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BUSINESS & ECONOMICS

Amazon to become the undisputed retail champion?

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Dissertation written under the supervision of António Luís Borges de
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Dissertation submitted in partial fulfilment of requirements for the MSc in
Finance, at the Universidade Católica Portuguesa, January 2021.

Abstract

The purpose of this dissertation is to analyze the potential acquisition of Target Corporation by Amazon.

The retail industry has been consistently growing in past years, without any signs of slowing down. Even though the Covid-19 pandemic fueled the global shift from physical to online retailing, this acquisition is presented as viable option for a company like Amazon.

In order to leverage on its remarkable year results and accentuate its position as the worldwide market leader in the retailing industry, it is proposed a possible strong entrance in the brick-and-mortar retail, in the US, hinted by the 2017 acquisition of Whole Foods.

The proposed acquisition is a direct response to Walmart, Amazon's main competitor in the US, which has recently gained market share in the online retail industry.

The recommended bid price is \$202.60 per share, which accounts for a 27% acquisition premium over the market price at the 11th of December 2020. This valued is justified by net synergies of \$37,369.

The transaction should be carried as a friendly takeover and is expected to be an all-cash deal, financed 60% Amazon's cash reserves and 40% by debt issuance. Amazon's shareholders have the potential of capturing \$15,800 million and an accretion of 27.5% in 2020.

Keywords: Mergers and acquisitions, Retail, E-commerce

Title: Amazon to become the undisputed retail champion?

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Abstrato

O objetivo da presente dissertação é analisar a potencial aquisição da Target Corporation pela Amazon.

A indústria do retalho tem vindo a crescer bastante nos últimos anos, sem quaisquer sinais de abrandamento. Apesar da pandemia do Covid-19 ter contribuído para acentuar a mudança global de retalho físico para “online”, a aquisição proposta é considerada como viável para uma empresa como a Amazon.

De forma a poder tirar partido dos seus resultados notáveis de 2020 e a enfatizar a sua posição de líder mundial na sua indústria, é proposta uma forte entrada na indústria de retalho físico norte-americana, denunciada pela aquisição da Whole Foods em 2017.

A aquisição seria uma resposta ao Walmart, o principal competidor da Amazon nos Estados Unidos, que tem vindo a capturar uma quota de mercado considerável no retalho “online”.

A licitação recomendada é de \$202.60 por ação, que inclui 27% de prémio de aquisição acima do valor de mercado no dia 11 de dezembro de 2020. Este valor justificado por sinergias líquidas de \$37,369.

É esperado que a transação seja de forma amigável e que a oferta seja composta por dinheiro, financiando 60% pelas reservas da Amazon e 40% pela emissão de dívida. Os acionistas da Amazon podem potencialmente capturar \$15,800 milhões e uma acreção de 27.5% ainda em 2020.

Palavras-chave: Fusões e aquisições, Retalho, E-commerce

Título: Será que a Amazon se pode tornar o campeão indiscutível do retalho?

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Acknowledgements:

It is a bittersweet sensation to have finally concluded my studies at Católica Lisbon, and what a journey it has been. These the past five years have shaped my life completely, from an 18-year-old boy who knew nothing about business, to a 23-year-old man who now works in an investment bank.

I know that I owe a great part of my success to inspiring professors I found at Católica. I would like to thank my academic advisor António Borges de Assunção, for his competency and outstanding availability while guiding me in the last months.

I would also like to express my gratitude to my friends, namely Maria Oliveira, Francisco Reis and Luís Costa, who supported me throughout this challenge.

To my classmates, who then became friends, for setting high standards and promoting a healthy competition environment amongst peers.

To my family, a true example of union and selfless care, which reminds every day to have a unique loving perspective in everything I do.

Finally, I would like to specially thank my parents and siblings, for making me a resilient hard worker, allowing me the privilege me to study at one of the best business schools in Europe, but, above all, for their unconditional love and confidence in me.

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List of abbreviations

M&A	Mergers and acquisitions
FCFF	Free cash flow to the firm
WACC	Weighted average cost of capital
FCF	Operating free cash flow
FCFE	Free cash flow to equity
EFE	Equity free cash flow
K_e	Cost of equity
K_d	Cost of debt
APV	Adjusted present value
K_u	Unlevered cost of capital
PVTS	Present value of tax shields
CFF	Capital free cash flow
E	Equity
D	Debt
V_u	Value of the unlevered firm
T_c	Corporate tax rate
t	Tax rate
CAPM	Capital asset pricing model
SG&A	Selling, general and administrative (costs)
AWS	Amazon Web Services
NPV	Net present value
R&D	Research and development
CAGR	Compound annual growth rate
CAPEX	Capital expenditures
NWC	Net working capital
DCF	Discounted cash flow (model)
NASDAQ	National Association of Securities Dealers Automated Quotations

S&P	Standard and Poor's
AI	Artificial intelligence
IT	Information technology
API's	Application programming interfaces
ROE	Return on Equity
EPS	Earnings per shares
PER	Price earnings ratio
EBITDA	Earnings before interests, taxes, depreciations and amortizations
EBIT	Earnings before interests and taxes
SWOT	Strengths, weaknesses, opportunities and threats
CAGR	Compounded annual growth rate
GICS	Global industry classification standard
Mkt Cap	Market capitalization
EV	Enterprise value
TV	Terminal value
EVA	Economic value added
NFD	Net financial debt
NOPAT	Net operating profit after taxes

1. Introduction

The present dissertation addresses the topic of Mergers and Acquisitions (M&A), applying its concepts to a case study, mainly focused on valuation techniques. The aim of this thesis is to understand the viability of a potential acquisition of Target Corporation by the largest player on the retail industry, Amazon. The main reasoning behind this acquisition is for Amazon to get a competitive advantage over its main competitor in North America, Walmart.

The year of 2020 has reminded society that even the near future is uncertain, and nothing can be taken for granted. From an unprecedented global pandemic, that will shape the way we are going to live for the next generations; to constant riots and protests, mainly in Hong Kong and the US; 2020 has been full of historic events that promise to change the economic landscape for the long run.

According to the United Nations, in 2019, the world's gross product growth and world trade growth fell to their lowest level in a decade. Rising tariffs and the escalation of global trade tensions have fueled policy uncertainty, significantly curtailed investment, pushing global trade growth down to 0.3%. Bilateral trade between the United States of America and China has plummeted, with significant disruptions to international supply chains. The impeachment of the US president Donald Trump and the uncertainty regarding the outcome of the US presidential elections contributed to a climate of increasing volatility, mainly in the US.

All in all, the measures taken to contain covid-19 have caused major economic disruptions due to countries being on quarantine. This resulted, on the supply side, in major cutbacks in services provisions and harsh supply chain disruptions. On the demand side, there was a loss of confidence by the consumers (which is, for many economists, the main pillar of the economy). Nonetheless, with great uncertainty come great opportunities.

2. Literature Review

2.1. Mergers and acquisitions

2.1.1. Overview

All firms desire to maximize their shareholder value and expand their business, to do so they can implement a set of growth strategies that can be either organic or inorganic (Demirci, 2007).

Firms that rely on organic growth utilize their internal resources and capabilities to achieve growth. Contrarily, if a company chooses to look for external sources of growth, they incur in inorganic growth. Some of the limitless examples of this kind are: joint-ventures, alliances, mergers and acquisitions (Bruner, 2004).

Regarding the last examples referred above, i.e. M&A, both assign the joining of two or more entities. However, they bear slight differences that lead to three scenarios (Garzella & Fiorentino, 2016):

1. Merger by incorporation, where an existing firm embodies one or more companies;
2. Pure merger, where companies combine forces to create a new joint organization;
3. Acquisition, where one entity gets taken over by another separate entity, therefore, ceasing to exist.

Additionally, mergers can be classified based on relatedness of business activities and Lubatkin (1983) executed it by grouping them in four different categories:

1. Product concentric, where companies with distinct products that operate in the same market bundle their product offerings.
2. Horizontal and market concentric, where the author used Howell's (1970) rationale to group these classifications due to the little distinction between the two, given the ease with which a firm can geographically expand its markets. Therefore, this classification is related to mergers between companies that operate in a similar industry.
3. Vertical, that are the combination of firms operating in different industries but along the same supply chain.
4. Conglomerate, these mergers are related to the combination of firms that are involved in unrelated business activities.

Moreover, takeovers can be distinguished between friendly or hostile. Friendly takeovers have the target's management approval of the proposal and their collaboration to implement it. Whereas, in hostile takeovers the managers of the acquired firm oppose the intended proposal. Subsequently, the managers of the firm hope the transaction will result in increased competitiveness, higher cost-efficiency, more advanced technology and access to new talents, resources and capabilities. Finally, M&A activity is a prompt route that firms use to move to new markets and obtain new capabilities (Rappaport & Sirower, 1999), widening the nature of their business.

2.1.2. Takeover defense tactics

In hostile bids the strategic direction and leadership of the target firm are at risk. Consequently, its executives can enact defenses against hostile takeovers to promote the interests of the target firm's shareholders by raising takeover premiums, improving management, or protecting the firm's long-term strategy (Rice, 1983). Nevertheless, they can also be seen as the managers' defensive actions on behalf of their self-interests, resulting in significant negative returns for shareholders. (Byrd & Stammerjohan, 1997).

Anti-takeover tactics can be allocated in two different categories: preventive and reactive.

On one hand, preventive measures are elaborated before an eventual attack as a response to the firm's vulnerability due to its market condition, financial constraints, depressed stock price, or competitive weakness. They can assume three different paths: poison pills; corporate charter amendments; and golden parachutes.

On the other hand, reactive measures are taken in response to an undesired takeover attempt. They can be branched in four categories: litigation; greenmail; standstill agreements; and capital structure changes.

Concluding, regardless of the success of the takeover, the defense tactics applied by targets typically benefit them. As a matter of fact, these actions produce double gains: positive wealth effect for stockholders ranging from 9% to 14% and significantly lower chances of a bid success, resulting in more job security for the target's executives (Pearce & Robinson, 2004). Nonetheless, some strategies have proved to have better results than the others and poison pills are the preferred ones, since they show evidence of increasing stockholders' wealth.

2.1.3. Motivations behind Mergers and Acquisitions

The motivations behind M&A transactions are possibly as many as the number of firms acting as bidders and targets, and behind every takeover are various motives. For a better comprehension they can be combined into different categories.

Several studies attempted to group them in the most clustering and rational manner, although scholars are aware that one single theoretical approach cannot take into full consideration the motives behind every M&A deal (Steiner, 1975; Ravenshaft & Sherer, 1987; Melin & Hellgren, 1994).

Trautwein's (1990) approach tries to explain the reasoning that backs M&A transactions through seven theories, sectioned in three categories:

1. Merger as a rational choice (planned to achieve something), where most theories focus on shareholders' interests (efficiency, monopoly, raider, valuation), while empire-building theory focuses on managers' interests and how they deviate from the goal of value maximization.
2. Merger as process outcome, the process theory considers strategic business decisions as the result of organizational processes, without any rational influence.
3. Merger as a macroeconomic phenomenon, the disturbance theory points to economic disturbances as the causes for mergers in an environment of high uncertainty and change.

Trautwein's literature critiques the strategic motivation of M&A, i.e. the efficiency theory that refers to synergetic value. The author defends that motives behind mergers are interpreted more clearly through decision processes, clashing interests and information asymmetries (valuation theory).

In contrast, Berkovitch & Narayanan (1993) recognized three main motives for takeovers: synergy, hubris and agency.

Furthermore, they prove synergies are the dominant motivation for M&A transactions with positive total gains. The study stresses the premise that both managers want to maximize shareholder value, therefore will only engage in the operation if it results in economic gains for both firms. Several other authors corroborate this statement, such as Bradley et al. (1988) that refer to a 7.4% increase in the combined value of firms in successful tender offers. Nevertheless, there is no consensus regarding this topic and authors, namely Mueller & Sirower (2003), reject the synergy hypothesis as a main motive for M&A.

The Hubris hypothesis addresses the overconfidence of bidders about their ability to add value to the target company, leading to deals that, if correctly assessed, would not take place. The authors conclude that this hypothesis has zero correlation between target and total gains. Other articles (Roll, 1986) acknowledge the influence of hubris in the overvaluation of target companies.

Respecting agency hypothesis, which justifies takeovers with management's interests in mind instead of value maximization, Berkovitch & Narayanan (1993) found a negative correlation between the target and total gains. In addition, Mueller & Sirower (2003) described agency as managerial discretion and found significant support for it as a M&A motive. In Trautwein's (1990) approach, this hypothesis is found under the empire-building theory.

In conclusion, there are numerous studies which explain part of the multiple motives for mergers and acquisitions with different approaches. Nonetheless, synergetic value is generally highlighted as the main motivation behind these transactions.

2.1.4. Synergies

As mentioned above, synergies are proved to be the fundamental motivation for mergers and acquisitions. Managers that prompt these transactions expect the value created by the combined firm to be higher than that of the two firms independently (Sirower, 1997).

2.1.4.1. Types of synergies

Damodaran (2005) mentions the distinction of synergies between two types: operating and financial. Past literature (Houston & Ryngaert, 1996) on this topic suggests that operating and financial synergies are the most desirable factors for successful acquisitions.

Operating synergies reflect the efficiency gains or economies of scale achieved through the combination of both firms. Regarding revenue enhancement, they can be accomplished because of complementary products, geographies and customers or patents. With respect to cost savings, the merger can improve operational activities through shared information technology, supply chain efficiency, improved sales and marketing, R&D, lower salaries and wages, or the removal of patents. Moreover, Goold & Campbell (1998) indicated shared know-how, pooled negotiating power, coordinated strategies, vertical integration, combined business creation and shared tangible resources as possible operating synergies that could arise from a merger. Finally, Mukherjee et al. (2004) refer to these operating synergies as the main motive for acquisitions.

Financial synergies emerge from the improved efficiency of financing activities, leading to a risk reduction, i.e., a reduction in the cost of capital of the new firm. Grinblatt & Titman (2002) characterize periods (from the 1960s to the 1980s) where financial synergies, such as tax benefits and incentive improvement were the primary motive for acquisitions. However, in later periods operational synergies became viewed as the main motivation for strategic acquisitions. Even though this is not a unanimous topic, most authors agree that both operational and financial synergies contribute to the creation of value in a merger.

2.1.4.2. Synergies in the context of multi-channel retailing

The concept of multi-channel retailing emerged after the proliferation of several sales channels through which consumers could interact with companies (Neslin, 2006). The most common examples are brick-and-mortar stores, printed catalogs and the internet. Accordingly, through the different channels, companies can expand their target groups, increase customer loyalty by satisfying the variety needs of existing customers (Schramm-Klein, 2003) and search for improved financial performance (Geyskens et al., 2002). With respect to the last objective referred, firms look for an increase in efficiency and profiling against the competition, which hopefully results in a synergistic effect.

The “clicks and mortar” strategy combines internet and physical stores and, the retailers that undertake this multi-channel tactic mostly want to build customer confidence by giving them a demonstration of appropriateness of their product range (Morschett, 2006).

Nevertheless, past literature (Zhang et al., 2010) suggested that retailers may face some constraints before going multi-channel due to three main reasons: consumer access to broadband Internet service, which nowadays is almost a non-existing problem in developed countries; operational difficulties of integration; and the costs of multi-channel offering.

Even so, the authors concluded that when companies confront those constraints and start a multi-channel retail business, they can create different synergies from it: cross-channel customer communication and promotions; leveraging cross-channel information and research from one channel to improve decisions in other channels; cross-channel price comparisons; digitization; shared common physical assets and operations (Neslin & Shankar, 2009).

2.1.4.3. Valuing synergies

Damodaran (2005) states, after several inconclusive past research (Barker, 1999; Ludholm & O’Keefe, 2001; Penman, 2001) about the effectiveness of synergy valuation models in M&A deals, that the key question is “how synergies should be evaluated and how firms should avoid risks of potential synergy mis-assessment?”.

Consequently, with the evolution of times managers started to prefer more sophisticated methods in order to correctly assess the potential synergies of their mergers. The two most consensual models are:

1. NPV: that gives importance to each type of synergy that is forecasted (Gupta & Gerchak, 2002); Often adopted when representing dimensions of corporate strategy and organizational structure; This is the primary method used on valuation of synergies.
2. Relative valuation: this model values synergies stand on how similarly they are priced in the market (Liu et al., 2002).

As the correct assessment of potential synergies has a huge impact on the outcome of M&A transactions, this theme will be further discussed ahead in this literature review.

2.1.5. Acquisition premium

When an acquisition takes place, both companies are aware that the purchase price will not be the same as the intrinsic value of the target firm. So, to be successful, the bidder will need to pay a premium (Eccles et al., 1999). The acquisition premium represents the difference in percentage between the acquisition price and the real value of the target (Berk & DeMarzo, 2017). Past literature suggests that the average bid premium ranges between 20% and 40% in M&A transactions (Goergen & Renneboog, 2004). Also, BCG's 2018 report on M&A, states that the long-term average for acquisition premiums is 32,7%, even though 2017's results were considerably below this average (24,8%).

Moreover, there are some circumstances that can increase the potential bid premium, including: the expected synergies that will result from the merger that make executives of the acquirer firm pressured to guarantee they will close the deal; the expected growth rate of the target firm (Tarabay, H, 2018); defensive tactics in hostile takeovers (Dennis & McConnell, 1986); payment in cash, or cash combined with stock due to tax consequences (Mukherjee et al., 2004). However, this last aspect was opposed by other authors, such as Huang & Walkling (1987); lastly, the wrong analysis of the acquisition price done by the bidder firm (Mukherjee et al., 2004).

2.1.6. Methods of payment

The decision that the acquirer firm undertakes on which method of payment to use is proved to be crucial in the outcome of the acquisition deal. The bidders can adopt three distinct options: all-cash, all-stock, or a mixed payment of both.

In an all-cash transaction, the shareholders of the acquiring firm detain the whole value and risks of the transaction, while in all-stock deals, the synergies and risks are split amongst both parties (Rappaport & Sirower, 1999).

Regarding the results of the choice, past literature (Bruner et al., 1986; Travlos, 1987) found out that the returns to bidders who chose cash were almost insignificantly positive and when they chose stock their returns were significantly negative. Furthermore, equity-financed transactions yield an inferior long-term performance than all-cash deals (Agrawal et al., 1992). Accordingly, the choice over the method of payment has a signaling effect about: (1) the bidder's confidence in the post-acquisition gains; and (2) the valuation of the bidder's assets.

On this wise, all-stock transactions are expected in friendly takeovers; when acquirers' have lower liquidity; overvalued bidders' assets; and when there is dispersed ownership (Stulz, 1988). Contrarily, all-cash transactions are often used in tender offers (Kalinowska & Mielcarz, 2014), in companies with high percentage of managerial ownership (Amihud et al., 1990) and when there is an auction environment (Fishman, 1989).

2.1.7. Profitability of M&A deals

Eccles et al. (1999) state that due to high premiums, overestimation of synergies, irrational exuberance about the strategic concern of the deal, enthusiasm built up during negotiations, weak integration skills, or inaccurate due diligence, the most recurring view on M&A is that it is a "loser's game" and therefore destroys value (Grubb & Lamb 2000). Likewise, Christensen et al. (2011) suggest that the failure rate of mergers and acquisitions is somewhere between 70% and 90%.

Notwithstanding, there is an uneven distribution of the returns as target shareholders tend to gain with the transaction. So, when the combined bidder and target returns are positive, targets account for the majority of the gains, while acquiring firms show neutral or negative returns (Haleblian et al., 2009; Sirower & Sahni, 2006).

Despite all these discoveries, past empirical studies are proved to give inaccurate information about value creation as a result of unrepresentative data collection, short timespan covered, misuse of statistical tools (Berkovitch & Narayanan, 1993), overvalued stock and exogenous shocks (Bruner, 2004). Moreover, literature is inconsistent in specifying clear conclusions regarding M&A efficacy. According to Bruner (2004), the appropriate technique to evaluate M&A compares the current situation after the merger, with a hypothetical one if the deal had not occurred.

In fact, at the macroeconomic level, M&A transactions do create value (Sirower & Sahni, 2006), since the sellers captivate a large percentage of gains balancing out the minor percentage losses of the buyers.

Lastly, by aiming attention at hunting managerial talent, creating original operating synergies, offering cash flow related incentives to executives and promoting the speed of the integration process, the acquirer firm can gather shareholder value (Anslinger & Copeland, 1996).

2.2. Firm valuation

2.2.1. Valuation overview

Many analysts acknowledge valuation as the heart of corporate finance, considering that a manager's objective is to increase firm value through investment, financing and dividend decisions.

Damodaran (2012) described four generic approaches to valuation:

1. The discounted cash flow (DCF) valuation: related to the value of an asset. This is an intrinsic value approach because the underlying assumption of this model is that the company is worth what it will generate.
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. This is an analogical approach since that the company is considered to be worth what other companies are worth.
3. The liquidation and accounting valuation built around valuing existing assets of a firm. This is considered a patrimonial approach, in the sense that the company is worth what it owns.
4. The contingent claim valuation, that uses option pricing models to measure the value of assets which share option characteristics. This final approach is an external benchmark approach, since a company is worth what others buy/sell it for.

According to Kaplan & Ruback (1996), the first and second previously described approaches are the ones that lead to more reliable results.

Extensive literature review regarding these valuation techniques is available on appendix 1.

3. Company Profiles

3.1. Amazon company profile

3.1.1. Company overview

Amazon was founded in 1994 by Jeffrey Bezos in Seattle, Washington, where its headquarters are located to this day. The company was initially an online bookstore and after a great first year the firm announced that it would become public, with the initial public offering taking place in 1997. The company managed to survive the early 2000's dot-com bubble burst which destroyed many e-companies at the time. From that time to this day the company managed to diversify its services and shifted even more to the technology sector, by growing both organically and inorganically, the company became one of the big four technology companies, alongside Google, Apple and Facebook.

Amazon is mainly engaged in the provision of online retail shopping services. The company operates through the following three business segments: North America, International, and Amazon Web Services (AWS). The North America segment includes retail sales of consumer products and subscriptions through North America-focused websites. The International segment offers retail sales of consumer products and subscriptions through internationally focused websites. The Amazon Web Services segment is involved in the global sales of compute, storage, database, and AWS service offerings for start-ups, enterprises, government agencies, and academic institutions.

3.1.2. Ownership

Amazon is a publicly traded company at the NASDAQ by the ticker AMZN. The company is also one of the main components of the NASDAQ 100, the main technology derived index.

Amazon's insider shareholders hold a total of 15% of the firm's equity, quite a significant amount. The main insider shareholder is Jeffrey Bezos, CEO and founder of the firm, owning 10.9% of it. Jeffrey is followed by Mackenzie Bezos, with 3.9% of the company and, finally, by Softbank Group, which owns 0.1% of the firm.

Institutional shareholders own a total of 59.7% of the company. The main institutional holders of Amazon are the Vanguard Group, owning 6.2% of the firm, followed by BlackRock, which has a 3.7% stake in the company and Ssga Funds Management which owns 3.3% of the firm.

3.1.3. Product and services portfolio

Amazon breaks down its revenues into five major business segments: online stores; physical stores; third-party seller services; Amazon prime; and AWS which provides on-demand cloud computing platforms. Further information on the matter is available in appendix 2.

Additionally, there is a sixth business segment, named “other revenues” which mainly includes sales of advertising services, as well as sales related to other services offerings.

In 2019, Amazon’s revenues amounted to \$280,522 million, a 20.5% increase when compared to the previous year. Its revenues by business segment is as follows:

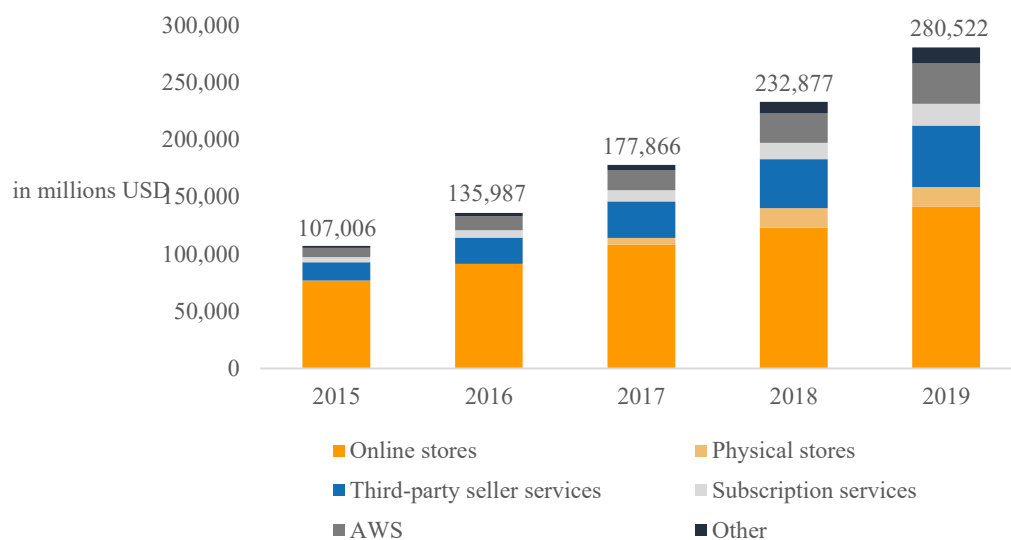


Figure 1 - Amazon’s historic revenues by business segment; adapted from Amazon’s annual reports

Firstly, around 50% of Amazon’s revenues comes from its online sales business segment, a percentage that has been decreasing every year since its value of 72% back in 2015. Secondly, its third-party seller services divisions represent 19% of the firm’s total revenues, which has been increasing every year as well when compared to the 15% value in 2015. In third place, AWS, whose revenues only started being discriminated in 2017 (being 3% at the time), contributes, in 2019, to 12% of the firm’s revenues.

Amazon’s revenues growth is expected to increase in the next year, since its net sales in the first half of 2020 totalled to \$164,364 million, a 33.5% increase compared with the \$123,104 million in the same period of 2019. In its second quarter report, the company also stresses a 42% increase operating cash flow, when comparing to the same quarter of 2019.

3.1.4. Geographical footprint

Having a workforce of over 876,800 people, Amazon has currently 17 country-specific sites spanning some of the largest e-commerce markets all over the world:

Geographical area	Country
Americas	USA
	Canada
	Mexico
	Brazil
Europe	UK
	Germany
	France
	Italy
	Spain
	Netherlands
Asia-Pacific	China
	Japan
	India
	Australia
	Singapore
Middle East	United Arab Emirates
	Turkey

Table 1 - Amazon's presence by country; adapted from the company's website

Its revenues by geographical area are as follows:

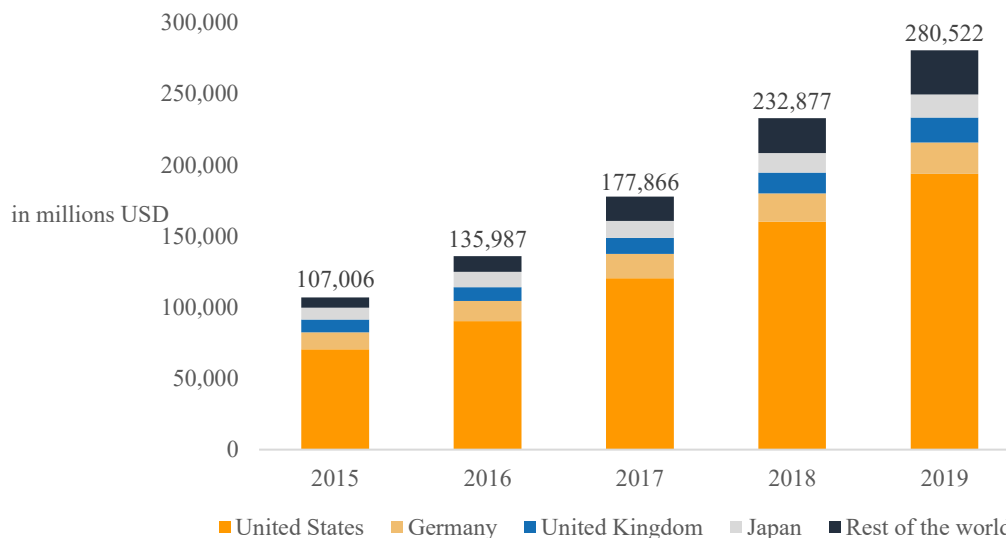


Figure 2 - Amazon's historic revenues by geographical area; adapted from Amazon's annual reports

It is noticeable that 69% of the firm's revenues come from its home country, however it has been experiencing a deaccelerated growth. It is also worth mentioning that the "rest of the world" contribution to Amazon's revenues has been increasing, from 7% in 2015, to 11% in

2019, while the values of Germany, UK and Japan have been relatively stable in the last five years.

3.1.5. Recent developments

In August 2017, Amazon acquired Whole Foods for over \$12 billion, corresponding to a 9.94x EBITDA multiple. The US-based retailer of natural and organic foods is the largest acquisition of Amazon so far. This deal represents undoubtedly Amazon's strategy of shifting more towards physical retailing.

In September 2018, Amazon was involved in its second healthcare deal, after acquiring PillPack, a US-based pharmacy that fills, sorts and delivers clients medications, for over \$750 million with the objective to crack in the pharmaceutical's prescription market.

Amazon has also invested over \$700 million on Rivian Automotive, along with other investors including BlackRock and Soros Fund Management, a US-based developer of electric self-driving trucks, which raised over \$2.5 billion in a funding round. The company is currently viewed as the future competitor of Tesla by some analysts. The objective of this venture is to include the vehicles that are set to be hitting the roads in 2021 in the future of Amazon's operations. In line with this strategy, Amazon acquired Zoox, in June 2020, for over \$1.3 billion, a California-based developer of self-driving, zero emissions vehicles on ride-hailing customers.

3.1.6. Financial analysis

Amazon's cost structure has been quite stable in the past five years, being costs of sales, as expected, the company's main operating expense, representing about 62%, however this value has been steadily decreasing from its 2015 value of 67%. This decline can be justified by the increasingly diversified business segments the company has been developing.

The company’s historic cost structure is as follows:

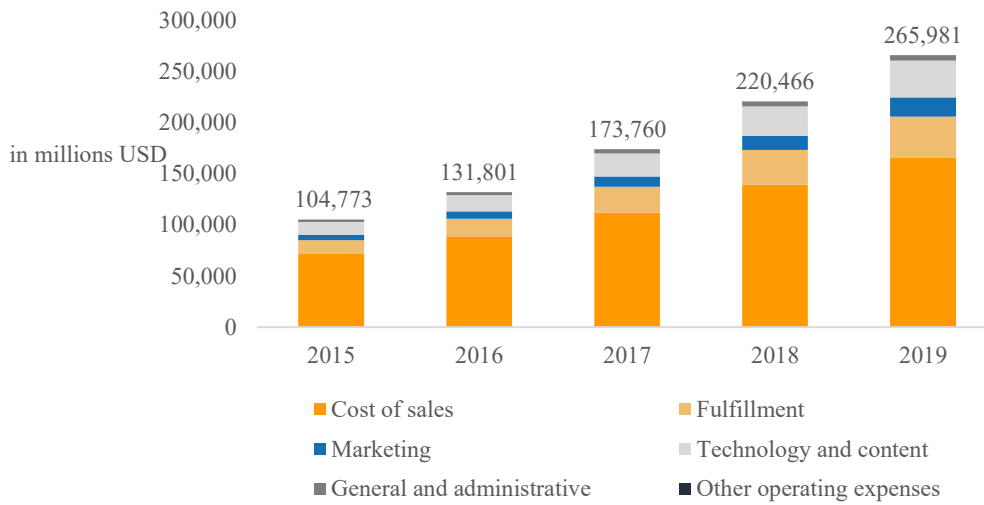


Figure 3 – Amazon’s historic cost structure; adapted from Amazon’s annual reports

It is worth mentioning that the costs of sales as a percentage of total revenues has been decreasing, meaning that the company has been able to maintain more capital for each dollar of sales and can use to pay other costs or satisfy debt obligations. Historic cost of sales are as follows:

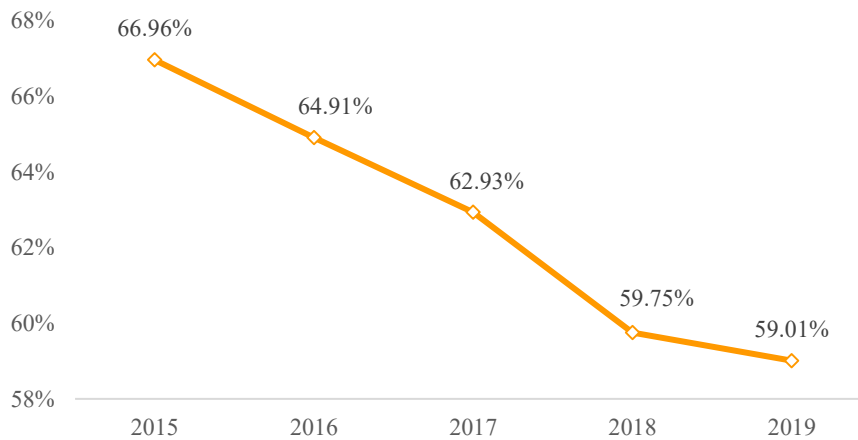


Figure 4 - Amazon's historic cost of sales as a percentage of revenues; adapted from Amazon’s annual reports

In terms of depreciations and amortizations, its value has been increasing over the years, since the company’s assets have increased as well, however assets increased by 38% from 2018 to 2019 and depreciations and amortizations have increased by only 19%.

Amazon's historic depreciations and amortisations are as follows:

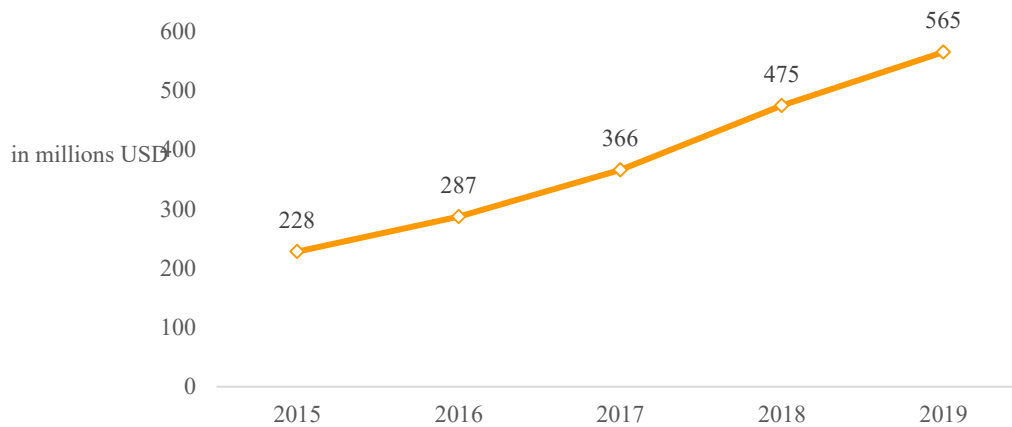


Figure 5 - Amazon's historic depreciations and amortizations; adapted from Amazon's annual reports

Capital expenditures are the funds used by a company to acquire, upgrade and maintain physical assets such as property plants, buildings technology or equipment. Amazon's Capex has been increasing over the last five years and is highly related to Amazon's strategy of increasing the scope of its operations. Comparing Capex with sales, it can be observed that the company's decisions regarding these investments have a direct and positive relationship with the behaviour of sales. Amazon's historic Capex is as follows:

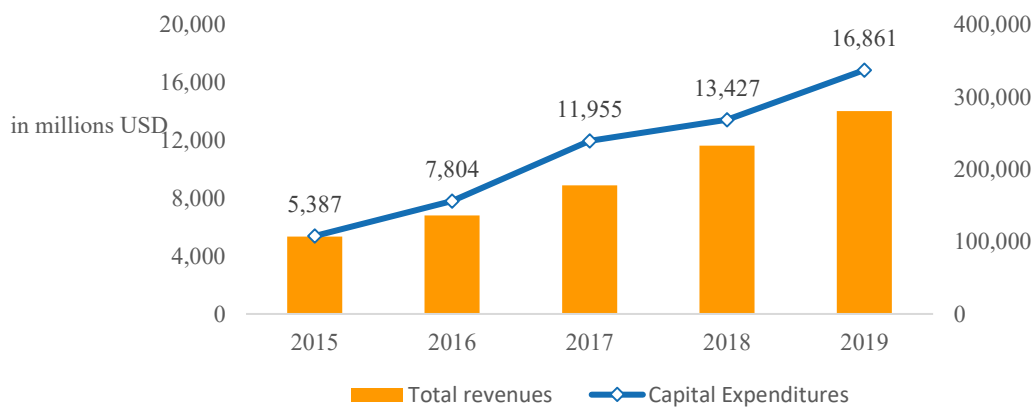


Figure 6 - Amazon's historic capital expenditures; adapted from Amazon's annual reports

Amazon has been financing mainly through debt in the past five years, however, this value has been decreasing when compared with its equity.

Amazon's historic capital structure is as follows:

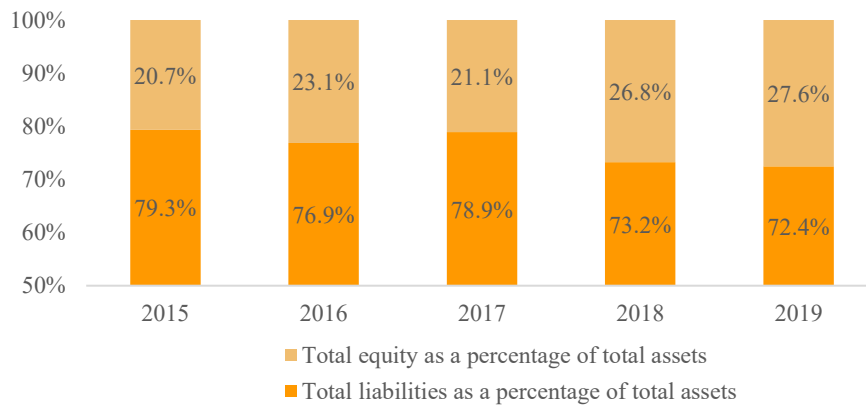


Figure 7 - Amazon's historic capital structure; adapted from Amazon's annual reports

The following figure represents Amazon's net financial debt, which was negative in 2015 and 2018 has been increasing due to the firm's financial debt superior growth rate when compared with cash and cash equivalents growth rate. It important to reference that the right axis is the scale of net financial debt, and the left axis is the scale for the remaining items:

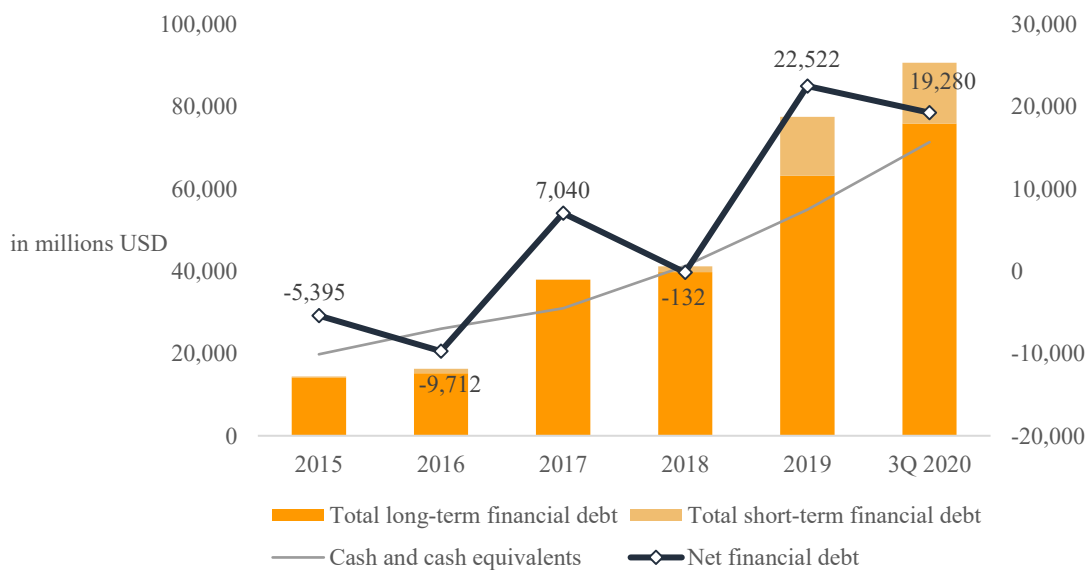


Figure 8 - Amazon's historic net financial debt and cash and cash equivalents; adapted from Amazon's annual reports

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The following table provides key metrics and ratios of Amazon's financial health, comparing them with the industry median.

	2015	2016	2017	2018	2019	Industry Median
Profitability						
Gross Margin	33.0%	35.1%	37.1%	40.2%	41.0%	50.0%
EBITDA Margin	6.9%	8.0%	7.5%	10.7%	10.8%	5.3%
Operating Margin	2.1%	3.1%	2.3%	5.3%	5.2%	1.5%
Net Margin	0.6%	1.7%	1.7%	4.3%	4.1%	(1.1%)
Earning Power						
Asset Turnover	1.79	1.84	1.66	1.58	1.45	0.77
ROE	4.9%	14.5%	9.6%	27.8%	21.9%	6.5%
x Earnings Retention	1.00	1.00	1.00	1.00	1.00	1.00
Reinvestment Rate	4.9%	14.5%	9.6%	27.8%	21.9%	0.9%
Liquidity						
Quick Ratio	0.75	0.78	0.76	0.85	0.86	1.08
Current Ratio	1.05	1.04	1.04	1.10	1.10	1.55
Leverage						
Assets/Equity	4.8	4.3	4.7	3.7	3.6	2.23
Debt/Equity	3.8	3.3	3.7	2.7	2.6	0.12
% LT Debt to Total Capital	51.4%	38.3%	52.8%	42.9%	39.0%	6.8%
Operating						
A/R Turnover	19.0	19.4	16.5	15.6	15.1	13.5
Inv Turnover	7.7	8.1	8.1	8.4	8.8	9.1
ROIC	2.2%	7.0%	4.0%	11.8%	10.0%	-

Table 2 - Amazon's historic key figures; from Thomson Reuters Eikon

It is important to highlight that Amazon's EBITDA, operating and net margin are significantly superior to the industry median. Amazon, unlike Target, has not paid any dividend; reinvesting and paying debt obligations every single year. Amazon is also more levered than its average industry peers. Amazon's historical financials are available from appendix 9 to appendix 11 and additional data on appendix 2.

3.1.7. SWOT analysis

Amazon's SWOT analysis (available in appendix 6) was constructed in order to analyse Amazon's position within the industry how internal and external factors affect the company's performance.

3.2. Target company profile

3.2.1. Company overview

Target Corporation was founded in 1902 by George Dayton. Firstly named Dayton Company, and later, in 1962-1975, John F. Geisse developed the concept of upscale discount retailing and the first discount store was opened in Minnesota. In 1969, the company merged with J.L. Hudson Company, becoming Dayton-Hudson Corporation. From 1982-1999 the company focused on a nationwide expansion. In January 2000, the company changed its name to the current one, since, at that time, 80% of the firm's earnings came from Target, while the four chains: Dayton's, Hudson's, Marshall Field's and Mervyn's were used to fuel the growth of the discount chain. On October 2017, Target announced a new online order service, known as Drive Up, which allowed costumers to order merchandise online for pickup outside the store.

Nowadays, Target Corporation is engaged in owning and operating discount stores. It offers curated general merchandise and food assortments, including perishables, dry grocery, dairy and frozen items (at discount).

3.2.2. Ownership

Target is a publicly traded company, traded in the New York Stock Exchange (NYSE) by the ticker TGT and is a component of the S&P 100 and the S&P 500 indexes.

Target's insider shareholders do not own a significant stake of the firm's equity, owning 0.3% of the firm, the largest of which is the current CEO and chairman, Brian Cornell, who has 0.1% of the firm estimated to be worth \$62.3 million.

On the other hand, Target's institutional shareholders own a total of 83.8% of the firm. The three largest institutional shareholders are the same as Amazon's: The Vanguard Group with 8.4%, Ssga Funds Management with 8.1% and, finally, Blackrock with a 4.9% stake on the firm.

3.2.3. Product and services portfolio

Target divides its business in five segments: beauty and household essentials; food and beverages; apparel and accessories; home furnishings and décor business; and hardlines. This topic is further developed in appendix 3.

Target's revenues per business segment are as follows:

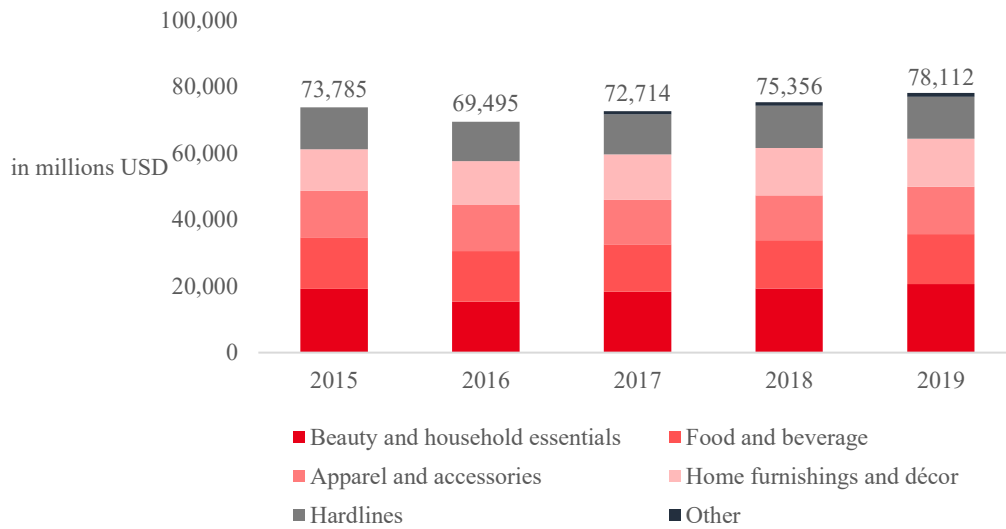


Figure 9 - Target's historic revenues by business segment; adapted from Target's annual reports

The weights of each business segment have been relatively stable throughout the last five years. It is important to mention that the revenues growth rate has been around 3.7% in the past two years. Nonetheless, the first half of 2020 is an exception and Target announced a growth rate of 18.2% in revenues, when compared with the same period of the previous year.

3.2.4. Geographical footprint

Employing over 350,000 people, Target has 1,880 stores and 42 distribution centers, all in the US. The firm also has 6 offices across the country, including the corporate headquarters in Minneapolis, Minnesota. It has one global capability centre in Bangalore, India and more than a dozen sourcing offices globally. Since the firm only has stores in the US, all its revenues come from that same country, but that was not always the case.

On January 2011, Target announced its expansion to Canada, by purchasing 220 stores of the Canadian sale chain Zellers. However, there were several supply chain issues, which resulted in a loss of \$2.1 billion in the short life of the project. Inevitably, in 2015, the company closed and liquidated all its Canadian outlets.

3.2.5. Recent developments

Target invested over \$75 million between 2014 and 2019 in Casper Sleep, a New York City-based e-commerce company that sells mattresses. Target tried to buy the business in that same

year for one billion dollars, but the bid was rejected. Nowadays, Casper’s products are available in Target stores and on Target’s website.

In August 2017, Target bought Grand Junction, a US-based company which operates a software-as-a-service technology platform for accessing and managing local deliveries, for an undisclosed consideration. The acquisition formed as a part of the company’s strategy to strengthen its supply chain and provide better speed, reliability and convenience for costumers.

In December 2017 Target acquired Shipt for \$550 million, a US-based operator of online same-day delivery platform, with the objective of speeding up its digital fulfilment efforts, aiming to bring same-day delivery services to guests at approximately half of Target’s stores in early 2018. The acquisition would also enable Target to expand its network of stores. In line with this strategy, earlier in the year, Target acquired Zettata, a US-based company that creates software for e-commerce search.

Considering the last-mentioned acquisitions, Target’s revenues by channel (physical and digital) are as follows:

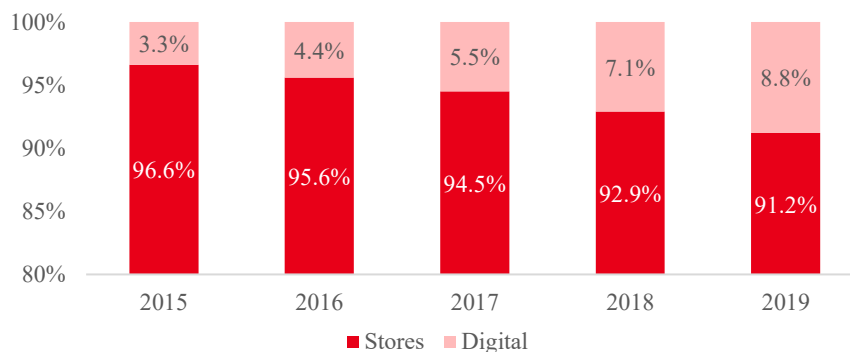


Figure 10 - Target's historic revenues by channel; adapted from Target's annual reports

Even though the percentage of revenues coming from the company’s website has been increasing, the number is still quite low when compared to its main competitors (mainly Walmart, which has over 12% e-commerce revenues), demonstrating that the Target must increase its investmente in order to be competitive in the online retail market.

3.2.6. Financial analysis

Target’s cost structure is quite simple, only cost of sales and SG&A make up the total operating expenses. It has been stable over the last five years and overall total operating expenses’ yearly growth has matched the revenues yearly growth.

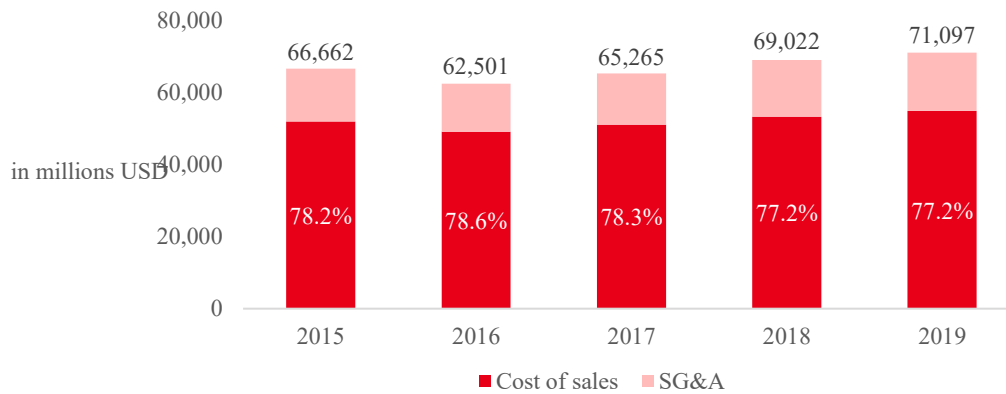


Figure 11 - Target's historic cost structure; adapted from Target's annual reports

Regarding cost of sales a percentage of revenues, its value has decreased from 2018 to 2019, despite sales growing about 3.7%, meaning the company became more cost efficient. Historic cost of sales as a percentage of revenues is as follows:

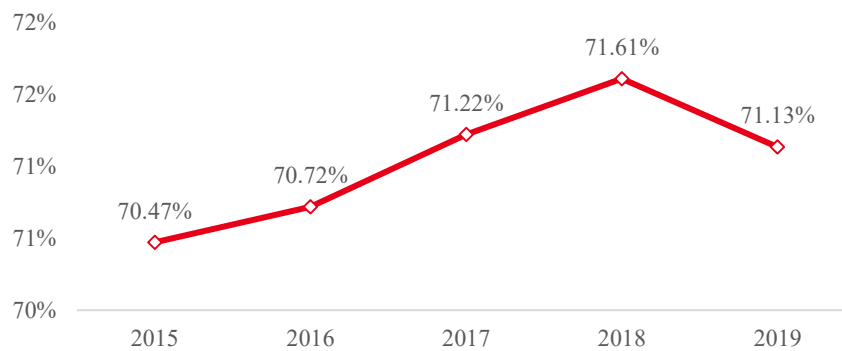


Figure 12 - Target's historic cost of sales as a percentage of revenues; adapted from Target's annual reports

Depreciations and amortizations have increased about 6% from last year, despite total assets growth being only 4%. Target's historic depreciations are as follows:

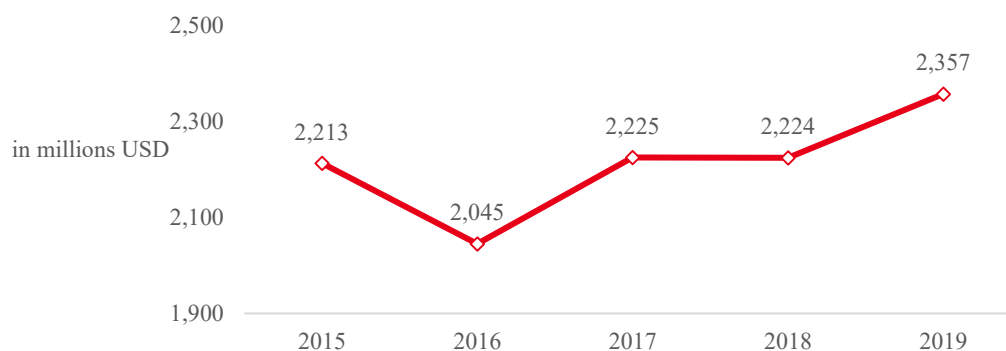


Figure 13 - Target's historic depreciations and amortizations; adapted from Target's annual reports

Target's Capex has had a negative growth rate from 2018 to 2019 of 14%, meaning the company has divested in its physical assets when compared with the previous year. Target's

historic Capex are as follows (please notice that the left axis is the scale of the firm's Capex and that the right axis is the scale for the firm's total revenues):

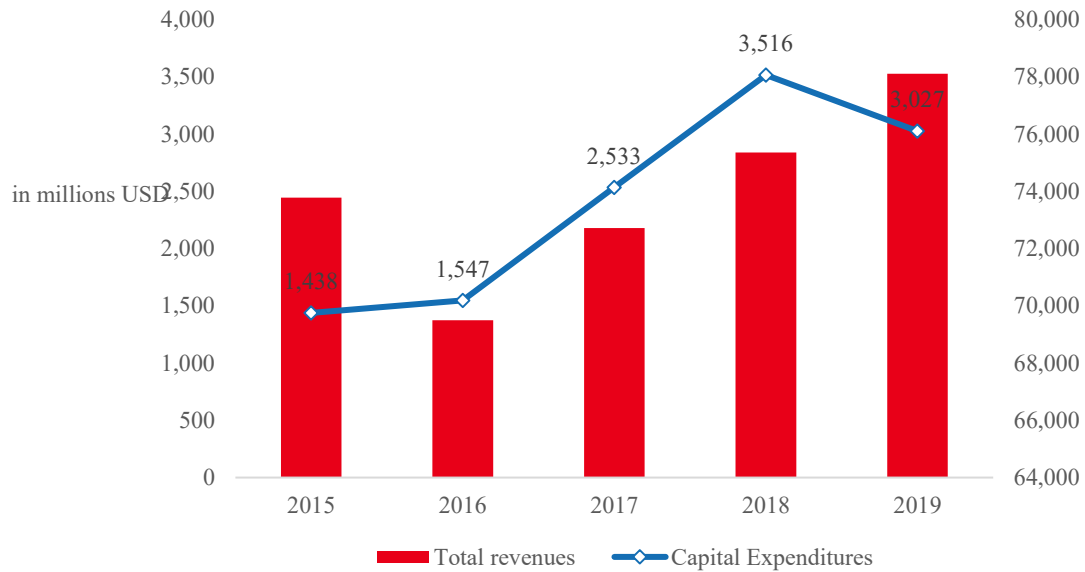


Figure 14 - Target's historic capital expenditures; adapted from Target's annual reports

Target has been tending to finance more with debt in the past five years. Target's historical capital structure is as follows:

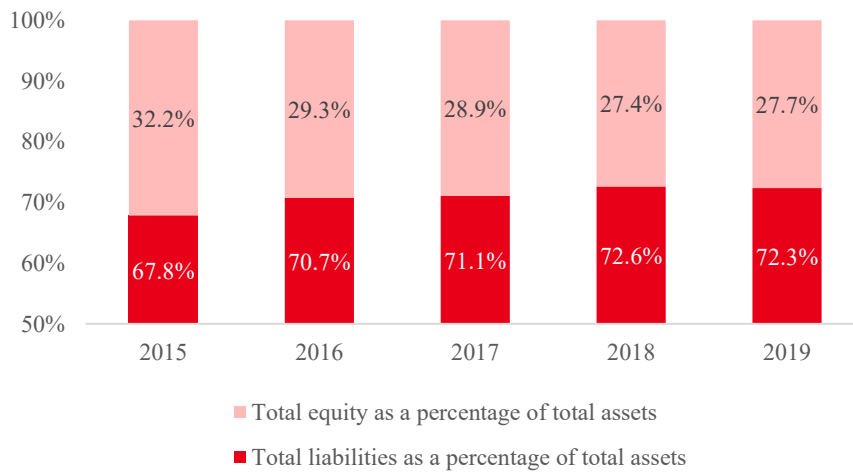


Figure 15 - Target's historic capital structure; adapted from Target's annual reports

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The following figure shows that Target's net financial debt has been stable over the past four years, due to a stable financial debt and cash and cash equivalents:

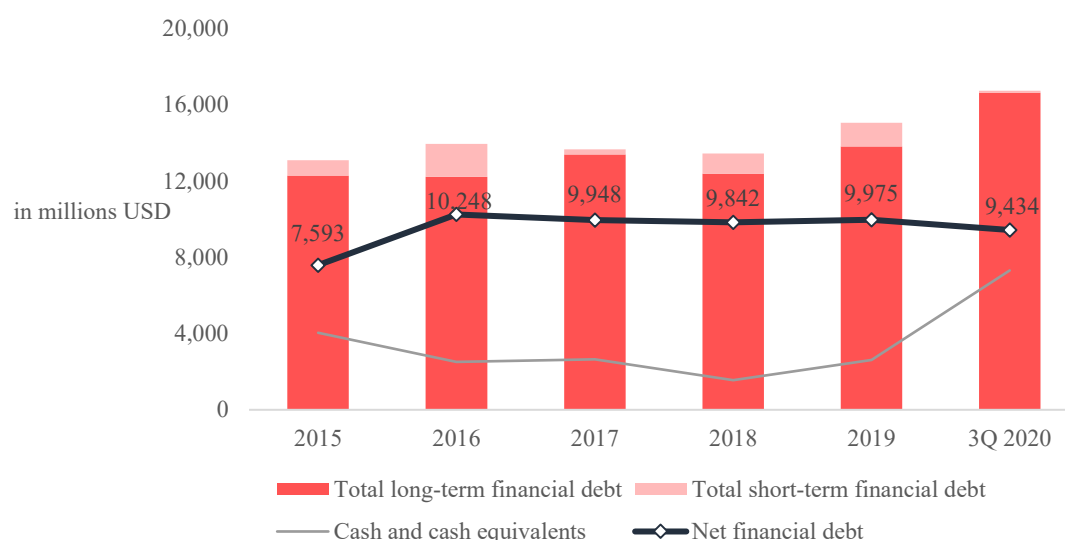


Figure 16 - Target's historic net financial debt and cash and cash equivalents; adapted from Amazon's annual reports

The following table provides key metrics and ratios of Target's financial health, comparing it with the industry median:

	2015	2016	2017	2018	2019	Industry Median
Profitability						
Gross Margin	29.5%	30.1%	29.7%	29.3%	29.8%	39.2%
EBITDA Margin	9.7%	10.3%	9.3%	8.9%	9.3%	9.5%
Operating Margin	7.5%	6.3%	5.6%	5.5%	6.0%	6.1%
Net Margin	4.5%	3.8%	3.5%	3.8%	4.2%	4.2%
Earning Power						
Asset Turnover	1.81	1.81	1.87	1.85	1.86	1.48
ROE	24.6%	22.3%	22.7%	25.2%	28.3%	14.1%
x Earnings Retention	0.59	0.49	0.47	0.53	0.59	0.80
Reinvestment Rate	14.4%	10.9%	10.7%	13.5%	16.6%	13.9%
Liquidity						
Quick Ratio	0.44	0.29	0.30	0.20	0.27	0.28
Current Ratio	1.12	0.94	0.96	0.83	0.89	1.20
Leverage						
Assets/Equity	3.11	3.42	3.46	3.65	3.62	3.32
Debt/Equity	2.11	2.42	2.46	2.65	2.62	0.56
% LT Debt to Total Capital	46.4%	46.5%	48.2%	45.3%	48.6%	18.0%
Operating						
A/R Turnover	77.5	92.0	86.7	74.3	75.8	119.6
Inv Turnover	6.2	5.8	6.0	5.9	5.9	3.5
ROIC	12%	10%	10%	11%	12%	-

Table 3 - Target's historic key figures; from Thomson Reuters Eikon

It is visible that Target’s overall profitability is in line with the industry median (not considering its gross margin). It is important to highlight that Target’s ROE, long-term debt and debt/equity is considerably higher when comparing with its peers. Target’s historical financials are available from appendix 12 to appendix 14 and additional data on appendix 3.

3.2.7. SWOT analysis

Target’s SWOT analysis (available in appendix 7) was constructed in order to analyse Amazon’s position within the industry how internal and external factors affect the company’s performance.

3.3. Share price performance

In the past five years, Amazon has consistently outperformed the Nasdaq 100 index, which the stock market index composed by the 100 largest non-financial companies listed on the Nasdaq stock market, it can be considered the tech index. The following graph shows Amazon’s share price performance in relation to the previously mentioned benchmark (rebased to Amazon’s share price at 11/12/2015).



Figure 17 - Amazon's share price performance; from Thomson Reuters Eikon

Amazon’s share price has been having a tremendous evolution, particularly sharp since the beginning of 2020 with the beginning of the worldwide pandemic.

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The following table shows Amazon's five-year CAGR and price change of the previous year

	Amazon	Nasdaq 100
CAGR (5y)	36.1%	17.1%
Last year price change (%)	77.9%	22.1%

Table 4 - Amazon's and Nasdaq 100 share price CAGR and last year price change

On the other hand, Target's share price has been significantly outperformed by its benchmark, the S&P 500, in August 2020, as follows

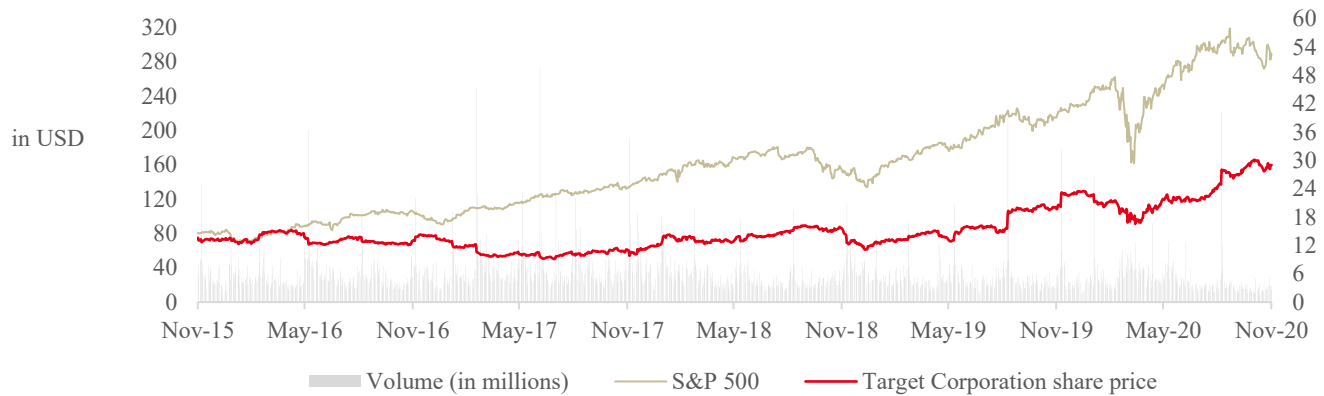


Figure 18 - Target's share price performance, adjusted to its dividend yield; from Thomson Reuters Eikon

Target's five-year CAGR and price change of the previous year are presented in the following table:

	Target	S&P 500
CAGR (5y)	16.3%	29.0%
Last year price change (%)	26.8%	25.6%

Table 5 - Target's and S&P 500 share price CAGR and last year price change

4. Industry Analysis

In this section of the dissertation, it is going to be performed an analysis of the industries of Target Corporation and Amazon, which are not quite the same.

4.1. US Multiline retail

4.1.1. Industry overview

According to the global industry classification standard (GICS) Target Corporation operates in the consumer discretionary sector, in the retailing industry group. The firm operates on the multiline retail industry, that is, the retail industry as a whole, since it sells its products both

through its stores and digital channels (from now on referred as only retail industry), since its earnings are clearly more dependent on its physical stores, associated with the traditional retail industry.

4.1.2. Market size and segmentation

The multiline retail industry can be subdivided according to geography, product segments or channel.

The whole retail industry is divided geographically, according to its value, below:

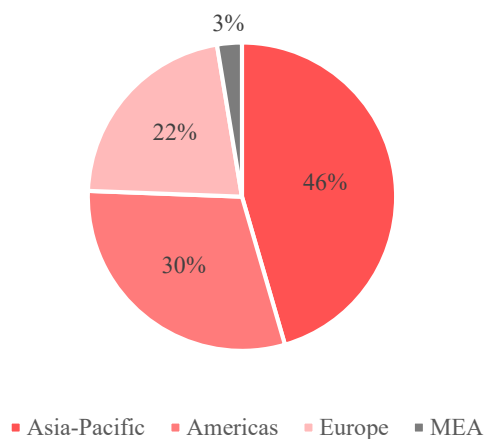


Figure 19 - Whole retail industry geographical segmentation; adapted from MarketLine (2019)

Since the totality of Target’s revenues comes from US, the focus of this industry analysis will be on the US retail industry. The US multiline retail industry can be divided into product categories value, as follows

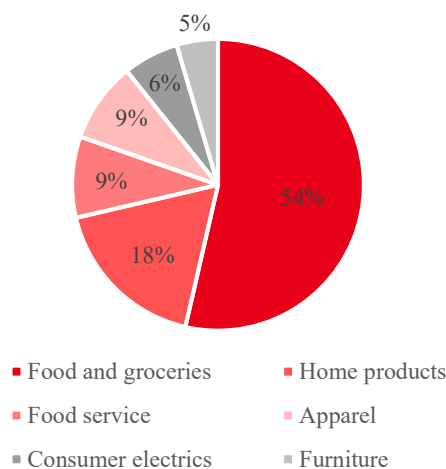


Figure 20 – US multiline retail industry segmented by product category; adapted from MarketLine (2019)

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Since both companies commercialize all the previous product categories, except from food services, which is the third most valuable retail market, it will not be considered for the rest of the industry analysis. The value of the US multinet retail market, excluding food service, is estimated to be \$6,357,624 million by MarketLine, and this is the industry in which Target operates. This industry has experienced an average annual growth of 3.83% over the past five years. The main players of its industry are described in the table below:

Ranking	Company	Market cap (in \$m)	Revenues (in \$m)	Gross profit (%)	Inventory turnover
1	Amazon.com	1,560,586	280,522	41.0%	8.8
2	Walmart	404,745	523,964	24.7%	8.9
3	Home Depot	290,277	110,225	34.1%	5.1
4	Costco Wholesale	153,019	149,351	13.0%	11.8
5	Lowe's Companies	118,190	72,148	31.8%	2.8
6	Target Corp	77,036	78,112	29.8%	5.9
7	TJX Companies	66,164	41,717	35.6%	5.7
8	Dollar General Corp	48,741	27,754	30.6%	4.4
9	Ross Stores	33,215	16,039	28.1%	6.4
10	Walgreens	31,966	136,866	22.0%	11.3

Table 6 - Top 10 most valuable companies on the US multiline retail industry; adapted from Thomson Reuters Eikon

In the previous list, it was excluded automobile retailers' and drugs retailers (CVS Health included).

It is also possible to segment the US retail industry according to channel in the following graph:

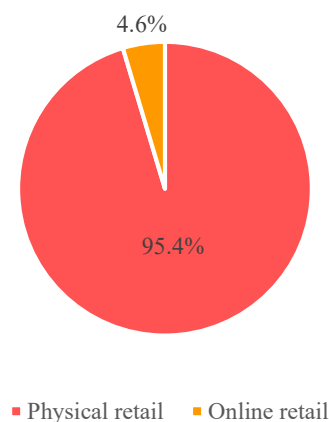


Figure 21 - US retail industry (excluding food service) segmented by channel; adapted from MarketLine (2019)

4.1.3. Porter's five forces

The Porter's five forces analysis is important to understand the forces that shape competition within an industry. This analysis was performed solely for the target's industry, since it is the industry in which Amazon is expected to enter (available on appendix 8).

4.1.4. Main drivers and trends

According to Deloitte 2020 retail industry report, 2019 was a year in transition. There was stability in the position of the previously mentioned top five retailers but uncertainty regarding the majority and few noticeable bankruptcies.

With the convergence of supply chain, digital technologies, and other innovations, including contactless payment methods for instance, convenience is becoming a much more important piece of the equation (Deloitte, 2019).

The main drivers of the US retail industry are the following

1. Economic growth, the increase in disposable income due to the economic growth, especially in the past four years
2. Demographics, millennials are now the largest adult generation in the US
3. Urbanization, as more people move to urban areas and spend longer hour at work, they require products which make life easier for them
4. Credit availability, whose availability spurs a proportional growth in spend
5. Supply chain,

The increase in digital touchpoints requires an understanding of consumer preferences for different platforms and applications (e.g., emails, websites, blogs, discussion forums, videos, search engines, mobile apps, Facebook, and Twitter) (Nizar Souiden et. al, 2019).

Francisco Paredes and Marisela Rodríguez (2016) concluded that technology-based resources can contribute to improving interactions between the store and its customers, supporting the latter to make decisions about purchases.

Retail companies are also facing new challenges with an increasingly intensified competition due to the accelerated pace of technological change, more sophisticated management practices and industry consolidation. This resulted on shifting of focus in retail companies from not only boosting sales but also to innovative to attract new customers.

4.1.5. Growth projections

The US retail industry is expected to grow 3.83% in 2020, 3.77% in 2021 and 9.21% by 2022. The following figure represents the industry growth projections per business segments:

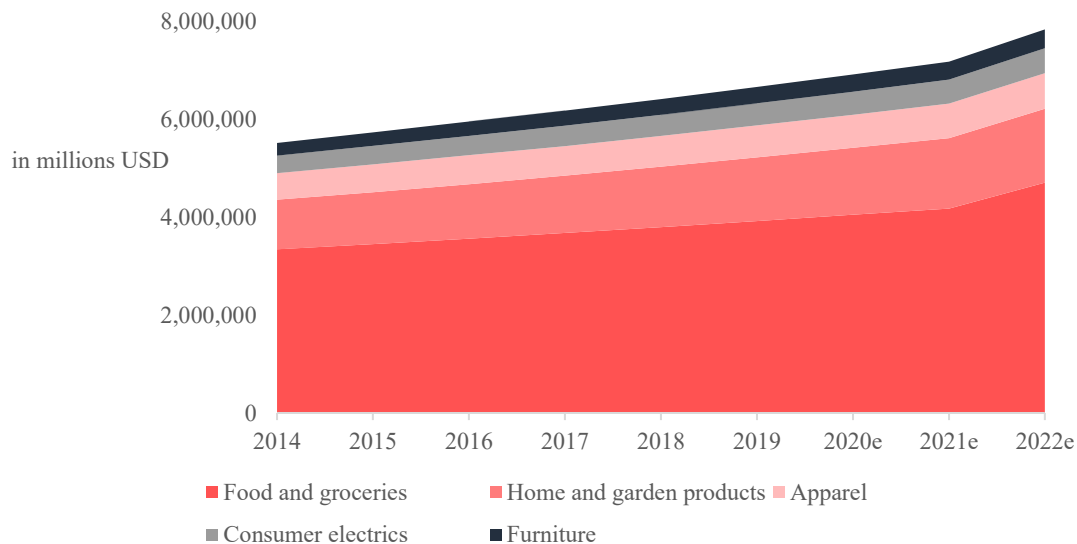


Figure 22 - US retail industry (excluding food service) expected growth; adapted from MarketLine (2019)

The segment which is expected to grow the most is home and garden products, but the overall growth is derived the online stores channel and not by physical stores.

4.2. Global online retail

4.2.1. Industry overview

It is not easy to attribute Amazon to a single industry due to variety of business segments of the company, but according to the GICS, is the internet and direct marketing retail, part of the retailing industry group, which is under the consumer discretionary sector. Stating that Amazon operates under the consumer discretionary sector can be criticized since the company does considerably more than that, being also one of the biggest players on the technology sector, from producing electronics, including tablets, e-readers, smartphones and portable speakers, to providing AI assistance, digital streaming and cloud computing, through AWS, the premise that Amazon is a technology company has strong arguments. Many analysts claim that the reason behind this discussion has its genesis on an outdated industry classification system such as GICS, which does not include the e-commerce and online retailing industry under the technology sector.

Amazon, similarly, to Target Corporation, thus, operates in the consumer discretionary sector, in the retailing industry group as well. Amazon operates on the internet and marketing retail industry (from now on referred as online retailing industry or simply e-commerce), a subcategory on the previously mentioned retail industry.

4.2.2. Market size and segmentation

Even though Amazon's products are available in all continents, 70% of its revenues come from the US. The company actively stated the desire to be more present outside of the US and compete globally, especially in Asia, therefore, it is important to understand the global online retail geographical breakdown, which is as follows:

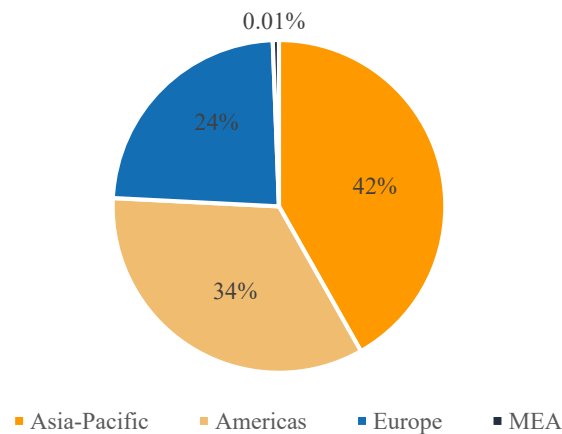


Figure 23 - Online retail industry segmented by geography; adapted from MarketLine (2019)

The main players in the worldwide retail industry are presented in the following table, as follows:

Ranking	Company	Market cap (in \$m)	Revenues (in \$m)	Gross profit (%)	Inventory turnover	Country
1	Amazon.com	1,703,123	280,522	41.0%	8.8	US
2	Alibaba	761,339	73,184	45.1%	23.9	China
3	JD.com	123,491	83,516	14.9%	9.7	China
4	Wayfair	24,891	9,127	19.6%	136	US
5	Ocado	23,289	2,235	34%	21.3	UK
6	ETSY	13,369	818	66.9%	-	US
7	B2W	10,797	1,715	29.7%	5.2	Brazil
8	MonotaRO	9,950	1,206	28.2%	8.8	Japan
9	ZOZO	8,323	1,155	90.6%	3.1	Japan
10	ASOS	6,094	3,502	48.8%	3	UK

Table 7 - Top 10 most valuable companies on the global online retail industry; adapted from Thomson Reuters Eikon

As previously mentioned, for industry analysis purposes, there is going to be a focus on Amazon's online retail segment due to the high diversity of Amazon's product and services portfolio. Amazon's online stores segment's market in the US is \$308,917 million, which is 4.6% of the overall US retail industry, excluding food service (online retail portion of the US's multiline retail). It was not possible to retrieve the same type of segmentation for the global retail industry, but it is possible to assume it sits well below the US's 4.6%, since it is one of the pioneers regarding e-commerce, largely due to Amazon. This assumption can be supported by the fact that the US accounts for 93.9% of the North America online retail sector value.

4.2.3. Main drivers and trends

The development of the internet and its related technology has led to a tremendous increase in e-commerce. The contemporary online retail is characterized by the extensive use of mobile technologies and high connectivity.

There is quite an overlap regarding the main drivers and trends of the online retail industry and the US multiline retail industry. Even though, some specific drivers of the recent e-commerce growth are the following:

1. Third party logistics, which play a critical role in the creation of visibility in the online retail supply chain; since most online retailers are finding it financially feasible to outsource the logistics component of the supply chain given its complex and capital-intensive nature.
2. Mobile internet penetration explosive growth, that now reaches almost 5 billion people; together with the increase in disposable income, have been two of the main drivers of the recent online retail growth.
3. Increased political willingness for the promotion of e-commerce. In 2016 there was an overall lowering of customs, clearance procedures and other procedures which usually increased the delivery time, especially in emerging markets. This led to an increase of online retailers' shipments to emerging markets.
4. Growth of big data analytics, since there is a high correlation between quality service and strong analytics of customers' needs.

4.2.4. Growth projections

The North American online retail sector has grown impressively in the historic period, with strong growth forecast to continue in the coming years. The sector includes a variety of online

pureplay retailers, as well as firms which offer ecommerce as part of a multi-channel business model. The largest player is Amazon, which commands significant market share; other leading players include Walmart, The Home Depot and even Apple. Some firms offer a wide range of products, whereas others specialize within a certain segment, providing trusted and high-quality products. The sector is highly competitive with numerous other large firms contesting for leading player status and a vast array of smaller firms providing additional online platforms. The historical growth of the online retail industry in the US (around a 11% yearly) is expected to slightly decrease for the upcoming three years (to around 8% per year). This growth rate is slightly higher to the one forecasted for the US physical retail industry (around 5% yearly), thus leading to increase of the online retail industry value when compared with physical retail's, from the current 4.6% to 5% in 2022, as follows:

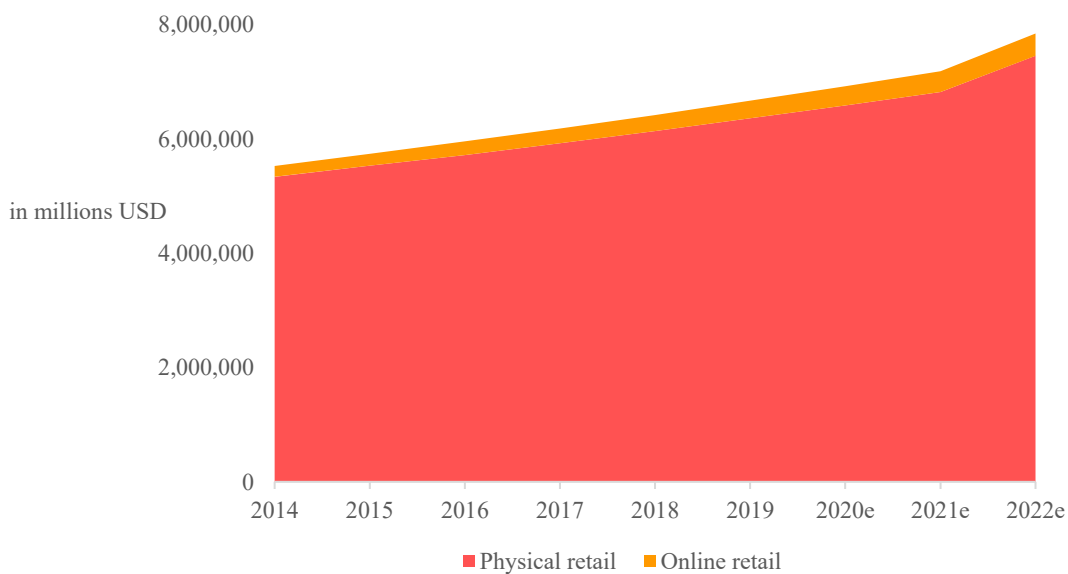


Figure 24 - Historical and forecasted US online retail industry segmentation by channel; adapted from MarketLine (2019)

The global online retail sector has experienced very strong double-digit growth in the historic period and is expected to continue in the upcoming years, globally, albeit at a decelerated rate as the sector matures. It expected to grow 15.2% until 2020, then 14.2% for 2021 and decrease to an 8.3% growth rate for 2022.

The global online retail value is expected to grow as follows:

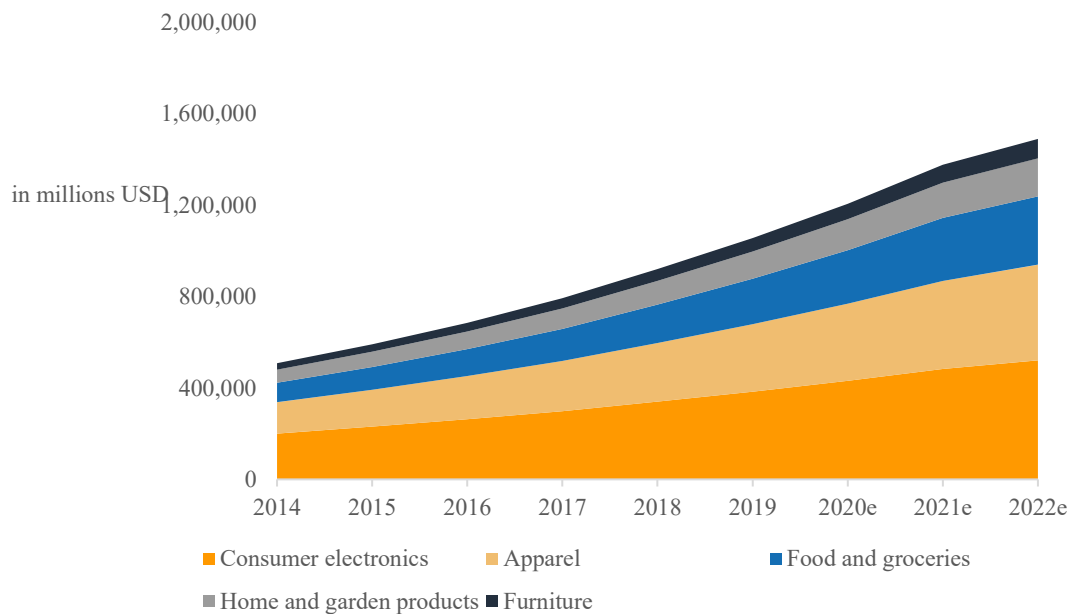


Figure 25 - Historical and forecasted global online retail industry segmentation by product segment; adapted from MarketLine (2019)

The consumer electronics was the most lucrative segment, even though its importance is decreasing when compared to the other product categories (39% in 2014, to 36% in 2019 and a forecasted 35% in 2022).

5. Deal Rationale

In this section of the dissertation, the proposed deal rationale, motivations and underlying assumptions will be exposed.

In the past two decades, Amazon has become, undoubtedly, the largest tech company acting in the online retailing market in the world. But, in the past few years, some of its market share, in the United States, has been shared increasingly more with Walmart, a company which specialists point as Amazon's main competitor.

Walmart owns more than 5,400 retail stores in the United States being crowned the biggest traditional physical retail company in the country. More recently, with the acquisition of Jet.com in 2016 for \$3.3 billion, Walmart was able to significantly scale up its online sales and to place themselves as a big player in online retail market. In the first six months of 2020, Walmart's e-commerce revenue was reported to increase 97%, in comparison to the same quarter last year. Although these numbers were largely fueled by the Covid-19 pandemic, which

shifted a lot of consumers to use the online methods instead of doing presential shopping, changing consumer habits probably not only for the short-run, this shows how Walmart's online business is not slowing down.

One of the driving forces behind Walmart's constant growth is the online grocery orders, an area of the market where Walmart competes in a league of its own and where it has already a big logistics infrastructure in place, with more than 3,300 grocery pickup locations and more than 1,400 thousand same-day grocery delivery locations around the country. More recently, it has been reported that Walmart is on its way to release a direct competitor to Amazon Prime, the Walmart +, a subscription program that offers special discounts and promotions to their subscribers.

In terms of retail, Amazon deeply betting it all on the online retail market and the grocery retail is where Walmart differentiates itself from the big tech online retailer. Without any real presence on the grocery retail market before, Amazon made its first real step with the acquisition of Whole Foods. Even with the acquisition of Whole Foods there is still a large gap between Walmart and Amazon in terms of number of stores and presence in the country. Having all of this in mind, Target was rumored, back in 2018, as a possible next step for Amazon.

Target could present a good move towards stealing market cap to Walmart because of its national presence and its place on the grocery retail market but also, it would make it possible for Amazon to expand even more its presence with the installation of delivery lockers on Target stores as well as pushing Amazon Prime like it was done with Whole Foods. These synergies can possibly become a major competitive advantage to Amazon.

6. Valuation

In this section of the dissertation, the companies will be valued according to two main valuation models, which described and explained in the literature review, the discounted cash flow model (DCF) using the WACC and FCFF approach and the relative valuation model (using the comparable companies multiples and the comparable transactions multiples approach specifically for Target).

6.1. Amazon valuation

6.1.1. Discounted cash flow valuation

6.1.1.1. Financial forecasts

In order to estimate the intrinsic value of a firm, one must forecast a company's income statement and cash flow statement. It is going to be forecasted seven financial years, due the high growth recently experienced by the company, mainly in the first quarter of this year. As expected, most of the items in a retail company's financials are driven by its revenues, a relationship also visible on Amazon's historical financials as well.

In order to forecast Amazon's revenues, it was performed a forecast for each business segment of the company. The main insights used for forecasting Amazon's revenues were company's guidance and outlook included on its 2019 annual report and 3Q 20120 earnings release and industry specific benchmarks. Regarding Amazon's guidance, it was used specifically the firm's forecasted short-term revenues growth rate and the continuity of the historical trends regarding the weight of each business segment's revenues as a percentage of total revenues). Regarding industry specific benchmarks, it was established a pattern between the benchmarks (historical and forecasted by MarketLine) growth rates and each business segment revenues.

Online stores revenues and third-party seller services revenues were agglomerated into a single category: "e-commerce revenues" and the benchmark used was the US online retail industry value. It is expected that these two business units contribute less to Amazon's total revenues in the future, a trend visible in the past five years.

The benchmark used to estimate AWS's revenues was the US cloud computing industry value. This industry is also expected to increase in importance when compared to the total of Amazon's revenues, following the recent past trend and the optimistic growth rate of the industry in the country. Using the same reasoning and insights, the remaining benchmarks used were the number of Amazon Prime users for the subscription services business segments and the US physical retail industry value for Amazon's physical stores business segments revenues forecast.

The forecasting scenario is considered an optimistic and likely scenario, assuming that the firm's next two year's (2020 and 2021) revenues growth is derived by the momentum the 2019 as 2018's high growth rates and overall industry not showing any signs of slowing down.

Cost of sales as a percentage of revenues is expected to continue the historical declining trend verified on the company profile. Therefore, this percentage decrease is assumed to be incrementally smaller by-the-year, tending to a value of 55% in 2026.

Analysing SG&A as a percentage of gross profit, it is possible to analyse an historical stabilization of around 87%, therefore, for the forecasting period it was assumed that operating expenses would maintain that same proportion when compared with gross profit. Since the value of each operating cost (excluding cost of sales) as a percentage of total operating expenses was extremely stable, the cost mix was calculated based on the five-year average of cost structure mix. Depreciations and amortizations were forecasted as a function of capital expenditure, which was forecasted according to the firm's guidance.

Amazon's revenues forecast is available on appendix 15 and its forecasted income statement on appendix 16. The following figure summarizes the forecast of Amazon's main financial items, in the context of a FCFF DCF model:

Forecast summary	2020	2021	2022	2023	2024	2025	2026
Revenues	356,989	443,764	527,659	610,958	699,860	789,502	877,760
Depreciations and amortizations	26,514	31,669	36,825	41,980	47,136	52,291	57,447
Changes in working capital	(3,437)	(4,535)	(5,633)	(6,731)	(7,829)	(8,927)	(10,025)
Capital expenditures	(20,206)	(23,390)	(26,575)	(29,759)	(32,944)	(36,128)	(39,312)
FCFF	17,801	22,686	27,524	32,498	37,644	42,868	48,036

Table 8 - Amazon's forecast summary, values in millions USD

6.1.1.2. Weighted average cost of capital

The WACC used was 7.28%, which was calculated according to the following components

Rf	3.18%
Beta	0.820
Market risk premium	5.50%
Re	7.69%
Rd	0.63%
Net debt to EV	5.63%
Equity to EV	94.37%
Tax rate	27%
WACC	7.28%

Table 9 - WACC computation for Amazon

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The risk-free rate used was the US's 10-year treasury bond yield and the corporate tax rate applicable was fixed at 27% (KPMG, 2020). The market risk premium was assumed to be 5.50%.

Regarding the beta computation (available on appendix 17), it was used the 5-year monthly levered beta, retrieved from Thomson Reuters, which was unlevered according to the Target's capital structure according to equation 6 (in appendix 1) and adjusted according to equation 7 (in appendix 1).

The cost of debt was selected via table 14 (in appendix 1), since the interest coverage ratio of the company is superior to 8.50.

6.1.1.3. Free cash flow to the firm

The FCFF estimations and WACC-based DCF model are in appendix 18. The company was assumed to reach a steady growth rate of 4% in 2026. The DCF model performed lead to a valuation of \$1,620,027.

After performing the bridge from enterprise to equity value, where it was added financial debt, subtracted cash and marketable securities and added minority interests, it was possible to conclude that, according to this model, the company was considered to be undervalued by 3.81%.

6.1.1.4. Sensitivity analysis

	WACC (%)					
	7.24%	7.26%	7.28%	7.30%	7.32%	
Perpetuity growth rate (%)	3.60%	1,481,965	1,474,628	1,467,370	1,460,190	1,453,086
	3.80%	1,556,372	1,548,188	1,540,096	1,532,096	1,524,185
	4.00%	1,639,966	1,630,773	1,620,027	1,612,718	1,603,851
	4.20%	1,734,559	1,724,154	1,713,882	1,703,742	1,693,731
	4.40%	1,842,475	1,830,595	1,818,878	1,807,322	1,795,923

Table 10 - Amazon's sensitivity analysis

6.1.2. Relative valuation

6.1.2.1. Peer group

The peer group were selected according to each of the business segments of Amazon and the main criteria was to choose only publicly traded companies. As performed on the discounted cash flow model, the business segments online stores and third-party seller services were aggregated and named e-commerce. The peers chosen for this business segments were not focused in geography, but rather in size (eBay was chosen specifically to be the peer to third-party seller services). For the AWS business group, it was chosen the largest tech companies in the US which provided cloud computing solutions. Netflix was chosen as the peer of Amazon's subscription services business segment, since it is the market leader in the entertainment streaming industry. Finally, in order to choose peers to Amazon's physical stores segments, it was chosen three of the main multiline retailers in the US.

6.1.2.2. Trading multiples valuation

The multiples chosen were EV/Sales, EV/EBITDA, EV/EBIT and PER. The computation of the multiples is presented in appendix 19.

It was performed a forward-looking weighted average of the multiples, according to the forecasted 6-year average business segments revenues as percentage of total revenues as previously forecasted on the discounted cash model, in order to incorporate the company's trends regarding its revenue structure. The exception was the EV/EBITDA multiples, whose weighted average was based on the 6-year average forecasted EBITDA weights per business segment.

It is possible to conclude that according to this valuation, Amazon is slightly undervalued when compared with its peers, in line with what was concluded from the DCF model, since its share price can range from \$3,004.48 to \$3,322.00.

6.2. Target valuation

6.2.1. Discounted cash flow model

Similarly to what was performed with Amazon, in this section, it is going to be forecasted the income statement, and specific balance sheet and cash flow statement item of Target Corporation, in order to perform the valuation same valuation methods. Being an almost fully

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“physical” retail company, the large majority of the firm’s financial have a high correlation with its revenues.

Target’s revenues were also forecasted separately by business segment. The short-term growth rates used to forecast revenues were given by company’s guidance and outlook statement present in its 2019 annual report and 2020 Q3 earnings release. For the remaining forecasting period (until 2026 for consistency purposes) it was used the historical and forecasted US industry-specific benchmarks (previously used in the industry analysis) to estimate revenues.

Target’s cost of sales as a percentage of total revenues have been historically stable, so it is safe to assume a smooth and stable tendency to 70% in 2026, which is the five-year average.

The same rationale was applied to SG&A costs, which were assumed to be 22% of operating expenses (five year-average). Depreciations and amortizations were forecasted as function of capital expenditures, which were forecasted according to Target’s guidance.

Working capital items were assumed to maintain the same proportion of total revenues. Target’s revenue forecast is included in appendix 20 and its forecasted income statement in appendix 21. The following figure summarizes the forecast of Target’s main financial items, in the context of a FCFE DCF model:

Forecast summary	2020	2021	2022	2023	2024	2025	2026
Revenues	81,083	83,763	86,068	87,121	87,636	87,948	88,124
Depreciations and amortizations	2,743	2,860	2,957	3,001	3,024	3,040	3,046
Changes in working capital	927	967	999	1,014	1,022	1,027	1,029
Capital expenditures	(3,189)	(3,351)	(3,513)	(3,675)	(3,838)	(4,000)	(4,162)
FCFE	4,332	4,849	5,257	5,321	5,240	5,104	4,923

Table 11 - Target's forecast summary, values in millions USD

6.2.1.1. Weighted average cost of capital

To calculate the WACC, the proxy to the risk-free rate was the 10-year U.S. treasury bond yield, retrieved from Thomson Reuters. The market risk premium was set at 5.50%. The WACC used was 8.29%.

Rf	3.18%
Beta	0.983
Market risk premium	5.50%
Re	8.58%
Rd	0.63%
Net debt to EV	3.67%
Equity to EV	96.33%
Tax rate	27%
WACC	8.29%

Table 12 - WACC computation for Target

Regarding the Beta computation, it was used the 5-year monthly levered beta, retrieved from Thomson Reuters, which was unlevered according to the Target's capital structure according to equation 6 in appendix 1 and adjusted according to equation 7 in appendix 1. The beta computation is available on appendix 22. Applying the CAPM formula (equation 3 in appendix 1), it was reached a cost of equity of 8.58%. The cost of debt was selected via table 14 (in appendix 1) since the interest coverage ratio of the company is superior to 8.50.

6.2.1.2. Free cash flow to the firm

The FCFF estimations and WACC-based DCF are in appendix 23. The company was assumed to reach a steady growth rate of 0.5% in 2026. The DCF model performed lead to a valuation of \$88,863, meaning that the company is slightly overvalued by the market.

After performing the bridge from enterprise to equity value, where it was added financial debt, subtracted cash and marketable securities and added minority interests, it was possible to conclude that, according to this model, the company was considered to be overvalued by 11.24%.

6.2.1.3. Sensitivity analysis

		WACC (%)				
		8.25%	8.27%	8.29%	8.31%	8.33%
Perpetuity growth rate	0.10%	86,376	86,246	86,116	85,987	85,859
	0.30%	87,643	87,579	87,443	87,307	87,172
	0.50%	89,125	88,981	88,863	88,695	88,863
	0.70%	90,608	90,457	90,306	90,155	90,006
	0.90%	92,173	92,013	91,853	91,695	91,537

Table 13 - Target's sensitivity analysis

6.2.2. Relative valuation

6.2.2.1. Peer group

The peer group were selected consist on the main US multiline retailers, some of which are present in Amazon's physical stores business segment's peers.

6.2.2.2. Trading multiples valuation

The multiples chosen were the same as Amazon's and the computation in available on appendix 24.

Based on this model, it the minimum share price for Target should be range from \$159.41 to \$168.54, meaning that it is easily concluded that the results are aligned with the DCF performed and that Target is slightly undervalued when compared with its peers.

6.2.2.3. Transaction multiples valuation

In order to have a more completed understanding of Target's valuation and understand the average acquisition premiums used in this type of deals, it was performed a transaction multiples valuation, available on appendix 25.

Based on this computation the share price of Target can range from \$150.18 to a maximum of \$173.61, meaning that the company is slightly overvalued, when compared to past transactions evolving similar companies, results which are aligned with the trading multiple valuation model.

6.3. Valuation summary

The following two figures are a visual representation of the valuation techniques used to value both companies and show the median of the share prices for each valuation.

The share prices maximum and minimum reflect the share prices range of the last 15 trading days of the analysed period (i.e. between 22/10/2020 and 11/12/2020) and the value in the centre of the box plot is the current share price (at 11/12/2020).

The DCF minimum and maximum were defined based on the first-degree sensitivity analysis presented in tables 10 and 13, and the value in the centre is the output of the valuation model.

The trading and transaction multiples maximums and minimums refer to the highest and lowest valuation points of each of the combined multiples valuation, being the centre value the median.

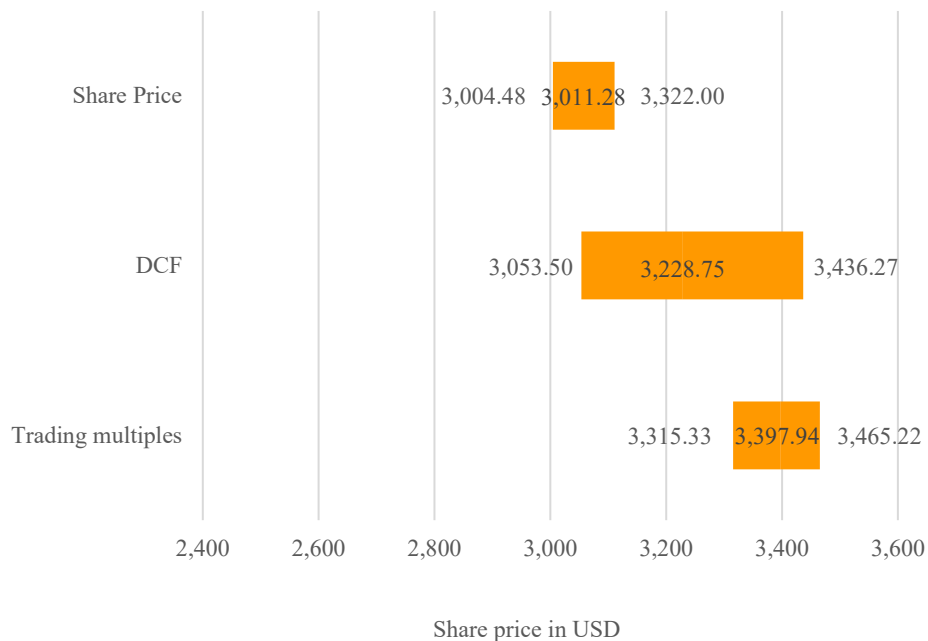


Figure 26 - Amazon's valuation football field

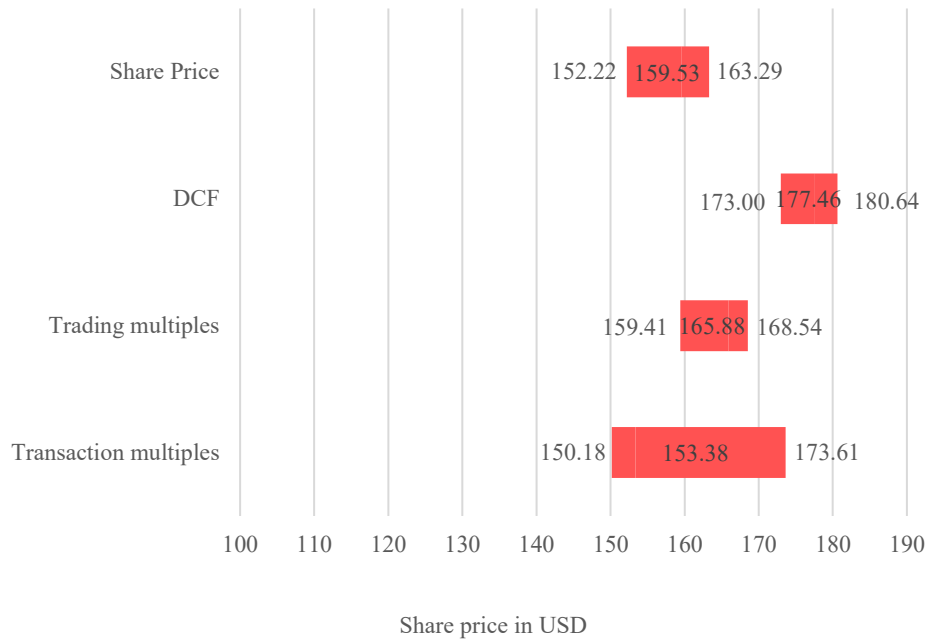


Figure 27 - Target's valuation football field

7. Synergies Valuation

7.1. Introduction

Even though synergies are not the main motivation behind the proposed transaction, which is clearly more related with market power, there are clearly significant synergies. The main synergy driver is expected to be revenues, even though cost savings also play an important role, due to Target's strong supply chain.

According to Damodaran (2005), the integration of two firms is an ongoing process and, therefore, synergies hardly ever manifest instantly. Thus, it is assumed that 2020 does not bear any synergies, and that they gradually increase from 2021 until 2023, reaching its full potential in 2024 (under the assumption that the transaction is settled in 2020).

7.2. Operating synergies

Synergies calculations are present on appendix 27. Target's revenues were divided according to channel and its online revenues were included in Amazon's online stores business segment and its physical revenues included in Amazon's physical stores business segment. The merged entity's revenues synergies come from these two business segments.

Regarding online stores synergies, it's expected that Target's product, once sold solely physically, to be included in Amazon's websites, therefore easily available to online consumers.

The same rationale can be applied to Amazon's most popular and signature products, which be taken to physical stores and, therefore, being accessible to physical retail consumers.

The main costs synergies are related with fulfilment costs, which include several warehousing expenses, namely storage, packing and shipping costs. Marketing and S&G costs present significant synergies as well, since it will be expected to be an absorption integration these types of division are expected to be integrated.

In conclusion, expected synergies are rather optimistic, similarly to what Amazon stated when acquired Whole Foods in 2017. The present value of synergies are as follows:

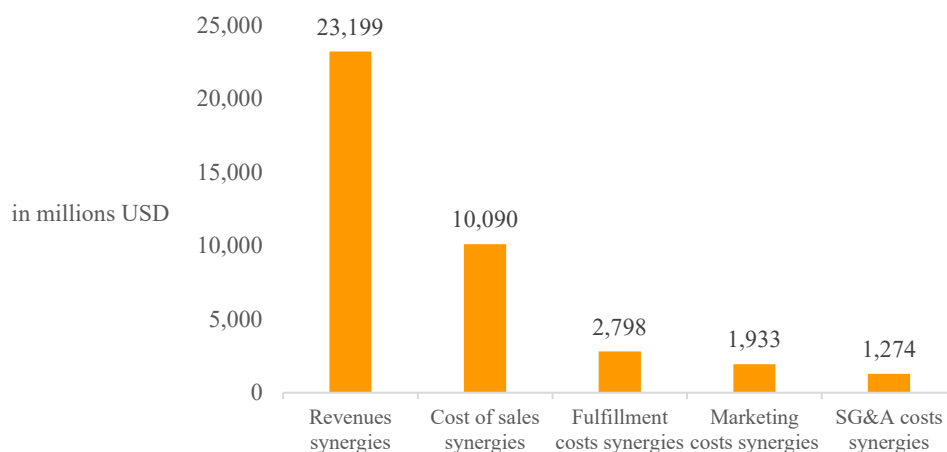


Figure 28 - Present value of synergies

7.3. Financial synergies

Being aware that Amazon and Target have enough cash reserves to fund their own projects and assuming that both are under an optimal capital structure, it is expected that the borrowing capacity of the combined entity may suffer a possible cost of debt.

In respects to tax benefits, they were assumed to be of small significance, since both companies are headquartered in the US, since Target's only operates in the US and almost 70% of Amazon's come from the same country. The combined entity's DCF model without synergies can be found on appendix 26 and the combined entity's DCF model with synergies is on appendix 27.

8. Transaction Details

8.1. Takeover approach

The prospective deal would be a friendly takeover, with a proposal to Target's board members. This approach is appealing for both firms because a hostile takeover attempt is often costly; also, Amazon has historical evidence of undertaking an all-cash deal and paying an above average acquisition premium for a company in the physical retail industry (Whole Foods 2017, 27% premium).

8.2. Transaction premium

In order to perform a premium analysis, it is important to understand this process is a negotiation, therefore, it is expected for Amazon to make an initial bid lower than the maximum that it is willing to pay, but competitive enough in order to solidify the status as a friendly takeover, and possibly avoiding an auction process involving other companies, which would probably drive the premium to higher values, but not over Amazon's maximum premium that it was willing to pay.

Considering that the expected net synergies of the deal represent 46.8% of Target's market capitalization, that is the upper bound limit for premium which Amazon is willing to pay, since that any premium above that value would mean that Amazon shareholders would not capture the synergies of the deal.

The most similar, as well as largest, acquisition deal made by Amazon was the Whole Foods acquisition, in which it was paid a 27% premium, which is the value that will be assumed for the transaction. This value is quite high when compared to the industry average, following the historical trend of Amazon to pay above-average premiums. A 27% premium is also justified by the optimistic expected synergies and by the fact that Target is considered undervalued.

All in all, this value will likely be accepted by Target's shareholders and accounts for a small discount considering that it would be a friendly takeover approach. Therefore, the price expected to be paid is \$202.60 per share (27% over the actual share price in the 11th of December 2020), amounting to a total \$21,569 million as the acquisition premium.

8.3. Transaction fees and integration costs

Transaction fees, in the context of M&A, can be defined as legal, advisory and intermediation services in a deal. By analysing the transaction fees in the Whole Foods acquisition, which were estimated to have totalled \$74 million, it is assumed that the proposed deal transaction fees total \$518 million (in present value), since the deal is approximately seven times larger.

Integration costs, which in this case include fulfilment operations, IT systems, workforce adjustments, knowledge transfer and overall supply chain optimizations, are assumed to be 2% of Target’s Corporation’s enterprise value, which totals at \$1,407 million.

Accounting for these values, it is possible to conclude that net synergies total \$37,369 million, as follows:

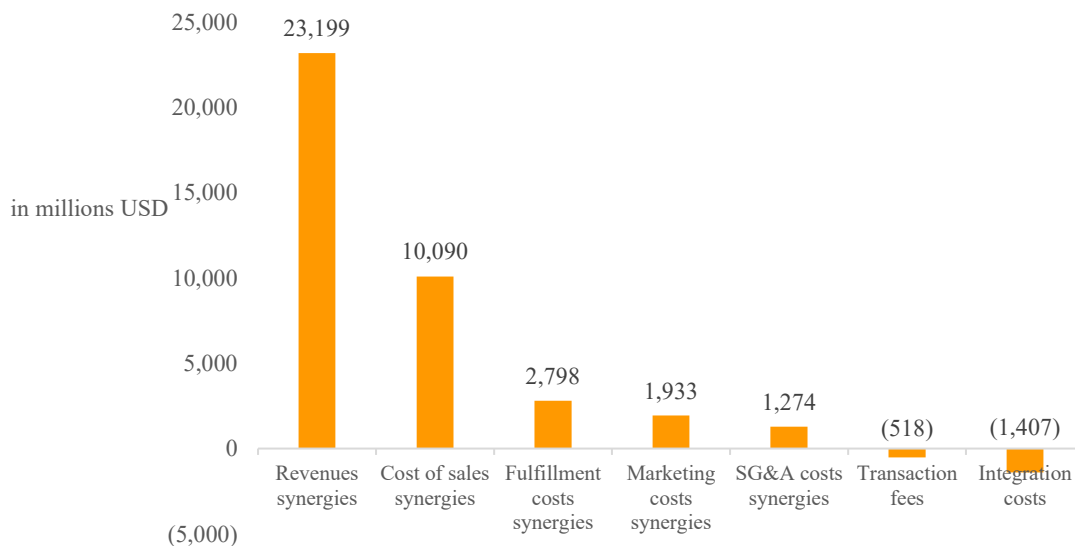


Figure 29 – Present value of net synergies

In conclusion, both companies were valued separately and then as a combined entity, using the WACC-based DCF model and multiples valuation techniques, available on the following figure which represents the enterprise value of each entity juxtaposed to its NFD (values in million USD):

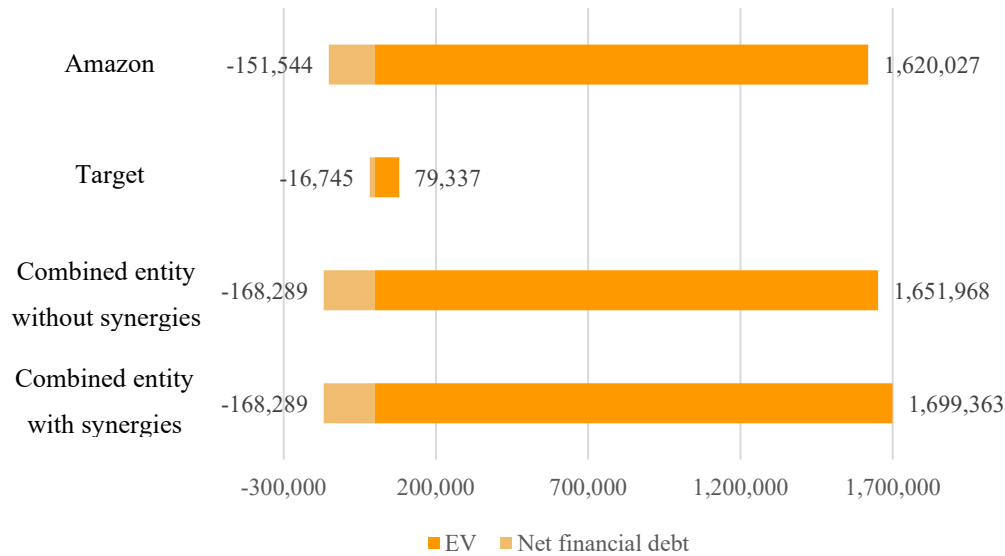


Figure 30 - Valuation summary

8.4. Financing

Amazon proposed bid is \$101,455 million, which accounts for a 27% premium over the market value of Target Corporation at the 11th of December 2020. Amazon has a strong history of all-cash deals, in order to signal the market that it is confident on the success of the deal and because it has the liquidity to do so. However, due to the tremendous size of the proposed transaction, that would not be possible with the current cash reserves of the company (which totalled \$71,391 million) without resorting to debt, therefore it proposed an all-cash deal, but financed 60% through the firm's cash reserves and 40% through debt. The all-cash deal seems likely in the sense that Target Corporation is considered undervalued from a trading and transaction multiples valuation point of view.

Even though friendly takeovers commonly include equity, in this case, that possibility is not likely due to strong growth experimented by the company's stock in the recent past which is expected to continue in the short run.

It is important to acknowledge that a possible consequence of such a large debt issuance could be the firm's rating decrease, which is, however, unlikely the difference in sizes of the companies. Theoretically, the firm's weighted average cost of capital is expected to be maintained (as explained in the literature review, the WACC is independent of a firm's capital structure), possibly even decreasing to tax benefits.

8.5. Accretion/Dilution analysis

It was performed an accretion/dilution analysis (available in appendix 28), in order to measure the impact on the acquiring firm's shareholder's earnings per share. Amazon's shareholders are expected to capture \$15,800 million until 2026 (in present value) and their EPS are expected to have a 27.5% accretion in 2020.

8.6. Post-merger integration

After the merger, there are two important phenomena to choose from: structural integration; or target autonomy. Amazon's strategy falls on the first one. Integration requires changes in the functional activity arrangements, organizational structures and systems, and cultures of combining organizations to facilitate their consolidation into a functioning whole.

In regard to the strategic independence to realize synergies, it is important to understand that the main synergies are related with revenues, which are derived from the selling of Amazon's products, once sold solely online through its websites, but expected to reach physical stores through Target, and vice-versa, that is, Target's products, once sold solely physically, which are expected to be included in Amazon's websites. Thus, there is a low strategic independence to realize synergies. The conclusion of this analysis is visualized in the following figure, which enumerates the four long-term integration choices (Haspeslagh & Jemison, 1991), leading to a holding of the target company.

The major concern every manager has is the fear of failure to effectively integrate. Multiple challenges arise in this process, such as: organizational incompatibility; executive departure; cross-cultural differences; or operational disruption. Amazon has faced many of these problems and dealt with unsatisfied employees; downfall in the target's customer experience; shift in the culture and environment of the acquired firm; and departure of crucial executives. Nevertheless, the integration with Amazon's other services, sales increase and technological development were the determinant factors for their success in the past and can potentially be replicated in this deal.

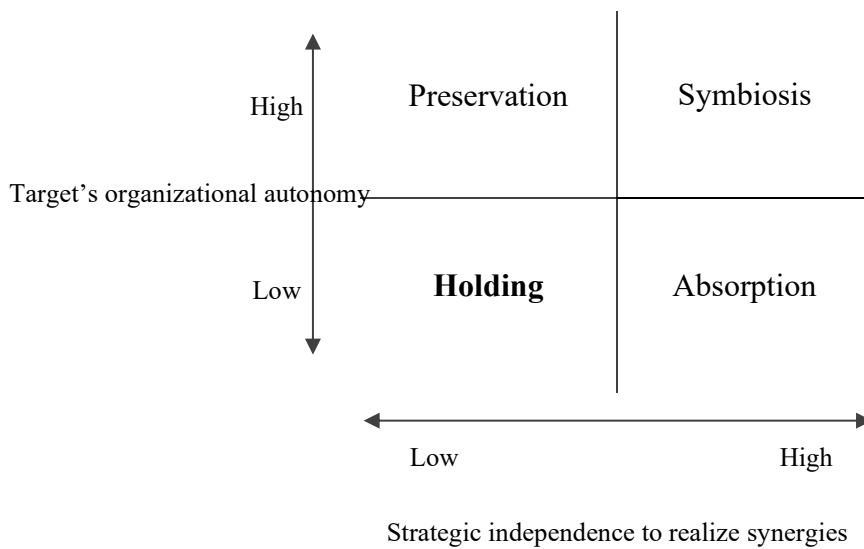


Figure 31 - Post-transaction integration matrix; adapted from Haspeslagh & Jemison (1991)

8.7. Alternative target

For Amazon to complement its brick-and-mortar retail expansion as a response to the ferocious online growth of Walmart, several other US retailers were considered as possible targets. These alternative target companies are smaller in terms of size, since the main possible setbacks of the original proposed deal were issues related with competition regulation entities, possible difficulties in terms of integration and full synergies being expected to be reach only four years after the transaction.

Firstly, Best Buy, an american multinational consumer electronics retailers, which is Amazon's largest product segment in its online stores business segments and the overall retail industry segment with higher expected growth in the short-term, as shown in the industry analysis. The company has a market capitalization of \$27,876 million, considerably smaller than Target's. It also possesses 1,036 stores across all states of the US, a large number for Amazon to face-off Walmart's physical presence in the US.

Secondly, Big Lots, an american discount stores retailer which operates 1,400 stores in 47 states. The company's market cap is \$1,942.

All in all, both companies are good alternatives, however they are not quite as good as a fit as Target, due to being smaller (in respects to market cap), not having as much "store area" across the US as Target (a fundamental requirement to compete with Walmart) and not being as well-known (brand value).

9. Limitations

It is important to consider that the proposed could be rejected by a regulatory body, such as the Department of Justice, if they consider it to be a violation of the competition laws. The same happened with the Amazon's previous deal in 2017, however the analysis of the combined firms' market share in the grocery industry was only 3,5%, which was a determinant factor for the unsuccess of this process. Moreover, the combined market share of Amazon and Target in the Department & Discount Retail industry would only be 4,79%, way below Walmart's (16%) and close to competitors like Costco and Kroger. One of the possible consequences could be that Amazon might be required to sell a portion of Target's stores in order to have green light in the deal.

10. Conclusion

The objective of the present dissertation was to analyse the possible acquisition of Target Corporation by Amazon.

The retail industry has been consistently growing in past years, without any signs of slowing down, fueled by a tremendous M&A activity and ferocious competition. Even though the Covid-19 pandemic fueled the global shift from physical to online retailing, this acquisition is considered as a viable option for a company like Amazon.

In order to leverage on its remarkable recent year results and accentuate its position as the worldwide market leader in the retailing industry, it was proposed a possible strong entrance in the brick-and-mortar retail, in the US, hinted by the 2017 acquisition of Whole Foods.

The proposed acquisition is a response to Walmart, Amazon's main competitor in the US, which has recently gained market share in the online retail industry. Acquiring Target would certainly crown Amazon as the undisputed retail champion, not only in the US, but globally.

The recommended bid is \$101,455 million (\$202.60 per share), which accounts for a 27% acquisition premium over the market price at the 11th of December 2020. This valued is justified by net synergies of \$37,369 million. The transaction should be carried as a friendly takeover and is expected to be an all-cash deal, financed 60% Amazon's cash reserves and 40% by debt issuance. Amazon's shareholders have the potential of capturing \$15,800 million and an accretion of 27.5% in 2020. The deal summary is available on appendix 29.

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12. Appendix

Appendix 1 – Valuation Techniques

1. Discounted cash flow

This valuation approach consists in estimating the NPV of expected generated cash flows of an asset, discounted back at a rate that reflects the risk of the mentioned cash flows. The valuation of the company is based on assumptions regarding its outlook. This is the approach that comes with the most extensive literature and with the best theoretical credentials. Mainly due to its future assessment of an assets cash flow stream and expected overall economic creation (contrasting with the other three previously mentioned approach is that aspect), this approach gets the most play in academia, although its day-to-day usage on today's financial sector can be questioned.

Samis & Davis (2014) suggest that, in a more formal approach, a Monte Carlo simulation, as an alternative to general assumptions of a company's financials, can be used to compute future expected cash flows of a firm, thus reaching the expected values with a smaller error margin.

The main underlying assumption of this approach is that a company will operate and generate cash flows as a perpetuity.

Cooper & Nyborg (2006) mention the four most common methods regarding this approach: the WACC, the FCFE method, the CFF and the APV methods.

All of the methods previously mentioned have the same general idea: that the value of a levered firm equals the value of the firm plus the present value of the tax shields arising from debt financing (PVTS), not considering costs of financial distress, as follows:

$$E + D = V_u + PVTS$$

Equation 1 - Valuation generic equation

Where:

E: Equity

D: Debt

V_u : Value of the unlevered firm

1.1. Weighted average cost of capital

The free cash flow to the firm (FCFF) or weighted average cost of capital (WACC) method, which consists in discounting the operating free cash flow (FCF) that can be defined as the free cash flow after tax, assuming that the firm is solely financed with equity, at WACC, in order to have the value of the leveraged firm, subtracting debt afterwards.

The WACC represents the blended cost of capital across all financing sources, including equity and debt holders, each weighted by its percentage of total capital. It be seen as the minimum expected return that a firm's new investments must yield in order for its value not to decrease. It reflects both the financial and operational risk of the company and, all in all, it can be interpreted as the long-term opportunity cost of the funds used by a company. The WACC formula is as follows:

$$WACC = \left(\frac{E}{D+E} \right) * Ke + \left(\frac{D}{D+E} \right) * Kd * (1-Tc)$$

Equation 2 - WACC formula

Where:

Ke: Cost of equity

Kd: Cost of debt

Tc: Corporate tax rate

For publicly traded companies, the market value of equity is given by a firm's market capitalization (Mkt Cap), which is calculated by multiplying the current stock price by the total number of outstanding shares.

For the WACC computation, the level of debt is always a market value and never the book value (stated on a firm's financials). For companies with publicly traded bonds, the market value of debt is given by the same rationale as the market capitalization is calculated by multiplying the total bonds traded in the market by its current market price.

1.2. Cost of equity

The cost of equity used in the WACC formula is the return a company requires to decide if an investment meets capital returns requirements. It can be computed using the capital asset pricing model (CAPM) introduced independently by Sharpe (1964), Linter (1965) and Mossin (1996) and is development of the mean-variance optimization theory of Markowitz (1952).

The CAPM formula is as follows:

$$E(R_i) = R_f + \beta_i (E(R_m) - R_f)$$

Equation 3 - CAPM formula

Where:

$E(R_i)$: Expected return of a security

R_f : Risk-free rate

$E(R_m) - R_f$: Market risk premium

$\beta_i = \beta_L$: Firm's levered Beta

Using the CAPM, the expected return of a security can be interpreted as the cost of equity of firm. Berk & DeMarzo (2017) define the CAPM's risk-free rate as the rate at which investors can both borrow and save. As suggested by Bruner (1998), the yield of long term (10 to 30 years) bonds can be used to determine the risk-free interest rate. The market risk premium is the excess return that investing in the market yields over the risk-free rate. It quantifies the extra return demanded by market participants for the increased risk.

1.3. Cost of debt

According to McKinsey & Company (2005), the yield to maturity of liquid long-term option free bonds is a suitable proxy for the cost of debt (in the case that the firm has publicly traded bonds). Damodaran (2018) suggests that the pre-tax cost of debt can be computed by summing of a default spread to the risk-free rate. The default spread is a function of the credit rating of a firm's publicly traded bond or is related to its interest coverage ratio (in the case that the company is not publicly traded).

The following table discriminates the relationship between these three variables for developed market firms with a market capitalization above \$5 billion companies.

<i>If interest coverage ratio is</i>			
<i>></i>	<i>≤ to</i>	<i>Rating is</i>	<i>Spread is</i>
8.50	100000	Aaa/AAA	0.63%
6.5	8.499999	Aa2/AA	0.78%
5.5	6.499999	A1/A+	0.98%
4.25	5.499999	A2/A	1.08%
3	4.249999	A3/A-	1.22%
2.5	2.999999	Baa2/BBB	1.56%
2.25	2.249999	Ba1/BB+	2.00%
2	2.2499999	Ba2/BB	2.40%
1.75	1.99999	B1/B+	3.51%
1.5	1.749999	B2/B	4.21%
1.25	1.499999	B3/B-	5.15%
0.8	1.249999	Caa/CCC	8.20%
0.65	0.799999	Ca2/CC	8.64%
0.2	0.649999	C2/C	11.34%
-1000000	0.199999	D2/D	15.12%

Table 14 - Default spread for large non-financial service companies; adapted from Damodaran (2018)

The interest coverage ratio is given as follows:

$$\text{Interest coverage ratio} = \frac{\text{EBIT}}{\text{Interest expenses}}$$

Equation 4 - Interest coverage ratio

In order to account for the tax shield savings from interest payments, it is possible to compute the after-tax cost of debt by the following formula:

$$\text{After-tax } K_d = K_d * (1 - T_c)$$

Equation 5 - After-tax cost of debt formula

1.4. Beta

Beta is a coefficient that measures the systematic risk (or non-diversifiable risk) or volatility of a given portfolio. According to McKinsey & Company (2005), it refers to the stock's co-movement with the stock market and emphasizes the stock's capability to further diversify the market portfolio. Berk & DeMarzo (2017) define it as being the percentual change in the return of a security for a 1% change in the return of the market portfolio.

Kaplan and Ruback (1996) studied the impact of three different measures of risk on valuations, being the first one a firm-based measure, the second one an industry-based measure and the final one a market-based measure. They concluded that the industry and market-based betas

consistently outperformed the firm-based beta, therefore, as explained by Damodaran (1999), a firm's capital structure must be considered when computing a levered beta because this coefficient is a function of the firm's financial risk, as follows:

$$\beta_L = \frac{\beta_U}{1 + (1 - T_c) * \left(\frac{D}{E}\right)}$$

Equation 6 - Beta levered formula

Where:

β_U : Unlevered Beta

According to Blume (1975), firm's betas tend to the mean of all firm's betas. This sustained the following adjustment to the beta levered formula:

$$\text{Adjusted } \beta_L = \frac{2}{3} * \beta_L + \frac{1}{3}$$

Equation 7 - Adjusted levered beta formula

1.5. Free cash flow to the firm

As previously mentioned, the WACC's method approach to the discounted cash flow model relevant cash flow is the free cash flow to the firm. Pinto et al. (2010) define the FCFF as the after-tax cash flow available to all the firm's equity and debt holders. In other words, it is the amount of cash flow earned by a firm after paying all operating expenses, tax and reinvestment needs, but before paying any interests or dividends. Kaplan & Ruback (1996) formulated two different ways to compute the FCFF, the first one is based on Net income (NI) and the second starts with earnings before interest (EBIT). Later, Damodaran (2012) proposed another way of calculating the FCFF, having the free cash flow to equity (FCFE) as a starting point. These formulas are the following:

$$\text{FCFF} = \text{NI} + \text{D\&A} - \Delta\text{NWC} + \text{Interest expenses} - \text{Capex} + \text{After tax asset sales}$$

Equation 8 - FCFF formula based on net income

$$\text{FCFF} = \text{EBIT} - \text{Corporate taxes} + \text{D\&A} - \Delta\text{NWC} - \text{Capex} + \text{After tax asset sales}$$

Equation 9 - FCFF formula based on EBIT

$$\text{FCFF} = \text{FCFE} + \text{Interest expenses} * (1 - T_c) + \text{Principal repayments} - \text{New debt issues} + \\ + \text{Preferred dividends}$$

Equation 10 - FCFF formula based on FCFE

Where:

NI: Net income

D&A: Depreciations and amortizations

Δ NWC: Change in net working capital

Capex: Capital expenditures

1.6. Enterprise Value

The final stage of this model is the computation of the firm's enterprise value (EV), which is a measure of a company's total value, often used as more comprehensive alternative to equity market capitalization, that refers to the market value of a publicly traded company's outstanding shares.

The EV formula is the following:

$$EV = \sum_{t=0}^{t=n} \frac{FCFF_t}{(1 + WACC)^t} + \frac{TV_n}{(1 + WACC)^n}$$

Equation 11 - WACC model enterprise value

Where:

$FCFF_t$: Free cash flow to the firm in period t

TV: Terminal value

n: number of periods representative of the asset's life

The terminal value (TV) used in the previous formula is the firm's value beyond the forecasted period, when the future cash flows are estimated. The TV is computed, as a perpetuity, as follows

$$TV_n = \frac{FCFF_{n+1}}{(WACC - g)}$$

Equation 12 - WACC model terminal value

Where:

g: Long term growth rate

This previously described equation is the perpetual growth method to compute the TV, an academic approach. However, it is relevant to mention that the exit multiple method, an industry-based approach, can be an alternative to the academic approach. Instead of computing

the TV based on a perpetuity formula, this value is calculated assuming that the firm is sold, at the end of the projected period, for a value based on the existing public market valuations.

This alternative method consists on estimating the TV by multiplying financial metrics, such as EBITDA or EBIT, of the firm that one wants to value, by a factor that is similar to that of recently acquired companies.

1.7. Free cash flow to equity

The free cash flow to equity method consists of discounting the future free cash flow available for equity holders, at the cost of equity. This approach can be interpreted as a calculation of the NPV of equity of a firm. The FCFE can be defined as the residual cash flows after meeting all expenses, reinvestment needs, tax obligations and interest and principal payments. The K_e is the rate of return a firm theoretically pay to the equity holders. The output of this DCF approach is the value of the equity of the firm and not the EV, as the WACC model. The FCFE can be computed using equation 9 of the present dissertation (having the FCFE as a starting point) or, as formulated by Pinto et al. (2010), using net income as the starting point of the calculation:

$$FCFE = NI + \text{Cash charges} - \Delta NWC - \Delta \text{Capex} + \text{Net borrowing}$$

Equation 13 - FCFE formula

Where:

Δ Capex: Change in capital expenditures

Therefore, the value of equity of the firm is given in a similar way of the previous EV and TV formulas in the WACC method of the DCF model, as presented below:

$$\text{Equity value} = \sum_{t=0}^{t=n} \frac{FCFE_t}{(1 + K_e)^t} + \frac{FCFE_{n+1}}{K_e - g} * \frac{1}{(1 + K_e)^n}$$

Equation 14 - FCFE model equity value formula

1.8. Capital cash flow

The capital cash flow method (CFF), which consists on discounting the FCFE, which is the free cash flow available to both debt and equity holders, at the unlevered cost of capital (K_u), resulting on the value of the levered firm and subtracting debt afterwards. Using equation 5 of the present dissertation, it is possible to calculate the unlevered Beta. By applying the same

rationale of equation 3 of the present dissertation (the CAPM formula as a way to calculate the cost of equity), if one uses the β_u instead of β_L , it is possible to compute K_u as follows:

$$K_u = R_f + \beta_u(E(R_m) - R_f)$$

Equation 15 - CAPM formula to compute the unlevered cost of capital

This approach to the DCF might be very similar to the WACC, but it is advantageous to use it since it is more practical to apply this model when the level of debt of a company changes and, on that case, it is a model less prone to errors. Since there is an almost a direct correspondence between this model and the WACC approach, the WACC will be one used in this dissertation, due to the level of debt of Amazon not having significant changes which justify this alternative.

1.9. Adjusted present value

Through the adjusted present value (APV) method, each part of a firm is valued separately, as stated by Luehrman (1997), this approach to the DCF model relies on the value additivity, that is, the value of a firm corresponds to the sum of its cash flow generating parts. Moreover, by segregating the sources of value creation of the firm, it is not only possible for managers to assess the intrinsic value of the company, but also to understand the origin of value creation (Kaplan & Ruback, 1996). The APV is a recommended alternative to WACC for changing capital structure valuations (Koller et al., 2010)

Firstly, it is assumed that the company is fully equity financed, by discounting the FCFF at the unlevered cost of capital, secondly it is added the present value of tax shields and finally the present value of the costs of bankruptcy are added as well (Kaplan & Ruback, 1996). Therefore, by the APV approach of the DCF, the value of the firm is given as follows:

$$\text{Firm value} = \sum_{t=1}^{t=n} \frac{\text{FCFF}}{(1 + K_u)^t} + \text{PVTS} + \text{PV bankruptcy costs}$$

Equation 16 - APV firm value formula

The PVTS formula is given by Cooper & Nyborg (2006), having the underlying assumption that future debt values and future tax saving are proportional to the value of the firm's operation. Additionally, the author stated that the growth rate used in the following formula is the entire firm's growth rate. The formula is as follows:

$$\text{PVTS} = \sum_{t=1}^{t=n} \frac{T_c * \text{Interest rate}_t * \text{Debt}}{(1 + K_d - g)^t}$$

Equation 17 - APV model PVTS formula

Finally, the present value of bankruptcy costs is given by the following formula:

$$\text{PV bankruptcy costs} = \text{Prob. bankruptcy} * \text{PV bankruptcy costs}$$

Equation 18 - APV model PV of bankruptcy costs

Damodaran (2006) suggests that one of the possibilities to estimate the probability of bankruptcy (Prob. bankruptcy) is through the firm's bond rating.

Acharya et al. (2012) studied the values of past bankruptcies, making available a set of industry-based and type of operation-based means and medians which can be used to estimate the present value of bankruptcy costs.

2. Relative valuation

In order to value a firm using this analogic approach, one calculates the average or median of a financial ratio from the guideline companies (also called competitors or peer group) and applies that proportion to the firm which one wants to value, by multiplying that same financial metric by the performance measure of the company being valued.

Kaplan & Ruback (1996), highlight two different approaches for this valuation model: the comparable transaction (the value of a firm is inferred through past transactions in the same industry and of companies with similar size) and the comparable company (which is the most popular relative valuation method and the one in which this literature review is more focused on), in which a set of comparable companies multiples are used to infer the value of a firm .

Koller et al. (2005) state that peer companies should be chosen based on similar future growth projections and similar return on invested capital (which can be interpreted as a measure of risk), the multiples used should be forward-looking and not historical averages. The return on capital is given as follows:

$$\text{Return on capital} = \frac{\text{EBIT} * (1 - T_c)}{\text{Capital invested}}$$

Equation 19 - Return on capital formula

The main multiples used are usually based on enterprise value, such as EV/Revenues, EV/EBITDA, EV/EBITDA or EV/Invested capital. These EV-based multiples should be adjusted for non-operating items. However, some equity-based multiples are also often when, for instance, an investor aspires to acquire a minority position in a company, such as the price earnings ratio (PER), the Price/Book ratio or the dividend yield. This external approach to valuation is useful to get some insights regarding the market perception of a firm's value,

whether it is overvalued by the market (if it is over the benchmark) or undervalued (if it is traded under the benchmark). For the relative valuation model to be reliable, it is required a high level of market efficiency as well as a high level of market transparency. Therefore, this approach to valuation is not recommended in times of crisis or bubbles.

3. Other valuation methods

There are other methods to value firms, such as the liquidation and accounting valuation. According to this approach, a firm's value is the net value of its physical assets, as if they were going to be sold. Assets such as real estate, equipment, inventory and fixtures are included in this model, nonetheless intangible assets are disregarded. The value of a firm calculated through this approach will always be smaller than the DCF's output, since the assets are assumed to be sold at the present time (and at discount) and future investments are disregarded (Damodaran, 2006).

The contingent claim valuation uses an option-pricing model to value projects or firms. This model is relevant for businesses which are dependent on the occurrence of certain events (Schwartz, 2013), such as companies which the business models are highly dependent of the price fluctuation of certain commodities, for instance ore exploration or agricultural companies. According to Leuhrman (1997), this approach is mostly used for future investments or individual projects.

According to the excess return valuation, there is a distinction between a firm's cash flows: normal return cash flows and excess return cash flows. The earnings that are in line with a firm's cost of capital are considered normal return cash flows, all of the others which differ from that value are considered excess returns (meaning they can be positive or negative). The underlying rationale of this model is that a company with positive excess returns should be value higher than its book values and the opposite for negative excess returns. Accordingly, a project should only be taken on by a company if the project's return is higher than the firm's equity cost of capital. According to Damodaran (2006), the most popular model used for this valuation approach is the economic value added (EVA), which can be computed as follows

$$EVA = NOPAT - WACC * Capital\ invested$$

Equation 20 - EVA formula

Where:

NOPAT: Net operating profit after tax

Appendix 2 – Amazon’s company profile additional information

1. Product and services portfolio

The online stores segment, which includes product sales and digital media content where they record revenue gross. The company leverages on their retail infrastructure to offer a wide selection of consumable and durable goods including media products (books, music, videos, games and software) available in both physical and digital format, all sold on a transactional basis. This business segment of Amazon includes the infamous Kindle (company’s trademark android-powered portable e-book reader device, developed by Amazon), the Fire tablets (formerly known as Kindle Fire, which is a low-priced tablet computer developed by Amazon), the Amazon Fire TV (a line of digital media player and micro consoles that delivers digital audio and video content streamed via internet to a high-definition television, fully developed by Amazon), Echo (the brand of smart speakers developed by Amazon) and Alexa, the voice-controlled virtual assistant AI technology. All the previously mentioned signature Amazon products are available on all the company’s websites. As of 2019, there are over 300 million active customers’ accounts worldwide.

The physical store segment includes product sales where a customer physically selects items in a store. It is worth mentioning that sales from customers who order goods online for delivery or pickup at a physical store are included in the previously mentioned online stores segment. This segment includes the sales from Whole Foods, the supermarket chain which exclusively sells products free from hydrogenated fats and artificial colours, flavours and preservatives, acquired by Amazon in 2017. Amazon also has other physical stores besides Whole Foods, available on appendix 4.

Third-party seller services enable these sellers to sell new or used products on a fixed-price online marketplace alongside Amazon’s regular offering. This business segment includes commissions and any related fulfilled and shipping fees and other third-party seller services.

Subscription services includes digital product subscriptions which provide unlimited viewing or usage rights. It is mainly associated with the annual and monthly fees associated with Amazon Prime memberships, as well as audiobook, digital video, digital music (through Amazon Music), e-book and other non-AWS subscription services.

Amazon Prime provides discounts on shipping (for instance free two-day shipping with no minimum order size applied to millions of eligible items, a free membership to Prime Video (Amazon’s streaming video service included with membership and offers titles exclusive to

Amazon), Twitch Prime (which gives customers a free channel subscription to a video game streamer of choice, plus numerous discounts and free in-game content to popular titles), Amazon Drive (a subscription which offers its users unlimited storage for files and make them accessible from anywhere) and early access to lightning deals on the company’s website. As of 2019, there are over 150 million paid Prime members globally. Amazon Prime’s fees per country are available on appendix 3.

Finally, the AWS business segment which provides on-demand cloud computing platforms, that is, the delivery of IT resources over the Internet. Instead of buying, owning and maintaining physical data centers and servers, it is possible for a customer to access technology services, including computing power, storage and databases through the cloud provider. AWS also provides application programming interfaces (API’s), which are interfaces that define interactions between multiple software intermediaries, to individuals, companies and governments. All of AWS services are charged on a pay-as-you-go basis.

2. Financial Analysis

Working capital represents the difference between a firm’s current assets and current liabilities. Amazon’s working capital has been decreasing over the past three years meaning its current liabilities have increased in relation to its current assets. The relationship between the changes in working capital and revenues growth is almost irrelevant, meaning that the behaviour of each is not affected by the other. Amazon’s historic changes in working capital are as follows:

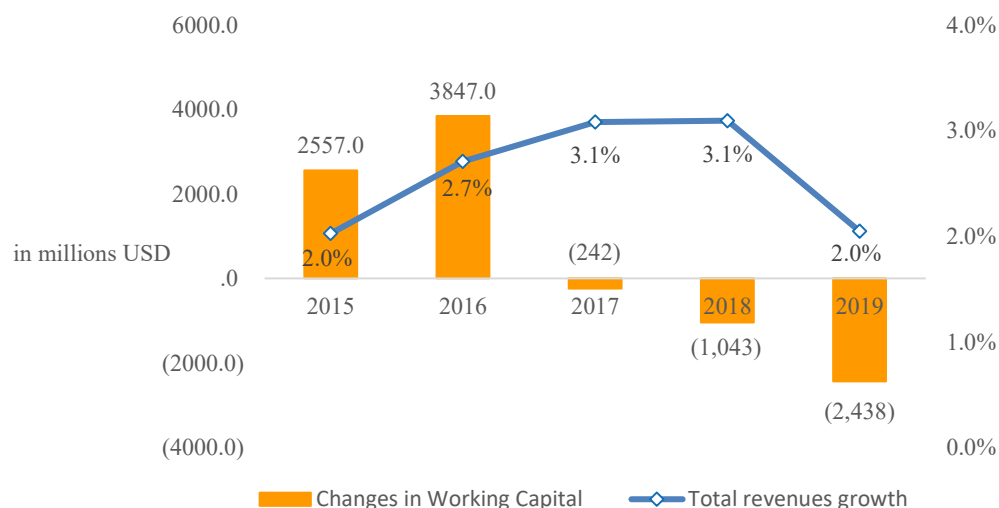


Figure 32 - Amazon's historic changes in working capital; adapted from Amazon’s annual reports

A company’s interest expense is the cost incurred for borrowed funds. In Amazon’s case, it has decreased 51.3% in the last year. This can be explained by an increase in long-term debt when

Amazon to become the undisputed retail champion? | Francisco Morais Correia

compared with its current debt, postponing its interest expenses. Amazon's historic interest expenses are as follows:

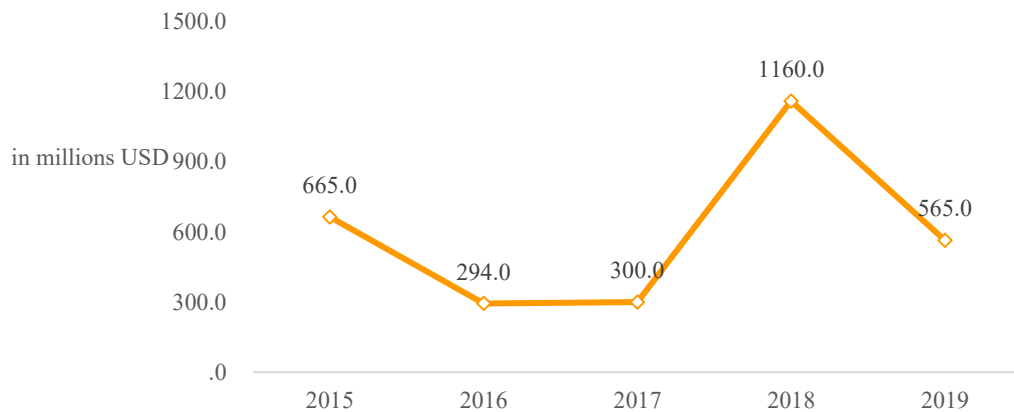


Figure 33 - Amazon's historic interest expenses; adapted from Amazon's annual reports

The following figure is the visual representation of Amazon's income statement earnings in the past five years. The right axis is the scale for revenues, whereas the left axis is the scale for the other earnings.

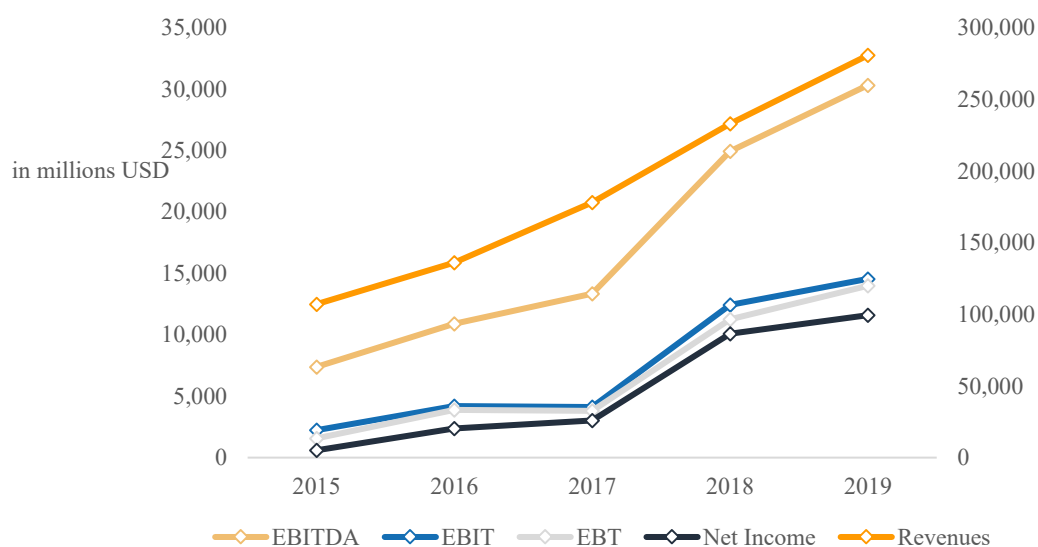


Figure 34 - Amazon's historic income statement earnings; adapted from Amazon's annual reports

It is worth mentioning that Amazon's quarterly EPS, which are calculated by dividing the net income by shares outstanding, have been increasing due to the earnings boost, especially in the first half of 2020. The number of shares outstanding also increased but in a lower scale.

A company's return on equity (ROE), which is calculated by dividing the company's earnings by the book value of equity and it measures if the company's executives are managing it

effectively, using the company's assets to create profits. When comparing Amazon's historic ROE with the firm's EPS, they recently show inverse, when historically they were positively correlated. Amazon's historic EPS and ROE are as follows (notice that the EPS curve is related to the left axis and the ROE curve is related the right axis):

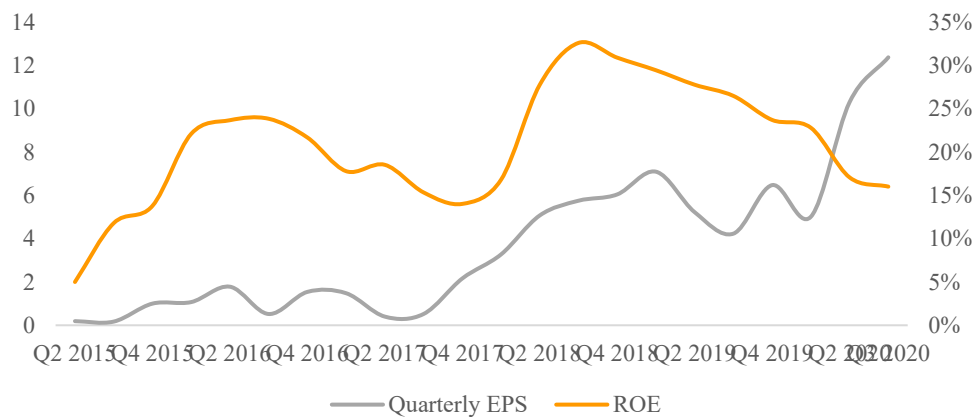


Figure 35 - Amazon's historic earnings per share and return on equity; from Thomson Reuters Eikon

Appendix 3 – Target’s company profile additional information

1. Product and services portfolio

The first one is the beauty and household essentials segment, which includes all beauty and personal, baby gear, cleaning, paper products, and pet supplies. This segment represents 26% of 2019 Target’s total revenues.

The second business segment is food and beverage, which includes dry grocery, dairy, frozen food, beverages, candy, snacks, deli, bakery, meat, produce, and food service in stores. Food and beverage revenues were over \$15 million in 2019 (representing 19% of total revenues).

Apparel and accessories are the third business segment, contributing to 18% of Target’s revenue. This segment includes apparel for women, men, boys, girls, toddlers, infants and newborns, as well as jewellery, accessories and shoes. This business segment represents 18% of Target’s total revenues.

In fourth place, home furnishings and décor business segment, which represents also 18% of the firm’s total revenues. It includes furniture, lighting, storage, kitchenware, small appliances, home décor, bed and bath, home improvement, school/office supplies, greeting cards and party supplies, and other seasonal merchandise.

The fifth business segment is hardlines, which includes electronics (including video game hardware and software), toys, entertainment, sporting goods, and luggage. This business segment represents 16% of the company’s revenues.

2. Financial Analysis

In terms of changes in working capital, in the past five years, the value has been almost always positive, meaning the company has been increasing its current assets when compared with its current liabilities. Target’s historic changes in working capital are as follows: (please notice that the left axis is the scale for the firm’s changes in working capital and the right one for the revenues growth rate)

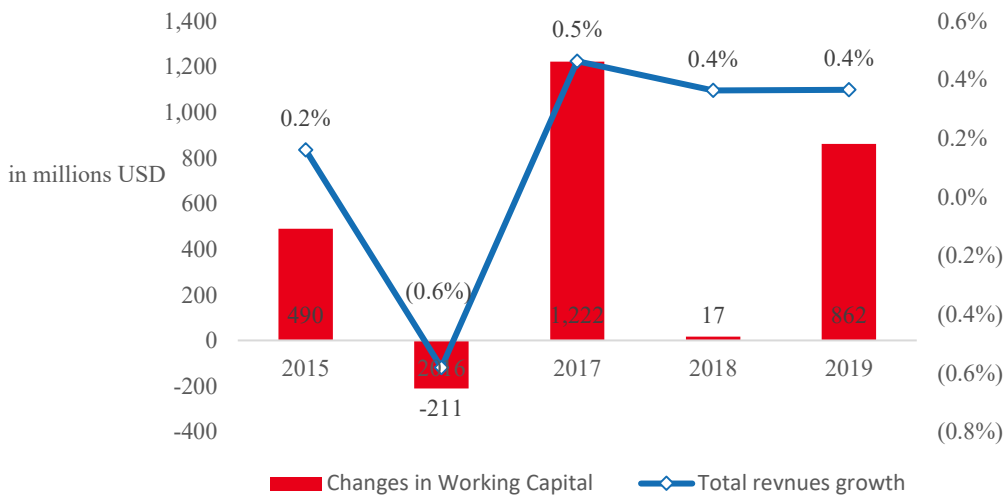


Figure 36 - Target's historic changes in working capital; adapted from Target’s annual reports

Even though it has been increasing its debt its interest expense has been decreasing, since its financial debt has been also decreasing. Target’s historic interest expense is as follows:

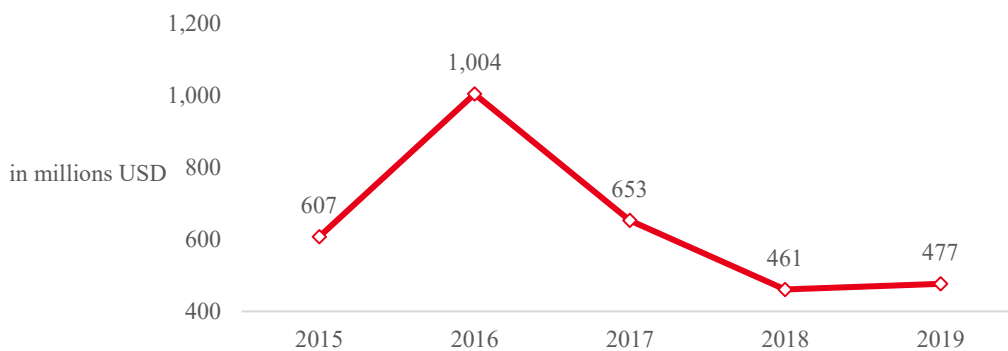


Figure 37 - Target's historic interest expenses; adapted from Target’s annual reports

The following figure is the visual representation of Target’s income statement earnings in the past five years. The right axis is the scale for revenues, whereas the left axis is the scale for the other earnings.

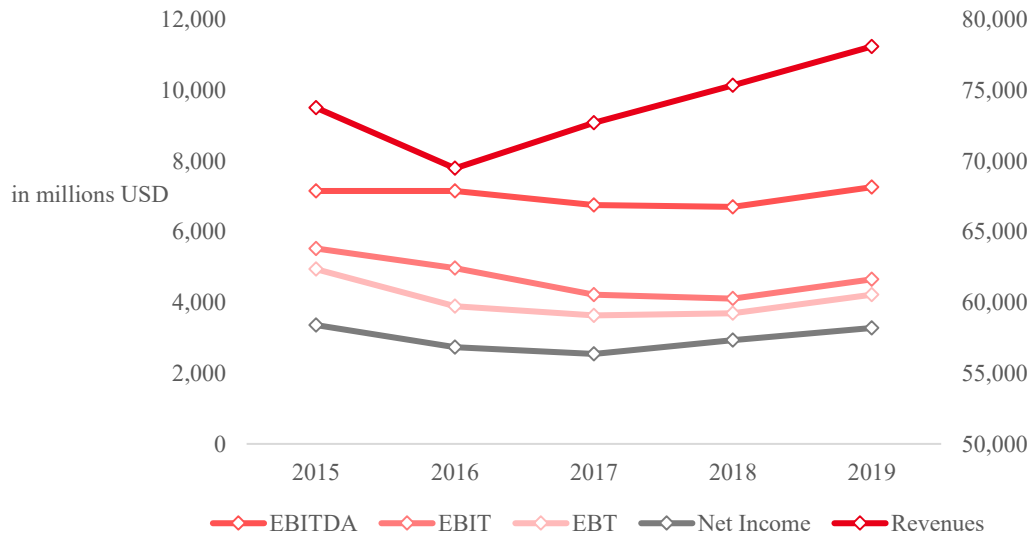


Figure 38 - Target's historic income statement earnings; adapted from Target’s annual reports

Unlike Amazon, Target has a historical pay-out policy, although its dividend yield, which is calculated by dividing dividends paid by the firms share price, has been decreasing, mainly due to its recent share price increase. Target’s historical dividend yield is as follows:



Figure 39 - Target's historic dividend yield; from Thomson Reuters Eikon

Target’s EPS’s recent increase has been fuelled by the decrease in total shares outstanding. The firm’s ROE evolution is in line with Amazon’s, since it has been recently declining as well. Target’s historical EPS and ROE are as follows: (please notice that the right axis is the scale of the firm’s ROE and the left axis the scale for the firm’s EPS’s)

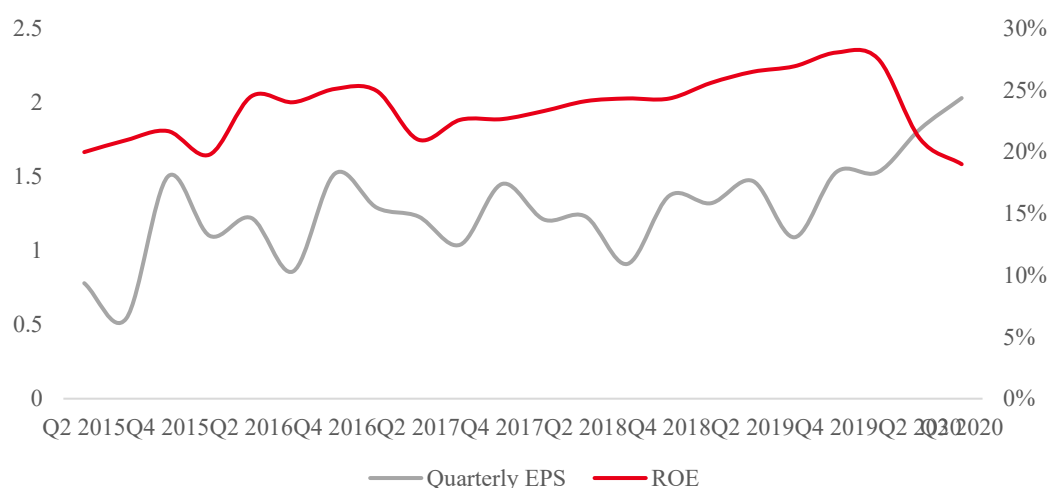


Figure 40 - Target's historic earnings per share and return on equity; from Thomson Reuters Eikon

Appendix 4 – Amazon’s number of stores

	Number of stores
Amazon Go Groceries	2
Amazon Go	26
Amazon Books	24
Amazon 4-Star	31
Amazon Pop Up	7
Whole Foods	500
Total	590

Table 15 - Amazon's number of stores; adapted from Amazon’s annual reports

Appendix 5 – Amazon Prime’s fees per country

Country	Prime annual membership fee (in local currency)	Prime annual membership fee (in USD)
Countries which contribute to 89% of revenues in 2019		
United States	\$ 99	\$ 99
Germany	€ 69	\$ 81.13
United Kingdom	£ 79	\$ 61.05
Japan	¥ 3,900	\$ 36.75
Average		\$ 69.48
Rest of the world (11% of revenues in 2019)		
Canada	\$ 79	\$ 59.74
France	€ 49	\$ 57.62
Austria	€ 69	\$ 81.13
Netherlands	€ 49	\$ 57.62
Belgium	€ 49	\$ 57.62
Luxemborg	€ 49	\$ 57.62
Italy	€ 20	\$ 23.52
Spain	€ 20	\$ 23.52
Mexico	\$ 899	\$ 41.28
India	₹ 999	\$ 13.48
China	¥ 388	\$ 56.67
Average		\$ 48.17

Table 16 - Amazon Prime’s fees; adapted from Amazon's annual report

Appendix 6 – Amazon’s SWOT analysis

<p>Strengths</p> <ul style="list-style-type: none"> - Strong brand name and image acquired by the great presence in the e-commerce market - Customer-oriented brand, since the foundation, which is something valued by customers - Expertise in logistics and distribution systems - Successful acquisitions in the past (e.g. Whole Foods, Twitch, IMDb, Alexa) 	<p>Weaknesses</p> <ul style="list-style-type: none"> - Limited brick-and-mortar presence, Amazon owns a very limited number of physical stores - Losing presence in China and in some emerging markets, including India - High dependence on distributors, which are a key part of the company's distribution system - Lack of experience in the physical retail market
<p>Opportunities</p> <ul style="list-style-type: none"> - Expand its in-house products can significantly boost profit margins and differentiate its offerings - Expansion to physical retail can improve competitiveness against big box retailer such as Walmart, Costco, Kroger) and gain market share - Covid-19 as a way to reach to a new range of customers and fidelize them to the brand - Increase inorganic growth, in which the company has proved to be successful in the past 	<p>Threats</p> <ul style="list-style-type: none"> - Increasing competition from other players (e.g. Walmart, AliExpress, eBay) - The trade war with China, which resulted on the rise on tariffs of chinese products - The ease of imitation of Amazon's business model - Cybercrime, which saw a great increase in occurrences during the worldwide pandemic

Table 17 - Amazon's SWOT analysis

Appendix 7 – Target’s SWOT analysis

<p>Strengths</p> <ul style="list-style-type: none"> - Vast network of distribution centers around the United States - Strong presence in the US and recognizable brand among american consumers, with 1,800 stores - Partnerships with several well known brands, including Starbucks - Wide range of commercialized products which 	<p>Weaknesses</p> <ul style="list-style-type: none"> - Considered high-end, in comparison with other retailers (e.g. Walmart, Costco, Trader Joe’s) - No presence outside the US market - Not very successful on integrating other acquired companies - Great dependence on foreign suppliers, since a lot of the commercialized products come from outside of the US
<p>Opportunities</p> <ul style="list-style-type: none"> - Develop private label for differentiation and profit margins improvement - Remain expansion on the smaller format stores - Add Same Day Deliveries to their services, taking advantage of the acquisition of Shipt, a grocery delivery service - Exploration of international markets, including retrying to enter the canadian market, with an improved strategy and more insights 	<p>Threats</p> <ul style="list-style-type: none"> - Huge competition from other players (e.g. Walmart, Costco, Kroger) - Change of consumer behavior towards the online platforms - The trade war with China, which resulted on the rise on tariffs of chinese products - Increase of price competition in non-discount products, mainly imported ones

Table 18 - Target's SWOT analysis

Appendix 8 – Multiline retail industry's Porter's five forces analysis

Competitive Rivalry

The retail industry is a **very competitive** industry mainly due to the huge number of firms exploring it, although ranging from very small to massive companies. Also, since it is a big industry, there is a lot of segmentation and variety of firms exploring smaller, and more specific niches of this market. It is also important to mention that in this industry there is high aggressiveness, especially amongst bigger companies, mainly on prices since it is one of the main aspects that the consumer notices.

Suppliers Power

The bargaining power of the suppliers has **low intensity**, this has mainly to do with the fact that there are, like in the retail industry, a lot of players with high competitiveness between them. These suppliers tend to be smaller than the big players of the retail industry, making them very dependent on these retailers and their supply contracts and so having low bargaining power.

Buyers Power

The bargaining power of the buyers has **low intensity**, this happens a lot because of the large population of buyers which makes it difficult for them to be able to impose any kind of significant pressure on the retail companies. This population, of buyers, is also characterized by their own high diversity, which also makes it difficult to find a common ground that could possibly involve every type of buyer in order to increase their power over the retail companies. Another relevant point to raise is that the great majority of the consumers present a small sized purchase for these companies making it almost irrelevant as an individual.

Threat of Substitution

The threat of substitution is **relatively low**. It is evident the existence of substitutes, although not very varied, but these substitutes are normally accompanied either by lower quality or higher prices. These factors make it difficult for a consumer to move away from the normal retailers, either because of the higher price or because of the lack of variety.

Threat of New Entry

The threat of new entries can be classified **moderately high**. There is a constant threat of new companies entering this industry, mainly in the smaller sized stores segment, where with their small size they can win over a customer due to their convenience and location. Smaller stores are much more easily found near residential areas when compared with big retailers' spaces. It

is difficult and costly to create and develop a new brand, but it is becoming a little less difficult due to the internet. Although the cost of opening a new business is high (equipment, human resources, business space), maintaining a retail store is considered moderate to low which provides an incentive to do it, mainly in smaller sized stores which have less expenses when compared with bigger ones.

Appendix 9 – Amazon’s historical income statement

(Values in million USD)

Income statement	2015	2016	2017	2018	2019
Revenues	107,006	135,987	177,866	232,887	280,522
Cost of sales	(71,651)	(88,265)	(111,934)	(139,156)	(165,536)
Gross profit	35,355	47,722	65,932	93,731	114,986
Fulfillment	(13,410)	(17,619)	(25,249)	(34,027)	(40,232)
Technology & content	(5,254)	(7,233)	(10,069)	(13,814)	(18,878)
Marketing	(12,540)	(16,085)	(22,620)	(28,837)	(35,931)
General & administrative	(1,747)	(2,432)	(3,674)	(4,336)	(5,203)
Other	(171)	(167)	(214)	(296)	(201)
Operating income	2,233	4,186	4,106	12,421	14,541
Interest income	50	100	202	440	832
Interest expense	(459)	(484)	(848)	(1,417)	(1,600)
Other income (expense)	(256)	90	346	(183)	203
Net income before taxes	1,568	3,892	3,806	11,261	13,976
Provision for income taxes	(950)	(1,425)	(769)	(1,197)	(2,374)
Equity method investment activity, net of tax	(22)	(96)	(4)	9	(14)
Net income	596	2,371	3,033	10,073	11,588

Table 19 - Amazon's historical income statement; adapted from Amazon's annual report

Appendix 10 – Amazon’s historical balance sheet

(Values in million USD)

Balance sheet	2015	2016	2017	2018	2019
Cash and cash equivalents	15,890	19,334	20,522	31,750	36,092
Marketable securities	3,918	6,647	10,464	9,500	18,929
Inventories	10,243	11,461	16,047	17,174	20,497
Accounts receivable, net and other	5,654	8,339	13,164	16,677	20,816
Total current assets	35,705	45,781	60,197	75,101	96,334
Property plant and equipment, net	21,838	29,114	48,866	61,797	72,705
Operating leases	-	-	-	-	25,141
Goodwill	3,759	3,784	13,350	14,548	14,754
Other assets	3,445	4,723	8,897	11,202	16,314
Total assets	64,747	83,402	131,310	162,648	225,248
Accounts payable	20,397	25,309	34,616	38,192	47,183
Accrued expenses and other	10,372	13,739	18,170	23,663	32,439
Unearned revenue	3,118	4,768	5,097	6,536	8,190
Total current liabilities	33,887	43,816	57,883	68,391	87,812
Long-term lease liabilities	-	-	-	9,650	39,791
Long-term debt	8,227	7,694	24,743	23,495	23,414
Other long-term liabilities	9,249	12,607	20,975	17,563	12,171
Total liabilities	51,363	64,117	103,601	119,099	163,188
Common stock	5	5	5	5	5
Treasury stock	(1,837)	(1,837)	(1,837)	(1,837)	(1,837)
Additional paid-in capital	13,394	17,186	21,389	26,791	33,658
Retained earnings	2,545	4,916	8,636	19,625	31,220
Accumulated other comprehensive loss	(723)	(985)	(484)	(1,035)	(986)
Total equity	13,384	19,285	27,709	43,549	62,060

Table 20 - Amazon's historical balance sheet; adapted from Amazon's annual report

Appendix 11 – Amazon’s historical cash flow statement

(Values in million USD)

Cash flow statement	2015	2016	2017	2018	2019
Cash flow - operating activities					
Net income	596	2,371	3,033	10,073	11,588
Depreciations and amortizations	6,281	8,116	11,478	15,341	21,789
Stock-based compensation	2,119	2,975	4,215	5,418	6,864
Other operating expenses, net	155	160	202	274	164
Other expenses (income), net	250	(20)	(292)	219	(249)
Deferred taxes	81	(246)	(29)	441	796
Excess tax benefits	(119)	(829)	-	-	-
Non-cash expenses	8,767	10,156	15,574	21,693	29,364
Inventories	(2,187)	(1,426)	(3,583)	(1,314)	(3,278)
Accounts receivable	(1,755)	(3,367)	(4,780)	(4,615)	(7,681)
Accounts payable	4,294	5,030	7,100	3,263	8,193
Accrued expenses	913	1,724	283	472	(1,383)
Unearned revenue	1,292	1,955	738	1,151	1,711
Changes in working capital	2,557	3,916	(242)	(1,043)	(2,438)
Cash from operating activities	11,920	16,443	18,365	30,723	38,514
Cash flow from investing activities					
Capital expenditures	(4,589)	(6,737)	(11,955)	(13,427)	(16,861)
Proceeds from PP&E incentives	-	-	1,897	2,104	4,172
PP&E acquired under capital and finance leases	-	-	-	-	-
Acquisitions, net of cash acquired, and other	(795)	(116)	(13,972)	(2,186)	(2,461)
Sales and maturities of marketable securities	3,025	4,733	9,677	8,240	22,681
Purchases of marketable securities	(4,091)	(7,756)	(12,731)	(7,100)	(31,812)
Cash from investing activities	(6,450)	(9,876)	(27,084)	(12,369)	(24,281)
Cash flow from financing activities					
Excess tax benefits from stock-based compensation	119	829	-	-	-
Dividends paid	-	-	-	-	-
Proceeds from long-term debt	353	621	16,228	768	2,273
Repayments of long-term debt	(1,652)	(354)	(1,301)	(668)	(2,684)
Proceeds from leasing	-	-	-	-	-
Principal repayments of capital and finance lease obligations	(2,583)	(4,007)	(4,999)	(7,786)	(9,655)
Cash from financing activities	(3,763)	(2,911)	9,928	(7,686)	(10,066)
Foreign currency effect on cash and cash equivalents	(374)	(212)	713	(351)	70
Net change in cash	1,333	3,444	1,922	10,317	4,237
Cash and equivalents, beginning of the period	14,557	15,890	19,334	21,856	32,173
Cash and equivalents, end of the period	15,890	19,334	21,856	32,173	36,410

Table 21 - Amazon's historical cash flow statement; adapted from Amazon's annual report

Appendix 12 – Target’s historical income statement

(Values in million USD)

Income statement	2015	2016	2017	2018	2019
Revenues	73,785	69,495	72,714	75,356	78,112
Cost of sales	(51,997)	(48,872)	(51,125)	(53,299)	(54,864)
Gross profit	21,788	20,623	21,589	22,057	23,248
SG&A	(14,045)	(13,356)	(15,140)	(15,723)	(16,233)
Depreciation and amortization	(2,213)	(2,298)	(2,225)	(2,224)	(2,357)
Operating income	5,530	4,969	4,224	4,110	4,658
Interest expense	(607)	(1,004)	(653)	(461)	(477)
Other income (expense)	-	-	59	27	9
Net income before taxes	4,923	3,965	3,630	3,676	4,190
Provisoin for income taxes	(1,602)	(1,296)	(722)	(746)	(921)
Discounted operations, net of tax	42	68	6	7	12
Net income	3,363	2,737	2,914	2,937	3,281

Table 22 - Target's historical income statement; adapted from Target's annual report

Appendix 13 – Target’s historical balance sheet

(Values in million USD)

Balance sheet	2015	2016	2017	2018	2019
Cash and cash equivalents	4,046	2,512	2,643	1,556	2,577
Inventories	8,601	8,309	8,657	9,497	8,992
Other current assets	1483	1169	1264	1466	1333
Total current assets	14,130	11,990	12,564	12,519	12,902
Property plant and equipment, net	25,217	24,658	25,018	25,533	26,283
Operating leases	-	-	-	1965	2236
Other noncurrent assets	915	783	1417	1,273	1,358
Total assets	40,262	37,431	38,999	41,290	42,779
Accounts payable	7,418	7,252	8,677	9,761	9,920
Accrued and other current liabilities	4,236	3,737	4,254	4,201	4,406
Current portion of long-term debt	968	1,719	270	1,052	161
Total current liabilities	12,622	12,708	13,201	15,014	14,487
Long-term debt	11945	11,031	11,317	10,223	11,338
Noncurrent operating lease liabilities	-	-	-	2,004	2,275
Deferred income taxes	823	861	713	972	1122
Other noncurrent liabilities	1915	1878	2059	1780	1724
Total liabilities	27,305	26,478	27,290	29,993	30,946
Common stock	50	46	45	43	42
Additional paid-in capital	5,348	5,661	5,858	6,042	6,226
Retained earnings	8,188	5,884	6,553	6,017	6,433
Accumulated other comprehensive loss	(629)	(638)	(747)	(805)	(868)
Total equity	12,957	10,953	11,709	11,297	11,833

Table 23 - Target's historical balance sheet; adapted from Target's annual report

Appendix 14 – Target’s historical cash flow statement

(Values in million USD)

Cash flow statement	2015	2016	2017	2018	2019
Cash flow - operating activities					
Net income	3,363	2,737	2,914	2,937	3,281
Earnings from discontinued operations, net of tax	(42)	(68)	(6)	(7)	(12)
Depreciations and amortizations	2,213	2,298	2,476	2,474	2,604
Stock-based compensation	115	113	112	132	147
Deferred taxes	(322)	41	(188)	322	178
Gain on sale	(620)	-	-	-	-
Loss on debt extinguishment	-	422	123	-	10
Non-cash and other, net	57	-	208	95	29
Non-cash expenses	1,401	2,806	2,725	3,016	2,956
Inventories	(316)	293	(348)	(900)	505
Other assets	227	36	(156)	(299)	18
Accounts payable and accrued liabilities	579	(543)	1,726	1,216	339
Cash provided by operating activities—discontinued operations	704	107	74	3	18
Changes in working capital	1,194	(107)	1,296	20	880
Cash from operating activities	5,958	5,436	6,935	5,973	7,117
Cash flow from investing activities					
Capital expenditures	(1,438)	(1,547)	(2,533)	(3,516)	(3,027)
Proceeds from disposal of property and equipment	28	46	31	85	63
Proceeds from sale of businesses	1,875	-	-	-	-
Acquisitions, net of cash acquired, and other	-	-	(518)	-	-
Other investments	24	28	(55)	15	20
Cash provided by investing activities—discontinued operations	19	-	-	-	-
Cash from investing activities	508	(1,473)	(3,075)	(3,416)	(2,944)
Cash flow from financing activities					
Change in commercial paper, net	-	-	-	-	-
Proceeds from long-term debt	-	1,977	739	-	1,739
Repayments of long-term debt	(85)	(2,641)	(2,192)	(281)	(2,069)
Dividends paid	(1,362)	(1,348)	(1,338)	(1,335)	(1,330)
Repurchase of stock	(3,483)	(3,706)	(1,046)	(2,124)	(1,565)
Principal repayments of capital and finance lease obligations	300	221	108	96	73
Cash from financing activities	(4,630)	(5,497)	(3,729)	(3,644)	(3,152)
Net change in cash	1,836	(1,534)	131	(1,087)	1,021
Cash and equivalents, beginning of the period	2210	4,046	2,512	2,643	1,556
Cash and equivalents, end of the period	4,046	2,512	2,643	1,556	2,577

Table 24 - Target's historical cash flow statement; adapted from Target's annual report

Appendix 15 – Amazon's revenues forecast

(Values in million USD)

	2015	2016	2017	2018	2019	2020e	2021e	2022e	2023e	2024e	2025e	2026e
Online stores revenues	76,863	91,431	108,354	122,987	141,247	166,309	192,752	218,002	245,035	272,724	298,823	323,924
growth (%)	19.0%	18.5%	13.5%	14.8%	17.7%	15.9%	13.1%	12.4%	11.3%	9.6%	8.4%	
Online stores revenues as a percentage of total revenues	71.8%	67.2%	60.9%	52.8%	50.4%	46.6%	43.4%	41.3%	40.1%	39.0%	37.8%	36.9%
Third-party seller services revenues	16,086	22,993	31,881	42,745	53,762	72,095	96,030	121,190	143,489	167,882	191,722	213,578
growth (%)		42.9%	38.7%	34.1%	25.8%	34.1%	33.2%	26.2%	18.4%	17.0%	14.2%	11.4%
Third-party seller services revenues as a percentage of total revenues	15.0%	16.9%	17.9%	18.4%	19.2%	20.2%	21.6%	23.0%	23.5%	24.0%	24.3%	24.3%
Total e-commerce revenues	92,949	114,424	140,235	165,732	195,009	238,404	288,782	339,193	388,524	440,606	490,545	537,502
growth (%)		23.1%	22.6%	18.2%	17.7%	22.3%	21.1%	17.5%	14.5%	13.4%	11.3%	9.6%
Total e-commerce revenues as percentage of total revenues	86.9%	84.1%	78.8%	71.2%	69.5%	66.8%	65.1%	64.3%	63.6%	63.0%	62.1%	61.2%
US online retail industry value	208,826	241,337	256,417	282,343	308,917	335,560	364,255	388,998				
growth (%)	11.9%	15.6%	6.2%	10.1%	9.4%	8.6%	8.6%	6.8%				
Online stores revenues and US online retail industry growth differential		0.0338 bp	0.1226 bp	0.0339 bp	0.0544 bp	0.0912 bp	0.0735 bp	0.0631 bp				
Third-party seller services revenues and US online retail industry - growth differential		0.2737 bp	0.3241 bp	0.2397 bp	0.1636 bp	0.2548 bp	0.2465 bp	0.1941 bp				
AWS revenues	7,880	12,219	17,459	25,655	35,026	53,625	75,128	96,164	119,725	146,064	175,277	206,827
growth (%)		55.1%	42.9%	46.9%	36.5%	53.1%	40.1%	28.0%	24.5%	22.0%	20.0%	18.0%
AWS revenues as a percentage of total revenues	7.4%	9.0%	9.8%	11.0%	12.5%	15.0%	16.9%	18.2%	19.6%	20.9%	22.2%	23.6%
US Cloud computing industry value	40,735	52,935	68,018	85,387	107,899	137,584	175,927	225,774				
growth (%)	34.3%	29.9%	28.3%	25.5%	26.4%	27.5%	27.9%	28.3%				
AWS revenues and US Cloud computing industry - growth differential		0.2511 bp	0.1439 bp	0.2141 bp	0.1016 bp	0.2559 bp	0.1223 bp	(0.0033) bp				
Subscription services revenues	4,467	6,394	9,721	14,168	19,210	26,375	33,576	40,761	47,487	54,182	60,792	66,385
growth (%)		43.1%	52.0%	45.7%	35.6%	37.3%	27.3%	21.4%	16.5%	14.1%	12.2%	9.2%
Subscription services as percentage of total sales	4.2%	4.7%	5.5%	6.1%	6.8%	7.4%	7.6%	7.7%	7.8%	7.7%	7.7%	7.6%
Number of Amazon Prime users	54	65	90	101	112	124	133	138.9	143			
growth (%)	33.0%	20.4%	38.3%	12.2%	10.9%	10.7%	7.3%	4.4%	3.0%			
Subscription services revenues and number of Amazon Prime users - growth differential		0.2277 bp	0.1357 bp	0.3352 bp	0.2470 bp	0.2659 bp	0.2004 bp	0.1696 bp	0.1355 bp			
Physical stores revenues	0	0	5,798	17,224	17,192	18,585	20,257	21,331	21,992	22,454	22,678	22,814
growth (%)				197.1%	(0.2)%	8.1%	9.0%	5.3%	3.1%	2.1%	1.0%	0.6%
Physical stores revenues as a percentage of total revenues	0.0%	0.0%	3.3%	7.4%	6.1%	5.2%	4.6%	4.0%	3.6%	3.2%	2.9%	2.6%
US physical retail industry value	5,530,734	5,718,150	5,926,047	6,134,961	6,357,624	6,585,484	6,817,548	7,454,426				
growth (%)	3.6%	3.4%	3.6%	3.3%	3.6%	3.6%	3.5%	9.3%				
Physical stores revenues and US physical retail industry - growth differential			(0.0038) bp	0.0387 bp	0.0250 bp	0.0162 bp	0.0104 bp	(0.0530) bp				
Other revenues	1,710	2,950	4,653	10,108	14,085	20,001	26,021	30,210	33,231	36,554	40,210	44,231
growth (%)		72.5%	57.7%	117.2%	39.3%	42.0%	30.1%	16.1%	10.0%	10.0%	10.0%	10.0%
Other revenues as percentage of total revenues	1.6%	2.2%	2.6%	4.3%	5.0%	5.6%	5.9%	5.7%	5.4%	5.2%	5.1%	5.0%
Amazon's total revenues	107,006	135,987	177,866	232,887	280,522	356,989	443,764	527,659	610,958	699,860	789,502	877,760
growth (%)	20.2%	27.1%	30.8%	30.9%	20.5%	27.3%	24.3%	18.9%	15.8%	14.6%	12.8%	11.2%

Table 25 - Amazon's revenue forecast by business segment

Appendix 16 – Amazon's forecasted income statement

(Values in million USD)

Income statement	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Revenues	107,006	135,987	177,866	232,887	280,522	356,989	443,764	527,659	610,958	699,860	789,502	877,760
Cost of sales	(71,651)	(88,265)	(111,934)	(139,156)	(165,536)	(208,365)	(255,718)	(300,672)	(343,601)	(390,313)	(436,944)	(482,768)
Gross profit	35,355	47,722	65,932	93,731	114,986	148,624	188,046	226,987	267,358	309,547	352,559	394,992
Fulfillment	(13,410)	(17,619)	(25,249)	(34,027)	(40,232)	(52,708)	(66,689)	(80,499)	(94,816)	(109,779)	(125,032)	(140,081)
Technology & content	(5,254)	(7,233)	(10,069)	(13,814)	(18,878)	(21,877)	(27,680)	(33,412)	(39,354)	(45,564)	(51,896)	(58,142)
Marketing	(12,540)	(16,085)	(22,620)	(28,837)	(35,931)	(47,257)	(59,792)	(72,174)	(85,010)	(98,425)	(112,101)	(125,593)
General & administrative	(1,747)	(2,432)	(3,674)	(4,336)	(5,203)	(7,068)	(8,943)	(10,795)	(12,715)	(14,721)	(16,767)	(18,785)
Other	(171)	(167)	(214)	(296)	(201)	(468)	(593)	(715)	(843)	(976)	(1,111)	(1,245)
Operating income	2,233	4,186	4,106	12,421	14,541	19,245	24,350	29,392	34,620	40,083	45,652	51,147
Interest income	50	100	202	440	832	1,224	1,616	2,008	2,400	2,792	3,184	3,576
Interest expense	(459)	(484)	(848)	(1,417)	(1,600)	(1,783)	(1,966)	(2,149)	(2,332)	(2,515)	(2,698)	(2,881)
Other income (expense)	(256)	90	346	(183)	203	-	-	-	-	-	-	-
Net income before taxes	1,568	3,892	3,806	11,261	13,976	18,686	24,000	29,251	34,688	40,360	46,138	51,842
Provision for income taxes	(950)	(1,425)	(769)	(1,197)	(2,374)	(3,551)	(4,728)	(5,905)	(7,082)	(8,259)	(9,436)	(10,613)
Equity method investment activity, net of tax	(22)	(96)	(4)	9	(14)	(16)	(18)	(20)	(22)	(24)	(26)	(28)
Net income	596	2,371	3,033	10,073	11,588	15,119	19,254	23,326	27,584	32,077	36,676	41,201

Table 26 - Amazon's forecasted income statement

Appendix 17 – Amazon’s beta computation

Levered beta	0.762
Tax rate	27%
Net debt to EV	5.63%
Equity to EV	94.37%
Unlevered beta	0.730
Adjusted beta	0.820

Table 27 - Amazon's beta computation

Appendix 18 – Amazon’s discounted cash flow model

(Values in million USD)

DCF	2019	2020	2021	2022	2023	2024	2025	TV 2026
Revenues	280,522	356,989	443,764	527,659	610,958	699,860	789,502	877,760
EBITDA	34,165	43,417	53,703	63,927	74,336	84,980	95,731	106,407
EBIT	12,376	16,903	22,034	27,102	32,356	37,845	43,440	48,961
NOPAT	11,360	14,931	18,942	22,908	27,008	31,281	35,631	39,927
Depreciations and amortizations	21,789	26,514	31,669	36,825	41,980	47,136	52,291	57,447
Changes in working capital	(2,438)	(3,437)	(4,535)	(5,633)	(6,731)	(7,829)	(8,927)	(10,025)
Capital expenditures	(16,861)	(20,206)	(23,390)	(26,575)	(29,759)	(32,944)	(36,128)	(39,312)
FCFF	13,850	17,801	22,686	27,524	32,498	37,644	42,868	48,036
Terminal Value								1,521,395
Discount factor		0.93	0.87	0.81	0.75	0.70	0.66	0.61
Discounted cash flow	1,600,606	16,593	19,710	22,290	24,532	26,487	28,114	1,462,880
Enterprise Value	1,600,606							
<i>implied EV / EBITDA</i>	<i>15.04x</i>							
Financial debt	90,671							
Cash and cash equivalents	71,391							
Minority interests	141							
Equity value	1,620,027							
Number of shares	501.75							
Implied share price	3,229							
Actual share price	3,110							

Table 28 - Amazon's discounted cash flow model

Appendix 19 – Amazon’s trading multiples valuation

Company name	Industry	EV / Sales	EV / EBITDA	EV / EBIT	P/E
Amazon	E-commerce	6.0x	47.7x	120.5x	147.0x
Alibaba	E-commerce	9.3x	53.2x	157.9x	173.5x
JD.com	E-commerce	1.2x	63.3x	136.1x	157.1x
Wayfair	E-commerce	3.1x	-	-	-
Ocado	E-commerce	8.8x	-	-	-
eBay	E-commerce	3.7x	63.4x	143.2x	172.0x
Apple	Technology	7.2x	25.1x	36.8x	39.9x
Alphabet	Technology	6.4x	21.9x	37.3x	36.2x
Microsoft	Technology	11.8x	26.4x	33.2x	38.0x
Oracle	Technology	4.3x	19.3x	37.3x	32.1x
IBM	Technology	1.4x	12.2x	18.5x	17.8x
Netflix	Entertainment	17.7x	21.1x	82.9x	165.6x
Target	Retail	0.9x	10.1x	16.3x	23.8x
Walmart	Retail	0.4x	4.2x	4.1x	5.3x
Costco	Retail	0.9x	14.8x	30.0x	39.9x
Lowe's	Retail	1.2x	13.9x	17.8x	28.4x
Average		5.2x	26.8x	57.8x	71.5x
Weighted average		6.2x	49.2x	121.0x	146.0x
Median		3.7x	21.1x	36.8x	38.0x
Minimum		0.4x	4.2x	4.1x	5.3x
Maximum		17.7x	63.4x	157.9x	173.5x

Table 29 - Amazon's trading multiples valuation

Appendix 20 – Target’s revenues forecast

(Values in million USD)

	2015	2016	2017	2018	2019	2020e	2021e	2022e	2023e	2024e	2025e	2026e
Beauty and household essentials revenues	19,184	15,289	18,364	19,296	20,616	21,647	22,469	23,009	23,308	23,378	23,424	23,448
growth (%)	0	(20.3%)	20.1%	5.1%	6.8%	5.0%	3.8%	2.4%	1.3%	0.3%	0.2%	0.1%
Beauty and household essentials revenues as a percentage of revenues	26.0%	22.0%	25.3%	25.6%	26.4%	26.7%	26.8%	26.8%	26.8%	26.7%	26.6%	26.6%
US beauty and household essentials industry value	1,059,598	1,113,538	1,172,292	1,235,701	1,301,603	1,369,561	1,439,110	1,510,849				
growth (%)	4.3%	5.1%	5.3%	5.4%	5.3%	5.2%	5.1%	5.0%				
Beauty and household essentials revenues and US beauty and household essentials industry - growth differential	0.2171 bp	(0.2539) bp	0.1483 bp	(0.0032) bp	0.0151 bp	(0.0022) bp	(0.0128) bp	(0.0258) bp				
Food and beverage revenues	15,495	15,289	14,256	14,585	15,039	15,385	15,739	16,227	16,275	16,292	16,324	16,341
growth (%)	0	(1.3%)	(6.8%)	2.3%	3.1%	2.3%	2.3%	3.1%	0.3%	0.1%	0.2%	0.1%
Food and beverage revenues as a percentage of revenues	21.0%	22.0%	19.6%	19.4%	19.3%	19.0%	18.8%	18.9%	18.7%	18.6%	18.6%	18.5%
US Food and groceries industry value	3,455,746	3,564,761	3,679,903	3,800,806	3,926,193	4,053,018	4,180,944	4,709,808				
growth (%)	3.3%	3.2%	3.2%	3.3%	3.3%	3.2%	3.2%	12.6%				
Food and beverage revenues and US Food and groceries industry - growth differential	(0.0163) bp	(0.0448) bp	(0.0999) bp	(0.0098) bp	(0.0019) bp	(0.0093) bp	(0.0086) bp	(0.0955) bp				
Apparel and accessories revenues	14,019	13,899	13,323	13,434	14,304	15,076	15,845	16,543	16,989	17,295	17,451	17,555
growth (%)	(0.9%)	(0.9%)	(4.1%)	0.8%	6.5%	5.4%	5.1%	4.4%	2.7%	1.8%	0.9%	0.6%
Apparel and accessories as a percentage of total revenues	19.0%	20.0%	18.3%	17.8%	18.3%	18.6%	18.9%	19.2%	19.5%	19.7%	19.8%	19.9%
US Apparel industry value	565,354	592,976	604,546	627,389	651,687	676,658	703,139	728,061				
growth (%)	4.3%	4.9%	2.0%	3.8%	3.9%	3.8%	3.9%	3.5%				
Apparel and accessories revenues and US apparel industry - growth differential		(0.0574) bp	(0.0610) bp	(0.0295) bp	0.0260 bp	0.0157 bp	0.0119 bp	0.0086 bp				
Home furnishings and décor revenues	12,543	13,204	13,672	14,298	14,430	14,603	14,720	14,823	14,912	14,957	14,987	15,002
growth (%)	1.6%	5.3%	3.5%	4.6%	0.9%	1.2%	0.8%	0.7%	0.6%	0.3%	0.2%	0.1%
Home furnishings and décor revenues as a percentage of total revenues	17%	19.0%	18.8%	19.0%	18.5%	18.0%	17.6%	17.2%	17.1%	17.1%	17.0%	17.0%
US furniture industry value	279,795	292,233	305,555	319,657	334,552	350,204	366,404	382,949				
growth (%)	7.1%	4.4%	4.6%	4.6%	4.7%	4.7%	4.6%	4.5%				
Home furnishings and décor revenues growth and US furniture industry - growth differential	0.0988 bp	0.1455 bp	0.1424 bp	0.1436 bp	0.1381 bp	0.1333 bp	0.1295 bp	0.1271 bp				
Hardlines revenues	12,543	11,814	12,062	12,709	12,595	13,162	13,741	14,181	14,337	14,408	14,451	14,466
growth (%)	(4.0%)	(5.8%)	2.1%	5.4%	(0.9%)	4.5%	4.4%	3.2%	1.1%	0.5%	0.3%	0.1%
Hardlines as a percentage of total revenues	17.0%	17.0%	16.6%	16.9%	16.1%	16.2%	16.4%	16.5%	16.5%	16.4%	16.4%	16.4%
US Consumer electronics industry value	379,067	395,979	420,068	433,751	452,506	471,603	492,206	511,757				
growth (%)	5.6%	4.5%	6.1%	3.3%	4.3%	4.2%	4.4%	4.0%				
Hardlines revenues and US Consumer electronics industry - growth differential		(0.1028) bp	(0.0399) bp	0.0211 bp	(0.0522) bp	0.0028 bp	0.0003 bp	(0.0077) bp				
Other revenues	0	0	1,037	1,034	1,128	1,210	1,249	1,287	1,301	1,307	1,311	1,312
growth (%)	-	-	-	(0.3%)	9.1%	7.3%	3.2%	3.0%	1.1%	0.5%	0.3%	0.1%
Other revenues as a percentage of total revenues	-	-	1.4%	1.4%	1.4%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Target's total revenues	73,785	69,495	72,714	75,356	78,112	81,083	83,763	86,068	87,121	87,636	87,948	88,124
growth (%)	1.6%	(5.8%)	4.6%	3.6%	3.7%	3.8%	3.3%	2.8%	1.2%	0.6%	0.4%	0.2%

Table 30 - Target's revenues forecast by business segment

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Appendix 21 – Target's forecasted income statement

(Values in million USD)

Income statement	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Revenues	73,785	69,495	72,714	75,356	78,112	81,083	83,763	86,068	87,121	87,636	87,948	88,124
Cost of sales	(51,997)	(48,872)	(51,125)	(53,299)	(54,864)	(57,158)	(59,047)	(60,672)	(61,415)	(61,778)	(61,998)	(62,121)
Gross profit	21,788	20,623	21,589	22,057	23,248	23,925	24,716	25,396	25,707	25,859	25,951	26,003
SG&A	(14,045)	(13,356)	(15,140)	(15,723)	(16,233)	(16,233)	(16,233)	(16,233)	(16,233)	(16,233)	(16,233)	(16,233)
Depreciation and amortization	(2,213)	(2,298)	(2,225)	(2,224)	(2,357)	(2,434)	(2,514)	(2,596)	(2,682)	(2,769)	(2,860)	(2,954)
Operating income	5,530	4,969	4,224	4,110	4,658	5,258	5,969	6,567	6,792	6,856	6,858	6,816
Interest expense	(607)	(1,004)	(653)	(461)	(477)	(493)	(509)	(525)	(541)	(557)	(573)	(589)
Other income (expense)	-	-	59	27	9	-	-	-	-	-	-	-
Net income before taxes	4,923	3,965	3,630	3,676	4,190	4,765	5,460	6,042	6,251	6,299	6,285	6,227
Provision for income taxes	(1,602)	(1,296)	(722)	(746)	(921)	(1,096)	(1,271)	(1,446)	(1,621)	(1,796)	(1,971)	(2,146)
Discounted operations, net of tax	42	68	6	7	12	17	22	27	32	37	42	47
Net income	3,363	2,737	2,914	2,937	3,281	3,686	4,211	4,623	4,662	4,540	4,356	4,128

Table 31 - Target's forecasted income statement

Appendix 22 – Target's beta computation

Levered beta	0.974
Tax rate	27%
Net debt to EV	3.67%
Equity to EV	96.33%
Unlevered beta	0.861
Adjusted beta	0.983

Table 32 - Target's beta computation

Appendix 23 – Target's discounted cash flow model

(Values in million USD)

DCF	2019	2020	2021	2022	2023	2024	2025	TV 2026
Revenues	78,112	81,083	83,763	86,068	87,121	87,636	87,948	88,124
EBITDA	6,317	7,015	7,811	8,474	8,711	8,766	8,752	8,684
EBIT	3,713	4,272	4,951	5,517	5,710	5,742	5,712	5,638
NOPAT	3,416	3,851	4,373	4,813	4,982	5,032	5,037	5,010
Depreciations and amortizations	2,604	2,743	2,860	2,957	3,001	3,024	3,040	3,046
Changes in working capital	880	927	967	999	1,014	1,022	1,027	1,029
Capital expenditures	(3,027)	(3,189)	(3,351)	(3,513)	(3,675)	(3,838)	(4,000)	(4,162)
FCFF	3,873	4,332	4,849	5,257	5,321	5,240	5,104	4,923
Terminal Value								63,544
Discount factor		0.92	0.85	0.79	0.73	0.67	0.62	0.57
Discounted cash flow	79,337	3,800	3,731	3,548	3,151	2,721	2,325	60,059
Enterprise Value	79,337							
<i>implied EV / EBITDA</i>	<i>9.14x</i>							
Financial debt	16,745							
Cash and cash equivalents	7,311							
Minority interests	92							
Equity value	88,863							
Number of shares	500.76							
Implied share price	177.46							
Actual share price	159.53							

Table 33 - Target's discounted cash flow model

Appendix 24 – Target’s trading multiples valuation

Company name	Industry	EV / Sales	EV / EBITDA	EV / EBIT	P/E
Target	Retail	0.88x	10.1x	16.3x	23.8x
Walmart	Retail	0.4x	4.2x	4.1x	5.3x
Home Depot	Retail	1.3x	12.6x	28.2x	26.3x
Costco	Retail	0.9x	14.8x	30.0x	39.9x
Lowe's	Retail	1.2x	13.9x	17.8x	28.4x
Best buy	Retail	0.3x	9.6x	13.4x	17.7x
Average		0.82x	11.0x	18.7x	23.5x
Median		0.90x	12.6x	17.8x	26.3x
Minimum		0.3x	4.2x	4.1x	5.3x
Maximum		1.3x	14.8x	30.0x	39.9x

Table 34 - Target's trading multiples valuation

Appendix 25 – Target’s transaction multiples valuation

Date	Target	Country	Business overview	Acquiror	% acquired	EV (in \$m)	Premium (in %)	Implied multiples			
								xSales	xEBITDA	xEBIT	PER
Aug-17	Whole Foods	USA	Retailer of natural and organic foods	Amazon	100%	13,430	27%	0.86x	9.94x	15.71x	27.10x
Sep-17	Staples	USA	Office supplies retail company	Sycamore Partners	100%	6,900	12%	0.36x	29.33x	-	-
May-18	Ocado Group	UK	Online retail and distribution of groceries	Kroger	5%	135	5.6%	3x	57.75x	277x	3,451x
Jan-14	Harris Teeter Supermarkets	USA	Engaged in operating a chain of food retail stores	Kroger	100%	2,443	5.2%	0.56x	8.80x	16.51x	24.21x
Feb-19	Sears	USA	Apparel reatailer	ELS Investments	100%	5,200	-	-	-	-	~
Apr-20	Smart Foodservice	USA	Operator of small cash and carry department stores	US Food Holdings	100%	970	-	0.88x	11.41x	-	-
Oct-18	SuperValu	USA	Grocery store retailer of natural food and related products	Unied Natural Foods	100%	1,250	52.7%	0.20x	7.22x	14.59x	26.00x
Apr-16	The Fresh Market	USA	Grocery supermaket chain operator	Apollo Global Management	100%	1,340	24%	0.72x	7.53x	12.31x	21.59x
Mar-11	Netto Foodstores	UK	Discount supermaket chain operator	ASDA	100%	1,158	-	1.04x	34.15x	102.30x	371.36x
Apr-19	ASDA	UK	Company engaged in consumer retail activities	J Sainsbury	100%	9,052	-	0.33x	6.26x	10.20x	-
	Average						21.1%	0.9x	19.2x	64.1x	110.8x
	Median						18.0%	0.7x	9.9x	15.7x	26.6x
	Minimum						5.2%	0.2x	6.3x	10.2x	21.6x
	Maximum						52.7%	2.8x	57.8x	277.4x	3,451x

Table 35 - Target's transaction multiples valuation

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Appendix 26 – Combined entity's discounted cash flow model without synergies

(Values in million USD)

DCF	2020	2021	2022	2023	2024	2025	TV 2026
Revenues	438,072	527,528	613,727	698,080	787,497	877,451	965,883
Cost of sales	(265,523)	(314,766)	(361,344)	(405,015)	(452,091)	(498,941)	(544,889)
Gross profit	172,549	212,762	252,383	293,065	335,406	378,510	420,994
Other operating expenses	(148,046)	(182,443)	(216,425)	(251,653)	(288,467)	(326,000)	(363,032)
EBITDA	50,432	61,514	72,401	83,047	93,746	104,483	115,091
EBIT	21,175	26,985	32,619	38,066	43,587	49,152	54,599
NOPAT	18,781	23,315	27,721	31,990	36,313	40,668	44,937
Depreciations and amortizations	29,257	34,530	39,782	44,981	50,159	55,331	60,493
Changes in working capital	(2,510)	(3,568)	(4,634)	(5,717)	(6,807)	(7,900)	(8,996)
Capital expenditures	(23,395)	(26,742)	(30,088)	(33,435)	(36,781)	(40,128)	(43,474)
FCFF	17,723	22,134	27,535	32,781	37,820	42,884	47,972
Terminal Value							2,007,895
Discount factor		0.95	0.90	0.85	0.80	0.76	0.72
Discounted cash flow		20,950	24,668	27,797	30,354	32,578	1,478,252
Enterprise Value		1,614,599					

Table 36 - Combined entity's discounted cash flow model without synergies

Appendix 27 – Combined entity's discounted cash flow model with synergies

(Values in million USD)

DCF	2020	2021	2022	2023	2024	2025	TV 2026
Revenues	438,072	527,921	614,620	699,573	789,700	878,608	966,532
E-commerce	238,404	289,071	339,871	389,690	442,368	491,526	538,040
<i>Synergies assumed</i>	0%	0.1%	0.2%	0.3%	0.4%	0.2%	0.1%
AWS	53,625	75,128	96,164	119,725	146,064	175,277	206,827
<i>Synergies assumed</i>	0%	0%	0%	0%	0%	0%	0%
Subscription services	26,375	33,576	40,761	47,487	54,182	60,792	66,385
<i>Synergies assumed</i>	0%	0%	0%	0%	0%	0%	0%
Physical stores	99,668	104,125	107,614	109,441	110,531	110,803	111,049
<i>Synergies assumed</i>	0%	0.1%	0.2%	0.3%	0.4%	0.2%	0.1%
Other revenues	20,001	26,021	30,210	33,231	36,554	40,210	44,231
<i>Synergies assumed</i>	0%	0%	0%	0%	0%	0%	0%
Cost of sales	(265,523)	(314,608)	(360,982)	(404,408)	(451,412)	(497,694)	(544,616)
<i>Synergies assumed</i>	0%	(0.1%)	(0.1%)	(0.2%)	(0.2%)	(0.3%)	(0.1%)
Other operating expenses	(148,046)	(182,055)	(216,294)	(251,381)	(288,129)	(325,565)	(362,864)
Fulfillment	(52,708)	(66,356)	(80,459)	(94,674)	(109,614)	(124,720)	(140,011)
<i>Synergies assumed</i>	0%	(0.5%)	(0.1%)	(0.2%)	(0.2%)	(0.3%)	(0.1%)
Technology & content	(21,877)	(27,680)	(33,412)	(39,354)	(45,564)	(51,896)	(58,142)
<i>Synergies assumed</i>	0%	0%	0%	0%	0%	0%	0%
Marketing	(47,257)	(59,762)	(72,138)	(84,968)	(98,376)	(112,045)	(125,530)
<i>Synergies assumed</i>	0%	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)
General & administrative	(23,301)	(25,151)	(26,974)	(28,861)	(30,830)	(32,934)	(34,983)
<i>Synergies assumed</i>	0%	(0.1%)	(0.2%)	(0.3%)	(0.4%)	(0.2%)	(0.1%)
Depreciations and amortizations	(2,434)	(2,514)	(2,596)	(2,682)	(2,769)	(2,860)	(2,954)
<i>Synergies assumed</i>	0%	0%	0%	0%	0%	0%	0%
Other	(468)	(593)	(715)	(843)	(976)	(1,111)	(1,245)
<i>Synergies assumed</i>	0%	0%	0%	0%	0%	0%	0%
EBITDA	50,432	62,453	73,786	85,419	96,965	106,243	115,091
EBIT	23,809	30,980	37,395	44,089	50,683	56,097	59,994
NOPAT	19,043	24,679	29,630	34,930	40,119	44,117	46,637
Depreciations and amortizations	29,257	34,530	39,782	44,981	50,159	55,331	60,493
Changes in working capital	(2,510)	(3,568)	(4,634)	(5,717)	(6,807)	(7,900)	(8,996)
Capital expenditures	(23,395)	(26,742)	(30,088)	(33,435)	(36,781)	(40,128)	(43,474)
FCFF	22,395	28,898	34,690	40,760	46,690	51,420	54,660
Terminal Value							2,123,540
Discount factor		0.95	0.90	0.85	0.80	0.76	0.72
Discounted cash flow		27,352	31,078	34,563	37,474	39,063	1,482,439
Enterprise Value		1,651,968					
Present value of net synergies		37,369					

Table 37 - Combined entity's discounted cash flow model with synergies

Appendix 28 – Accretion / Dilution analysis

(Values in million USD)

	2020	2021	2022	2023	2024	2025	2026
Combined NOPAT	19,043	24,679	29,630	34,930	40,119	44,117	46,637
Acquirer NOPAT	14,931	18,942	22,908	27,008	31,281	35,631	39,927
Pro-forma diluted shares outstanding	501.8	501.8	501.8	501.8	501.8	501.8	501.8
Pro-forma combined diluted EPS	38.0	49.2	59.1	69.6	80.0	87.9	92.9
Acquirer standalone EPS	29.8	37.8	45.7	53.8	62.3	71.0	79.6
Accretion / (Dilution) \$	8.2	11.4	13.4	15.8	17.6	16.9	13.4
Accretion / (Dilution) %	27.5%	30.3%	29.3%	29.3%	28.3%	23.8%	16.8%

Table 38 - Accretion / Dilution analysis

Appendix 29 – Deal summary

(Values in million USD)

Bid price	101,455
Bid price per share	202.60
Premium (%)	27%
PV of Synergies	36,261
Transaction fee	(518)
Integration costs	(1,407)
Net synergies	34,335

Table 39 - Deal summary