a great strategy to reach customers wherever they are, in the upcoming years Target will be concentrating on larger store formats.

As demonstrated below, in recent years, the number of new stores has steadily increased.

	2018	2019	2020	2021	2022
U.S. Stores	1,844	1,868	1,897	1,926	1,948

Figure 4.3: Total number of Target stores (Target Website)

In addition to opening new stores, the company has invested in remodeling existing stores. In figure 4.4, we can verify the investment that has been made in the last years.

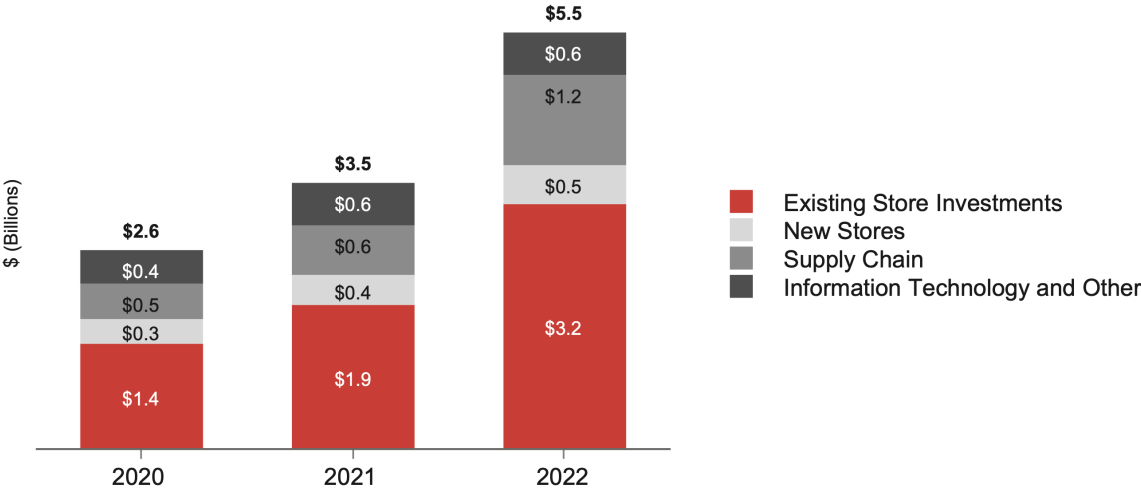


Figure 4.4: Capital Expenditures (source: 2022 Form 10-k)

According to the annual report, Target has completed over 1,000 full-store remodels since 2017, including 140 in 2022. In 2023, Target expects capital expenditures of approximately \$4 billion to \$5 billion to support full-store remodels and other existing store investments,

new stores, and supply chain projects. Target expects to complete approximately 70 full-store remodels and open about 20 new stores.

4.3 Product Categories Offer

Target sells a wide range of products across various categories. The five main product categories that Target offers include:

- Apparel & Accessories
- Food and Beverage
- Home Furnishings & Décor
- Beauty & Household Essentials
- Hardlines

Within these categories, gross margins vary depending on the type of merchandise. As mentioned in the previous chapter and demonstrated in figure below, there was a shift in consumer patterns between 2020 and 2022.

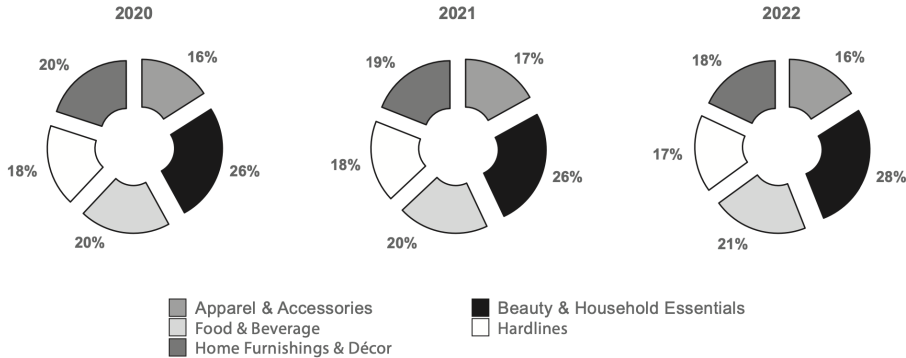


Figure 4.5: Sales by Merchandise Category (source: 2022 Form 10-k)

Target also sells merchandise through periodic exclusive design and creative partnerships, and shop-in-shop experiences, with partners such as Apple, Disney, Levi’s and Ulta Beauty.

In addition to its retail operations, Target also offers a range of other services inside the stores, including Starbucks, Target Café and Target Optical. Target receives annual occupancy income from CVS Pharmacy, Inc. (CVS), which manages pharmacies and clinics in Target stores under a perpetual operating agreement.

4.4 Inventory

Target faced an inventory challenge in 2022 caused by the changes in consumers shopping patterns allied with supply chain problems, contributed to overstocked warehouses and stores.

In the pandemic there was an increase in consumption on discretionary items like durables and home decor goods, however the demand for these items suddenly vanish, causing a problem of overstock and in forecast demand. Additionally, supply chain issues created mismatches between supply and demand, many shipments arrived later than expected and so the stores missed out on the best-selling time window.

Despite supply problems, Target, as well as other retailers, failed to anticipate shifts in consumer behavior. Further, in June 2022, the company announced a Plan Focused on Inventory optimization, Target was planning several actions including additional markdowns, removing excess inventory, canceling orders, revisions to sales forecast, promotional plans and cost expectations by category.

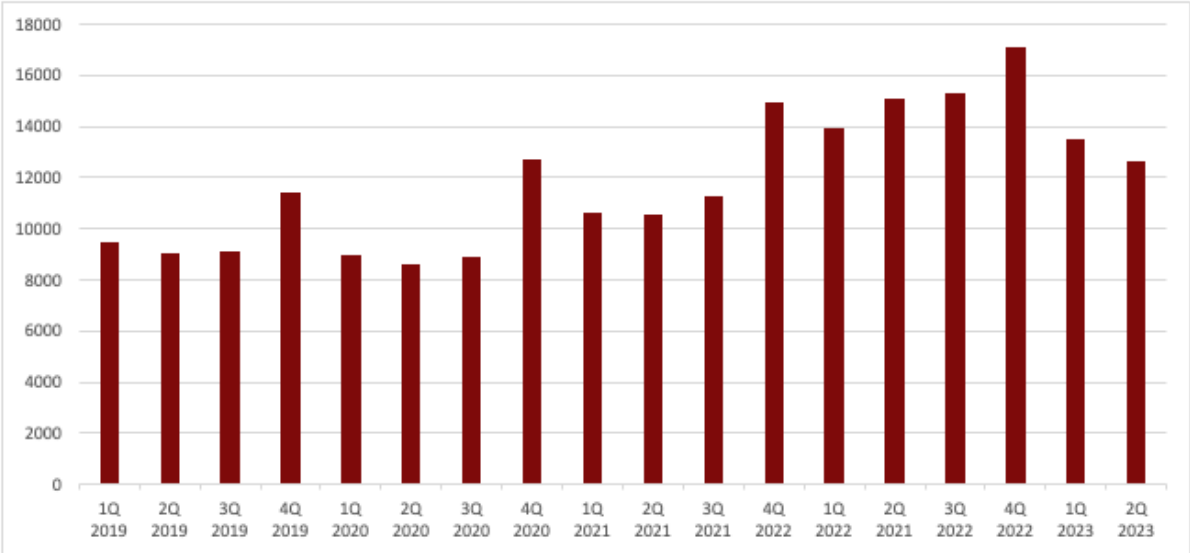


Figure 4.6: Target Quarterly Inventory (millions of US \$) (source: macrotrends)

4.5 Financial Highlights

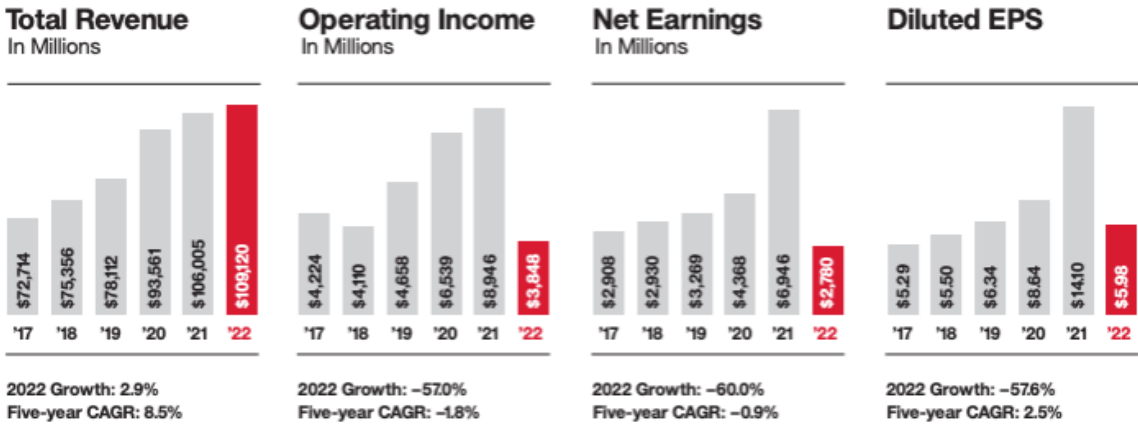


Figure 4.7: Financial Highlights (source: 2022 Form 10-k)

4.5.1 Revenues

Merchandise sales represent the vast majority of Target revenues. The company also earns revenues from other sources, most notably credit card profit-sharing income from an arrangement with TD Bank Group (TD).

Although total revenues increased in 2022, from \$104,611 million to \$107,588 million, can be seen that the revenues in the categories of “Hardlines” and “Home furnishings and décor” decreased (Figure 4.8). Consumer trends have changed during 2022, including shifting consumer buying patterns when compared with 2021.

4.5.2 Operating Income and Net Earnings

Target’s operational income for 2022 was \$3.8 billion, a 57% decrease from \$8.9 billion reported in 2021. According to the retailer, higher freight, and supply chain costs, as well as higher salaries and staffing levels at distribution centers and cost of managing excess inventory, caused its full-year gross margin percentage to fall from 28.3% to 23.6%. Furthermore, Target increased promotional and clearance markdowns, removed surplus inventory, and canceled purchase orders in reaction to the shift in demand in order to address inventory position and generate more flexibility in a fast-changing environment. Port congestion, the availability of

Revenues				
(millions)	2020	2021	2022	
Apparel and accessories	14,772	17,931	17,646	
Beauty and household essentials	24,461	27,268	29,575	
Food and beverage	18,135	20,306	22,918	
Hardlines	16,626	18,614	17,739	
Home furnishings and décor	18,231	20,255	19,463	
Other	0,175	0,237	0,247	
	Sales	92,400	104,611	107,588
Credit card profit sharing	0,666	0,710	0,734	
Other	0,495	0,684	0,798	
	Other revenue	1,161	1,394	1,532
Total revenue	93,561	106,005	109,120	

Figure 4.8: Revenues (source: 2022 Form 10-k)

shipping containers, and other supply chain challenges also accentuated the challenges of the second half of 2022. As a result, some inventory arrived sooner than expected, which increased the costs associated with managing elevated inventory levels and the investment in working capital. These factors led to a lower profitability compared to the previous year.

4.5.3 Dividends

Target declared dividends totaling \$1.9 billion (\$4.14 per share) in 2022 and \$1.7 billion (\$3.38 per share) in 2021, a per share increase of 22.5%. Target has paid dividends every quarter since the 1967 initial public offering, and it is their intent to continue to do so in the future.

4.5.4 Share Price Performance

After an analysis of the last few years before 2020, it appears that Target shares price has remained relatively stable, as shown in graph below. However, since the covid-19 outbreak, in 2020, there is a marked increase until early 2022. This increase in share prices during this period can be attributed to a combination of factors that positively impacted the company's financial

performance. At that time, Target likely reported strong financial results, including increasing revenue and profitability, as mentioned before.

Covid-19 pandemic accelerated the shift towards e-commerce and Target was able to take advantage of that. Target’s investments in its digital infrastructures and its ability to adapt quickly to the changing consumer behavior contributed to increase online sales. As a result, the company was able to capture a larger share of the growing online market.

During the pandemic, Target’s focus on providing same-day fulfillment services, such as curbside pickup and delivery through services like Shipt (American delivery service owned by Target), was particularly valuable.



Figure 4.9: Target Shares Price over the years

The pandemic itself and Target ability to adapt to this new reality strongly influenced the stock market as well as other factors.

However, at the beginning of 2022, there was a sharp drop in Target shares price, which was also seen in other market players.

Target stock has declined from around \$237.4 to nearly \$157.1, between 4th May 2022 to 1st May 2023, which represents a decline of 34%, compared to a 3% fall in S&P index for the same period.

Part of this stock decline can be attributed to the first impacts of Russia-Ukraine war. As mentioned in the previous chapter, supply chain disruptions helped drive up oil and other commodities price and inflation aggravated by the conflict causes shifting consumer behavior. Consequently, Target had facing higher costs and slowing sales, which had a big impact in profit margins.

Another variable that also had a huge impact, was the inventory levels. In fiscal 2022's first quarter announcement, the inventory issues, previously mentioned, were revealed.

On the other hand, in addition to the impact of war and inventories, 2023 also proved to be a challenging and turbulent year marked by high inflation. Additionally, in May 2023 Target launched a Pride merchandise collection to support the LGBTQ+ community. Nevertheless, the results were not the expected since they faced a huge backlash from some consumers, that boycotted the business, threatened workers, and damaged those items. They ended up removing the items but all of this, combined with inflation, led to a 5% decrease in sales, the first one in years. This impact can be easily visible in Target shares price.

Further, during 2023, many retailers complained of a shoplifting epidemic across the US, emphasizing that organized criminals, rather than opportunistic shoplifters, are the ones targeting retail stores, causing financial loss to companies. Target closed nine stores across four US states, arguing that theft and organized retail crime was threatening the security of the retailer's employees and customers.

However, with all this challenges, after reported 2023 3Q earnings, Target's narrative changed. Target reported solid earnings and a 5.2% operating margin compared to 3.9% in Q3 2022, which is represented by the last visible rise in share price evolution.

4.6 Strategy

Target's strategy is focused on providing a convenient, inspiring, and personalized shopping experience to its customers, while also emphasizing sustainability and social responsibility. By doing so, the company aims to build long-term loyalty among its customers and to continue to grow its market share in the highly competitive retail industry.

According to the annual report, the six pillars of Target strategy are:

- Delivering affordability to their guests;
- Setting itself out from the competition with a variety of distinctively owned brands and carefully selected national top brands;
- Investing to create an engaging, convenient, safe, and differentiated shopping experience for their guests;

- Engaging with their guests through programs like Target Circle and RedCard to maintain and enhance our relevancy; (customer loyalty programs)
- Leveraging their stores as fulfillment hubs to efficiently meet the customer's needs, whether they purchase online or in-store;
- Leveraging their size and scale to benefit people, the planet, and their business, primarily through Target Forward, the enterprise sustainability strategy.

4.7 Porter's Five Forces Analysis

The Porter's 5 forces analysis is an important step for this research. This strategic framework helps us evaluating a company, taking into consideration 5 aspects that impact an industry, being these: company's competitive rivals, potential new market entrants, suppliers, customers, and substitute products.

By analyzing Target Corporation in each of these forces, we are able to assess its competitive landscape.

Threats of New Entrants – Low

Target Corporation is a leading firm in the retailing industry, with a strong customer base and a high brand loyalty. Secondly, Target is an economy of scale, benefiting from their efficient levels of production, this way it would be difficult for a new entrant to equal those levels while being profitable. Besides that, the retailing market in the USA can be considered saturated, due to the multiple players in the market already, what complicates a potential entrance. On the top of everything, the legal barriers are high since the government imposes rigorous policies like licensing and legal requirements. For all of this, potential entrants may find it difficult to enter the market.

Threat of substitutes – Moderate

On the one hand Target tries to differentiate their brand. They invest in online shopping and in strategies like omni-channel, to enhance the buyer's experience by becoming more convenient, and they differentiate their products by investing on their private labels (they have more than 40 of what they call "owned brands"). On the other hand, Target faces competition from other retailers and businesses like Costco and Amazon, that offer similar products at similar or better prices.

Bargaining power of buyers – Moderate

On the one hand, the power of buyers would be high, since the threat of substitutes is high, which means that buyers can choose another brand if they are not satisfied with the service, having at the same time, low switching costs. On the other hand, Target's customers are individual buyers, who purchase not so large quantities, and who are not able to backward integrate, lowering their power to pressure the firm.

Bargaining power of suppliers – Low

Target's suppliers are big distributors, who would have the change to forward integrate and compete with the firm, by selling directly to the consumer, offering lower prices. Nevertheless, the products are not differentiated, which makes it easy for Target to switch suppliers, since there is a large number of suppliers in the industry.

Rivalry among existing competitors – High

There are several firms in the retailing industry, like Walmart, Costco, Whole foods market, engaging in continuous price competition, and being pressured by buyers, suppliers, and new entrants. Taking this into consideration, it is noticeable that there is a highly competitive nature in this industry, making it necessary for Target to keep up to date with modern trends.

4.8 Valuation Method Choice

In the literature reviewed different valuation methods were discussed. Nevertheless, in order to accurately assess the company's value, it is important to choose an appropriate one.

First, it is crucial to get a full understanding of the context and the financial data from the concerned company, performed in Chapter 3 and Chapter 4. After doing so, the selected and implemented method was the Discounted Cash Flow (DCF) valuation.

As known, discount rates and projected future cash flows serve as the foundation for discounted cash flow valuation. According to Damodaran (2012), DCF works best for assets (companies) whose cash flows are positive and whose future cash flows can be projected fairly reliable, provided that a risk proxy that can be used to calculate discount rates is available. Discounted cash flow valuation gets more challenging (and more helpful) the more we go away from this idealized scenario.

DCF enables a critical perspective of the market, taking into account pre-defined assumptions and it is noticeable that historically Target Corporation has had constant and reliable cash flows. Besides that, my goal with this research is to forecast future cash flows, keeping a long-term

perspective, what is covered with DCF.

Chapter 5

Target Valuation - DCF Valuation

After a brief industry overview and a contextualization about Target Business, a DCF Valuation will be conducted.

DCF Valuation relies on forecasting future cash flows which can be highly uncertain, small changes in assumptions can lead to significant variations in the calculated valuation. During periods of economic uncertainty, like the current one, it is especially challenging make assumptions, on the other hand, in general, industries undergoing rapid technological changes or disruptions which make it difficult to predict future cash flows and growth rates. To mitigate these difficulties, is essential employ sensitivity analysis.

In the following, the forecasts and respective assumptions until 2027 of financial statements main rubrics will be presented. Then the WACC calculations can be performed as well as DCF calculations.

5.1 Forecast Performance of Financial Statements

5.1.1 Revenues

As mentioned before, merchandise sales represent the vast majority of Target revenues. Looking at historical data, we can see that annually, over the last few years, there has been a continuous increase in sales, especially in 2020 and 2021, which shows an abnormal sales growth rate, justified by the COVID-19 pandemic. (Figure 5.1)

Also, over the last few years, the weight of online sales has been increasing, with the COVID-19 pandemic playing a very important role in this regard.

Despite a historical analysis, sales forecasting is particularly challenging due to a combination

	2017	2018	2019	2020	2021	2022
Sales	71 786	74 433	77 130	92 400	104 611	107 588
Sales Growth (%)		3,7%	3,6%	19,8%	13,2%	2,8%

Figure 5.1: Historical Sales Growth in millions

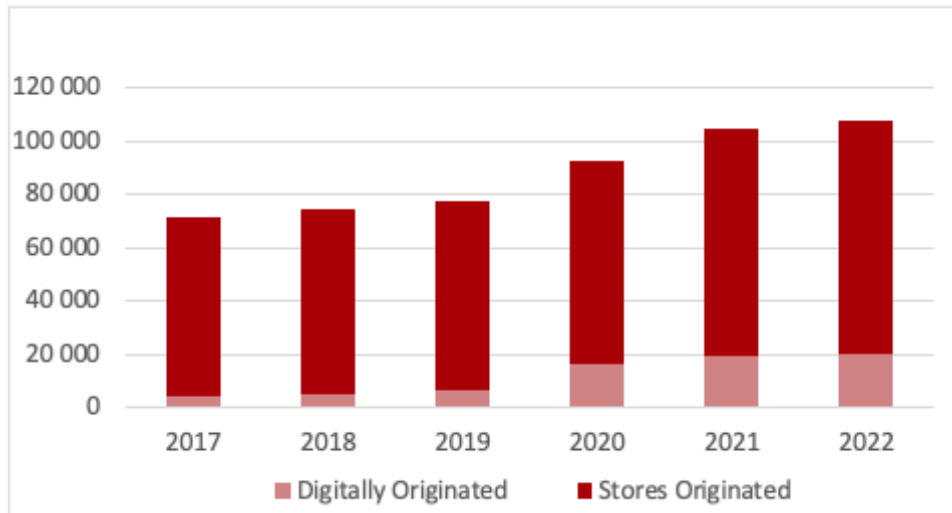


Figure 5.2: Historical Sales (\$) by Channel

of factors that add complexity to the process. Sales can be influenced by a wide range of factors, including economic conditions, consumer preferences, competition, marketing efforts, seasonality, and more. Trying to account for all these variables accurately is a complex task and so, it's important to note that any forecast is based on current available information and assumptions, which are subject to uncertainties.

In order to respond to the challenge and try to forecast the sales growth in the next years, 4 factors will be considered as having an impact on sales and consequently serve as input to the calculation:

1. Economic factors
2. Historical Growth
3. Number of new stores
4. Industry Forecast

1. Economic Factors

Since the health of the economy affects how well sales perform, linear regressions were used to analyze the relationships between the company’s past sales and the pertinent major economic variables.

Three economic indicators were analyzed: Real GDP, Real Consumer Spending and Consumer Price Index.(Appendix-A) These three indicators were compared with past comparable sales change (2013-2022).

As mentioned in 2022 Form 10-k, comparable sales change measures the “change in sales for a period over the comparable, prior-year period of equivalent length”. Target, like many other retailers, uses comparable sales change as a key performance indicator (KPI) to assess the health and growth of its business. Using comparable sales change provides a more accurate and insightful way to evaluate business operations. In Target’s case, “comparable sales include all sales, except sales from stores open less than 13 months, digital acquisitions we have owned less than 13 months, stores that have been closed, and digital acquisitions that we no longer operate.” (2022 Form 10-k)

In the regression analysis, comparable sales change of 2020 and 2021 were excluded, since it shows an anomalous growth explained by the pandemic period and can be considered an outlier. After analyzing the linear regressions of these three indicators and the respective R^2 , it was concluded that the Real GDP is the most significant variable.(Appendix-B)

Thus, comparable sales change forecast until 2027 were compute based on the past comparable sales change and the Real GDP, historical and projected in Deloitte – US Economic Forecast (2023) Report. (Figure 5.3)

	HISTORICAL DATA											FORECAST				
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	F2023	F2024	F2025	F2026	F2027	
Real GDP	1,8	2,3	2,7	1,7	2,2	2,9	2,3	-2,8	5,9	2,1	1,8	1,3	1,6	1,7	1,8	
Comparable Sales Change	-0,4	1,3	2,1	-0,5	1,3	5	3,4	19,3	12,7	2,2	5,0	5,5	5,2	5,1	5,0	

Figure 5.3: Comparable Sales Change based on Real GDP (%)

2. Historical Growth

Historical growth is a valuable input to consider in sales forecasting, and according to the company, Target strategy is aligned with a steady and sustainable growth. A historical sales growth average (2017, 2018, 2019 and 2022) based on comparable sales growth

was considered for the next years. Sales growth of 2020 and 2021 were excluded for the reasons mentioned above. Thereby, it was considered a 2.9% comparable sales growth, every year until 2027.(Figure 5.4)

	HISTORICAL DATA						FORECAST				
	2017	2018	2019	2020	2021	2022	F2023	F2024	F2025	F2026	F2027
Comparable Sales Growth	1,3	5	3,4	19,3	12,7	2,2	2,9	2,9	2,9	2,9	2,9

Figure 5.4: Sales Growth based in historical growth (%)

3. Number of new stores

The number of new stores can have a significant impact on sales forecast and the addition of new stores leads to immediate sales growth. After analyzing the linear regression between number of new stores and stores originated sales, the conclusion shows what was expected, that there was a strong relation between these two variables.(Appendix-C)

Thus, stores originated sales forecast were compute based on the assumption that Target will open 20 new stores every year until 2027. According to the annual report, Target plans to continue opening new stores and expects to open about 20 new ones in 2023. Over last years, the capital expenditures in new stores have been constant.

Sales forecast until 2027 were compute based on the past sales and total number of stores. (Figure 5.5)

	HISTORICAL DATA						FORECAST				
	2017	2018	2019	2020	2021	2022	F2023	F2024	F2025	F2026	F2027
N° of New Stores	20	22	24	29	29	22	20	20	20	20	20
Total N° of Stores	1822	1844	1868	1897	1926	1948	1968	1988	2008	2028	2048
Stores Originated Sales	67,838	69,148	70,300	75,800	84,900	87,600	90,119	93,504	96,889	100,273	103,658
Sales Growth		1,9%	1,7%	7,8%	12,0%	3,2%	2,9%	3,8%	3,6%	3,5%	3,4%

Figure 5.5: Sales Growth based in number of new stores (%)

4. Industry Forecast

Consumer trends have changed over the last few years, especially since the COVID-19 pandemic. Therefore, including a reliable forecast of global retail sales growth done by analysts and experts will add value to this dissertation. In this case, it was used a Report of eMarketer / Insider Intelligence “Global Retail E-commerce Forecast 2023 - Welcome to the Slower-Growth New Normal” (2023), which forecast includes both retail sales growth and retail e-commerce sales growth. (Figure 5.6)

To calculate the aggregated sales growth forecast, it was assumed that the 2022 percentage of store originated sales (81%) and digitally originated sales (19%) will not change.

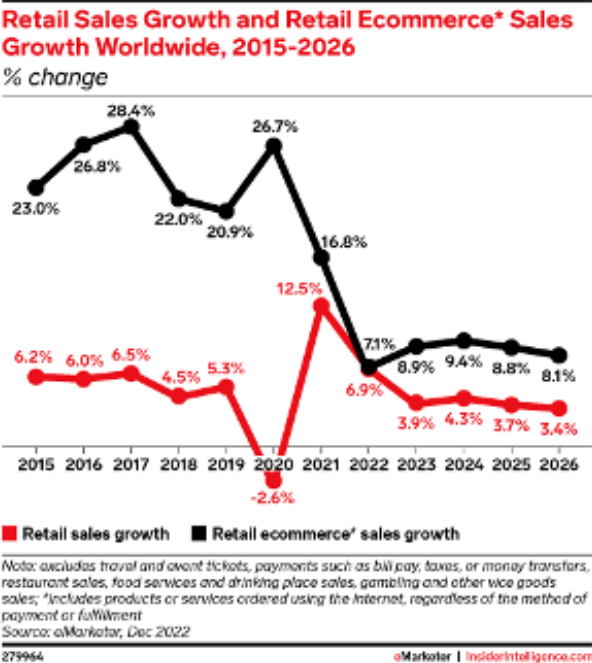


Figure 5.6: “Global Retail E-commerce Forecast 2023 - Welcome to the Slower-Growth New Normal” (2023) Source: eMarketer / Insider Intelligence

Finally, to carry out a weighted calculation of sales growth forecast it was necessary to assign a weight to each of 4 factors listed.

To Real GDP(1), Historical growth(2) and to the Number of new stores(3) was considered a weight of 30% each. To the Industry Forecast (4) was considered a weight of 10%. After applying the stated weighting, the calculated forecast for sales was as follows:

To complete the revenue forecast, it is necessary to estimate the item “Other Revenues”. Since other revenues came mostly from credit card profit-sharing income from an arrangement with TD Bank Group, it was assumed a historical 6-year average (2017-2022) of Other Revenue as a percentage of Sales. (Figure 5.8)

Thus, total revenue forecast until 2027 is shown in Figure 5.9.

5.1.2 Main Costs: COS and SG&A

After the Pandemic, suffered a high increase, going from 71.7% of Sales in 2021 to 76.4% of Sales in 2022, which represents a difference of \$2508 million. This increase is essentially due to supply chain disruptions and the commodity price volatility. As mentioned above, events

	FORECAST					weight
	F2023	F2024	F2025	F2026	F2027	
1.Real GDP	1,8%	1,3%	1,6%	1,7%	1,8%	30%
Real consumer spending	1,9%	2,0%	1,8%	1,8%	1,7%	0%
2.Historical Growth	2,9%	2,9%	2,9%	2,9%	2,9%	30%
3.Nº of Stores	2,9%	3,8%	3,6%	3,5%	3,4%	30%
4.Industry Forecast (Retail Sales Growth) (81%)	3,9%	4,3%	3,7%	3,4%	3,4%	10%
4.Industry(Retail ecommerce sales growth) (19%)	8,9%	9,4%	8,8%	8,1%	8,1%	
Sales Growth Forecast (%)	2,8%	2,9%	2,9%	2,9%	2,9%	
Sales Forecast (\$)	110 555	113 776	117 079	120 424	123 859	

Figure 5.7: Aggregated Sales Forecast (\$) in millions

	HISTORICAL DATA						FORECAST				
	2017	2018	2019	2020	2021	2022	F2023	F2024	F2025	F2026	F2027
Sales	71 786	74 433	77 130	92 400	104 611	107 588	110 555	113 776	117 079	120 424	123 859
Other revenue	928	923	982	1 161	1 394	1 532	1 441	1 483	1 526	1 569	1 614
% of Sales	1,3%	1,2%	1,3%	1,3%	1,3%	1,4%	1,3%	1,3%	1,3%	1,3%	1,3%

Figure 5.8: Other Revenue Forecast (\$) in millions

	FORECAST				
	F2023	F2024	F2025	F2026	F2027
Sales Forecast (\$)	110 555	113 776	117 079	120 424	123 859
Other Revenue Forecast (%)	1,3%	1,3%	1,3%	1,3%	1,3%
Other Revenue Forecats (\$)	1 441	1 483	1 526	1 569	1 614
Total Revenue (\$)	111 996	115 259	118 605	121 994	125 473

Figure 5.9: Total Revenue Forecast (\$) in millions

like COVID-19 or Russia-Ukraine War have been impacting companies from all over the world and from all industries.

For COS forecast, the assumption was by the average of last 2 year (2021 e 2022) historical percentage of Sales (74%). On the one hand it will be difficult to return to 2021 percentage on the other hand according to the annual report and the strategic plan, Target intends to reduce costs and increase margin achieved in 2022.

	HISTORY						FORECAST				
	2017	2018	2019	2020	2021	2022	F2023	F2024	F2025	F2026	F2027
Sales	71 786	74 433	77 130	92 400	104 611	107 588	110 555	113 776	117 079	120 424	123 859
Cost of Sales	(51 125)	(53 299)	(54 864)	(66 177)	(74 963)	(82 229)	(81 859)	(84 245)	(86 690)	(89 167)	(91 710)
% of Sales	71,2%	71,6%	71,1%	71,6%	71,7%	76,4%	74,0%	74,0%	74,0%	74,0%	74,0%
Gross Margin	20 661	21 134	22 266	26 223	29 648	25 359	28 695	29 532	30 389	31 257	32 149
% of Sales	28,8%	28,4%	28,9%	28,4%	28,3%	23,6%	26,0%	26,0%	26,0%	26,0%	26,0%

Figure 5.10: COS and Gross Margin Forecast (\$) in millions

About SG&A forecast costs, the assumption was to keep the SG&A percentage of total Revenues accomplished in 2022.

	HISTORY						FORECAST				
	2017	2018	2019	2020	2021	2022	F2023	F2024	F2025	F2026	F2027
Total Revenue	71 786	75 356	78 112	93 561	106 005	109 120	111 996	115 259	118 605	121 994	125 473
Selling, general and administrative expenses	(14 248)	(15 723)	(16 233)	(18 615)	(19 752)	(20 658)	(21 167)	(21 784)	(22 416)	(23 057)	(23 714)
% of Revenue	19,8%	20,9%	20,8%	19,9%	18,6%	18,9%	18,9%	18,9%	18,9%	18,9%	18,9%

Figure 5.11: Selling, general and administrative expenses Forecast (\$) in millions

5.1.3 PP&E, CAPEX and D&A

Regarding PP&E, historical values were analyzed as well as the information reported in the annual report. The forecast assumption was the historical 3-year average percentage of sales, as illustrated in figure 5.12.

Historical values of CAPEX and D&A were also analyzed, in both these cases, the forecast assumption was the historical 3-year average percentage of PP&E, as illustrated in the table below.

	HISTORY						FORECAST				
	2017	2018	2019	2020	2021	2022	F2023	F2024	F2025	F2026	F2027
Sales	71 786	74 433	77 130	92 400	104 611	107 588	110 555	113 776	117 079	120 424	123 859
PP&E	25 018	25 533	26 283	26 879	28 181	31 512	31 441	32 357	33 297	34 248	35 225
% of Sales	35%	34%	34%	29%	27%	29%	28%	28%	28%	28%	28%
CAPEX	2 533	3 516	3 027	2 649	3 544	5 528	4 189	4 311	4 437	4 563	4 694
% of PP&E	10%	14%	12%	10%	13%	18%	13%	13%	13%	13%	13%
D&A	(2 194)	(2 224)	(2 357)	(2 230)	(2 344)	(2 385)	(2 534)	(2 608)	(2 684)	(2 761)	(2 839)
% of PP&E	-8,8%	-8,7%	-9,0%	-8,3%	-8,3%	-7,6%	-8,1%	-8,1%	-8,1%	-8,1%	-8,1%

Figure 5.12: PP&E, CAPEX and D&A Forecast (\$) in millions

5.1.4 Net Working Capital (NWC)

NWC represents the difference between a company's current assets and its current liabilities. According to Target Annual Report, current assets considered at NWC are Inventory and Other Assets, which includes items as accounts and other receivables, vendor income expenses and prepaid expenses. Current liabilities considered at NWC are Accounts Payable and Accrued and other current liabilities, which includes items as wages and benefits; gift card liability; real estate, sales and other taxes payable; dividends payable; current portion of operating lease liabilities; worker's compensation and general liability; and interest payable.

The forecast assumptions for these 4 rubrics were respective historical 6-year average percentage of total revenues:

	HISTORY						FORECAST				
	2017	2018	2019	2020	2021	2022	F2023	F2024	F2025	F2026	F2027
Total Revenue	71 786	75 356	78 112	93 561	106 005	109 120	111 996	115 259	118 605	121 994	125 473
Inventory	8 657	9 497	8 992	10 653	13 902	13 499	13 635	14 032	14 439	14 852	15 275
% of Revenues	12%	13%	12%	11%	13%	12%	12%	12%	12%	12%	12%
Other current assets	1 264	1 466	1 333	1 592	1 760	2 118	2 000	2 058	2 118	2 179	2 241
% of Revenues	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Total current assets	9 921	10 963	10 325	12 245	15 662	15 617	15 635	16 090	16 557	17 031	17 516
Accounts payable	8 677	9 761	9 920	12 859	15 478	13 487	14 643	15 069	15 507	15 950	16 405
% of Revenues	12%	13%	13%	14%	15%	12%	13%	13%	13%	13%	13%
Accrued and other current liabilities	4 254	4 201	4 406	6 122	6 098	5 883	6 501	6 691	6 885	7 081	7 283
% of Revenues	6%	6%	6%	7%	6%	5%	6%	6%	6%	6%	6%
Total current liabilities	12 931	13 962	14 326	18 981	21 576	19 370	21 144	21 760	22 391	23 031	23 688
NWC	(3 010)	(2 999)	(4 001)	(6 736)	(5 914)	(3 753)	(5 509)	(5 669)	(5 834)	(6 001)	(6 172)
Δ NWC		11	(1 002)	(2 735)	822	2 161	(1 756)	(161)	(165)	(167)	(171)

Figure 5.13: NWC Forecast in millions

5.2 WACC

5.2.1 Weighted Average Cost of Capital (WACC)

Weighted Average Cost of Capital (WACC) is crucial at Discounted Cash Flow (DCF) Valuation to determine the present value of a company's future cash flows. Therefore, the WACC formula presented in second chapter of this dissertation will be used.

5.2.2 Cost of Equity

5.2.2.1 Risk Free Rate

Government bonds are commonly used as a reference for the risk-free rate in financial models like the Capital Asset Pricing Model (CAPM) and Discounted Cash Flow (DCF) analysis. The risk-free rate considered was the 10-year US Treasury yield. On the 24th of November 2023, this rate was 4.47%.

5.2.2.2 Beta

Beta (β) is a measure of a stock's volatility or sensitivity to market movements. It indicates how much stock's returns tend to move relative to the overall market's returns. A beta ($\beta > 1$) greater than 1 indicates that the stock is more volatile than the market, while a beta ($\beta < 1$) less than 1 suggests lower volatility. A beta ($\beta = 1$) of 1 means the stock's volatility matches that of the market. A regression analysis was performed to calculate beta (β) using the adjusted closing price of Target's shares over the last five years and the same time period for the S&P 500. The estimated beta (β) value was 0.84%.

5.2.2.3 Market Risk Premium

The Market Risk Premium used in the CAPM model was 5%. The source of this value was Damodaran equity risk premium estimation for US, since Target only operates in US, on July 2023.

5.2.3 Cost of Debt

To calculate the effective rate that Target pays for its debt, a weighted average of the yields to maturity on Target's outstanding bonds was computed.(Appendix-D) The value obtained was

4.5%.

5.2.3.1 Effective Tax Rate

Target can deduct interest payments for tax purposes so it is necessary to calculate the after-tax effective rate using the company's effective tax rate. To determine effective tax rate it was used an average of the last two years values. The value obtained was 20.3%.

5.2.4 D/E Ratio

Finally, it will be necessary to determine the weight of the equity and the weight of the debt. For that, it is required to calculate the Market value of equity and Market value of debt.

Market Value of equity:

The market value of equity represents the total value of a company's outstanding shares of stock in the public market. It's a key measure that reflects the current market perception of the company's worth. Market value of equity is calculated by multiplying the total number of outstanding shares by the current market price per share.

Outstanding Shares	Share Value (Nov 15, 2023)	Market value of Equity
461,65	130,46	60 226,99

Figure 5.14: Market value of Equity

Market Value of Debt:

The market value of debt, which is different from the book value on the balance sheet, represents the total value that the market assigns to the company's debt obligations. The estimated market cost of debt is calculated using the formula presented in second chapter.

Interest expense	Cost of Debt	Weighted average maturity (years)	BV Total debt	Market value of Debt
(478,00)	4,50%	11,91	16 139,00	5 220,54

Figure 5.15: Market value of Debt

Finally, after all calculations, the WACC is computed, as illustrated in the figure 5.16 below.

WACC	
Cost of Equity	
Risk Free Rate R[F]	4,47%
Beta levered $\beta(e)$	0,84
Market Risk Premium (MRP)	5,00%
Country Risk Premium (CRP)	0,00%
Cost of Equity K[e]	8,67%
Cost of Debt	
Cost of Debt K[d]	4,50%
Marginal tax rate [t]	-20,3%
After-tax cost of debt K[d]	5,42%
WACC	
Weight of Equity	92,0%
Weight of Debt	8,0%
Pre-ta WACC R[U]	8,34%
WACC	8,41%

Figure 5.16: WACC inputs and WACC final value

5.3 DCF Calculations

5.3.0.1 FCFF

The first step to initiate DCF Calculations is to compute the FCFF (Free Cash Flow to Firm) during the explicit period, which formula is in chapter two, so then we are able to find the Enterprise Value (EV = Present Value of FCFF + Present Value of Terminal Value).

The next step is to calculate the present value of future cash flows using WACC (8.41%) as the discount rate, as shown below:

	FORECAST				
	F2023	F2024	F2025	F2026	F2027
Total Revenue	111 996	115 259	118 605	121 994	125 473
(-)Cost of Sales	(81 859)	(84 245)	(86 690)	(89 167)	(91 710)
(-)Other expenses	(23 702)	(24 392)	(25 100)	(25 817)	(26 554)
EBIT	6 435	6 622	6 814	7 009	7 209
(-)Taxes	(1 309)	(1 347)	(1 386)	(1 426)	(1 466)
(+) D&A	2 534	2 608	2 684	2 761	2 839
(-) Δ NWC	(1 756)	(161)	(165)	(167)	(171)
(-) CAPEX	(4 189)	(4 311)	(4 437)	(4 563)	(4 694)
FCFF	1 715	3 411	3 511	3 614	3 717
PV (FCFF)	1 582	2 902	2 755	2 616	2 482

Figure 5.17: FCFF Calculation (\$) in millions

5.3.0.2 Perpetual Growth Rate and Terminal Value

Since the present value of FCFF has already been calculated, it is necessary to determine the present value of the Terminal Value.

The formula used to calculate terminal value is

$$\frac{FCFF \times (1 + g)}{(d - g)}$$

where:

FCFF is the free cash flow for the last forecast period,

g is the terminal growth rate,

d is the discount rate, WACC in this case.

Terminal growth rate represents the assumed constant growth rate at which a company’s cash flows, dividends, or earnings are expected to grow indefinitely into the future. This rate is an estimation and a small change in this value can lead to significant changes in the valuation calculation. Analysing Figure 5.17, the capital expenditures (CAPEX) exceed depreciation and amortization (D&A), it implies that the company is investing more in its long-term assets than it is currently expense for the depreciation of existing assets. This situation suggests a significant investments in its operations and consequently a period of growth.

Thus, the terminal growth rate was estimated through the weighted average of three factors, the GPD forecast, the US inflation and the growth rate reached in the finish of explicit period (2027).

	weight
Growth Rate (FCFF) 2027	2,86 40%
GPD Forecast 2027	1,8 30%
US Inflation 2027	2 30%
<i>Terminal Growth Rate</i>	<i>2,28</i>

Figure 5.18: Terminal Growth Rate

With a WACC of 8.41% and a Terminal Growth Rate of 2.28%, the Terminal Value was compute, resulting in a value of \$61 987million.

5.3.0.3 Price target

With the present values of FFFC of the explicit period and the terminal value, we are able to calculate Enterprise Value. (EV = Present Value of FCFF + Present Value of Terminal Value).

Then, is necessary deduct the company’s total debt from Enterprise Value and add company’s cash and equivalents, reaching Equity Value.

Finally, the last step is dividing this Equity Value by the number of outstanding shares to calculate the estimated value per share.

DCF - Price Target (Jan 2024)	
Enterprise Value	72 743
Net Debt	15 203
BV Debt	17278
Cash & Equivalents	2076
Equity Value	57 540
Share Outstanding	461,7
Equity Value per Share	124,64

Figure 5.19: Equity Value per Share Calculation

As illustrated in the figure 5.19, the Equity Value per Share obtained was \$124.64.

Finally a fair value of \$124.64 has been determined. The market is current valuing Target at \$129.94 per share (November 16th 2023). This result leading to a Hold-Recommendation because the intrinsic value of stock is perceived to be in line with its current market price, despite being slightly lower.

5.3.0.4 Sensitivity Analysis

In a DCF valuation, a sensitive analysis is crucial because it helps assess the potential impact of various assumptions and uncertainties on the valuation outcome.

		WACC							
		124,64	6,9%	7,4%	7,9%	8,4%	8,9%	9,4%	9,9%
Terminal Growth Rate	0,8%	123,8	113,5	104,5	96,7	89,8	83,6	78,1	
	1,3%	136,3	124,1	113,7	104,7	96,8	89,9	83,8	
	1,8%	151,2	136,6	124,4	113,9	104,9	97,0	90,1	
	2,3%	169,3	151,6	136,9	124,64	114,2	105,1	97,2	
	2,8%	191,7	169,7	152,0	137,3	124,9	114,4	105,3	
	3,3%	220,4	192,3	170,2	152,4	137,6	125,2	114,7	
	3,8%	258,2	221,1	192,9	170,7	152,8	138,0	125,5	

Figure 5.20: Equity Value per Share Sensitive Analysis

In this case, a sensitivity analysis was conducted for WACC and Terminal growth rate, since both play a critical role in determining the Terminal Value, small changes in WACC and terminal

growth rate can lead to significant variations.

Chapter 6

TARGET Valuation – Relative Valuation

As mentioned before, in chapter 2, relative valuation is a method of valuing a company by comparing its financial and operational metrics to similar companies in the same sector.

Despite the relative valuation limitations, using this method allied with another, such as DCF, can provide a more comprehensive and balanced assessment of a company’s value. Each method has its strengths and weaknesses and combining them can be helpful in mitigating the limitations of each individual approach.

So, a valuation based upon multiples was performed, and the first and most important decision was to define the peer group. Selecting comparable companies can be challenging, on the one hand US retail is very diverse with companies operating in different segments, markets and product categories. On the other, companies operate in different geographic regions from each other. Then, in order to mitigate the geographic factor, the first criterion was to select only retailers whose the percentage of US sale was 90% or more from the total global sale. “TOP100 Retailers 2023 List” (National Retail Federation) was analyzed and 8 retailers were selected. (Figure 6.1)

	2022 Global Sales (billions)	U.S. % of Global Sales	D/E	Revenue Growth Rate (5Y)	Net Profit Margin (5Y)
The Home Depot	155,42	94%	2765,24	9,3	10,42
The Kroger CO.	147,62	100%	133,22	3,86	1,68
Target Corp.	107,59	100%	143,69	8,46	4,38
CVS Health Corporation	106,59	100%	73,58	11,78	1,89
Walgreens Boots Alliance	103,91	90%	49,89	2,34	3,03
Lowe's Company	93,61	95%	-	7,18	6,41
Albertsons Companies	76,15	100%	537,92	5,32	1,32
Dollar General	37,88	100%	126,48	10,03	6,38

Figure 6.1: TOP Retailers with U.S % of Global Sales $\geq 90\%$

Based on Revenue Growth Rate (5Y) and Net Profit Margin (5Y) a clusters analysis was performed as shown in figure 6.2.

The result of cluster analysis was a peer group with three companies: Target, Lowe’s Company and Dollar General.

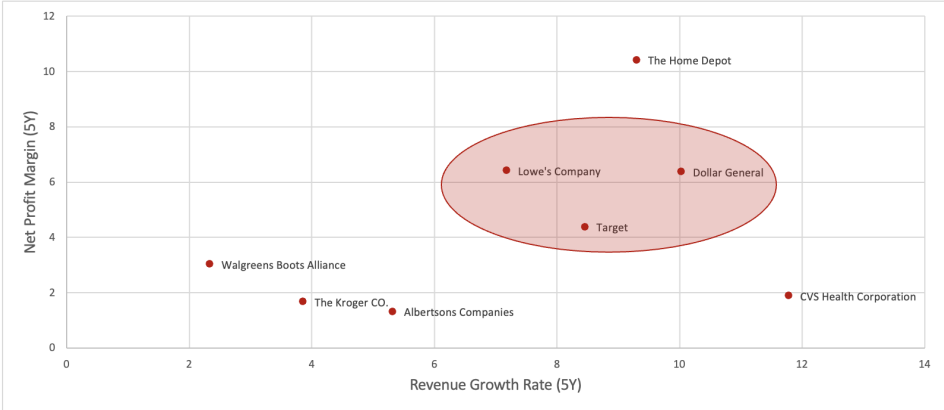


Figure 6.2: US Retailers Cluster Analysis based on Net Profit Margin and Revenue Growth Rate

After the selection of the peer group, it is necessary to decide which multiples will be used: historical multiples or forward multiples. Since last years were especially uncommon, and the future is not clear, the right choice is to use forward multiples.

Finally 3 multiples were chosen: *P/E Ratio*, *EV/EBIT* and *EV/SALES*. In this case, the platform “Alpha Spread” was used as source for the 1-Year Forward Multiples. Then, the value per share for each of the multiples was computed, as illustrated in the figure 6.3.

	P/E Ratio	1-Year Forward Multiple	
		EV/EBIT	EV/Sales
Target Corp.	18	15,6	0,7
Lowe's Company	18,1	14,6	1,5
Dollar General	12,7	11,1	0,9
Mean	15,4	12,9	1,2
2023 EPS	10,2	-	-
2023 EBIT	-	6 435	-
2023 SALES	-	-	110 555
Enterprise Value	-	82 684	132 666
2023 Net Debt	-	13 955	13 955
Equity Value	-	68 729	118 711
Share Outstanding	461,7	461,7	461,7
Equity Value per Share	156,6	148,9	257,1

Figure 6.3: Value per share calculation based on multiples

All values per share results based on multiples are higher than the output from DCF Valuation (\$124.64). In fact, the value based in *P/E* (\$156.6) and *EV/EBIT*(\$148.9) are very similar between them and close to the DCF Valuation result(\$130.77). However, the value based in *EV/Sales* (\$257.1) is quite superior than the DCF Valuation result (\$124.64).

There is a significant discrepancy between the DCF and multiples valuation results. It's known that the selection of peer group is crucial for a relative valuation however it can have some limitations. In the case of US market, it can be challenging to create a peer group that accurately reflects the specific business model, product categories, size, or channel mix of the Target Corp. In this case, just two peers were selected, which differ in terms of their business models, target models and product offering. As a result, the peer group's comparability may be considered limited. As a result, the DCF valuation result will serve as the foundation for the stock value recommendation.

Chapter 7

Equity Report Comparison

This chapter compares the DCF valuation model result of this dissertation with ZACKS INVESTMENT RESEARCH equity report.

ZACKS's equity report establishes a price target of \$118.00 for November 8th, 2023, with a Neutral Recommendation for long-term (6-12 Months), which indicates the stock will perform in line with the market, and a Hold Recommendation for short-term (1-3 Months).

Despite the similar recommendation between this dissertation and ZACKS Report, the prices target diverge significantly, from \$118.00 (ZACKS Price Target) for November 8th, 2023 to \$124.64 (in this dissertation) for November 16th, 2023.

ZACKS adopts a relative valuation approach, in contrast to this dissertation, which set the price goal using DCF valuation model, discarding the value determined by the relative valuation. As indicate in report, ZACKS price target reflects 13.64X forward 12-month earnings.

Apart from the model used, there was also a difference in the explicit period. The dissertation makes forecasts for financial metrics until 2027, while ZACKS Report does so until 2025.

The Sales and SG&A forecasts, however, seem to be the assumptions that vary the most between the two valuations.

According to ZACKS, Target's financial performance is expected to be viewed cautiously in the near future, given the issues the company is facing in a competitive market, thus ZACKS expects a 5.3% decline in comparable sales in the third quarter and a 4% decline in fiscal 2023. In the upcoming quarter and fiscal year, ZACKS anticipate a 4.9% and 2% decline in sales, respectively.

In this dissertation, despite current challenges, sales forecast always shows positive growth, in the order of 2.8% per year.

Furthermore, ZACKS expect SG&A expenses to increase 4.6% year over year in the third quarter with SG&A expense rate, as a percentage of total revenues, anticipated to increase 200 basis points to 21.7%.

In this dissertation, SG&A expenses Forecast presupposes a maintenance of the percentage of total revenues, 18.9%.

Finally, besides different models being used, the information in the report allow us to conclude that this dissertation presents a more optimistic scenario regarding the challenges that Target faces.

Chapter 8

Conclusions

In conclusion, this dissertation has conducted a comprehensive analysis of industry and financial statements, in an effort to determine the intrinsic value of Target Corporation and lead to a buy, hold or sell recommendation.

Initially, various valuation approaches were reviewed and compared in order to choose the most appropriate. However only after a brief retail industry overview and a detailed analysis of the target's main financial indicators, Discounted Cash Flow (DCF) valuation was chosen. To complete the analysis, a relative valuation was also carried out.

The main challenge in the current DCF valuation was forecasting financial indicators, due to the business environment's uncertainties, which included unexpected events, shifting market conditions and the volatility in the economy and in the retail industry. The pandemic was a good example, presented unprecedented challenges that disrupted global economies, changed consumer behavior, and reshaped industries. This event brings additional difficulties in predicting future cash flows, growth rates and other financial metrics. It is crucial to remember that DCF can be subject to biases and limitations.

Despite the challenges faced, assumptions were approached, a fair value of \$124.64 has been determined, and a Hold-Recommendation was lead based on DCF valuation. Due to this recommendation, is important to note that financial landscape is dynamic and circumstances can easily change. In order to take into account, the constant uncertainties and changes in the economic and industry environment, a dynamic and adaptive approach is required, recognizing uncertainties and continuously refining assumptions based on new information and changing conditions.

As mentioned before, a valuation based upon multiples was performed to provide a more

comprehensive and accurate picture of Target. However the peer group determined was considered limited, discarding relative valuation to lead to a recommendation.

Overall, in this dissertation I developed a comprehensive analysis into the intrinsic value of Target Corporation, by gathering theoretical frameworks with practical considerations. In the end, I believe that this path of breaking down financial complexities, interpreting industry dynamics always taking into account Target's reality and specificities, has not only deepened my knowledge of equity valuation but also provided relevant insights into the US retail market.

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Appendix A

A.1 Appendix: Deloitte – US Economic Forecast (2023)

FIGURE 18

Baseline (60%)

Percentage year over year unless mentioned otherwise	History							Forecast				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
GDP and components												
Real GDP	1.7	2.2	2.9	2.3	-2.8	5.9	2.1	1.8	1.3	1.6	1.7	1.8
Real consumer spending	2.5	2.4	2.9	2.0	-3.0	8.3	2.8	1.9	2.0	1.8	1.8	1.7
Real consumer spending, durable goods	5.4	6.4	6.8	3.8	10.0	18.5	-0.3	-0.9	0.8	0.7	0.3	0.0
Real consumer spending, nondurable goods	2.5	2.6	2.5	2.8	2.7	8.8	-0.4	1.6	0.8	0.7	0.8	0.6
Real consumer spending, services	2.0	1.7	2.4	1.5	-6.6	6.3	4.5	3.1	4.7	2.7	2.9	2.2
Real investment in private housing	6.6	4.0	-0.6	-1.0	7.2	10.7	-10.7	-10.9	10.0	4.6	1.8	-1.0
Real fixed business investment	0.9	4.1	6.5	3.6	-4.9	6.4	3.6	3.3	3.8	3.8	3.2	2.8
Real inventory accumulation	36	36	66	73	-55	-19	123	77	110	73	46	36
Real exports of goods and services	0.4	4.3	2.8	0.5	-13.2	6.1	7.2	3.6	6.5	5.1	4.9	4.9
Real imports of goods and services	1.5	4.5	4.2	1.1	-9.0	14.1	8.1	1.7	9.9	4.6	4.0	2.6
Real government consumption and investment	2.0	0.4	1.7	3.3	2.6	0.6	-0.6	1.1	0.6	0.8	0.8	0.7
Real federal government consumption and investment	0.5	0.4	3.0	3.9	6.2	2.3	-2.5	-1.2	0.8	1.2	1.1	0.8
Real state and local government consumption and investment	2.8	0.4	0.9	3.0	0.4	-0.5	0.6	0.4	0.3	0.6	0.6	0.6
Prices												
Consumer price index	1.3	2.1	2.4	1.8	1.2	4.7	8.0	4.4	2.8	1.6	1.9	2.2
Chained price index for personal consumption expenditures	1.0	1.8	2.1	1.5	1.1	4.0	6.2	3.3	2.4	1.5	1.9	2.3
Chained GDP price index	1.0	1.9	2.4	1.8	1.3	4.5	7.0	3.3	3.5	1.8	1.9	2.3
Employment cost index	2.2	2.4	2.8	2.7	2.6	3.3	4.9	3.4	3.0	3.0	3.0	3.0
Labor markets												
Average monthly change in employment	211	190	191	166	-728	344	529	221	37	47	38	25
Unemployment rate (percentage)	4.9	4.4	3.9	3.7	8.1	5.4	3.6	4.0	4.1	3.9	3.8	3.8
Employment to population (percentage)	59.7	60.1	60.4	60.8	56.8	58.4	60.0	60.2	60.0	59.9	59.8	59.6
Income and wealth												
Real disposable personal income	1.8	2.7	3.3	3.5	6.2	1.9	-6.4	4.3	2.7	1.9	1.8	1.7
Net household wealth (US\$ trillion)	95	103	104	117	131	150	137	134	132	131	135	142
Personal saving rate (percent of disposable income)	7.0	7.3	7.6	8.8	16.8	11.9	3.3	5.4	5.9	5.8	5.7	5.5
After-tax corporate profits with corporate profits with inventory valuation and capital consumption adjustments	-1.1	4.5	8.6	3.9	-5.9	22.6	7.1	3.7	4.5	2.2	2.7	2.3
Housing												
Housing starts (thousands)	1,177	1,205	1,247	1,291	1,395	1,605	1,555	1,381	1,469	1,495	1,520	1,518
Stock of owner-occupied homes (millions)	136	137	138	140	141	142	143	145	146	147	149	150
Interest rate on 30-year fixed rate mortgages (percentage)	3.65	3.99	4.54	3.94	3.11	2.96	5.33	6.52	7.33	8.06	8.06	8.03
Foreign trade												
Current account balance, share of GDP (percentage)	-2.1	-1.9	-2.1	-2.1	-2.9	-3.6	-3.7	-3.7	-4.5	-4.4	-4.5	-4.3
Merchandise trade balance (US\$ billion)	-736	-797	-878	-857	-905	-1,077	-1,191	-1,319	-1,593	-1,641	-1,710	-1,731
Relative unit labor costs (index, 2008 = 100)	101.5	102.5	101.3	106.4	111.8	108.6	111.3	115.6	117.5	114.8	111.9	109.6
Financial												
Federal funds rate (percentage)	0.39	0.97	1.78	2.16	0.42	0.13	1.73	4.97	5.13	5.13	5.13	5.13
Yield on 10-year Treasury note (percentage)	1.84	2.33	2.91	2.14	0.89	1.44	2.95	4.44	5.86	6.39	6.31	6.27
Government												
Federal budget balance, unified basis (share of GDP, percentage)	-2.9	-3.5	-3.9	-4.5	-12.4	-13.6	-5.7	-5.1	-4.5	-5.1	-5.4	-5.4

Source: Deloitte analysis.

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Figure A.1: Baseline Scenario

Appendix B

B.1 Appendix: Real GDP, Real Consumer Spending and Consumer Price Index Linear Regressions

1 ^o Indicator	Real GDP									
	HISTORICAL DATA									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Real GDP	1,8	2,3	2,7	1,7	2,2	2,9	2,3	-2,8	5,9	2,1
Comparable Sales Change	-0,4	1,3	2,1	-0,5	1,3	5	3,4	19,3	12,7	2,2



Figure B.1: Real GDP

2º Indicador Real consumer spending

	2013	2014	2015	2016	2017	2018	HISTORICAL DATA			
	2019	2020	2021	2022						
Real consumer spending	1,5	3	3,7	2,7	2,4	2,9	2	-3	8,3	2,8
Comparable Sales Change	-0,4	1,3	2,1	-0,5	1,3	5	3,4	19,3	12,7	2,2



Figure B.2: Real consumer spending

3º Indicador Consumer Price Index

	2013	2014	2015	2016	2017	2018	HISTORICAL DATA			
	2019	2020	2021	2022						
Consumer Price Index	1,5	1,6	0,1	1,3	2,1	2,4	1,8	1,2	4,7	8
Comparable Sales Growth	-0,4	1,3	2,1	-0,5	1,3	5	3,4	19,3	12,7	2,2



Figure B.3: Consumer Price Index

Appendix C

C.1 Appendix: Relation Between Sales and N° of stores

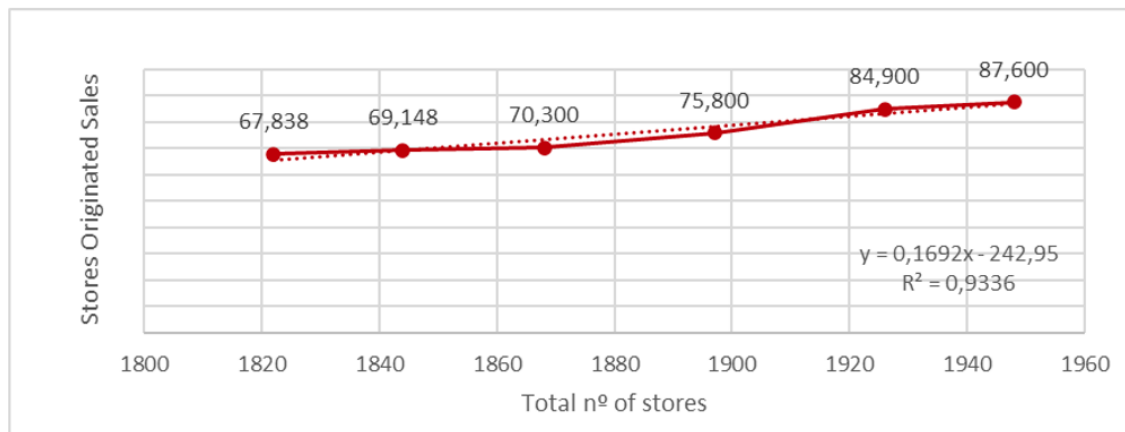


Figure C.1: Sales/N°Stores

Appendix D

D.1 Appendix: Weighted Average YTM and Weight Average Maturity

Maturity	Description	Maturity Date	Amount Outstanding	Issued Amount	Coupon	Coupon Class	Currency	ISIN	Last Price	Issuer	Years to Maturity	Weight	YTM
2024	TGT 3.500 01-Jul-2024	01-Jul-2024	1 000 000 000	1 000 000 000	3,5	Fixed Coupon	US Dollar	US87612EBD76	98,907	TARGET CORP	1	0,07	4,6%
2025	TGT 2.250 15-Apr-2025 '25	15-abr-2025	1 500 000 000	1 500 000 000	2,25	Fixed Coupon	US Dollar	US87612EBL92	96,675	TARGET CORP	2	0,11	4,0%
2026	TGT 2.500 15-Apr-2026	15-abr-2026	1 000 000 000	1 000 000 000	2,5	Fixed Coupon	US Dollar	US87612EBE59	95,816	TARGET CORP	3	0,07	4,0%
2027	TGT 1.950 15-Jan-2027 '26	15-jan-2027	1 000 000 000	1 000 000 000	1,95	Fixed Coupon	US Dollar	US87612EBM75	92,892	TARGET CORP	4	0,07	3,9%
2028	TGT 6.750 01-Jan-2028	01-jan-2028	96 869 000	200 000 000	6,75	Fixed Coupon	US Dollar	US239753DJ25	108,419	TARGET CORP	5	0,01	4,8%
2028	TGT 6.650 01-Aug-2028	01-ago-2028	81 075 000	200 000 000	6,65	Fixed Coupon	US Dollar	US239753DL70	108,927	TARGET CORP	5	0,01	4,6%
2029	TGT 3.375 15-Apr-2029 '29	15-abr-2029	1 000 000 000	1 000 000 000	3,375	Fixed Coupon	US Dollar	US87612EBH80	95,296	TARGET CORP	6	0,07	4,3%
2030	TGT 2.350 15-Feb-2030 '29	15-fev-2030	750 000 000	750 000 000	2,35	Fixed Coupon	US Dollar	US87612EBJ47	88,939	TARGET CORP	7	0,05	4,2%
2030	TGT 2.650 15-Sep-2030 '30	15-set-2030	480 209 000	1 000 000 000	2,65	Fixed Coupon	US Dollar	US87612EBK10	89,241	TARGET CORP	7	0,03	4,5%
2031	TGT 7.000 15-Jul-2031	15-jul-2031	207 604 000	700 000 000	7,0	Fixed Coupon	US Dollar	US87612EAF34	113,013	TARGET CORP	8	0,01	5,0%
2032	TGT 4.500 15-Sep-2032 '32	15-set-2032	1 000 000 000	1 000 000 000	4,5	Fixed Coupon	US Dollar	US87612EBP07	99,809	TARGET CORP	9	0,07	4,5%
2032	TGT 6.350 01-Nov-2032	01-nov-2032	301 475 000	600 000 000	6,35	Fixed Coupon	US Dollar	US87612EAK29	112,4	TARGET CORP	9	0,02	4,6%
2033	TGT 4.400 15-Jan-2033 '32	15-jan-2033	500 000 000	500 000 000	4,4	Fixed Coupon	US Dollar	US87612EBQ89	99,881	TARGET CORP	10	0,04	4,4%
2037	TGT 6.500 15-Oct-2037	15-out-2037	396 314 000	1 250 000 000	6,5	Fixed Coupon	US Dollar	US87612EAR71	114,933	TARGET CORP	14	0,03	5,0%
2038	TGT 7.000 15-Jan-2038	15-jan-2038	547 364 000	2 250 000 000	7,0	Fixed Coupon	US Dollar	US87612EAU01	120,451	TARGET CORP	15	0,04	5,0%
2042	TGT 4.000 01-Jul-2042	01-jul-2042	1 108 330 000	1 500 000 000	4,0	Fixed Coupon	US Dollar	US87612EBA38	90,075	TARGET CORP	19	0,08	4,8%
2046	TGT 3.625 15-Apr-2046	15-abr-2046	605 983 000	1 000 000 000	3,625	Fixed Coupon	US Dollar	US87612EBF25	82,3	TARGET CORP	23	0,04	4,9%
2047	TGT 3.900 15-Nov-2047 '47	15-nov-2047	525 709 000	750 000 000	3,9	Fixed Coupon	US Dollar	US87612EBG08	86,105	TARGET CORP	24	0,04	4,9%
2052	TGT 2.950 15-Jan-2052 '51	15-jan-2052	1 000 000 000	1 000 000 000	2,95	Fixed Coupon	US Dollar	US87612EBN58	71,126	TARGET CORP	29	0,07	4,8%
2053	TGT 4.800 15-Jan-2053 '52	15-jan-2053	1 150 000 000	1 150 000 000	4,8	Fixed Coupon	US Dollar	US87612EBR62	98,587	TARGET CORP	30	0,08	4,9%
			14 250 932 000	19 350 000 000							11,9		4,50%

Figure D.1: Target Outstanding Bonds (Source Refinitiv Eikon)

Appendix E

E.1 Appendix: Financial Statements

US\$ in millions	12 months ended:						FORECAST				
	Feb 3, 2018	Feb 2, 2019	Feb 1, 2020	Jan 30, 2021	Jan 29, 2022	Jan 28, 2023	F2023	F2024	F2025	F2026	F2027
Sales	71 786	74 433	77 130	92 400	104 611	107 588	110 555	113 776	117 079	120 424	123 859
Cost of sales	(51 125)	(53 299)	(54 864)	(66 177)	(74 963)	(82 229)	(81 859)	(84 245)	(86 690)	(89 167)	(91 710)
Gross margin	20 754	21 134	22 266	26 223	29 648	25 359	28 695	29 532	30 389	31 257	32 149
Other revenue	—	923	982	1 161	1 394	1 532	1 441	1 483	1 526	1 569	1 614
Selling, general and administrative expenses	(14 248)	(15 723)	(16 233)	(18 615)	(19 752)	(20 658)	(21 167)	(21 784)	(22 416)	(23 057)	(23 714)
Depreciation and amortization, exclusive of depreciation included in cost of sales	(2 194)	(2 224)	(2 357)	(2 230)	(2 344)	(2 385)	(2 534)	(2 608)	(2 684)	(2 761)	(2 839)
Operating income	4 312	4 110	4 658	6 539	8 946	3 848	6 435	6 622	6 814	7 009	7 209
Net interest expense	(666)	(461)	(477)	(977)	(421)	(478)	(489)	(521)	(556)	(593)	(634)
Net other income (expense)	—	27	9	(16)	382	48	—	—	—	—	—
Earnings from continuing operations before income taxes	3 646	3 676	4 190	5 546	8 907	3 418	5 946	6 101	6 258	6 416	6 575
Provision for income taxes	(718)	(746)	(921)	(1 178)	(1 961)	(638)	(1 209)	(1 241)	(1 273)	(1 305)	(1 337)
Net earnings from continuing operations	2 928	2 930	3 269	4 368	6 946	2 780	4 737	4 860	4 985	5 111	5 238
Discontinued operations, net of tax	6	7	12	—	—	—	—	—	—	—	—
Net earnings	2 934	2 937	3 281	4 368	6 946	2 780	4 737	4 860	4 985	5 111	5 238

Figure E.1: Income Statement

US\$ in millions							FORECAST				
	Feb 3, 2018	Feb 2, 2019	Feb 1, 2020	Jan 30, 2021	Jan 29, 2022	Jan 28, 2023	F2023	F2024	F2025	F2026	F2027
Assets											
Cash and cash equivalents	2 643	1 556	2 577	8 511	5 911	2 229	447	2 076	2 845	3 175	3 269
Inventory	8 657	9 497	8 992	10 653	13 902	13 499	13 635	14 032	14 439	14 852	15 275
Other current assets	1 264	1 466	1 333	1 592	1 760	2 118	2 000	2 058	2 118	2 179	2 241
Current assets	12 564	12 519	12 902	20 756	21 573	17 846	16 082	18 166	19 403	20 205	20 785
Property and equipment, net	25 018	25 533	26 283	26 879	28 181	31 512	31 441	32 357	33 297	34 248	35 225
Operating lease assets	—	1 965	2 236	2 227	2 556	2 657	2 872	2 956	3 042	3 129	3 218
Other noncurrent assets	1 417	1 273	1 358	1 386	1 501	1 320	1 402	1 402	1 402	1 402	1 402
Noncurrent assets	26 435	28 771	29 877	30 492	32 238	35 489	35 716	36 716	37 741	38 779	39 845
Total assets	38 999	41 290	42 779	51 248	53 811	53 335	51 798	54 882	57 143	58 984	60 630
Liabilities											
Accounts payable	8 677	9 761	9 920	12 859	15 478	13 487	14 643	15 069	15 507	15 950	16 405
Accrued and other current liabilities	4 254	4 201	4 406	6 122	6 098	5 883	6 501	6 691	6 885	7 081	7 283
Current portion of long-term debt and other borrowings	270	1 052	161	1 144	171	130	151	151	151	151	151
Current liabilities	13 201	15 014	14 487	20 125	21 747	19 500	21 294	21 910	22 542	23 182	23 838
Long-term debt and other borrowings, excluding current portion	11 317	10 223	11 338	11 536	13 549	16 009	16 053	17 128	18 285	19 530	20 869
Noncurrent operating lease liabilities	—	2 004	2 275	2 218	2 493	2 638	2 450	2 450	2 450	2 450	2 450
Deferred income taxes	713	972	1 122	990	1 566	2 196	1 584	1 782	1 854	1 740	1 792
Other noncurrent liabilities	2 059	1 780	1 724	1 939	1 629	1 760	1 776	1 776	1 776	1 776	1 776
Noncurrent liabilities	14 089	14 979	16 459	16 683	19 237	22 603	21 863	23 136	24 365	25 495	26 887
Total liabilities	27 290	29 993	30 946	36 808	40 984	42 103	43 157	45 046	46 906	48 677	50 725

Figure E.2: Balance Sheet

US\$ in millions	FORECAST					
	12 months ended:	F2023	F2024	F2025	F2026	F2027
EBIT		6 435	6 622	6 814	7 009	7 209
Depreciation & Amortization		2 534	2 608	2 684	2 761	2 839
Income Tax		(1 209)	(1 241)	(1 273)	(1 305)	(1 337)
Δ NWC		(1 756)	(161)	(165)	(167)	(171)
Other cash adjustments		—	—	—	—	—
Change in cash from operating activities		6 004	7 829	8 061	8 298	8 540
CAPEX		(4 189)	(4 311)	(4 437)	(4 563)	(4 694)
Other investments		(13)	(13)	(13)	(13)	(13)
Change in cash from investing activities		(4 202)	(4 324)	(4 450)	(4 576)	(4 707)
Interest paid		(489)	(521)	(556)	(593)	(634)
Dividends		(2 024)	(2 206)	(2 405)	(2 621)	(2 857)
Repurchase of stock		(1 115)	(224)	(1 038)	(1 423)	(1 587)
Δ Debt		44	1 075	1 157	1 245	1 340
Change in cash from financing activities		(3 583)	(1 875)	(2 842)	(3 392)	(3 739)
Change in Cash		(1 782)	1 629	769	329	95
Cash Beginning of period		2 229	447	2 076	2 845	3 175
Cash end of period		447	2 076	2 845	3 175	3 269

Figure E.3: Cash Flow Map