

**Amazon.com Inc** NASDAQ: AMZN

Last Price	Fair Value Estimate (FVE)	Price / FVE	Market Cap	Analyst Recommendation
US\$ 105.45	US\$ 133.0	0.79	US\$1.08 Trillion	<b>BUY</b>
April 28, 2023	May 01, 2023		April 28, 2023	May 01, 2023

Sector	Industry
Consumer Cyclical	Internet Retail

**Business Overview**

Amazon is a leading e-commerce aggregator with a dominant presence in the online retail industry and seeks to be Earth's most customer-centric company, guided by four key principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking.

In 2022, Amazon's net sales reached \$514 billion, due to its diverse portfolio of products and services that cater to a broad customer base. Majority of Amazon's revenue (~70%) is generated from its retail business, which includes the sale of merchandise, products sold by third-party sellers, and electronic devices. Apart from retail, Amazon also offers a range of services including computing, storage, database offerings, fulfillment, advertising, publishing, and digital content subscriptions. Amazon Web Services (AWS), its cloud computing arm accounts for approximately 16% of its top line and is a significant contributor to its operating profits. Advertising and subscription services also contribute significantly to Amazon's revenue (~7% each), while other miscellaneous areas make up the rest. Amazon's international segments play a crucial role in its revenue generation, with countries like Germany, the United Kingdom, and Japan accounting for around 20% of its sales.

**Executive Summary**

The equity research report recommends a **BUY** rating for Amazon, with a one-year Fair Value Estimate (FVE) of US\$ 133.0, representing a potential upside of 26% on the closing price of US\$ 105.45 as of April 28th, 2023. The FVE is derived using the Discounted Cash Flow method (DCF) and is strengthened by Relative Valuation analysis. (See Appendix [D5](#), [D7](#))

This recommendation is based on several key differentiators and factors that have been identified, which include Amazon's ongoing efforts to expand its product offerings, improve delivery times, and enter new markets. Amazon's continued investments in emerging technologies like artificial intelligence and machine learning could also help drive growth and improve operating efficiencies.

It's worth noting, however, that Amazon faces some potential headwinds as well, such as increased competition in the e-commerce space, potential regulatory changes, and fluctuations in macroeconomic conditions. Nonetheless, Amazon's strong brand, loyal customer base, and proven track record of innovation make it a solid investment opportunity for the long term.

**Economic Moat****Customer Data, Analytics, and Automation**

Consumers now associate Amazon with affordable prices and an unparalleled assortment of products, resulting in the development of intangible assets such as branding and technology, including advanced search capabilities and a recommendation engine. In fact, Amazon has surpassed Google as the preferred starting point for product searches ([Figure 9](#)). Its business model, which is underpinned by a broad selection of goods, clever recommendation algorithms, low prices, and convenience, has made it the sole demand aggregator operating at a large scale in the United States. Amazon has gained access to valuable knowledge and processes that serve as intangible assets, benefiting both the overall company and AWS. These assets can also be utilized to improve the logistics aspect of Amazon's retail business. Despite the challenges brought about by the global pandemic, the company has expanded its distribution network by almost 50% in 2020, showcasing its ability to plan, construct, and expand facilities quickly and efficiently, while catering to specific requirements. Amazon's expertise in rapidly deploying large-scale server farms for AWS is equally impressive, made possible by the company's experience in building hyper-scale data centers. Additionally, Amazon has developed its semiconductors, providing power to its server arrays, and its proprietary robotic automation technology has streamlined operations in its fulfillment centers.

**Uniquely set up to leverage the transition to e-commerce and cloud business**

Amazon is optimistic about its future and headed in the right direction, pointing to the fact that Amazon's consumer business is \$434 billion in 2022, while ~80% of the global retail market still belongs to physical stores. Similarly, AWS clocked revenues of \$80 billion in 2022, despite 90% of global IT spending still being on-premises and yet to migrate. As Amazon continues pursuing other businesses its focus on customers and innovation coupled with the consumer shift towards online retail and cloud computing will result in substantial growth in the coming years.

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# Business Description

## History and Management Team

Jeff Bezos founded Amazon in Bellevue, Washington, in 1994, starting as an online bookstore before branching out to various other product categories. The company is often called The Everything Store due to its wide range of offerings. Amazon has acquired several subsidiaries, including Amazon Web Services, Zoox, Kuiper Systems, and Amazon Lab126, as well as Ring, Twitch, IMDb, and Whole Foods Market. The acquisition of Whole Foods in 2017 expanded Amazon's physical retail presence. Known for technological innovation and reinvestment of profits into capital expenditures, Amazon has disrupted established industries. As of 2023, Amazon is the world's largest online retailer and marketplace, cloud computing service through AWS, live-streaming service through Twitch, and Internet company based on revenue and market share. Its paid subscription plan, Amazon Prime, has over 200 million subscribers worldwide, contributing to surpassing Walmart as the world's largest retailer outside of China in 2021. Amazon is also the second-largest private employer in the United States. Besides retail, Amazon offers downloadable and streaming content through units such as Amazon Prime Video, Amazon Music, Twitch, and Audible, and it publishes books through Amazon Publishing. Amazon Studios produces film and television content, and in 2022, Amazon acquired the film and television studio Metro-Goldwyn-Mayer (MGM Studios). Additionally, Amazon produces consumer electronics such as Kindle e-readers, Echo devices, Fire tablets, and Fire TVs. Amazon strives to be Earth's most customer-centric company, Earth's best employer, and Earth's safest place to work. Customer reviews, 1-Click shopping, personalized recommendations, Prime, Fulfillment by Amazon, Amazon Web Services (AWS), Kindle Direct Publishing, Kindle, Career Choice, Fire tablets, Fire TV, Amazon Echo, Alexa, Just Walk Out technology, Amazon Studios and The Climate Pledge are some of the things pioneered by Amazon. Amazon has more than 1.6 million employees worldwide, with operations in Africa, Asia-Pacific, Europe, India, Latin America, the Middle East, and North America.

Jeff Bezos founded and has served as Executive Chair since July 2021. He served as Chair of the Board since 1994 and as Chief Executive Officer from May 1996 until July 2021, and as President from 1994 until June 1999 and again from October 2000 to July 2021. Andrew Jassy took over as Chief Executive Officer in July 2021, before which he was CEO of Amazon Web Services from April 2016 until July 2021, and Senior Vice President, of Amazon Web Services, from April 2006 until April 2016.

(Appendix C)

## Business Segments and Company Strategy

The company's primary focus is e-commerce, with a business model centered around providing customers a convenient and efficient shopping experience. Amazon's platform allows customers to purchase goods and services directly from the company or third-party sellers. The company also offers a variety of services, such as cloud computing, and artificial intelligence, through its subsidiary, Amazon Web Services (AWS). Additionally, Amazon is involved in developing and distributing digital content, including books, music, movies, and television shows, through its platforms, such as Kindle and Prime Video (Figure 11). Amazon remains the market leader in the cloud service space, as AWS has not lost market share in the past five years. (Figure 7) Additionally, the size and scale of the e-commerce platform provides customers with an unparalleled selection of low-priced goods, giving Amazon a clear advantage over its competitors. (Figure 10) The Prime program enhances this advantage by offering customers one-day shipping on millions of items, exclusive video content, and other services. This creates a virtuous cycle in which customers and sellers attract one another, further bolstered by devices like Kindle and Amazon Web Services. With a commitment to innovation and customer satisfaction, Amazon has become a household name and continues to shape the retail industry through its technological advancements and strategic investments. Amazon is investing significantly in its streaming services and content, including the recent acquisition of MGM Studios (Figure 19). While these investments will take time to balance out, they represent a promising avenue for the company's future growth. The two most critical segments, AWS, and advertising grew 16% and 21% YoY as reported, respectively, over the year-ago period. Of note is Amazon's advertising revenue growth, which meaningfully outpaced internet advertising giants Meta and Alphabet. (Figure 12, Appendix A)

## Key Highlights and Way Forward

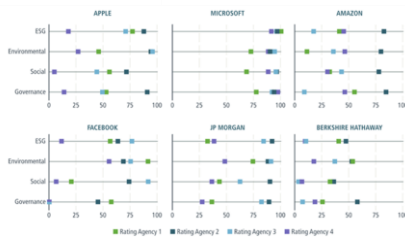
The cost of Amazon's fulfillment services did not increase significantly despite the current macroeconomic trends. The CEO's letter to shareholders, discussed their tireless efforts to improve its fulfillment services, which resulted in significant

Figure 1: Revenue by Segment, Q1/23



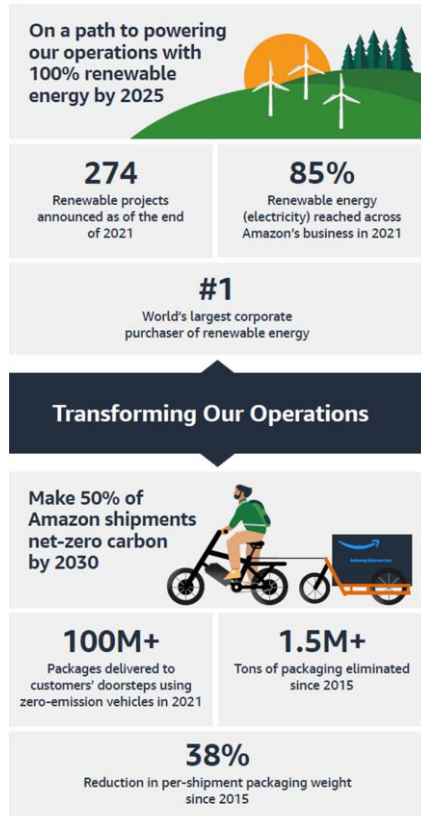
Source: Statista

Figure 2: Amazon ESG Score vs Peers



Source: Legg Mason Asset Management Australia, MSCI, Sustainalytics, Refinitiv, Robeco.

Figure 3: Environmental Impact



Source: 2021 Sustainability Report

Figure 4: Social Impact



Source: 2021 Sustainability Report

improvements to its delivery speed and fulfillment costs. Despite the pandemic's initial impact, Amazon's consumer business experienced tremendous growth, with annual revenue increasing from \$245B in 2019 to \$434B in 2022. This required Amazon to double its fulfillment center footprint, build a last-mile transportation network that rivals UPS in size, and establish a new sortation center network to improve efficiency and speed all in a span of 2 years. These changes were no easy feat, but Amazon has scrutinized every processing path in its fulfillment centers and transportation network to drive optimization and yield productivity, resulting in steady cost reductions over the last few quarters. Amazon also made structural changes to improve its delivery network by reevaluating how its US fulfillment network was organized and creating eight interconnected regions in smaller geographic areas. By making significant internal changes in its placement and logistics software, processes, and physical operations, each region can operate largely self-sufficiently while still being able to ship nationally when necessary. which reduces delivery times, lowers costs, and has less of an environmental impact, while simultaneously continuing to build a significantly larger retail business with healthy operating margins. Amazon also continues to improve its advanced machine learning algorithms to better predict what customers need, ensuring that the right inventory is in the right regions at the right time. Amazon is excited about seeing more next-day and same-day deliveries and is on track to achieve its fastest Prime delivery speeds ever in 2023.

## Environmental, Social, and Governance [\(Appendix B\)](#)

### Environment

Amazon has made significant efforts to become a more sustainable business, especially in terms of environmental initiatives. As a co-founder of The Climate Pledge, Amazon aims to achieve net-zero carbon by 2040, and it is joined by over 400 other signatories. The company is committed to powering its operations with 100% renewable energy by 2025, and as of January 2023, it had set up 401 renewable energy projects in 22 countries. It is the largest corporate buyer of renewable energy and has a total portfolio of over 20 GW, enough to power 5.3 million U.S. homes.

Amazon is transforming its **transportation network**, including using thousands of electric delivery vehicles from Rivian, aiming to have 100,000 on the road by 2030, and investing more than €1 billion over the next five years to electrify and decarbonize its transportation network across Europe. The company has also partnered with TVS Motor Company to deploy a fleet of electric two-wheelers and three-wheelers for last-mile deliveries in India, intending to bring 10,000 electric delivery vehicles to India by 2025. [\(Figure 3\)](#)

In terms of **packaging**, Amazon has reduced the weight of packaging per shipment by 38% since 2015 and eliminated the use of over 1.5 million tons of packaging materials. Amazon is also involved in a U.S. Department of Energy-backed project to develop chemical upcycling, reducing plastics use, and recycling.

In the fight against **water scarcity**, AWS has committed to being water positive by 2030, returning more water to communities than it uses in its direct operations. Amazon extended its partnership with Water.org to launch the Water.org Water & Climate Fund, which aims to provide climate-resilient water and sanitation solutions to 100 million people across Asia, Africa, and Latin America.

Amazon's Climate Pledge Fund supports sustainable technologies and services and invests in 21 companies. It also collaborates with several Climate Pledge Fund portfolio companies, such as using Moxion Power's batteries to replace diesel fuel generators on Amazon Studios movie sets, powering Amazon's transportation fleet for 5 million miles



with Infinium's ultra-low carbon electro fuels, and conducting its first-ever test flight with BETA Technologies' electric ALIA aircraft between two Amazon Air Hubs. Amazon has also committed \$53 million to support women-led climate innovation, including \$3 million to launch the Climate Gender Equity Fund and \$50 million from the Climate Pledge Fund to invest in women-founded and women-led climate tech companies.

## Social

Amazon is committed to investing in its employees around the world by offering **competitive pay and benefits**. In the U.S., Amazon offers an average wage of over \$19 per hour and comprehensive benefits for regular full-time employees, including health, vision, and dental insurance, a 401(k) with a company match, up to 20 weeks of paid parental leave for birthing parents, adoption assistance, and access to Amazon's Career Choice program. The company has been named No. 2 on Fortune's World's Most Admired Companies list for seven consecutive years and is currently ranked on LinkedIn's Top Companies list.

Amazon offers leading programs for **career advancement** and development for its front-line employees and Delivery Service Partners. For instance, the company launched the Amazon Intelligence Initiative in 2022 to offer employees the opportunity to enhance technical skills and gain placements in engineering roles within AWS. Amazon is committed to safety, health, and well-being, and is investing in creating technology to improve universal fork truck safety and establishing a partnership with the National Safety Council to prevent and address musculoskeletal disorders, the most common workplace injury.

Amazon actively recruits **diverse** candidates through its partnerships with Historically Black Colleges and Universities, Hispanic-Serving Institutions, women's colleges, and tribal colleges, and has hired more than 50,000 U.S. veterans and military spouses. The company supports more than 3,500 Delivery Service Partners who deliver to customers worldwide and has created over 275,000 total jobs through its Delivery Service Partner program. (Figure 4)

Amazon works side by side with nonprofits and community partners around the world to **build strong and inclusive communities**, especially in the places where its employees and their families live and work. The company invests in programs to help children, higher education students, and adults unlock their potential. For instance, Amazon Future Engineer is a global childhood-to-career computer science program that inspires and educates students from underserved and underrepresented communities. In 2022, the program reached millions of students in the U.S., Canada, France, Germany, India, and the UK. (Appendix B)

Amazon has a goal to provide free cloud computing skills training to 29 million people by 2025, reaching people from all walks of life and all levels of knowledge, in more than 200 countries and territories. The company is also committed to creating affordable housing by providing low-rate loans and grants to traditional and nontraditional housing partners, public agencies, and nonprofits through its Amazon Housing Equity Fund, which has committed more than \$1.6 billion to preserving and creating affordable homes in various regions.

## Governance

Amazon's governance structure is designed to promote transparency, accountability, and independence. The company has a single class of common stock that carries equal voting rights, ensuring that each share represents one vote. The board of directors is elected annually, and the company has a declassified board, meaning that all directors stand for election each year. Additionally, the company adheres to a majority voting standard for the election of directors, ensuring that directors are elected only when majority shareholders support their nomination.

**Board of Directors** Amazon's board includes a lead independent director, appointed by the independent directors, to promote independent leadership of the board. The board's composition reflects the company's commitment to diversity, with five women and two directors from underrepresented racial/ethnic groups. The board actively oversees the company's environmental, sustainability, social, and corporate governance policies and initiatives, and receives regular reports on enterprise risk assessments. The board also reviews shareholder feedback on these topics as part of its ongoing efforts to improve disclosure and governance practices.

**Board Diversity** Amazon's Nominating and Corporate Governance Committee strives to identify candidates with a variety of backgrounds and perspectives, including diversity in terms of race, gender, geography, and areas of expertise. The Committee and any

Figure 5: Collective Impact



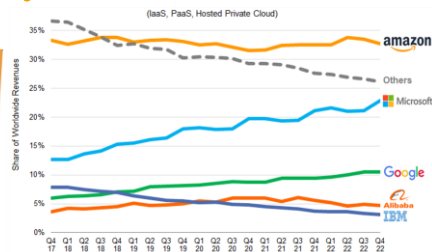
Source: [2021 Sustainability Report](#)

Figure 6: Amazon's Board Diversity Mix

Total Number of Directors		
	11	
	Female	Male
Directors	5	6
Number of Directors Who Identify in Any of the Categories Below:		
African American or Black	1	—
Asian	1	—
White	3	6

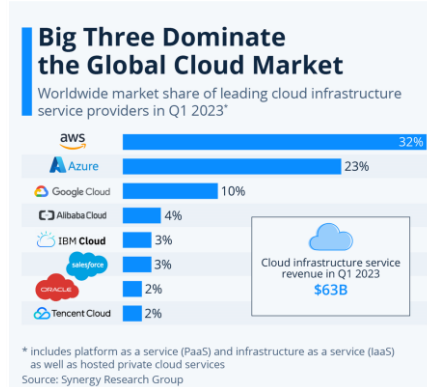
Source: [2021 Sustainability Report](#)

Figure 7: Cloud Provider Market Share Trend



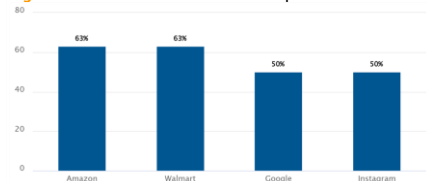
Source: Synergy Research Group

Figure 8: AWS, Azure & Google Cloud ~65% of the market



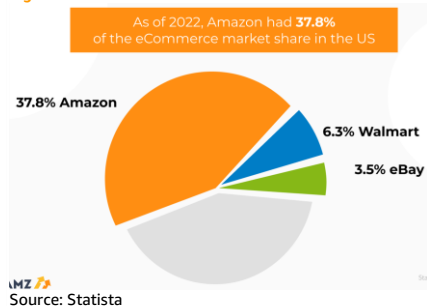
Source: Statista

Figure 9: Where customers start their product search



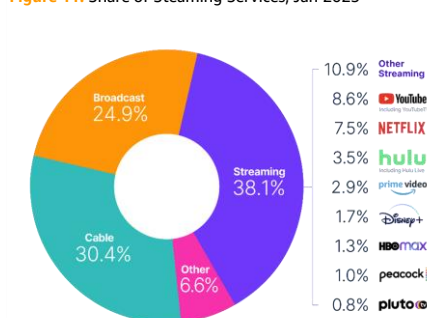
Source: Kantrar, 2020

Figure 10: Amazon's Ecommerce Market Share



Source: Statista

Figure 11: Share of Streaming Services, Jan 2023



Source: Nielsen

search firm it engages consider women, individuals from underrepresented racial/ethnic groups, and individuals who identify as LGBTQ+ in the pool of potential director candidates. The Board and Nominating and Corporate Governance Committee evaluate candidates' potential to contribute to diversity when considering them as potential Board members. The Board assesses its effectiveness in achieving diversity as part of its annual evaluation process for the Board and directors. Currently, five of the nine independent director nominees at Amazon are women, two are from underrepresented racial/ethnic groups, and three have served for five years or less.

(Figure 6)

**Shareholder Engagement** Amazon's effective corporate governance includes engaging with our shareholders and stakeholders year-round. Ongoing dialogue with their shareholders is valuable for discussing a full range of investor priorities. When appropriate, Amazon's lead director or another independent director may also engage in these conversations. In 2021, Amazon engaged with corporate governance representatives from shareholders who own over 35% of Amazon stock (excluding the approximately 13% voted by our founder and Executive Chair) and responded to numerous letters from our investors. Through these direct engagements, Amazon gains insights into its shareholders' priorities, perspectives, and concerns, and has the opportunity to discuss our initiatives and practices.

**Whistleblowing** Amazon has established safe and easily accessible methods for employees to report violations or raise concerns without fear of retaliation. The company's Code of Conduct allows employees to discuss any issues or queries about the Code with their management or the Legal Department if they are unsure how to act in a specific situation.

## Industry Overview and Competitive Positioning

Amazon Web Services (AWS) remains the leading cloud infrastructure provider, with a 32% market share in Q1 2023, according to Synergy Research Group. (Figure 7, 8) Despite a slight decrease in market share from Q3 2022 to Q4 2022, AWS is still ahead of Microsoft, which gained 2% to reach a 23% market share. The global cloud infrastructure market is a \$237 billion opportunity, with spending reaching \$63.7 billion in Q1 2023, a \$10 billion increase from Q1 2022. The market is fiercely competitive, with Amazon, Microsoft, and Google accounting for two-thirds of revenues in the first quarter, and the eight largest providers controlling nearly 80% of the market. "There has been some angst about declining cloud growth rates, but the Q1 worldwide market value grew by more than \$10 billion compared with the first quarter of 2022. Clearly, the relatively weak economy has caused some enterprises to more closely review spending on cloud services, but the market continues to grow despite those challenges," John Dinsdale, chief analyst at Synergy Research Group said. "The law of large numbers pretty much dictates that growth rates must decline," Dinsdale warned, "but in absolute terms, the market continues to grow at a healthy rate, driven by the fundamental benefits of cloud adoption."

As of 2022, Amazon accounted for 37.8% of the e-commerce market share in the US, whereas Walmart and eBay held 6.3% and 3.5% of the market, respectively.

## Key Drivers and Success Factors

While Amazon's marketplace has proven to be a successful platform for brands and sellers to sell their products, there is a growing number of

merchants who are opting to launch their direct-to-consumer websites. However, one of the challenges these merchants face is converting website traffic into sales. To address this issue, Amazon created Buy with Prime. This service enables third-party brands and sellers to offer their products on their websites to Amazon Prime members, allowing them to benefit from fast, free shipping and seamless checkout through their Amazon account. Buy with Prime also provides additional advantages to merchants, such as product storage, picking, packing, delivery, payment, and returns, all of which are handled by Amazon Pay and Fulfillment by Amazon. This service has recently become available to all US merchants and has already increased shopper conversion rates by an average of 25% on third-party shopping sites. Merchants are pleased with the increased sales and ease of fulfillment, while Prime members appreciate the ability to use their benefits on more destinations. By extending our services through Buy with Prime, we aim to enhance the shopping experience across a wider range of websites.

Amazon further aims to improve the customer experience by reducing prices, increasing selection, offering faster delivery times, and earning customer trust. The company expects to increase spending on technology and content over time to support geographic expansion and product/service offerings. The company believes that advances in technology will continue to improve the customer experience, and it is investing in AWS and other initiatives to take advantage of these advances.

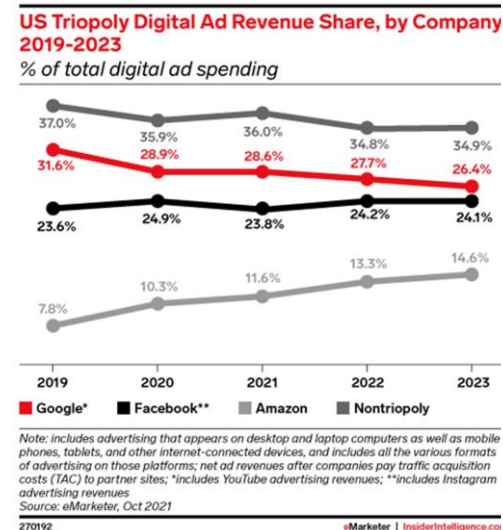
### Amazon Web Services (AWS)

Amazon's AWS has an annualized revenue run rate of \$85B and is still in the early stages of its adoption curve. However, the company faces short-term headwinds due to the challenging macroeconomic conditions, leading to companies being cautious about spending. Despite this, AWS remains customer-focused and aims to build long-term customer relationships. The elasticity of the cloud is unique, allowing businesses to seamlessly scale up or down, which is not possible with on-premises data centers, servers, and networking gear. AWS's sales and support teams are helping customers optimize their AWS spending to better weather the current economic uncertainty. Amazon's customers have appreciated this customer-focused, long-term approach, and the management believes it'll bode well for both customers and AWS. AWS's fundamentals are strong, and the new customer pipeline and active migrations are robust. Many companies are opting to move to AWS to enjoy the benefits of agility, innovation, cost-efficiency, and security. AWS will remain a core growth engine for Amazon's revenue and profitability over the next decade, as the public cloud market opportunity remains substantial.

### Advertising Business on Strong Growth Trajectory

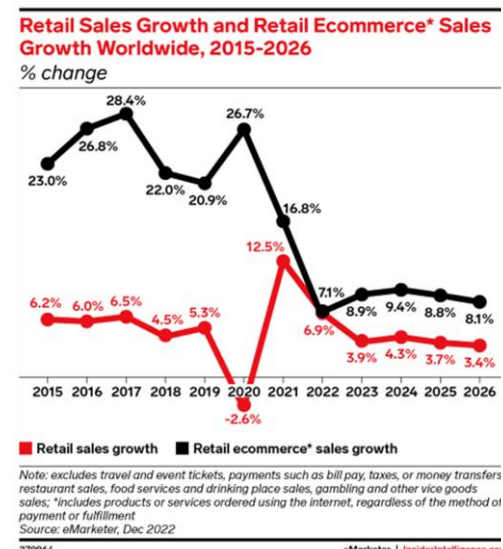
Amazon's advertising business has experienced tremendous growth and is anticipated to surpass e-commerce growth in the next five years. The vast audience and exclusive data points about consumers make the advertising business an appealing option for marketers. Moreover, AWS and advertising are expected to be the principal growth drivers, with higher margins than the corporate average, leading to an expansion in operating profit and EPS. The advertising business is exceptionally effective for brands as it customizes sponsored products to match what customers are searching for with the help of machine learning algorithms. This not only results in more beneficial advertising for customers but also enhances brand performance. Amazon is investing heavily in machine learning to enhance its advertising selection algorithms and create comprehensive planning and measurement solutions, offering marketers greater insight into advertising effectiveness. Amazon Marketing Cloud is a secure digital platform where advertisers can run custom audience and campaign analytics in a privacy-safe environment, generating insights for their broader marketing and sales strategies. Amazon aims to be the go-to platform for advertisers to build their brands and envisions both immediate and long-

Figure 12: Ad Revenue Share, by company | 2019-2023



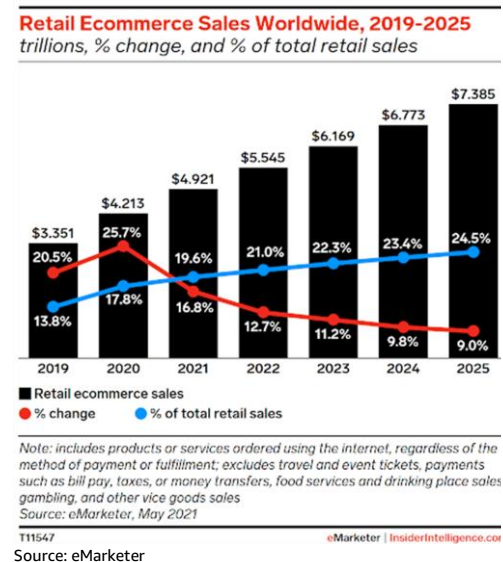
Source: eMarketer

Figure 13: Retail and e-comm growth, worldwide | 2015-2026



Source: eMarketer

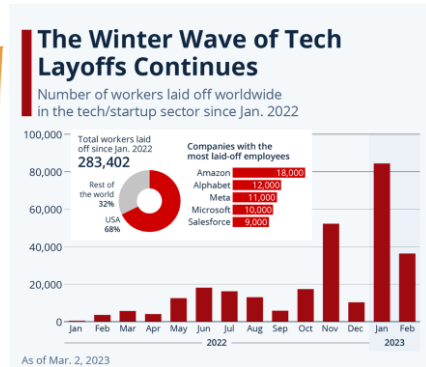
Figure 14: Retail and e-comm sales, worldwide | 2019-2025



Source: eMarketer



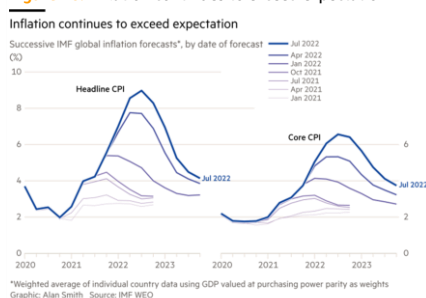
Figure 15: Tech Layoffs



Source: Statista

Over the past year, many tech companies have struggled, leading to layoffs in the industry. Even well-established companies like Amazon, Meta, and Twitter have had to lay off thousands of employees. Microsoft and Alphabet also announced job cuts in the tens of thousands. The tech layoffs were especially heavy in the winter months, with more than 50,000 workers laid off globally in November 2022 alone. Crypto companies were hit hard, with Crypto.com, Coinbase, and Kraken alone laying off more than 5,000 employees due to market volatility and the decline in cryptocurrency prices. Since the beginning of 2023, over 120,000 tech workers have been laid off, accounting for around 75% of the total tech layoffs in 2022. This trend is partly due to external factors such as the war in Ukraine and plant closures in China, but it is also a result of previous miscalculations. Apple is one of the few tech giants that has not laid off many employees, possibly due to CEO Tim Cook's decision to take a significant pay cut.

Figure 16: Inflation continues to exceed expectation



Source: Statista

term opportunities to accomplish this objective. Amazon intends to integrate advertising thoughtfully into its video, live sports, audio, and grocery products to aid brands in engaging with the right audience and growing this part of their business.

### Expansion in Key Emerging Economies

Amazon's expansion of product categories from books to include music, video, electronics, and toys in the late 1990s was met with some skepticism; however, this decision proved to be a wise one, as demonstrated by their international store's expansion. Amazon's international consumer segment generated \$118 billion in revenue in 2022, with remarkable compound annual growth rates of 30%, 26%, and 21% in the UK, Germany, and Japan from 2019 to 2021, respectively. Despite facing infrastructure and service challenges in new geographies like India, Brazil, Mexico, and parts of Africa, the management said it will continue to invest in serving a broader customer base across the globe, as new countries require a significant amount of fixed investment to begin and grow. Amazon remains optimistic about the trajectory of its new markets, as they are resembling patterns of Amazon's well-established international geographies and North America. However, emerging countries may lack some of the essential infrastructure and services that our business relies on, such as payment methods, transportation services, and internet/telecom infrastructure.

### Deeper Penetration in Retail Segments – Grocery

In addition to geographic expansion, Amazon is also focused on expanding its offerings in unique product retail market segments, such as the grocery business. Over the past 20 years, the grocery business has grown significantly, with over 3 million items offered compared to a typical supermarket's 30,000 items for the same categories. However, Amazon wants to build on this business segment and aspires to serve more of its customers' grocery needs, which requires a broader physical store footprint. Whole Foods Market, the organic and natural specialty grocery store concept, continues to grow and raise the bar for healthy and sustainable food. Additionally, Amazon is continually experimenting with Amazon Fresh, the mass grocery format, and working diligently to identify and build the right format for Amazon's scale. The management believes that grocery represents a significant growth opportunity for Amazon.

### Headwinds and Tailwinds

The current state of the economy is sending mixed signals, with some pressure in the U.S. and improving conditions in Europe. Despite this macroeconomic uncertainty (Figure 21), Amazon has provided guidance for the second quarter, which is built into the model. The company expects revenue between \$127 billion and \$133 billion, along with operating income ranging from \$2.0 billion to \$5.5 billion. Although the near term is still a work in progress due to macro issues, the model anticipates continuous margin improvement over time. Despite this, healthy long-term growth for Amazon will be primarily on the back of e-commerce proliferation, AWS, and advertising. While macro issues are expected to weigh in in 2023, improvements are anticipated in 2024.

Amazon has been successful in reducing its expenses, especially in improving the productivity of its fulfillment network and transportation, as well as in other areas of the business. The company's efforts over the past year, such as reducing headcount, closing stores, and canceling projects, have been effective. As a result, management believes that the pre-COVID-19 operating margin of 5.2% can be exceeded, based on identified items. In Q4, Amazon made further progress on cost-cutting, and management plans to continue optimizing operations throughout 2023.

Moreover, some of Amazon's current and potential competitors have more resources, longer histories, more customers, greater brand recognition, and greater control over inputs critical to our various businesses. They may also secure better terms from suppliers, pursue restrictive distribution agreements, direct consumers to their offerings, and devote more resources to technology, infrastructure, fulfillment, and marketing. The Internet facilitates entry and comparison shopping, enabling new, smaller, or lesser-known businesses to compete for Amazon's market share. Additionally, each of its businesses is also subject to rapid change and the development of new business models, and the entry of new and well-funded competitors. Other companies may also enter business combinations or alliances that strengthen their competitive positions.

### Competitive Positioning

The competition in the worldwide marketplace where Amazon operates is rapidly evolving as it faces competitors from various industry sectors worldwide, including physical, e-commerce, and omnichannel retailers, publishers, vendors, distributors, manufacturers, producers, and others. These competitors are engaged in providing products and services that Amazon offers and sells to consumers and businesses. There are also companies providing e-commerce services, fulfillment, and logistics services, information technology services and products, consumer electronics, telecommunication and electronic devices, and grocery products online and in physical stores, as well as companies providing advertising services in digital or other formats. Amazon's competitive factors include selection, price, and convenience, which include fast and reliable fulfillment. For its seller and enterprise services, our competitive factors include the quality, speed, and reliability of our services and tools, and customers' ability and willingness to change business practices.

### Acquisitions and Investments

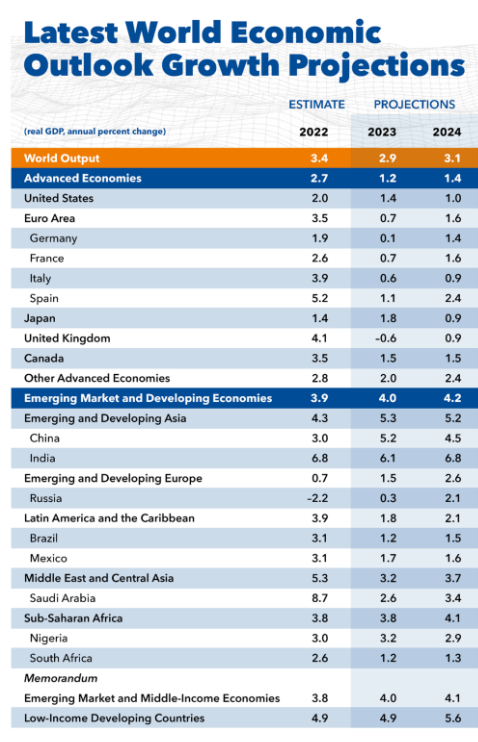
As Amazon expands globally and enters new retail markets, it also seeks to leverage its assets to assist merchants in enhancing their sales on their websites. While some investments, such as Amazon Healthcare and Kuiper, may seem far from its core businesses, the company sees them as offering unique opportunities, much like AWS did in 2003.

Amazon Pharmacy, launched in 2020, was the company's initial foray into healthcare, as customers had expressed interest in an online pharmacy that could offer transparent pricing, easy refills, and savings for Prime members. The business is growing rapidly and recently introduced RxPass, which enables Prime members to obtain eligible prescription medications for common conditions like high blood pressure, acid reflux, and anxiety for a flat monthly fee of \$5.

Recognizing that customers continue to seek more efficient and satisfying healthcare experiences, Amazon decided to start with primary care as it is the first stop for many patients. Following extensive research and evaluation, Amazon identified One Medical's patient-focused approach as an ideal foundation for its future business. (Figure 19) In July 2022, Amazon announced its acquisition of One Medical, which offers a digital app that enables patients to discuss issues with medical practitioners via chat or video conference. One Medical also has offices in various US cities, enabling patients to book same-day or next-day appointments, and has relationships with specialty physicians and local hospital systems to provide access to resources when needed. Going forward, Amazon believes that One Medical and the company will collaborate to innovate and transform the primary care experience for customers.

Amazon's investment in Kuiper is an example of the company's commitment to providing innovative solutions to customers in areas with high demand. The company aims to establish a low-Earth orbit satellite system to provide high-quality broadband internet to millions of households and businesses around the world that currently lack reliable internet access. The connectivity provided by Kuiper will enable individuals to engage in online education, financial services, entrepreneurship, shopping, and entertainment, and help businesses and governments improve their coverage, efficiency, and operations. Kuiper will also offer affordability and convenience through the use of low-cost customer

Figure 17: Economic Indicators



Source: IMF

Figure 18: Amazon Competitor Group

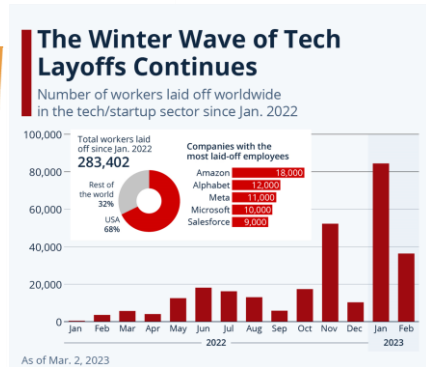


Figure 19: Amazon Recent Acquisitions





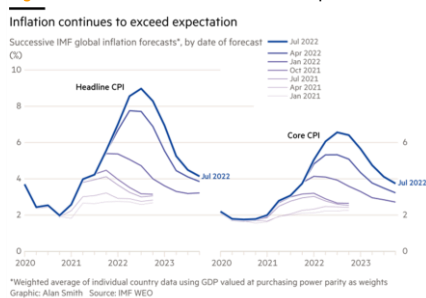
Figure 20: Tech Layoffs



Source: Statista

Over the past year, many tech companies have struggled, leading to layoffs in the industry. Even well-established companies like Amazon, Meta, and Twitter have had to lay off thousands of employees. Microsoft and Alphabet also announced job cuts in the tens of thousands. The tech layoffs were especially heavy in the winter months, with more than 50,000 workers laid off globally in November 2022 alone. Crypto companies were hit hard, with Crypto.com, Coinbase, and Kraken alone laying off more than 5,000 employees due to market volatility and the decline in cryptocurrency prices. Since the beginning of 2023, over 120,000 tech workers have been laid off, accounting for around 75% of the total tech layoffs in 2022. This trend is partly due to external factors such as the war in Ukraine and plant closures in China, but it is also a result of previous miscalculations. Apple is one of the few tech giants that has not laid off many employees, possibly due to CEO Tim Cook's decision to take a significant pay cut.

Figure 21: Inflation continues to exceed expectation



Source: Statista

terminals that deliver speeds up to 400 megabits per second. These terminals are small, lightweight, and cost-effective, making them accessible to a broader audience. Amazon plans to launch two prototype satellites this year to test the end-to-end communications network and begin beta testing with commercial customers in 2024. The reception to Kuiper so far has been positive, and Amazon sees it as a promising opportunity with significant revenue and operating profit potential. Similar to AWS, Kuiper requires significant investment at the start but offers a large customer base and a promising investment hypothesis.

An essential area of investment for Amazon, that will enable innovation in every aspect of its business for years to come, is Large Language Models (LLMs) and Generative AI. Although machine learning has been a promising technology for decades, it has only become more widely adopted by companies in the last five to ten years due to factors such as greater access to higher volumes of computing capacity at lower prices. Amazon has been utilizing machine learning extensively for the past 25 years in various applications such as personalized e-commerce recommendations, fulfillment center pick paths, drones for Prime Air, Alexa, and many machine learning services that AWS offers. Recently, Generative AI has emerged as a newer form of machine learning, and it promises to accelerate machine learning adoption significantly. Generative AI relies on Large Language Models trained on up to hundreds of billions of parameters, and it has extensive datasets and broad recall and learning capabilities. Amazon has been developing its LLMs for a while and is confident that they will improve nearly every customer's experience. Amazon's vision is to continue to invest heavily in these models across its consumer, seller, brand, and creator experiences. Similarly, they want to democratize this technology, making it accessible to companies of all sizes. AWS offers the most affordable machine learning chips in Trainium and Inferentia, enabling small and large companies to train and run their LLMs in production. Furthermore, it will enable companies to select from various LLMs and create applications with all of the AWS security, privacy, and other features that customers are accustomed to using. With the launch of applications like AWS's CodeWhisperer, Amazon is revolutionizing developer productivity by generating code suggestions in real time.

## Financial Analysis

### Revenue and Profitability

Given Amazon's business model, the forecasts are based on individual segment performance as per management's vision and current macrorends in the industry. ([Appendix D](#))

Overall, Amazon is financially robust, exhibiting rapid revenue growth, expanding margins, and an unrivaled scale, with a strong balance sheet. Management's comments and performance indicate that the Amazon marketplace will continue to be attractive to third-party sellers due to Prime's ability to tightly bind consumers to Amazon, and AWS and advertising are expected to sustain corporate growth and margin expansion. Additionally, in Q1 FY23 North American margins showed a positive operating income for the first time since June 2021. Although international losses are decreasing, AWS margins are still affected by slowing growth and continuous investment. In terms of the company's segments, third-party seller services drove the bulk of the upside in the recent quarters, with subscriptions and advertising also contributing to good results, while other segments were in line. In the most recent quarter (Q1/23) From a retail perspective, revenue from online stores has remained flat, physical stores grew 7%, third-party services grew 18%, and subscription services increased 15% year over year. The two most critical segments, AWS, and advertising grew 16% and 21% YoY as reported, respectively, over the year-ago period. Of note is Amazon's advertising revenue growth, which meaningfully outpaced internet advertising giants Meta and Alphabet. Meta's top line increased by 3%

in Q1/23, with advertising revenue clocking 4% growth. On the other hand, Google witnessed a 1% decrease in its advertising revenue (see: [article](#)). During Amazon's Q4 earnings call, it was revealed that \$640 million of severance costs were included in operating profits. However, management was impressed by the ability of Rings of Power to draw in new Prime members in the subscription service category, though specific numbers were not provided. The operating profit in Q4 exceeded expectations at \$4.8 billion, surpassing the anticipated range of \$0.0 billion to \$4.0 billion, resulting in an operating margin of 3.7%. This is an improvement from the previous year's margin of 3.2%. The model assumes resulting revenue CAGR for the next 5 years is 10.4% vs a historical 5-year average of 26.4% based on the aforementioned variables.

**Figure 22: Financial Snapshot**

Financial Summary and Key Statistics

(in \$ million)	Actual					Forecast				
	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E
Revenue	232,887	280,522	386,064	469,822	513,983	559,641	622,029	689,957	763,394	842,174
Revenue Growth %		20.5%	37.6%	21.7%	9.4%	8.9%	11.1%	10.9%	10.6%	10.3%
Operating Income	12,420	14,540	22,899	24,879	12,248	26,814	36,598	41,782	47,543	53,899
Operating Margin %	5.3%	5.2%	5.9%	5.3%	2.4%	4.8%	5.9%	6.1%	6.2%	6.4%
EBITDA	27,761	36,329	48,150	59,175	53,709	73,153	87,565	97,565	108,262	119,589
EBITDA Margin %	11.9%	13.0%	12.5%	12.6%	10.4%	13.1%	14.1%	14.1%	14.2%	14.2%
Earnings Per Share (Diluted, \$)			2.1	3.2	(0.3)	0.6	1.2	1.4	1.6	1.8
Price/Earnings			50.4	32.5	(394.7)	162.8	88.1	76.8	66.8	58.1
Price/Book			2.8	2.3	2.1	1.9	1.8	1.6	1.4	1.3
EV/EBITDA	39.1	29.8	22.5	18.3	20.2	14.8	12.4	11.1	10.0	9.1
Free Cash Flow Yield %			2.4%	-1.4%	-1.6%	1.8%	2.1%	2.4%	2.8%	3.1%
Cash From Operations/EBITDA	1.1	1.1	1.4	0.8	0.9	1.2	1.1	1.1	1.0	1.0

Source: Own Analysis, Company Reports

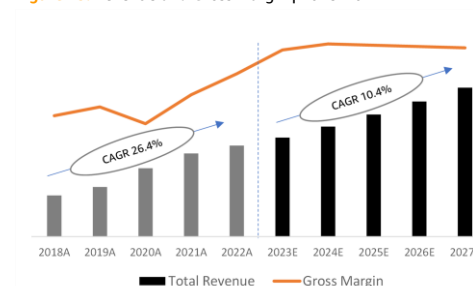
## Cost Optimization and increasing productivity

Amazon's financial performance for the fourth quarter was impressive, as its revenue grew by 9% YoY to \$149.2 billion, surpassing the expected range of \$140 billion to \$148 billion. The growth was partially attributed to currency improvements that eased the pressure on revenue growth. The company also performed well in the first quarter of the year, with revenue growing by 9% YoY to \$127.4 billion, exceeding the high end of the guidance at \$126 billion. This growth is noteworthy given the challenging macroeconomic conditions in 2022, and Amazon's ability to boost its top line is a testament to its operational efficiency. Although Amazon has been reducing its employee count to cut costs, the benefits of these measures have not been fully realized due to severance and benefit payments in the current quarter. However, these cost-cutting measures are expected to take effect in the latter half of 2023, resulting in substantial operating profits for the company. In addition, Amazon's investments in streaming services and content, such as the acquisition of MGM Studios, are promising avenues for future growth. The company's operating profits are moving in the right direction, and if Amazon continues to meet its revenue targets, we can expect to see a positive trajectory in this regard. Other income sources primarily include valuation gains and losses from Amazon's investment in Rivian, which has suffered in the past few quarters. Sales and marketing expenses and other expenses have remained stable. As a result, the model assumes a gradual improvement in operating margins from 2.4% in 2022 to 6.4% in the outer years (2027)

## Leverage and Liquidity

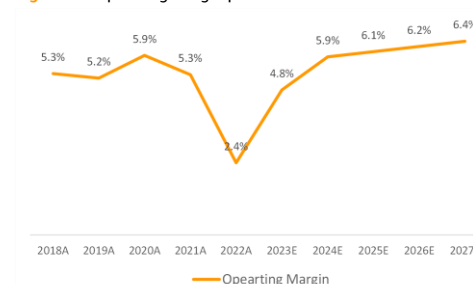
Amazon has maintained a good balance of capital allocation, based on its sound balance sheet, exceptional investments, and appropriate shareholder distributions. Reinvestment in the business is likely to be the primary driver of total shareholder returns, as demonstrated by the company's history of tuck-in acquisitions, such as the \$14 billion acquisition of Whole Foods in 2017 and the \$8 billion MGM deal in 2022. As of March 31, 2023, Amazon had \$64.3 billion in cash and marketable securities and \$67.1 billion in debt. Despite suffering a decrease in free cash flow generation during the pandemic due to investments in facility expansion, content creation, and transportation networks, it is expected to return to more normal levels within the next few years. With a close-to-net cash position, the balance sheet is expected to remain sound, as the company has traditionally taken a conservative position and produced significant free cash flow from AWS and advertising to support business growth. Due to Amazon's current phase of rapid growth and heavy investment, the company is not likely to pay dividends or repurchase shares, and this trend is expected to continue for the next few years. Instead, the company will continue to focus on growth and heavy investment in AWS and delivery.

**Figure 23: Revenue and Gross Margin | 2018-2027**



Source: Own Analysis

**Figure 24: Operating Margin | 2015-2026**



Source: Own Analysis

# Valuation

The forecasts based on the assumptions above reiterate a **BUY** recommendation for Amazon, with a one-year Fair Value Estimate (FVE) of US\$133.0, representing a potential upside of 26.1% on the closing price of US\$ 105.45 as of April 28th, 2023. (Figure 25) The Fair Value Estimate was reached using a Discounted Cashflow (DCF) analysis. To make the DCF model more robust and incorporate the investment risks discussed in the next section, various elements such as the Weighted Average Cost of Capital (WACC), Implied Terminal Growth Rate, Implied Exit Multiple have been sensitized and finally the relative valuation analysis. (Appendix D)

## Discounted Cash Flow Model

The DCF analysis utilizes the Free Cash Flow to the firm (FCFF) method to reach the Intrinsic value of the company (Appendix D). The model explicitly forecasts Amazon's operations from 2023-2027

Figure 26: WACC (Appendix D)

Cost of capital	Inputs	Methodology
<b>The recent rate for the debt</b>	<b>3.8%</b>	Revenue weighted average of 30-year yields in Amazon's 4 key markets
Tax rate of the comparable	21.0%	Amazon Historical Effective Tax Rate
Debt / Equity, target	0.06	Current Capital Structure
Debt / Equity, comparable	0.07	Market Weighted Average (Appendix)
<b>Beta calculation:</b>		
Levered Beta, comparable	1.13	Appendix
Unlevered Beta	1.07	
<b>Re-Levered Beta of the firm</b>	<b>1.13</b>	
<b>CAPM. Cost of Equity:</b>		
<b>Risk-free rate</b>	<b>3.0%</b>	Revenue weighted average of 30-year yields in Amazon's 4 key markets (US, Germany, UK, Japan)
Market Risk Premium	4.7%	US, Excess Return of S&P 500 above US Treasury Yeild - Damodaran   <a href="https://pages.stern.nyu.edu/~adamodar/">https://pages.stern.nyu.edu/~adamodar/</a>
<b>Equity Risk Premium (ERP)</b>	<b>5.3%</b>	Calculated using re-levered beta
<b>Cost of Equity for the firm</b>	<b>8.3%</b>	
<b>WACC (%)</b>	<b>8.01%</b>	

Source: Own Estimates

Figure 25: Fair Value Waterfall Chart

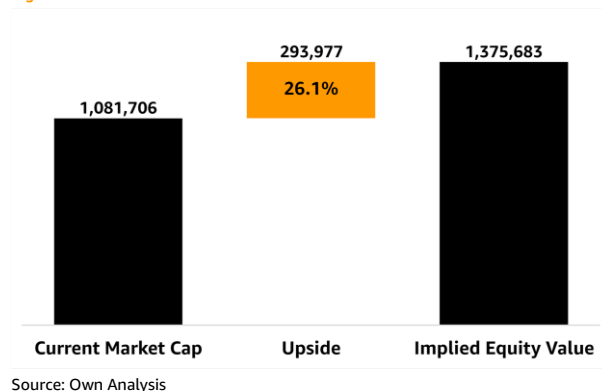


Figure 27: Investment in Technology & Content

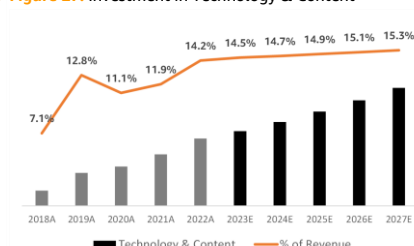
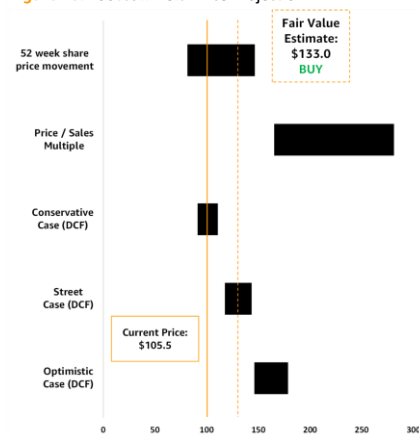


Figure 28: Football Field Price Projection



## Scenarios

### Optimistic Case Assumptions:

Amazon holds a dominant position in the e-commerce market and possesses the resources to keep investing in growth opportunities to provide an exceptional customer experience. The growth rates of high-margin advertising and AWS outpace the company's average, which could potentially improve profitability in the upcoming years. The presence of Amazon Prime helps attracts and retain customers who tend to spend more, resulting in a strong network effect and a steady stream of recurring and high-margin revenue.

The optimistic scenario results in a one-year Fair Value Estimate (FVE) of US\$ 165.57, representing a potential upside of 57% on the closing price of US\$ 105.45 as of April 28th, 2023.

### Conservative Case Assumptions:

Amazon could face regulatory and compliance challenges as it expands globally, in line with the increasing regulatory scrutiny of large technology firms. In addition, new investments in areas such as fulfillment, delivery, and AWS may impact free cash flow growth. Penetrating some international markets could be more challenging due to weaker logistical networks. Furthermore, Amazon's ability to penetrate new retail categories, including luxury goods and groceries, may be limited by consumer preferences and the improving e-commerce experiences offered by larger retailers.

Over the long term, we anticipate e-commerce to continue taking market share from physical retailers, with Amazon also gaining share



online. We expect COVID-19 to have accelerated demand and penetration in some retail categories such as groceries, pharmacy, and luxury goods. Prime subscriptions, selection, pricing, and convenience should continue driving the retail story, with international markets providing a longer-term opportunity. Our projections show a 7% CAGR in total retail-related revenue over the next five years. We expect AWS and advertising to be critical growth drivers for Amazon over the medium term, with significantly higher margins than the rest of the business. We also anticipate these segments to drive margins higher over time. We project AWS revenue to grow at an 18% CAGR and advertising revenue at a 17% CAGR over the next five years, contributing to Amazon's overall growth rate of 10% CAGR through 2027.

The conservative scenario results in a one-year Fair Value Estimate (FVE) of US\$ 102.8, representing a marginal downside of 2.5% on the closing price of US\$ 105.45 as of April 28th, 2023.

## Relative Valuation

### Fair Value Estimation:

To estimate Amazon's fair value using a relative valuation ([Appendix D](#)) 2022 Price to sales multiple of 4.3 times, the model arrived at a per-share value of \$214.9 representing over 100% upside. However, given Amazon's ongoing investments and scaling that depresses its financial performance, multiples are not as meaningful in this case. As the company matures, we expect significant performance improvement. Comparing Amazon to similar listed companies based on industry affiliation and risk exposure, three peer groups are constructed. The following rationale was incorporated while gathering the peers for relative valuation.

**Figure 29:** Peer Group

Comparables	Ticker	Rationale
Amazon.com, Inc.	AMZN	
<b>Big Tech</b>		
Apple, Inc.	AAPL	Amazon's peers in big tech include the other major players in the industry: Apple, Google (Alphabet), Facebook (Meta), and Microsoft. These companies are often referred to as the "FAANG" or "FANG" stocks, with Meta being the newest addition to the group. They are considered peers of Amazon because they are all large, influential, and dominant players in the technology sector, with significant market capitalization, revenue, and impact on the industry as a whole. These companies also operate in various fields, such as hardware, software, social media, e-commerce, search engines, and cloud computing. Additionally, they are often compared and analyzed in terms of their financial performance, innovations, regulatory scrutiny, and societal impact.
Microsoft Corporation	MSFT	
Alphabet, Inc.	GOOG	
Meta Platforms, Inc.	META	
<b>E-commerce / Retail</b>		
eBay Inc.	EBAY	Amazon's peers in the e-commerce space include eBay, Walmart, and Alibaba. eBay is one of the largest online marketplaces in the world, connecting buyers and sellers to a wide range of products. Walmart is a major retailer that has expanded its presence in the e-commerce market, offering online shopping and home delivery services.
Walmart Inc.	WMT	
Alibaba Group	BABA	
<b>Streaming Service</b>		
Netflix Inc.	NFLX	Amazon's peer in the streaming entertainment industry is Netflix, which is a subscription-based streaming service offering a wide range of TV shows, movies, documentaries, and other content. Both Amazon and Netflix compete for subscribers and produce their original content.

Source: Own Analysis

## Investment Risks

In addition to the following risks identified for Amazon, the current macroeconomic environment presents a range of challenges for Amazon, including inflation, increased interest rates, capital market and supply chain volatility, and global economic and geopolitical developments. The impacts of these factors on Amazon's operations are complex and difficult to quantify. Additionally, rising costs of fuel, utilities, and food, as well as recessionary fears, may negatively impact customer demand and Amazon's ability to forecast consumer spending patterns. Furthermore, Amazon anticipates that the current economic environment and enterprise customer cost optimization efforts will have an impact on the growth rates of its AWS revenue. These factors are expected to continue to affect Amazon's operations into Q2 2023.

## Business Risks

### Expansion into New Areas Involves Added Risks

We face added risks as we venture into new geographic regions, offer new products and services, and incorporate new technologies. Our lack of experience in these newer areas may result in lower adoption rates among our customers. In addition, offering new products and services can pose new and complex technological challenges, which may lead to claims against us if our customers encounter any disruptions, delays, setbacks, or quality issues. Profitability in these newer activities may fall short of our expectations, and we may not be successful enough in these areas to recover our investments, which are often substantial. Failure to achieve the anticipated benefits of our investments in new technologies, products, or services could lead to write-downs or write-offs. Furthermore, our sustainability initiatives may not succeed due to various factors, such as our inability to realize the expected benefits of new technologies or our inability to properly plan or execute new strategies, which may negatively impact our business or harm our reputation.

### International Operations Expose Amazon to several Risks

Amazon's international operations play a significant role in the company's revenues and profits, and the company plans to expand further internationally. However, this expansion exposes the company to a range of risks, including local economic and political conditions, government regulations and restrictions, restrictions on the sales or distribution of certain products or services, limitations on the repatriation and investment of funds, and difficulties in staffing and managing foreign operations.

Additionally, the intensifying competition, especially from local companies with established local brands and a greater understanding of local customers, poses a challenge. The company's operations in China and India are subject to unique risks, including regulations and licensing requirements that may restrict foreign investment and operations, the sale of media and other products and services, and ownership or control of Indian companies by foreign entities involved in online retail trading. These risks involve substantial uncertainties and could result in fines, financial penalties, license revocation, restructuring, or shutdown of operations in those countries.

#### ***Exposure to Fraudulent or Unlawful Activities of its sellers***

Amazon is impacted by fraudulent or unlawful activities of sellers on its platform. The company has policies and processes in place to prevent sellers from engaging in illegal activities, such as selling counterfeit or stolen goods or violating proprietary rights. However, if these policies fail, they could harm Amazon's business or reputation, and the company could face legal liability. Amazon has an A-to-z Guarantee program in place to reimburse customers for payments in certain situations, but as third-party seller sales grow, the cost of this program could negatively affect Amazon's operating results.

#### ***Risks related to adequately protecting Amazon's Intellectual Property (IP) Rights and being accused of infringing the IP rights of third parties***

Amazon relies heavily on its intellectual property, including trademarks, copyrights, patents, and trade secrets, for its success. However, the protection of intellectual property rights is not available in every country where Amazon operates. Additionally, third parties may acquire domain names that infringe upon or diminish the value of Amazon's trademarks and other proprietary rights. Amazon also faces the risk of being accused of infringing upon the intellectual property rights of third parties, which may result in significant financial and managerial resources being expended on legal proceedings, injunctions, or damages payments. Furthermore, the company's digital content offerings depend on effective digital rights management technology, which, if breached or malfunctioning, could result in claims against Amazon and reluctance from content providers to include their content on the platform.

## **Market Risks**

#### ***Foreign Exchange Risk:***

Amazon faces foreign exchange risk due to the exposure of its international operations and intercompany balances to fluctuations in foreign exchange rates. This may result in significant gains or losses on the remeasurement of intercompany balances, and operating results may differ from expectations. The company's exposure to exchange rate fluctuations has increased as it has expanded its international operations. Amazon also holds cash equivalents and marketable securities in foreign currencies, which may be materially impacted when the U.S. Dollar strengthens or weakens compared to those currencies.

#### ***Interest Rate Risks***

The company faces market risk due to changes in interest rates, which primarily impact their investment portfolio and debt. Although long-term debt is carried at amortized cost, the fair value of debt, which pays interest at a fixed rate, will generally fluctuate with movements of interest rates. The company invests excess cash in AAA-rated money market funds and investment-grade short-to-intermediate-term fixed-income securities. However, fixed-income securities may be adversely affected by a rise in interest rates.

#### ***Risks related to a dynamic business model and volatile stock price***

Amazon has a rapidly evolving business model, and the price of its stock is highly volatile. The stock price can be affected by a few factors such as changes in interest rates, conditions or trends in the industry, quarterly variations in operating results, fluctuations in the stock market, changes in financial estimates or recommendations by analysts, changes in the capital structure, changes in the valuation methodology of other e-commerce or technology companies, and transactions in the company's common stock by major investors, analysts, and news. The volatility in the stock price could negatively impact Amazon's business and financing opportunities, leading to increased cash compensation to employees or larger stock awards, hurting the company's operating results, or reducing the percentage ownership of existing stockholders.

## **Operating Risks**

#### ***Risks related to successfully optimizing and operating fulfillment networks and data centers***

It is clear that Amazon's fulfillment and data center networks are critical to the success of its business operations, and any failure to operate them effectively could result in significant harm to the company. Factors such as excess or insufficient fulfillment capacity, service interruptions, increased costs, and impairment charges could all negatively impact Amazon's business. Additionally, the complexity of tracking inventory and fulfilling orders for other businesses increases the risk of unexpected costs and other harm to Amazon's business and reputation. The company's reliance on a limited number of shipping companies also poses a risk, as any performance problems, staffing limitations, or difficulties experienced by these companies or Amazon's transportation systems could negatively impact its operating results and customer experience. Finally, natural or human-caused disasters, extreme weather, geopolitical events, and labor or trade disputes could also negatively affect Amazon's ability to receive inbound inventory efficiently and ship completed orders to customers.

#### ***Risks related to data loss or other security breaches.***

Amazon faces potential risks due to the large amounts of data it collects, processes, stores, and transmits, which includes confidential, sensitive, proprietary, and personal information. If Amazon fails to prevent or mitigate data breaches, it could result in losses, disclosure, or misuse of information, negatively affect operating results, lead to litigation or regulatory action, deter customers from using their products and services, and harm their business and reputation. Amazon uses third-party technology and systems for various functions, and some of its systems have experienced security breaches in the past, which could have adverse effects on its operations and financial results. Although Amazon has developed systems and processes to protect customer data and prevent such incidents, they cannot guarantee absolute security, and breaches may occur.

#### ***Amazon faces risks related to system interruption and lack of redundancy.***

These risks could result in occasional system interruptions and delays, making their websites and services unavailable or slow to respond, thus reducing net sales and the attractiveness of their products and services. Upgrades to their systems and network infrastructure may not be sufficient to avoid system interruptions or delays that could adversely affect their operating results. Events such as natural or human-caused disasters, geopolitical events and security issues, computer viruses, and operational failures could cause system interruptions, delays, and loss of critical data. These events could prevent Amazon from accepting and fulfilling customer orders and providing services, making their product and service offerings less attractive and subjecting them to liability. Although Amazon has developed disaster recovery planning, its systems are not fully redundant, and its insurance may not provide sufficient coverage to compensate for related losses. Any of these events could damage Amazon's reputation and be expensive to remedy.

#### ***Loss of Key Senior Management Personnel or the Failure to Hire and Retain Highly Skilled and Other Personnel***

The company relies on its senior management and key personnel, including the CEO, and does not have "key person" life insurance policies. Amazon faces intense competition for qualified personnel in the technology industry, and changes to current and future work environments may negatively impact the company's ability to hire and retain qualified personnel. The loss of any key employee or failure to hire, train, retain, and manage qualified personnel could harm Amazon's business. Amazon also relies on a significant number of personnel to operate its stores, fulfillment network, data centers, and other operations. Failure to retain sufficient personnel can harm Amazon's business and reputation, increase payroll and other costs, and cause operational strain. Additionally, labor union efforts to organize Amazon employees could harm the company's business and reputation.

#### ***Amazon's relationship with suppliers, including content and technology licensors***

Many of these suppliers are important to Amazon's sourcing, manufacturing, and ongoing servicing of merchandise and content. However, the company does not have long-term arrangements with most of its suppliers to guarantee the availability of merchandise, content, components, or services. Decisions by current suppliers to limit or stop selling or licensing merchandise, content, components, or services to Amazon, or delay delivery may result in the company being unable to procure alternatives from other suppliers in a timely and efficient manner and on acceptable terms, or at all. Additionally, violations by suppliers of applicable laws, regulations, contractual terms, or intellectual property rights of others, or products or practices regarded as unethical, unsafe, or hazardous, could expose Amazon to claims, damage its reputation, limit its growth, and negatively affect its operating results.

#### ***Risks Related to Acquisitions, Investments, and unsuccessful integrations thereof***

Acquiring and investing in companies poses significant risks to our business, including disrupting ongoing operations, difficulties retaining key personnel, and incurring additional expenses. There are also challenges in completing such transactions, integrating new operations and technology, and facing unknown liabilities. Foreign transactions may bring additional risks due to cultural, language, economic, political, and regulatory differences. Our profitability could also be affected if we need to issue equity securities, spend cash, or incur debt, contingent liabilities, or amortization expenses related to intangible assets. Valuations may change rapidly, causing impairments or declines in fair value that could adversely impact our financial results.

As of March 31, 2023, Amazon's equity and equity warrant investments in public and private companies totaled \$6.7 billion. Of this, \$4.4 billion was invested in publicly traded companies, primarily Rivian, and was recorded at fair value, which can be volatile. Amazon records equity warrant investments in private companies at fair value and adjusts its equity investments in private companies for observable price changes or impairments. Due to the lack of readily available market data, valuations of private companies are more complex, and the current global economic conditions add to the uncertainty. Therefore, Amazon believes that market sensitivities are not practicable.

#### ***Inventory and Payment Related Risks***

Amazon faces significant inventory risks due to various factors such as seasonality, changes in product cycles and pricing, defective merchandise, changes in customer demand and consumer spending patterns, and spoilage. It can be challenging to accurately predict these trends and avoid overstocking or understocking products. Amazon also faces payments-related risks, including compliance with regulations and requirements, fraud, and paying fees for certain payment methods. We rely on third-party providers for payment processing services, and failure to comply with operating rules or prevent fraudulent activity could result in fines and loss of ability to accept credit and debit card payments. Additionally, Amazon is subject to various laws and regulations relating to payments, money laundering, privacy, data protection, network security, and consumer protection. Violation of these regulations could lead to penalties and forced cessation of certain services.

## **Legal and Political**

### ***Evolving Government Regulations***



Amazon is subject to a range of regulations and laws that cover various aspects of its operations, including taxation, privacy, data protection, and consumer protection. These laws and regulations are constantly evolving and expanding as the scope of the company's businesses expands. Amazon is regularly subject to reviews, investigations, and other proceedings by governments and regulatory authorities. Unfavorable regulations, laws, decisions, or interpretations by government or regulatory authorities could cause the company to incur substantial costs, diminish the demand for its products and services, damage its reputation, impede its growth, or otherwise have a material effect on its operations.

### ***Amazon is subject to litigation that could affect business and results of operation***

As a global company offering a wide range of consumer and business products and services, Amazon is subject to claims, litigation, reviews, investigations, and other proceedings by governments and regulatory authorities that can negatively impact its business and the results of operations. These proceedings include issues related to patent and other intellectual property matters, taxes, labor and employment, competition and antitrust, privacy, data use, data protection, data security, data localization, network security, consumer protection, commercial disputes, and goods and services offered by Amazon and third parties. The number and scale of these proceedings have increased over time as Amazon's businesses have expanded, and the outcomes are unpredictable and subject to significant uncertainties. Resolving these matters can result in legal costs, disruption of operations, negative publicity, and other adverse effects, including substantial future payments, preventing Amazon from offering certain products or services, requiring changes in business practices, and damaging Amazon's reputation.

### ***Product Liability Claims***

Amazon is exposed to various product liability claims, including those related to personal injury, death, and environmental or property damage. We also face liability claims from third parties who sell products using our services. We have a program, called A-to-z Guarantee, that provides compensation to customers for certain product liability claims up to a certain limit, but as our third-party seller sales grow, the cost of this program may increase and affect our operating results. Although we have liability insurance, we cannot guarantee that it will be enough to cover all liabilities incurred, or that it will continue to be available to us on reasonable terms. We have agreements with vendors and sellers that prohibit the sale of certain types of products, but we may not be able to detect, enforce, or collect sufficient damages for breaches of these agreements, and some of our agreements do not indemnify us from product liability.

### ***Tax Liabilities and Collection obligations***

Amazon is subject to a variety of taxes and tax collection obligations in the United States and foreign jurisdictions. Changes in laws, regulations, administrative practices, principles, and interpretations related to tax could result in additional tax expenses and liabilities, including tax collection obligations due to new tax measures targeting online commerce and remote selling. These new obligations could result in liability for third-party obligations and adversely affect Amazon's results of operations and cash flows. Amazon's tax expenses and liabilities are affected by various factors, such as changes in business operations, acquisitions, investments, entry into new businesses and geographies, intercompany transactions, and the relative amount of foreign earnings. In the ordinary course of business, many transactions and calculations have uncertain tax determinations, requiring significant judgment in evaluating and estimating tax expenses, assets, and liabilities. Amazon is also subject to tax controversies in various jurisdictions that can result in tax assessments against them, and developments in an audit or investigation can have a material effect on operating results or cash flows. The outcome of any tax controversy may be materially different from expectations, and Amazon regularly assesses the likelihood of an adverse outcome resulting from these proceedings to determine the adequacy of their tax accruals.

### ***Risks related to Government contracts and related procurement regulations.***

Amazon's contracts with various government entities, including those in the US and abroad, are subject to regulations related to their formation, administration, and performance. These contracts are also subject to audits and investigations, and any violations can result in penalties, including termination of the contract, fines, forfeiture of profits, and suspension or debarment from future government business. Some contracts may also be subject to periodic funding approval and may be terminated by the government without cause. These risks pose a threat to Amazon's government contracts and may have negative financial consequences for the company.

# Appendix

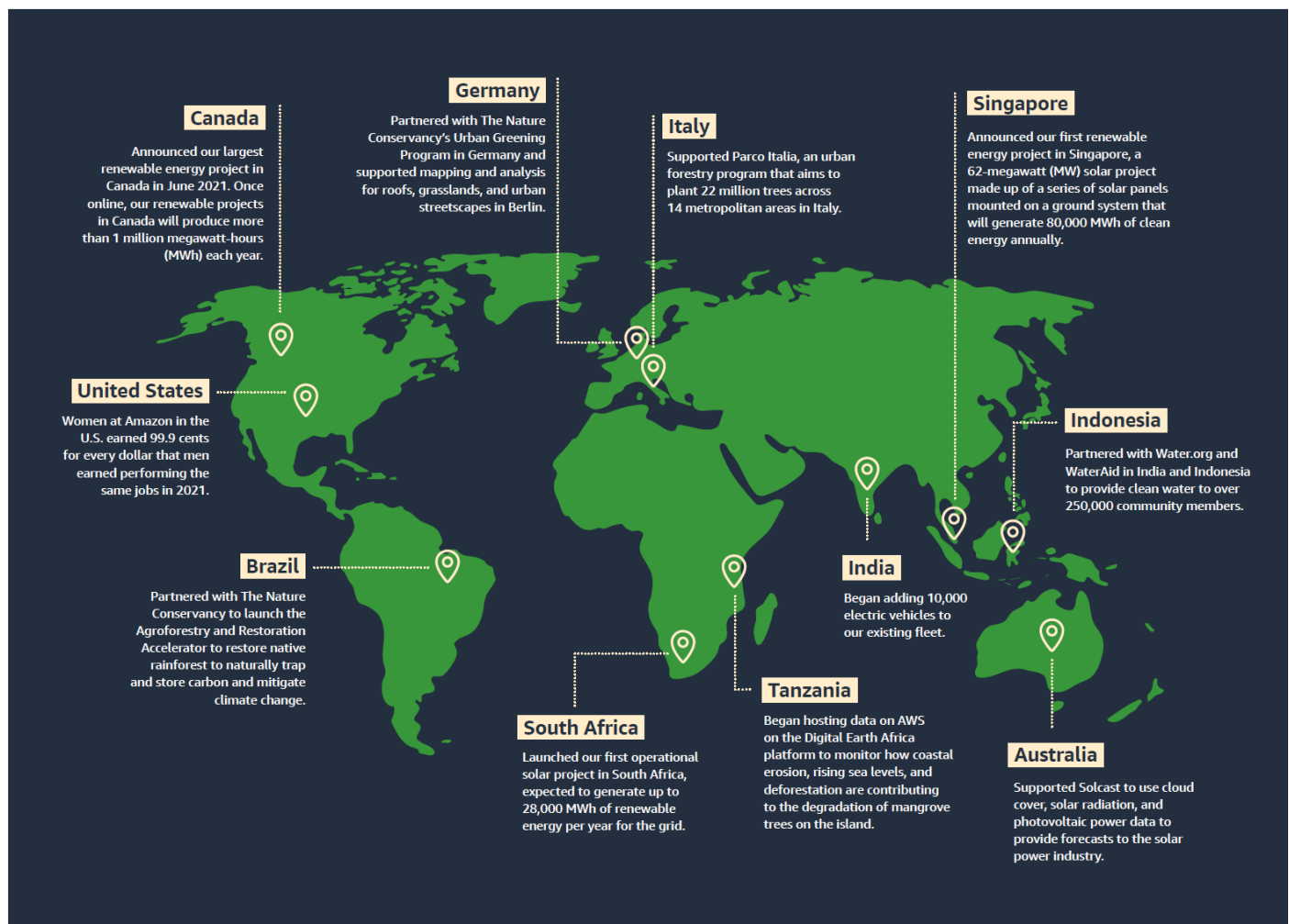
Appendix Title	Description	Page
Appendix A	Industry Divers	16
Appendix B	ESG Targets and Status	16-19
Appendix C	Management	20
Appendix D	Financial Summary	21-27

## Appendix A: E-commerce Trend



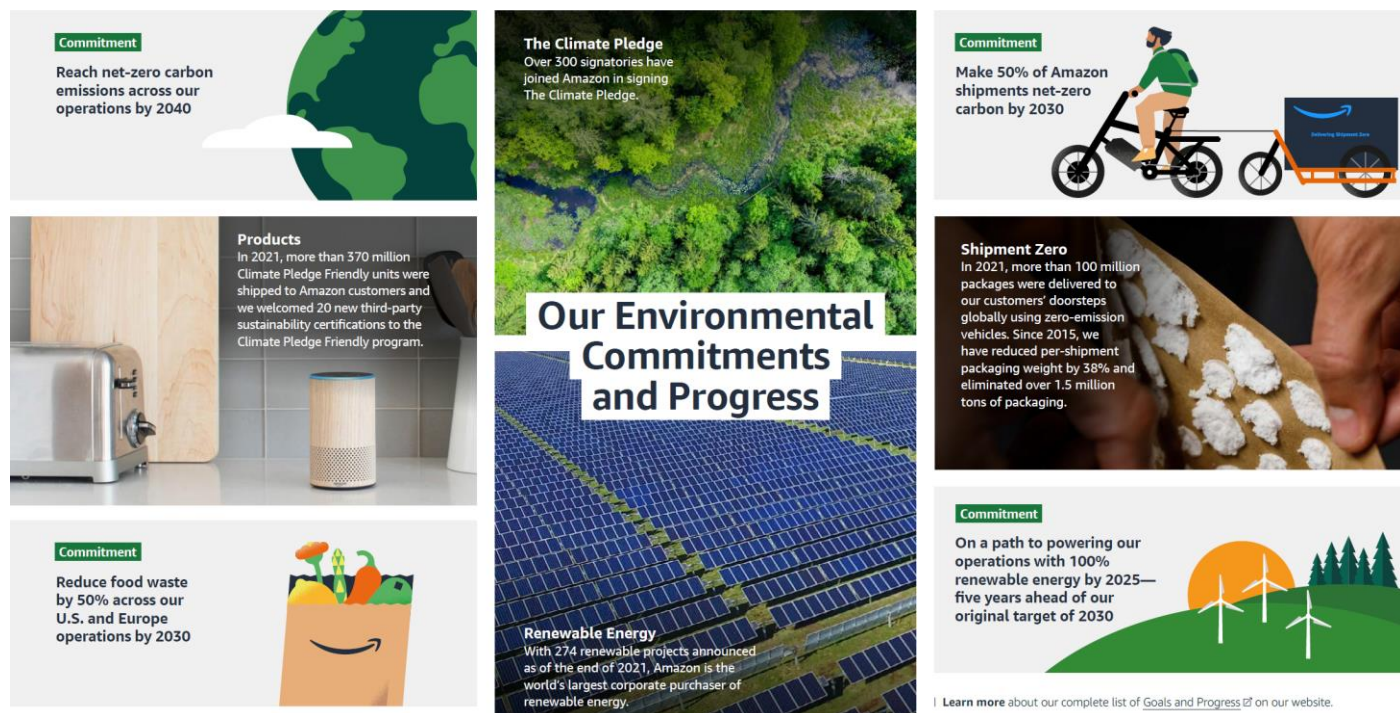
Source: Statista

## Appendix B1: Amazon's Global Sustainability Efforts



Source: 2021 Sustainability Report, Amazon

## Appendix B2: Commitment to Environmental Impact



Source: 2021 Sustainability Report, Amazon

## Appendix B3: Decarbonizing Amazon Supply Chain

### How Amazon Is Addressing the Global Challenges in Carbon Reduction

The path to decarbonization is incredibly complex, but we thrive on big challenges. Here's a snapshot of how we are addressing some of them.



Source: 2021 Sustainability Report, Amazon



## Appendix B4: Energy-Efficient Cloud Operations

### Sustainability in the Cloud

AWS is the world's most comprehensive and broadly adopted cloud offering, with millions of global users depending on it every day. To build a sustainable business for our customers and for the world we all share, we are designing data centers that provide the efficient, resilient service our customers expect while minimizing our environmental footprint—and theirs.

#### Our Approach

We focus on efficiency across all aspects of our infrastructure, from the design of our data centers and hardware to modeling the performance of our operations for continuous enhanced efficiency. We are on a path to power our operations with 100% renewable energy by 2025. These renewable energy investments help power our data centers, as part of our commitment to reach net-zero carbon across our operations by 2040.

For AWS, operating sustainably also means reducing the amount of water we use to cool our data centers. Our holistic approach minimizes both energy and water consumption in our operations and guides the development of our water use strategy for each AWS Region where we operate.

In addition, we work to reduce the carbon emitted during the extraction, manufacturing, and transportation of materials to data center construction sites. Reducing this embodied carbon offers a significant opportunity to cut our overall emissions from data centers.

#### Energy Efficiency

We are using innovation to improve power efficiency in multiple ways, including our investment in AWS-designed chips and the AWS Nitro System. For instance, AWS-designed Graviton3 is our most power-efficient general-purpose processor. Graviton3-based Elastic Compute Cloud (EC2) instances use up to 60% less energy for the same performance than non-Graviton EC2 instances. With the world's increasing need for computing and as machine learning has become mainstream, continually innovating at the chip level will be critical to sustainably powering the workloads of the future.

AWS also continually innovates on cooling efficiency. For example, we worked with our vendors to optimize the longevity and airflow performance of the cooling medium used in our data center cooling systems. The new medium provides twice the service life and allows air to pass through more easily than previous iterations, saving fan energy. This has significant impacts on building energy performance, reducing the energy use of cooling equipment by 20%.

#### Predicting and Tracking Performance

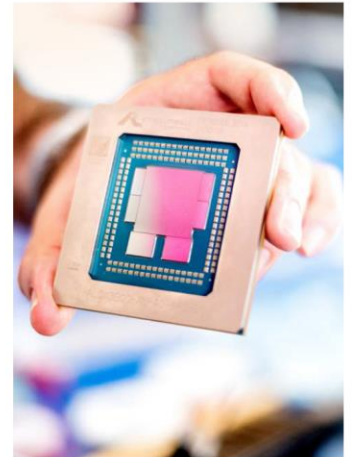
We use advanced modeling methods, such as computational fluid dynamics tools, to optimize our data center design. This allows us to fully understand how the data center will perform before it is ever built, enabling us to optimize for higher reliability and energy efficiency in our systems. Once our data centers are operational, real-time, physics-based models allow us to further improve and optimize our designs. We build these custom models using AWS services and weather datasets from the Amazon Sustainability Data Initiative to predict system performance for our sites and track their performance against how they should be operating.

#### Reducing Embodied Carbon

In addition to emissions from our energy usage, AWS addresses a wide range of indirect emissions—including those associated with the construction of our data centers. Steel is one of the largest contributors of embodied carbon in the structure of AWS data centers and we are lowering these emissions by working with mills using electric arc furnace production processes. Unlike conventional steel produced from primary materials, coal, and gas, our suppliers are using up to 100% recycled content and are powered by electricity only, reducing embodied carbon up to 70%. We

delivered six projects constructed with recycled steel in 2021 and will expand this to all future U.S. and European data centers moving forward.

Concrete also contributes a large share of embodied carbon in data center construction, and AWS has multiple initiatives to reduce the carbon impact of the concrete required. For example, our design standards now require concrete with a 20% reduction in embodied carbon versus standard concrete for new U.S. data centers, and we are expanding this requirement globally.



**3.6x**

AWS is 3.6 times more energy efficient than the median of U.S. enterprise data centers surveyed

**5x**

AWS is up to five times more energy efficient than the average data center surveyed in Europe

Source: 2021 Sustainability Report, Amazon

## Appendix B5: Social Commitments and Progress

#### Leadership Principle

Success and Scale  
Bring Broad  
Responsibility



#### Black Business Accelerator

In 2021, we launched the Black Business Accelerator, a \$150 million initiative to help build sustainable equity and growth for Black-owned businesses.



### Our Societal Commitments and Progress

#### Donations

Through the Amazon Business Donations Hub, we contributed more than 225 million in-kind donated items in 2021, including personal protective equipment, school supplies, and other essentials.



#### Leadership Principle

Strive to be Earth's  
Best Employer



#### Starting Wages

We offer an average starting wage of \$18+ per hour for roles in fulfillment and transportation in the U.S.—more than double the federal minimum wage.



#### Commitment

Upskill 300,000  
Amazon employees  
by 2025



#### Commitment

Increase representation  
of employees from  
diverse backgrounds  
across our business



Learn more about our complete list of Goals and Progress [on our website](#).

Source: 2021 Sustainability Report, Amazon

## Appendix B6: Awards and Recognition

### 2021 Awards and Recognition

#1

LinkedIn's Most Desired  
Place to Work in the U.S.

#2

Fortune's Top Companies  
in 2021

#4

Forbes World's Best  
Employers in 2021

#1

AmbitionBox Best Place  
to Work in India Amongst  
Mega Companies

### 2021 Top Employer

In France, Italy, and Spain (Top Employers Institute)

Amazon also received several awards from Comparably, a company that reviews and compares company cultures and market compensation to showcase the most fair and accurate display of employer brands.

These awards included:

- Best Global Culture
- Best Place to Work (Seattle, Atlanta, Los Angeles, and Austin)
- Best Engineering Team
- Best Operations Team
- Best Product & Design Team
- Best Company Outlook

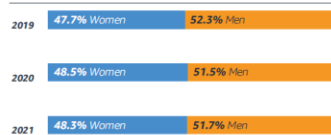
Source: 2021 Sustainability Report, Amazon

## Appendix B7: Diversity & Inclusion

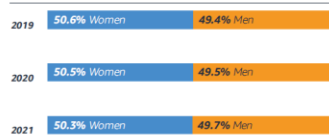
### Our Workforce Data

#### Field and Customer Support (Level 1–Level 3)

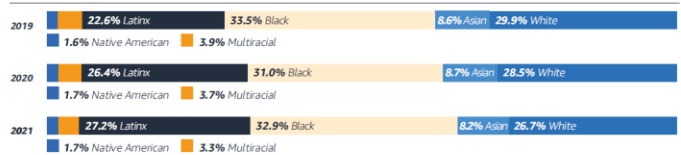
Global



U.S.

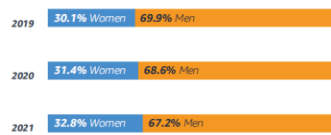


U.S. Race/Ethnicity

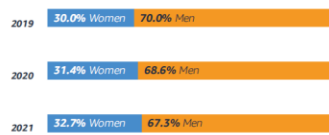


#### Corporate Employees (Level 4–Level 7)

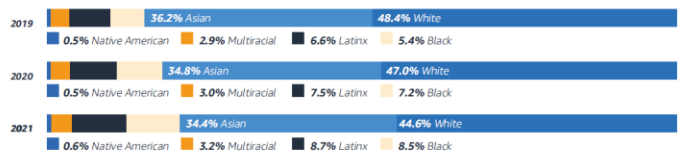
Global



U.S.

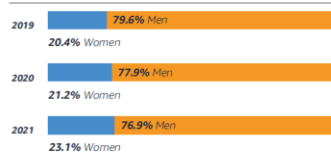


U.S. Race/Ethnicity

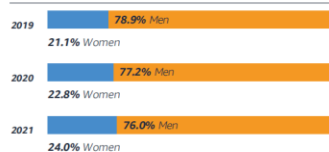


#### Senior Leaders (Level 8+)

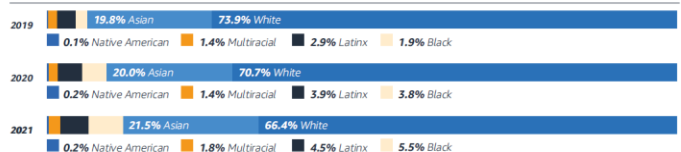
Global



U.S.



U.S. Race/Ethnicity



Source: Sustainability Report, Amazon

## Appendix B8: Safe Technology

Our 2021 Impact:

**\$130M+**

Investment in vehicle tech and programs

**~50%**

Nearly 50% reduction in accidents

**~80%**

Nearly 80% reduction in stop sign violations

**75%**

Reduction in driver distraction

### Vehicle Safety Technology

In-vehicle camera safety technology installed in Amazon-branded delivery vehicles operated by Delivery Service Provider drivers

WorkingWell 2021 Impact:

**~1.2M**

Employees reached

**130**

Huddles customized to sites based on operation type and language

**15%+**

Reduction in MSD incidents for those participating in Huddles compared to nonparticipants

**1 App**

In the U.S. to enable even more employees to access sessions whether at work or home

Source: 2021, Amazon Sustainability Report

## Appendix C1: Overview of the Board of Directors

### Board of Directors

Name	Age	Position
Jeffrey P. Bezos	59	Executive Chair
Andrew R. Jassy	55	President and Chief Executive Officer
Keith B. Alexander	71	CEO, President, and Chair of IronNet, Inc.
Edith W. Cooper	61	Former Executive Vice President, Goldman Sachs Group, Inc.
Jamie S. Gorelick	72	Partner, Wilmer Cutler Pickering Hale and Dorr LLP
Daniel P. Huttenlocher	64	Dean, MIT Schwarzman College of Computing
Judith A. McGrath	70	Former Chair and CEO, MTV Networks
Indra K. Nooyi	67	Former Chief Executive Officer, PepsiCo, Inc.
Jonathan J. Rubinstein	66	Former co-CEO, Bridgewater Associates, LP
Patricia Q. Stonesifer	66	Former President and Chief Executive Officer, Martha's Table
Wendell P. Weeks	63	Chief Executive Officer, Corning Incorporated

Source: 10K, 2022

## Appendix C2: Management & Ownership

Management Activity as of 31 Mar 2022

Name	Position	Share Held	Report Date*	Insider Activity
Wendell P. Weeks	Independent Director	1,935	31 Mar 2022	380
Andrew R. Jassy	Director, President and Chief Executive Officer	1,988,380	31 Dec 2022	302,569
Jeffrey P. Bezos	Executive Chairman of the Board	992,633,688	31 Dec 2022	4,586,455
Patricia Q. Stonesifer	Independent Director	46,220	31 Dec 2022	14,299
Shelley L. Reynolds	Vice President, Worldwide Controller, and Principal Accounting Officer	129,200	31 Dec 2022	22,953
Jamie S. Gorelick	Independent Director	28,836	31 Dec 2022	5,756
Jonathan J. Rubinstein	Lead Independent Director	124,880	31 Dec 2022	14,299
Edith W. Cooper	Independent Director	6,180	31 Dec 2022	3,800
David A. Zapolsky	Senior Vice President, General Counsel and Secretary	133,220	31 Dec 2022	105,042
Brian T. Olsavsky	Senior Vice President and Chief Financial Officer	148,260	31 Dec 2022	109,733

Source: Morningstar



## Appendix D1: Proforma Assumptions

Income Statement	Assumptions
<b>Revenue</b>	Revenues are forecasted by segments and business verticals (Refer: AMZN_Revenue Build). Revenues estimates for 2023 and 2024 have been broken down quarterly and growth estimates are assumed based on management guidance from Q1/23 Earnings Call and current macroeconomic outlook. Main Drivers include: AWS, Advertising and subscription services   Looking ahead, revenue is forecast to grow ~11% p.a. on average during the next 3 years, compared to a 11% growth forecast for the Multiline Retail industry in the US.
Cost of Goods Sold	Cost of Goods is assumed to decrease by ~2% in 2023 and ~1% in 2024 and stabilize moving forward as Amazon is building efficiencies in its distribution network and warehouses and on the back of layoffs as cost-cutting measures taken by the management
Fullfilment	Fullfilment costs decrease linearly over the years as Amazon further develops its distribution network and operating efficiencies start kicking in and cost cutting measures taken by the management start to materialize   Source: Q1/23 10Q, Earnings Release
Technology & Content	Technology and content expenses are assumed to increase marginally year on year as management is focused on improving AWS services consistently and strengthening its streaming platform   Source: Q1/23 10Q, Earnings Release
Sales and Marketing	Sales and marketing remain relatively flat as Amazon faces fierce competition and to maintain market share   Source: Q1/23 10Q, Earnings Release
General, Admin and Others	General, Admin and other expenses remain at historical averages with slight improvement in later years
Interest Income, net Others, net	Interest Income, Interest Expense and Other Income, net remain constant at 2022 levels
Income Tax Expense Minority Interest	Income Tax Expenses calculated based on 5 year historical average of effective tax rate (~21%)
Weighted Average Diluted Shares Outstanding	Assumed flat as no guidance provided by management on change in shares outstanding
<b>Balance Sheet</b>	<b>Assumptions</b>
<b>Assets</b>	
Cash and Equivalents (incl. marketable securities)	Cash and Equivalents calculated based on 5 year historical average of as Days of Cash (based on Sales)   Marketable securities is assumed at 2022 level of days of sale
Inventory	Inventory calculated based on 5 year historical average of as Days of Inventory, with slight improvement towards out years as Amazon's investments in fulfillment and warehouse process optimize   Source: 10K CEO letter to shareholders
Accounts Receivable	Receivables calculated based on 5 year historical average of as Days of Inventory, with slight increase towards out years as Amazon revenues continually increase
Net Property, plant and equipment	Capex estimated to remain at 2022 levels of Revenue based in line with management's expansion plans, and tapering down towards 5 year historical average as revenues start to over the same period   Refer: AMZN_CFS (Row:59)
Goodwill	Assumed to vary according to revenue. In the absence of inside information, it is assumed that the company will continue to make acquisitions and so Goodwill will approximately reflect growth according to sales
Other Intangibles	Assumed to vary according to revenue.
<b>Liabilities</b>	
Accounts Payable	Payables calculated based on 5 year historical average of as Days of Payable
Debt	is a Plug
Other Operating Liabilities	Assumed to vary according to revenue.
<b>Equity</b>	
Shareholder's Equity	Assumed to at 2022 level except retained earnings

Source: Own Analysis, Company Data, Bloomberg, Yahoo Finance

## Appendix D2: Revenue Projections

Particulars (\$ billion)		Earnings Release Guidance				
Amazon Q4/22	Low	High	Mid	YoY (%)	Actual	Variance
Net Sales (Q1/23)	121	126	124	4% - 8%	127	1.1%
Operating Income (Q1/23)	0	4	2		5	19.4%
	0.0%	3.2%	1.6%		3.7%	
Amazon Q1/23	Low	High	Mid	YoY (%)	Estimated	Variance
Net Sales (Q2/23)	127	133	130	5% - 10%	128	0.0%
Operating Income (Q2/23)	2	5.5	4		6	15.0%
	1.6%	4.1%	2.9%		4.9%	

Revenue Growth Assumptions:																				
Growth (y-o-y): Street Case	Q1/21	Q2/21	Q3/21	Q4/21	2021A	Q1/22	Q2/22	Q3/22	Q4/22	2022A	Q1/23	Q2/23E	Q3/23E	Q4/23E	2023E	Q1/24E	Q2/24E	Q3/24E	Q4/24E	2024E
North America																				
Net sales	64,366	67,550	65,557	82,360	279,833	69,244	74,430	78,843	93,363	315,880	76,881	82,694	87,655	103,866	351,096	85,530	91,652	96,785	114,253	388,221
Operating expenses	60,916	64,403	64,677	82,566	272,562	70,812	75,057	79,255	93,603	318,727	75,983	81,499	86,145	101,789	345,415	83,606	89,437	94,285	111,111	378,439
Operating income (loss)	3,450	3,147	880	(206)	7,271	(1,568)	(627)	(412)	(240)	(2,847)	898	1,195	1,510	2,077	5,681	1,924	2,215	2,500	3,142	9,782
	5.4%	4.7%	1.3%	-0.3%	2.6%	-2.3%	-0.8%	-0.5%	-0.3%	-0.9%	1.2%	1.4%	1.7%	2.0%	1.6%	2.3%	2.4%	2.6%	2.8%	2.5%
International																				
Net sales	30,649	30,721	29,145	37,272	127,787	28,759	27,065	27,720	34,463	118,007	29,123	26,910	27,969	33,536	117,537	30,037	28,646	30,573	37,317	126,574
Operating expenses	29,397	30,359	30,056	38,899	128,711	30,040	28,836	30,186	36,691	125,753	30,370	27,425	28,764	33,324	119,884	30,719	29,811	31,982	38,261	130,774
Operating income (loss)	1,252	362	(911)	(1,627)	(924)	(1,281)	(1,771)	(2,466)	(2,228)	(7,746)	(1,247)	(516)	(796)	212	(2,346)	(682)	(1,165)	(1,409)	(943)	(4,199)
	4.1%	1.2%	-3.1%	-4.4%	-0.7%	-4.5%	-6.5%	-8.9%	-6.5%	-6.6%	-4.3%	-1.9%	-2.8%	0.6%	-2.0%	-2.3%	-4.1%	-4.6%	-2.5%	-3.3%
AWS																				
Net sales	13,503	14,809	16,110	17,780	62,202	18,441	19,739	20,538	21,378	80,096	21,354	22,502	23,208	23,943	91,008	24,557	26,328	27,617	28,732	107,234
Operating expenses	9,340	10,616	11,227	12,487	43,670	11,923	14,024	15,135	16,173	57,255	16,231	16,841	17,097	17,359	67,528	17,743	18,824	19,539	20,112	76,219
Operating income (loss)	4,163	4,193	4,883	5,293	18,532	6,518	5,715	5,403	5,205	22,841	5,123	5,662	6,111	6,584	23,480	6,815	7,503	8,078	8,620	31,016
	30.8%	28.3%	30.3%	29.8%	29.8%	35.3%	29.0%	26.3%	24.3%	28.5%	24.0%	25.2%	26.3%	27.5%	25.8%	27.8%	28.5%	29.3%	30.0%	28.9%
<b>Total Net Sales</b>	<b>\$108,518</b>	<b>\$113,080</b>	<b>\$110,812</b>	<b>\$137,412</b>	<b>\$469,822</b>	<b>\$116,444</b>	<b>\$121,234</b>	<b>\$127,101</b>	<b>\$149,204</b>	<b>\$513,983</b>	<b>\$127,358</b>	<b>\$132,106</b>	<b>\$138,832</b>	<b>\$161,346</b>	<b>\$559,641</b>	<b>\$140,125</b>	<b>\$146,626</b>	<b>\$154,976</b>	<b>\$180,302</b>	<b>\$622,029</b>
<b>Total Operating Income</b>	<b>\$8,865</b>	<b>\$7,702</b>	<b>\$4,852</b>	<b>\$3,460</b>	<b>\$24,879</b>	<b>\$3,669</b>	<b>\$3,317</b>	<b>\$2,525</b>	<b>\$2,737</b>	<b>\$12,248</b>	<b>\$4,774</b>	<b>\$6,341</b>	<b>\$6,825</b>	<b>\$8,874</b>	<b>\$26,814</b>	<b>\$8,057</b>	<b>\$8,553</b>	<b>\$9,169</b>	<b>\$10,818</b>	<b>\$36,598</b>
<b>Operating Margin (%)</b>	<b>8.2%</b>	<b>6.8%</b>	<b>4.4%</b>	<b>2.5%</b>	<b>5.3%</b>	<b>3.2%</b>	<b>2.7%</b>	<b>2.0%</b>	<b>1.8%</b>	<b>2.4%</b>	<b>3.7%</b>	<b>4.8%</b>	<b>4.9%</b>	<b>5.5%</b>	<b>4.8%</b>	<b>5.8%</b>	<b>5.8%</b>	<b>5.9%</b>	<b>6.0%</b>	<b>5.9%</b>
compared to company guidance											0.6%	0.7%								

Growth	Q1/22	Q2/22	Q3/22	Q4/22	2022A	Q1/23	Q2/23	Q3/23	Q4/23	2023E	Q1/24	Q2/24	Q3/24	Q4/24	2024E
North America															
Net sales	7.6%	10.2%	20.3%	13.4%	12.9%	11.0%	11.1%	11.2%	11.3%	11.1%	11.3%	10.8%	10.4%	10.0%	10.6%
Operating expenses	16.2%	16.5%	22.5%	13.4%	16.9%	7.3%	8.6%	8.7%	8.7%	8.4%	10.0%	9.7%	9.4%	9.2%	9.6%
Operating income (loss)	-145.4%	-119.9%	-146.8%	16.5%	-139.2%	-157.3%	-290.6%	-466.5%	-965.6%	-299.5%	114.3%	85.3%	65.6%	51.3%	72.2%
International															
Net sales	-6.2%	-11.9%	-4.9%	-7.5%	-7.7%	1.3%	-0.6%	0.9%	-2.7%	-0.4%	3.1%	6.5%	9.3%	11.3%	7.7%
Operating expenses	2.2%	-5.0%	0.4%	-5.7%	-2.3%	1.1%	-4.9%	-4.7%	-9.2%	-4.7%	1.2%	8.7%	11.2%	14.8%	9.1%
Operating income (loss)	-202.3%	-589.2%	170.7%	36.9%	738.3%	-2.7%	-70.9%	-67.7%	-109.5%	-69.7%	-45.3%	125.9%	77.1%	-544.5%	79.0%
AWS															
Net sales	36.6%	33.3%	27.5%	20.2%	28.8%	15.8%	14.0%	13.0%	12.0%	13.6%	15.0%	17.0%	19.0%	20.0%	17.8%
Operating expenses	27.7%	32.1%	34.8%	29.5%	31.1%	36.1%	20.1%	13.0%	7.3%	17.9%	9.3%	11.8%	14.3%	15.9%	12.9%
Operating income (loss)	56.6%	36.3%	10.6%	-1.7%	23.3%	-21.4%	-0.9%	13.1%	26.5%	2.8%	33.0%	32.5%	32.2%	30.9%	32.1%

Business Metrics	Q1/21	Q2/21	Q3/21	Q4/21	2021A	Q1/22	Q2/22	Q3/22	Q4/22	2022A	Q1/23	Q2/23	Q3/23	Q4/23	2023E	Q1/24	Q2/24	Q3/24	Q4/24	2024E
Online stores	52,901	53,157	49,942	66,075	222,075	51,129	50,855	53,489	64,531	220,004	51,096	50,906	53,542	64,596	220,140	52,629	52,688	55,684	67,502	228,503
Physical stores	3,920	4,198	4,269	4,688	17,075	4,591	4,721	4,694	4,957	18,963	4,895	5,037	5,013	5,299	20,245	5,236	5,391	5,368	5,676	21,671
Third-party seller services	23,709	25,085	24,252	30,320	103,366	25,335	27,376	28,666	36,339	117,716	29,820	31,893	33,253	41,790	136,755	34,144	36,600	38,240	48,058	157,043
Subscription services	7,580	7,917	8,148	8,123	31,768	8,410	8,716	8,903	9,189	35,218	9,657	10,023	10,238	10,567	40,486	11,106	11,527	11,774	12,152	46,559
Advertising services	6,381	7,451	7,612	9,716	31,160	7,877	8,757	9,548	11,557	37,739	9,509	10,246	11,935	13,522	45,211	11,221	12,295	14,322	16,226	54,063
AWS	13,503	14,809	16,110	17,780	62,202	18,441	19,739	20,538	21,378	80,096	21,354	22,502	23,208	23,943	91,008	24,557	26,328	27,617	28,732	107,234
Others	524	463	479	710	2,176	661	1,070	1,263	1,253	4,247	1,027	1,498	1,642	1,629	5,796	1,232	1,798	1,970	1,955	6,955
<b>Total Revenue</b>	<b>\$108,518</b>	<b>\$113,080</b>	<b>\$110,812</b>	<b>\$137,412</b>	<b>\$469,822</b>	<b>\$116,444</b>	<b>\$121,234</b>	<b>\$127,101</b>	<b>\$149,204</b>	<b>\$513,983</b>	<b>\$127,358</b>	<b>\$132,106</b>	<b>\$138,832</b>	<b>\$161,346</b>	<b>\$559,641</b>	<b>\$140,125</b>	<b>\$146,626</b>	<b>\$154,976</b>	<b>\$180,302</b>	<b>\$622,029</b>

Growth	Q1/22	Q2/22	Q3/22	Q4/22	2022A	Q1/23	Q2/23	Q3/23	Q4/23	2023E	Q1/24	Q2/24	Q3/24	Q4/24	2024E
Online stores	-3.3%	-4.3%	7.1%	-2.3%	-0.9%	-0.1%	0.1%	0.1%	0.1%	0.1%	3.0%	3.5%	4.0%	4.5%	3.8%
Physical stores	17.1%	12.5%	10.0%	5.7%	11.1%	6.6%	6.7%	6.8%	6.9%	6.8%	7.0%	7.0%	7.1%	7.0%	7.0%
Third-party seller services	6.9%	9.1%	18.2%	19.9%	13.9%	17.7%	16.5%	16.0%	15.0%	16.2%	14.5%	14.8%	15.0%	15.0%	14.8%
Subscription services	10.9%	10.1%	9.3%	13.1%	10.9%	14.8%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Advertising services	23.4%	17.5%	25.4%	18.9%	21.1%	20.7%	17.0%	25.0%	17.0%	19.8%	18.0%	20.0%	20.0%	20.0%	19.6%
AWS	36.6%	33.3%	27.5%	20.2%	28.8%	15.8%	14.0%	13.0%	12.0%	13.6%	15.0%	17.0%	19.0%	20.0%	17.8%
Others	26.1%	131.1%	163.7%	76.5%	95.2%	55.4%	40.0%	30.0%	30.0%	36.5%	20.0%	20.0%	20.0%	20.0%	20.0%
<b>Total Revenue</b>	<b>7.3%</b>	<b>7.2%</b>	<b>14.7%</b>	<b>8.6%</b>	<b>9.4%</b>	<b>9.4%</b>	<b>9.0%</b>	<b>9.2%</b>	<b>8.1%</b>	<b>8.9%</b>	<b>10.0%</b>	<b>11.0%</b>	<b>11.6%</b>	<b>11.7%</b>	<b>11.1%</b>

Business Geography	2018A	2019A	2020A	2021A	2022A	% of Total	2018A	2019A	2020A	2021A	2022A
United States	160,146	193,636	263,520	314,006	356,113	United States	68.8%	69.0%	68.3%	66.8%	69.3%
Germany	19,881	22,232	29,565	37,326	33,598	Germany	8.5%	7.9%	7.7%	7.9%	6.5%
United Kingdom	14,524	17,527	26,483	31,914	30,074	United Kingdom	6.2%	6.2%	6.9%	6.8%	5.9%
Japan	13,829	16,002	20,461	23,071	24,396	Japan	5.9%	5.7%	5.3%	4.9%	4.7%
Rest of World	24,507	31,125	46,035	63,505	69,802	Rest of World	10.5%	11.1%	11.9%	13.5%	13.6%
<b>Total Revenue</b>	<b>\$232,887</b>	<b>\$280,522</b>	<b>\$386,064</b>	<b>\$469,822</b>	<b>\$513,983</b>		<b>20.7%</b>	<b>19.9%</b>	<b>19.8%</b>	<b>19.6%</b>	<b>17.1%</b>

Growth	2019A	2020A	2021A	2022A	United States	2019A	2020A	2021A	2022A
United States	20.9%	36.1%	19.2%	13.4%	United States	0.3%	-0.8%	-1.4%	2.4%
Germany	11.8%	33.0%	26.3%	-10.0%	Germany	-0.6%	-0.3%	0.3%	-1.4%
United Kingdom	20.7%	51.1%	20.5%	-5.8%	United Kingdom	0.0%	0.6%	-0.1%	-0.9%
Japan	15.7%	27.9%	12.8%	5.7%	Japan	-0.2%	-0.4%	-0.4%	-0.2%
Rest of World	27.0%	47.9%	37.9%	9.9%	Rest of World	0.6%	0.8%	1.6%	0.1%
<b>Total Revenue</b>	<b>20.5%</b>	<b>37.6%</b>	<b>21.7%</b>	<b>9.4%</b>					

Source: Own Analysis, Company Data, Bloomberg, Yahoo Finance

## Appendix D3: Financial Statements, 2018-2027

### Income Statement

(in \$ million)	Actual					Forecast				
	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E
<b>Revenue</b>	232,887	280,522	386,064	469,822	513,983	559,641	622,029	689,957	763,394	842,174
Cost of Goods Sold	139,156	165,536	233,307	272,344	288,831	303,167	333,804	371,030	411,377	454,774
<b>Gross Profit</b>	93,731	114,986	152,757	197,478	225,152	256,474	288,226	318,927	352,017	387,400
Fullfilment	34,027	40,231	58,516	75,111	84,299	91,521	100,104	109,671	119,835	130,537
Technology & Content	16,572	35,932	42,738	56,052	73,213	81,350	91,418	102,673	115,010	128,431
Sales and Marketing	26,079	18,879	22,010	32,551	42,238	43,843	46,111	51,346	57,033	63,163
General, Admin and Others	4,633	5,404	6,594	8,885	13,154	12,946	13,996	13,454	12,596	11,369
<b>Operating Income</b>	12,420	14,540	22,899	24,879	12,248	26,814	36,598	41,782	47,543	53,899
Interest Income, net	(977)	(767)	(1,092)	(1,361)	(1,378)	(1,542)	(2,260)	(2,950)	(3,644)	(4,334)
Others, net	(182)	202	2,371	14,633	(16,806)	(16,789)	(18,661)	(20,699)	(22,902)	(25,265)
<b>Profit Before Tax</b>	11,261	13,975	24,178	38,151	(5,936)	8,483	15,677	18,134	20,998	24,300
Income Tax Expense	(1,196)	(2,373)	(2,863)	(4,791)	3,217	(1,781)	(3,292)	(3,808)	(4,410)	(5,103)
Minority Interest	8	(14)	16	4	(3)	0	0	(115)	(254)	(421)
<b>Net Income</b>	10,073	11,588	21,331	33,364	(2,722)	6,702	12,385	14,211	16,334	18,776
Weighted Average Diluted Shares Outstanding			10,198	10,296	10,189	10,347	10,347	10,347	10,347	10,347
<b>Diluted Earnings Per Share (\$)</b>			2.09	3.24	(0.27)	0.65	1.20	1.37	1.58	1.81
<b>EBITDA</b>	27,761	36,329	48,150	59,175	53,709	73,153	87,565	97,565	108,262	119,589

### Balance Sheet

(in \$ million)	Actual					Forecast				
	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E
<b>Assets</b>										
Cash and Equivalents (incl. marketable securities)	41,250	55,021	84,396	96,049	70,026	79,730	87,766	96,405	105,620	115,366
Inventory	17,174	20,497	23,795	32,640	34,405	37,377	40,468	44,219	48,182	52,330
Accounts Receivable	16,677	20,816	24,542	32,891	42,360	38,332	43,883	50,093	56,993	64,605
<b>Total Current Assets</b>	75,101	96,334	132,733	161,580	146,791	155,438	172,117	190,716	210,795	232,301
Net Property, plant and equipment	61,797	72,705	113,114	160,281	186,715	207,534	228,099	248,212	267,650	286,177
Goodwill	14,548	14,754	15,017	15,371	20,288	21,856	24,881	27,598	30,536	33,687
Other Intangibles	11,202	41,455	60,331	83,317	108,881	111,928	127,516	144,891	164,130	185,278
<b>Total Assets</b>	162,648	225,248	321,195	420,549	462,675	496,755	552,613	611,417	673,110	737,444
<b>Liabilities</b>										
Accounts Payable	38,192	47,183	72,539	78,664	79,600	87,212	96,026	106,735	118,341	130,825
Debt	23,495	23,414	31,816	48,744	67,150	76,034	100,106	123,702	147,730	171,940
Other Operating Liabilities	57,412	92,591	123,436	154,896	169,882	180,764	191,352	201,640	211,365	220,228
<b>Total Liabilities</b>	119,099	163,188	227,791	282,304	316,632	344,011	387,484	432,077	477,436	522,994
<b>Equity</b>										
Shareholder's Equity	43,549	62,060	93,404	138,245	146,043	152,745	165,130	179,340	195,674	214,450
<b>Total Liabilities &amp; Equity</b>	162,648	225,248	321,195	420,549	462,675	496,755	552,613	611,417	673,110	737,444

### Key Cash Flow Items

(in \$ million)	Actual					Forecast				
	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E
<b>Assets</b>										
<b>Beginning Cash and Equivalents</b>	21,856	32,173	36,410	42,377	36,477	53,888	61,331	68,168	75,612	83,660
Cash adjusted for non-cash expenses	31,766	40,954	52,583	65,938	67,638	75,903	86,331	93,329	100,507	107,752
Changes in net working capital	(1,042)	(2,439)	13,481	(19,611)	(20,886)	11,226	7,972	9,121	9,659	10,135
<b>Cash Flow From Opeartions</b>	30,724	38,515	66,064	46,327	46,752	87,129	94,303	102,451	110,166	117,887
Capital Expenditures	(13,426)	(16,861)	(40,141)	(61,053)	(63,645)	(67,157)	(71,533)	(75,895)	(80,156)	(84,217)
Other Investing Activities	1,057	(7,421)	(19,471)	2,899	26,044	1,449	(17,026)	(19,372)	(22,535)	(25,960)
<b>Cash Flow From Investing</b>	(12,369)	(24,282)	(59,612)	(58,154)	(37,601)	(65,708)	(88,559)	(95,267)	(102,691)	(110,177)
<b>Cash Flow From Financing</b>	(7,687)	(10,066)	(1,104)	6,291	9,718	(13,978)	1,094	261	573	924
Net Change in Cash	10,317	4,237	5,967	(5,900)	17,776	7,443	6,837	7,444	8,048	8,633
<b>Ending Cash and Equivalents</b>	31,750	36,092	42,122	36,220	53,888	61,331	68,168	75,612	83,660	92,293
<b>Free Cash Flow to the Firm</b>	17,298	21,654	25,923	(14,726)	(16,893)	19,972	22,769	26,555	30,010	33,670

Source: Own Analysis, Company Data

## Appendix D4: Ratio Analysis

### Valuation Summary

(in \$ million)	Actual					Forecast				
	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E
Revenue	232,887	280,522	386,064	469,822	513,983	559,641	622,029	689,957	763,394	842,174
Gross Profit	93,731	114,986	152,757	197,478	225,152	256,474	288,226	318,927	352,017	387,400
Fullfilment	34,027	40,231	58,516	75,111	84,299	91,521	100,104	109,671	119,835	130,537
Technology & Content	16,572	35,932	42,738	56,052	73,213	81,350	91,418	102,673	115,010	128,431
Sales and Marketing	26,079	18,879	22,010	32,551	42,238	43,843	46,111	51,346	57,033	63,163
General, admin and others	4,633	5,404	6,594	8,885	13,154	12,946	13,996	13,454	12,596	11,369
Operating Income	12,420	14,540	22,899	24,879	12,248	26,814	36,598	41,782	47,543	53,899
EBITDA	27,761	36,329	48,150	59,175	53,709	73,153	87,565	97,565	108,262	119,589
Net Income	10,073	11,588	21,331	33,364	(2,722)	6,702	12,385	14,211	16,334	18,776
Free Cash Flow to Firm	17,298	21,654	25,923	(14,726)	(16,893)	19,972	22,769	26,555	30,010	33,670

### Margins & Returns

	Actual					Forecast				
	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E
Gross Margin %	40.2%	41.0%	39.6%	42.0%	43.8%	45.8%	46.3%	46.2%	46.1%	46.0%
Operating Margin %	5.3%	5.2%	5.9%	5.3%	2.4%	4.8%	5.9%	6.1%	6.2%	6.4%
EBITDA Margin %	11.9%	13.0%	12.5%	12.6%	10.4%	13.1%	14.1%	14.1%	14.2%	14.2%
Net Income Margin %	4.3%	4.1%	5.5%	7.1%	-0.5%	1.2%	2.0%	2.1%	2.1%	2.2%
Free Cash Flow to Firm Margin %	7.4%	7.7%	6.7%	-3.1%	-3.3%	3.6%	3.7%	3.8%	3.9%	4.0%
Economic Value Added	5,078	2,129	5,789	(318)	(7,466)	331	5,496	7,000	8,855	11,084

### Growth & Ratios

Revenue Growth %		20.5%	37.6%	21.7%	9.4%	8.9%	11.1%	10.9%	10.6%	10.3%
Operating Income Growth %		17.1%	57.5%	8.6%	-50.8%	118.9%	36.5%	14.2%	13.8%	13.4%
EBITDA Growth %		30.9%	32.5%	22.9%	-9.2%	36.2%	19.7%	11.4%	11.0%	10.5%
Net Income Growth %		15.0%	84.1%	56.4%	-108.2%	-346.2%	84.8%	14.7%	14.9%	15.0%
Earnings Per Share Growth %				54.9%	-108.2%	-342.4%	84.8%	14.7%	14.9%	15.0%

### Valuation

Price/Earnings			50.41	32.54	(394.72)	162.81	88.10	76.78	66.80	58.11
Price/Sales			2.8	2.3	2.1	1.9	1.8	1.6	1.4	1.3
Price/Book			11.5	7.9	7.4	7.1	6.6	6.1	5.6	5.1
Price/Free Cash Flow to Firm			41.5	(73.7)	(63.6)	54.6	47.9	41.1	36.4	32.4
EV/EBITDA	39.1	29.8	22.5	18.3	20.2	14.8	12.4	11.1	10.0	9.1
EV/EBIT	87.3	74.6	47.4	43.6	88.5	40.4	29.6	26.0	22.8	20.1
Free Cash Flow Yield %			2.4%	-1.4%	-1.6%	1.8%	2.1%	2.4%	2.8%	3.1%

### Liquidity

Current ratio	1.1	1.1	1.1	1.1	0.9	0.9	0.9	0.9	1.0	1.0
Quick ratio	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7
Accounts Receivable Turnover	14.0	13.5	15.7	14.3	12.1	14.6	14.2	13.8	13.4	13.0
Days in Receivable	26	27	23	26	30	25	26	27	27	28
Accounts Payable Turnover	6.1	5.9	5.3	6.0	6.5	6.4	6.5	6.5	6.5	6.4
Days in Payable	60	61	69	61	57	57	56	56	57	57

### Productivity (Efficiency)

Inventory Turnover	13.6	13.7	16.2	14.4	14.9	15.0	15.4	15.6	15.8	16.1
Days in Inventory	26.9	26.7	22.5	25.4	24.4	24.4	23.7	23.4	23.0	22.7
Total Asset Turnover	1.4	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Total Fixed Asset Turnover	3.8	3.9	3.4	2.9	2.8	2.7	2.7	2.8	2.9	2.9

### Leverage

Debt ratio	0.5	0.4	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.8
Asset/Equity	3.7	3.6	3.4	3.0	3.2	3.3	3.3	3.4	3.4	3.4
Net Debt/EBITDA	-0.6	-0.9	-1.1	-0.8	-0.1	-0.1	0.1	0.3	0.4	0.5
Times Interest Earned	8.8	9.1	13.9	13.8	5.2	10.1	10.4	9.7	9.2	9.0

### DuPont Analysis. (ROE break-down)

Net Income Margin %	4.3%	4.1%	5.5%	7.1%	-0.5%	1.2%	2.0%	2.1%	2.1%	2.2%
Asset Turnover	1.4	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Asset/Equity	3.7	3.6	3.4	3.0	3.2	3.3	3.3	3.4	3.4	3.4
Return on Equity (%)	23.1%	18.7%	22.8%	24.1%	-1.9%	4.4%	7.5%	7.9%	8.3%	8.8%

### Operating Performance

ROA %	6.2%	5.1%	6.6%	7.9%	-0.6%	1.3%	2.2%	2.3%	2.4%	2.5%
ROIC %	46.9%	48.1%	45.6%	-28.9%	-19.3%	10.4%	11.7%	13.1%	14.0%	14.9%

Source: Own Analysis, Company Data





## Appendix D6: WACC Computation

Weighted Average Cost of Debt	31-Dec-22 Interest Rate	
Amazon Debt:		
2014 Notes issuance of \$6.0 billion	4,000	2.7%
2017 Notes issuance of \$17.0 billion	16,000	5.1%
2020 Notes issuance of \$10.0 billion	10,000	4.3%
2021 Notes issuance of \$18.5 billion	18,500	2.8%
April 2022 Notes issuance of \$12.8 billion	12,750	3.3%
December 2022 Notes issuance of \$8.3billion	8,250	4.2%
Credit Facility	1,042	4.8%
Total	70,542	3.8%

Risk Free Rate	% of Revenue	Risk Free Rates	Reference
<b>Geographies</b>			
United States	69%	3.7%	GT30:GOV   30 Year
Germany	7%	2.4%	GTDEM30Y:GOV   Germany Bund 30 Year Yield
United Kingdom	6%	4.1%	GTGBP30Y:GOV   UK Gilt 30 Year Yield
Japan	5%	1.3%	GTJPY30Y:GOV   JGB 30 Year Yield
<b>Total</b>		<b>3.0%</b>	

Source: <https://www.bloomberg.com/markets/rates-bonds/government-bonds>

Cost of capital	Inputs	Methodology
<b>The recent rate for the debt</b>		
Tax rate of the comparables	21.0%	Amazon Historical Effective Tax Rate
Debt / Equity, the firm Target (6%/94%)	0.06	Current Capital Structure
Debt / Equity, comparables	0.07	Market Weighted Average (Appendix)
<b>Beta calculation :</b>		
Levered Beta, comparables	1.13	From Revelative Valuation of Peers
Unlevered Beta of comps and the firm	1.07	
<b>Levered Beta of the firm with the target debt</b>	<b>1.13</b>	
<b>CAPM. Cost of Equity:</b>		
<b>Risk free rate</b>	<b>3.0%</b>	Revenue weighte average of 30-year yields in Amazon's 4 key markets (US, Germany, UK, Japan)
Market Risk Premium	4.7%	US, Excess Return of S&P 500 above US Treasury Yeild - Damodaran   <a href="https://pages.stern.nyu.edu/~adamo">https://pages.stern.nyu.edu/~adamo</a>
<b>Equity Risk Premium (ERP)</b>	<b>5.3%</b>	Calculated using re-levered beta
<b>Cost of Equity for the firm</b>	<b>8.3%</b>	
<b>WACC (%)</b>	<b>8.01%</b>	

Source: Own Analysis, Company Data, Bloomberg, Yahoo Finance

## Appendix D7: Relative Valuation

Comparables	Symbols.	Share Price (4/28/2023)	Market Cap	Enterprise Value	Levered Beta	Debt / Equity	Tax rate	P/E (trailing)	PEG ratio (5 yr)	P/S	P/B	EV/EBITDA	EPS (ttm)
Amazon.com, Inc.	AMZN	105.45	1,081,706	1,084,385	1.26	0.06	21%	251.07	2.25	2.06	7.00	20.19	0.42
<b>Big Tech</b>													
Apple, Inc.	AAPL	169.68	2,684,668	2,744,423	1.30	0.04	21%	28.02	2.80	6.89	64.03	20.86	5.89
Microsoft Corporation	MSFT	307.26	2,284,628	2,228,411	0.93	0.02	21%	29.84	2.07	9.93	10.52	19.84	9.22
Alphabet, Inc.	GOOG	108.22	1,368,065	1,266,660	1.10	0.01	21%	23.22	1.14	4.78	5.09	14.89	4.66
Meta Platforms, Inc.	META	240.32	615,876	588,362	1.20	0.02	21%	29.56	3.31	5.42	4.90	16.41	8.12
High					1.30	0.04	21%	29.84	3.31	9.93	64.03	20.86	9.22
Average					1.13	0.02	21%	27.66	2.33	6.76	21.14	18.00	6.97
Median					1.15	0.02	21%	28.79	2.44	6.16	7.81	18.13	7.01
Low					0.93	0.01	21%	23.22	1.14	4.78	4.90	14.89	4.66
Weighted Avg. by Market Cap					1.13	0.03	21%	27.81	2.28	7.34	29.61	18.96	6.94
<b>E-commerce / Retail</b>													
eBay Inc.	EBAY	46.43	24,817	28,534	1.35	0.31	21%	43.49	2.55	2.53	4.54	18.10	1.07
Walmart Inc.	WMT	150.97	407,218	437,805	0.49	0.10	21%	35.36	4.19	0.68	5.31	15.21	4.27
Alibaba Group Holding Limi	BABA	84.69	216,361	165,411	0.65	0.11	21%	45.54	1.69	1.76	1.52	1.63	1.86
High					1.35	0.31	0.21	45.54	4.19	2.53	5.31	18.10	4.27
Average					0.83	0.17	21%	41.46	2.81	1.66	3.79	11.65	2.40
Median					0.65	0.11	21%	43.49	2.55	1.76	4.54	15.21	1.86
Low					0.49	0.10	0.21	35.36	1.69	0.68	1.52	1.63	1.07
Weighted Avg. by Market Cap					0.58	0.11	21%	39.07	3.29	1.11	4.02	10.79	3.34
<b>Streaming Service</b>													
Netflix Inc.	NFLX	329.93	1,466,675	1,473,284	1.27	0.01	21%	34.53	1.64	4.54	6.54	7.50	9.16

Relative Valuation	P/S	
	High	Low
Multiple Chosen	5.7	3.3
2022 Revenue	513,983	
Enterprise Value	2,912,570	1,713,277
- Net Debt	2,679	2,679
Market Capital	2,909,891	1,710,598
Shares Outstanding	10,347	10,347
Implied Share Price	281.2	165.3

Relative Valuation	EV/EBITDA	P/S
Multiple Chosen	19.0	4.3
2022 EBITDA & Revenue	53,709	513,983
Enterprise Value	1,020,471	2,226,350
- Net Debt	2,679	2,679
Market Capital	1,017,792	2,223,671
Shares Outstanding	10,347	10,347
Implied Share Price	98.4	214.9
Upside/Downside	-7%	104%

Comparables	Ticker	Rationale
Amazon.com, Inc.	AMZN	
<b>Big Tech</b>		
Apple, Inc.	AAPL	Amazon's peers in big tech include the other major players in the industry: Apple, Google (Alphabet), Facebook (Meta), and Microsoft. These companies are often referred to as the "FAANG" or "FANG" stocks, with Meta being the newest addition to the group. They are considered peers of Amazon because they are all large, influential, and dominant players in the technology sector, with significant market capitalization, revenue, and impact on the industry as a whole. These companies also operate in various fields, such as hardware, software, social media, e-commerce, search engines, and cloud computing. Additionally, they are often compared and analyzed in terms of their financial performance, innovations, regulatory scrutiny, and societal impact.
Microsoft Corporation	MSFT	
Alphabet, Inc.	GOOG	
Meta Platforms, Inc.	META	
<b>E-commerce / Retail</b>		
eBay Inc.	EBAY	Amazon's peers in the e-commerce space include eBay, Walmart, and Alibaba. eBay is one of the largest online marketplaces in the world, connecting buyers and sellers to a wide range of products. Walmart is a major retailer that has expanded its presence in the e-commerce market, offering online shopping and home delivery services.
Walmart Inc.	WMT	
Alibaba Group	BABA	
<b>Streaming Service</b>		
Netflix Inc.	NFLX	Amazon's peer in the streaming entertainment industry is Netflix, which is a subscription-based streaming service offering a wide range of TV shows, movies, documentaries, and other content. Both Amazon and Netflix compete for subscribers and produce their original content.

Source: Own Analysis, Pitchbook, Yahoo Finance