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A N N U A L R E P O R T



Dear shareholders:

As I sit down to write my second annual shareholder letter as CEO, I find myself optimistic and energized by what lies ahead for Amazon. Despite 2022 being one of the harder macroeconomic years in recent memory, and with some of our own operating challenges to boot, we still found a way to grow demand (on top of the unprecedented growth we experienced in the first half of the pandemic). We innovated in our largest businesses to meaningfully improve customer experience short and long term. And, we made important adjustments in our investment decisions and the way in which we'll invent moving forward, while still preserving the long-term investments that we believe can change the future of Amazon for customers, shareholders, and employees.

While there were an unusual number of simultaneous challenges this past year, the reality is that if you operate in large, dynamic, global market segments with many capable and well-funded competitors (the conditions in which Amazon operates all of its businesses), conditions rarely stay stagnant for long.

In the 25 years I've been at Amazon, there has been constant change, much of which we've initiated ourselves. When I joined Amazon in 1997, we had booked \$15M in revenue in 1996, were a books-only retailer, did not have a third-party marketplace, and only shipped to addresses in the US. Today, Amazon sells nearly every physical and digital retail item you can imagine, with a vibrant third-party seller ecosystem that accounts for 60% of our unit sales, and reaches customers in virtually every country around the world. Similarly, building a business around a set of technology infrastructure services in the cloud was not obvious in 2003 when we started pursuing AWS, and still wasn't when we launched our first services in 2006. Having virtually every book at your fingertips in 60 seconds, and then being able to store and retrieve them on a lightweight digital reader was not "a thing" yet when we launched Kindle in 2007, nor was a voice-driven personal assistant like Alexa (launched in 2014) that you could use to access entertainment, control your smart home, shop, and retrieve all sorts of information.

There have also been times when macroeconomic conditions or operating inefficiencies have presented us with new challenges. For instance, in the 2001 dot-com crash, we had to secure letters of credit to buy inventory for the holidays, streamline costs to deliver better profitability for the business, yet still prioritized the long-term customer experience and business we were trying to build (if you remember, we actually lowered prices in most of our categories during that tenuous 2001 period). You saw this sort of balancing again in 2008-2009 as we endured the recession provoked by the mortgage-backed securities financial crisis. We took several actions to manage the cost structure and efficiency of our Stores business, but we also balanced this streamlining with investment in customer experiences that we believed could be substantial future businesses with strong returns for shareholders. In 2008, AWS was still a fairly small, fledgling business. We knew we were on to something, but it still required substantial capital investment. There were voices inside and outside of the company questioning why Amazon (known mostly as an online retailer then) would be investing so much in cloud computing. But, we knew we were inventing something special that could create a lot of value for customers and Amazon in the future. We had a head start on potential competitors; and if anything, we wanted to accelerate our pace of innovation. We made the long-term decision to continue investing in AWS. Fifteen years later, AWS is now an \$85B annual revenue run rate business, with strong profitability, that has transformed how customers from start-ups to multinational companies to public sector organizations manage their technology infrastructure. Amazon would be a different company if we'd slowed investment in AWS during that 2008-2009 period.

Change is always around the corner. Sometimes, you proactively invite it in, and sometimes it just comes a-knocking. But, when you see it's coming, you have to embrace it. And, the companies that do this well over a long period of time usually succeed. I'm optimistic about our future prospects because I like the way our team is responding to the changes we see in front of us.

Over the last several months, **we took a deep look across the company, business by business**, invention by invention, and asked ourselves whether we had conviction about each initiative’s long-term potential to drive enough revenue, operating income, free cash flow, and return on invested capital. In some cases, it led to us shuttering certain businesses. For instance, we stopped pursuing physical store concepts like our Bookstores and 4 Star stores, closed our Amazon Fabric and Amazon Care efforts, and moved on from some newer devices where we didn’t see a path to meaningful returns. In other cases, we looked at some programs that weren’t producing the returns we’d hoped (e.g. free shipping for all online grocery orders over \$35) and amended them. We also reprioritized where to spend our resources, which ultimately led to the hard decision to eliminate 27,000 corporate roles. There are a number of other changes that we’ve made over the last several months to streamline our overall costs, and like most leadership teams, we’ll continue to evaluate what we’re seeing in our business and proceed adaptively.

We also looked hard at **how we were working together as a team and asked our corporate employees to come back to the office at least three days a week**, beginning in May. During the pandemic, our employees rallied to get work done from home and did everything possible to keep up with the unexpected circumstances that presented themselves. It was impressive and I’m proud of the way our collective team came together to overcome unprecedented challenges for our customers, communities, and business. But, we don’t think it’s the best long-term approach. We’ve become convinced that collaborating and inventing is easier and more effective when we’re working together and learning from one another in person. The energy and riffing on one another’s ideas happen more freely, and many of the best Amazon inventions have had their breakthrough moments from people staying behind after a meeting and working through ideas on a whiteboard, or continuing the conversation on the walk back from a meeting, or just popping by a teammate’s office later that day with another thought. Invention is often messy. It wanders and meanders and marinates. Serendipitous interactions help it, and there are more of those in-person than virtually. It’s also significantly easier to learn, model, practice, and strengthen our culture when we’re in the office together most of the time and surrounded by our colleagues. Innovation and our unique culture have been incredibly important in our first 29 years as a company, and I expect it will be comparably so in the next 29.

A critical challenge we’ve continued to tackle is the rising cost to serve in our Stores fulfillment network (i.e. the cost to get a product from Amazon to a customer)—and **we’ve made several changes that we believe will meaningfully improve our fulfillment costs and speed of delivery**.

During the early part of the pandemic, with many physical stores shut down, our consumer business grew at an extraordinary clip, with annual revenue increasing from \$245B in 2019 to \$434B in 2022. This meant that we had to double the fulfillment center footprint that we’d built over the prior 25 years and substantially accelerate building a last-mile transportation network that’s now the size of UPS (along with a new sortation center network to assist with efficiency and speed when items needed to traverse long distances)—all in the span of about two years. This was no easy feat, and hundreds of thousands of Amazonians worked very hard to make this happen. However, not surprisingly, with that rate and scale of change, there was a lot of optimization needed to yield the intended productivity. Over the last several months, we’ve scrutinized every process path in our fulfillment centers and transportation network and redesigned scores of processes and mechanisms, resulting in steady productivity gains and cost reductions over the last few quarters. There’s more work to do, but we’re pleased with our trajectory and the meaningful upside in front of us.

We also took this occasion to make larger structural changes that set us up better to deliver lower costs and faster speed for many years to come. A good example was reevaluating how our US fulfillment network was organized. Until recently, Amazon operated one national US fulfillment network that distributed inventory from fulfillment centers spread across the entire country. If a local fulfillment center didn’t have the product a customer ordered, we’d end up shipping it from other parts of the country, costing us more and increasing delivery times. This challenge became more pronounced as our fulfillment network expanded to hundreds of additional nodes over the last few years, distributing inventory across more locations and increasing the complexity of connecting the fulfillment center and delivery station nodes efficiently. Last year, we started rearchitecting our inventory placement strategy and leveraging our larger fulfillment center footprint to move from a national fulfillment network to a regionalized network model. We made significant internal changes (e.g. placement and logistics software, processes, physical operations) to create eight interconnected regions in smaller geographic areas. Each of these regions has broad, relevant selection to operate in a largely self-sufficient way, while still being able to ship nationally when necessary. Some of the most meaningful and hard

work came from optimizing the connections between this large amount of infrastructure. We also continue to improve our advanced machine learning algorithms to better predict what customers in various parts of the country will need so that we have the right inventory in the right regions at the right time. We've recently completed this regional roll out and like the early results. Shorter travel distances mean lower cost to serve, less impact on the environment, and customers getting their orders faster. On the latter, we're excited about seeing more next day and same-day deliveries, and we're on track to have our fastest Prime delivery speeds ever in 2023. Overall, we remain confident about our plans to lower costs, reduce delivery times, and build a meaningfully larger retail business with healthy operating margins.

AWS has an \$85B annualized revenue run rate, is still early in its adoption curve, but at a juncture where it's critical to stay focused on what matters most to customers over the long-haul. Despite growing 29% year-over-year ("YoY") in 2022 on a \$62B revenue base, AWS faces short-term headwinds right now as companies are being more cautious in spending given the challenging, current macroeconomic conditions. While some companies might obsess over how they could extract as much money from customers as possible in these tight times, it's neither what customers want nor best for customers in the long term, so we're taking a different tack. One of the many advantages of AWS and cloud computing is that when your business grows, you can seamlessly scale up; and conversely, if your business contracts, you can choose to give us back that capacity and cease paying for it. This elasticity is unique to the cloud, and doesn't exist when you've already made expensive capital investments in your own on-premises datacenters, servers, and networking gear. In AWS, like all our businesses, we're not trying to optimize for any one quarter or year. We're trying to build customer relationships (and a business) that outlast all of us; and as a result, our AWS sales and support teams are spending much of their time helping customers optimize their AWS spend so they can better weather this uncertain economy. Many of these AWS customers tell us that they're not cost-cutting as much as cost-optimizing so they can take their resources and apply them to emerging and inventive new customer experiences they're planning. Customers have appreciated this customer-focused, long-term approach, and we think it'll bode well for both customers and AWS.

While these short-term headwinds soften our growth rate, we like a lot of the fundamentals that we're seeing in AWS. Our new customer pipeline is robust, as are our active migrations. Many companies use discontinuous periods like this to step back and determine what they strategically want to change, and we find an increasing number of enterprises opting out of managing their own infrastructure, and preferring to move to AWS to enjoy the agility, innovation, cost-efficiency, and security benefits. And most importantly for customers, AWS continues to deliver new capabilities rapidly (over 3,300 new features and services launched in 2022), and invest in long-term inventions that change what's possible.

Chip development is a good example. In last year's letter, I mentioned the investment we were making in our general-purpose CPU processors named Graviton. Graviton2-based compute instances deliver up to 40% better price-performance than the comparable latest generation x86-based instances; and in 2022, we delivered our Graviton3 chips, providing 25% better performance than the Graviton2 processors. Further, as machine learning adoption has continued to accelerate, customers have yearned for lower-cost GPUs (the chips most commonly used for machine learning). AWS started investing years ago in these specialized chips for machine learning training and inference (inferences are the predictions or answers that a machine learning model provides). We delivered our first training chip in 2022 ("Trainium"); and for the most common machine learning models, Trainium-based instances are up to 140% faster than GPU-based instances at up to 70% lower cost. Most companies are still in the training stage, but as they develop models that graduate to large-scale production, they'll find that most of the cost is in inference because models are trained periodically whereas inferences are happening all the time as their associated application is being exercised. We launched our first inference chips ("Inferentia") in 2019, and they have saved companies like Amazon over a hundred million dollars in capital expense already. Our Inferentia2 chip, which just launched, offers up to four times higher throughput and ten times lower latency than our first Inferentia processor. With the enormous upcoming growth in machine learning, customers will be able to get a lot more done with AWS's training and inference chips at a significantly lower cost. We're not close to being done innovating here, and this long-term investment should prove fruitful for both customers and AWS. AWS is still in the early stages of its evolution, and has a chance for unusual growth in the next decade.

Similarly high potential, Amazon's Advertising business is uniquely effective for brands, which is part of why it continues to grow at a brisk clip. Akin to physical retailers' advertising businesses selling shelf space, end-caps, and placement in their circulars, our sponsored products and brands offerings have been an integral part

of the Amazon shopping experience for more than a decade. However, unlike physical retailers, Amazon can tailor these sponsored products to be relevant to what customers are searching for given what we know about shopping behaviors and our very deep investment in machine learning algorithms. This leads to advertising that's more useful for customers; and as a result, performs better for brands. This is part of why our Advertising revenue has continued to grow rapidly (23% YoY in Q4 2022, 25% YoY overall for 2022 on a \$31B revenue base), even as most large advertising-focused businesses' growth have slowed over the last several quarters.

We strive to be the best place for advertisers to build their brands. We have near and long-term opportunities that will help us achieve that mission. We're continuing to make large investments in machine learning to keep honing our advertising selection algorithms. For the past couple of years, we've invested in building comprehensive, flexible, and durable planning and measurement solutions, giving marketers greater insight into advertising effectiveness. An example is Amazon Marketing Cloud ("AMC"). AMC is a "clean room" (i.e. secure digital environment) in which advertisers can run custom audience and campaign analytics across a range of first and third-party inputs, in a privacy-safe manner, to generate advertising and business insights to inform their broader marketing and sales strategies. The Advertising and AWS teams have collaborated to enable companies to store their data in AWS, operate securely in AMC with Amazon and other third-party data sources, perform analytics in AWS, and have the option to activate advertising on Amazon or third-party publishers through the Amazon Demand-Side Platform. Customers really like this concerted capability. We also see future opportunity to thoughtfully integrate advertising into our video, live sports, audio, and grocery products. We'll continue to work hard to help brands uniquely engage with the right audience, and grow this part of our business.

While it's tempting in turbulent times only to focus on your existing large businesses, to build a sustainable, long-lasting, growing company that helps customers across a large number of dimensions, you can't stop inventing and working on long-term customer experiences that can meaningfully impact customers and your company.

When we look at new investment opportunities, we ask ourselves a few questions:

- If we were successful, could it be big and have a reasonable return on invested capital?
- Is the opportunity being well-served today?
- Do we have a differentiated approach?
- And, do we have competence in that area? And if not, can we acquire it quickly?

If we like the answers to those questions, then we'll invest. This process has led to some expansions that seem straightforward, and others that some folks might not have initially guessed.

The earliest example is when we chose to **expand from just selling Books**, to adding categories like Music, Video, Electronics, and Toys. Back then (1998-1999), it wasn't universally applauded, but in retrospect, it seems fairly obvious.

The same could be said for our **international Stores expansion**. In 2022, our international consumer segment drove \$118B of revenue. In our larger, established international consumer businesses, we're big enough to be impacted by the slowing macroeconomic conditions; however, the growth in 2019-2021 on a large base was remarkable—30% compound annual growth rate ("CAGR") in the UK, 26% in Germany, and 21% in Japan (excluding the impact of FX). Over the past several years, we've invested in new international geographies, including India, Brazil, Mexico, Australia, various European countries, the Middle East, and parts of Africa. These new countries take a certain amount of fixed investment to get started and to scale, but we like the trajectory they're on, and their growth patterns resemble what we've seen in North America and our established international geographies. Emerging countries sometimes lack some of the infrastructure and services that our business relies on (e.g. payment methods, transportation services, and internet/telecom infrastructure). To solve these challenges, we continue to work with various partners to deliver solutions for customers. Ultimately, we believe that this investment in serving a broader geographical footprint will allow us to help more customers across the world, as well as build a larger free cash flow-generating consumer business.

Beyond geographic expansion, we've been working to expand our customer offerings across some large, unique product retail market segments. **Grocery** is an \$800B market segment in the US alone, with the average household shopping three to four times per week. Amazon has built a somewhat unusual, but significant grocery business over nearly 20 years. Similar to how other mass merchants entered the grocery space in the 1980s, we began by adding products typically found in supermarket aisles that don't require temperature control such as paper products, canned and boxed food, candy and snacks, pet care, health and personal care, and beauty. However, we offer more than three million items compared to a typical supermarket's 30K for the same categories. To date, we've also focused on larger pack sizes, given the current cost to serve online delivery. While we're pleased with the size and growth of our grocery business, we aspire to serve more of our customers' grocery needs than we do today. To do so, we need a broader physical store footprint given that most of the grocery shopping still happens in physical venues. Whole Foods Market pioneered the natural and organic specialty grocery store concept 40 years ago. Today, it's a large and growing business that continues to raise the bar for healthy and sustainable food. Over the past year, we've continued to invest in the business while also making changes to drive better profitability. Whole Foods is on an encouraging path, but to have a larger impact on physical grocery, we must find a mass grocery format that we believe is worth expanding broadly. Amazon Fresh is the brand we've been experimenting with for a few years, and we're working hard to identify and build the right mass grocery format for Amazon scale. Grocery is a big growth opportunity for Amazon.

Amazon Business is another example of an investment where our ecommerce and logistics capabilities position us well to pursue this large market segment. Amazon Business allows businesses, municipalities, and organizations to procure products like office supplies and other bulk items easily and at great savings. While some areas of the economy have struggled over the past few years, Amazon Business has thrived. Why? Because the team has translated what it means to deliver selection, value, and convenience into a business procurement setting, constantly listening to and learning from customers, and innovating on their behalf. Some people have never heard of Amazon Business, but, our business customers love it. Amazon Business launched in 2015 and today drives roughly \$35B in annualized gross sales. More than six million active customers, including 96 of the global Fortune 100 companies, are enjoying Amazon Business' one-stop shopping, real-time analytics, and broad selection on hundreds of millions of business supplies. We believe that we've only scratched the surface of what's possible to date, and plan to keep building the features our business customers tell us they need and want.

While many brands and merchants successfully sell their products on Amazon's marketplace, there are also a large number of brands and sellers who have launched their own direct-to-consumer websites. One of the challenges for these merchants is driving conversion from views to purchases. We invented **Buy with Prime** to help with this challenge. Buy with Prime allows third-party brands and sellers to offer their products on their own websites to our large Amazon Prime membership, and offer those customers fast, free Prime shipping and seamless checkout with their Amazon account. Buy with Prime provides merchants several additional benefits, including Amazon handling the product storage, picking, packing, delivery, payment, and any returns, all through Amazon Pay and Fulfillment by Amazon. Buy with Prime has recently been made available to all US merchants; and so far, Buy with Prime has increased shopper conversion on third-party shopping sites by 25% on average. Merchants are excited about converting more sales and fulfilling these shipments more easily, Prime members love that they can use their Prime benefits on more destinations, and Buy with Prime allows us to improve the shopping experience across more of the web.

Expanding internationally, pursuing large retail market segments that are still nascent for Amazon, and using our unique assets to help merchants sell more effectively on their own websites are somewhat natural extensions for us. There are also a few investments we're making that are further from our core businesses, but where we see unique opportunity. In 2003, AWS would have been a classic example. In 2023, Amazon Healthcare and Kuiper are potential analogues.

Our initial efforts in **Healthcare** began with pharmacy, which felt less like a major departure from ecommerce. For years, Amazon customers had asked us when we'd offer them an online pharmacy as their frustrations mounted with current providers. Launched in 2020, Amazon Pharmacy is a full-service, online pharmacy that offers transparent pricing, easy refills, and savings for Prime members. The business is growing quickly, and continues to innovate. An example is Amazon Pharmacy's recent launch of RxPass, which for a \$5 per

month flat fee, enables Prime members to get as many of the eligible prescription medications as they need for dozens of common conditions, like high blood pressure, acid reflux, and anxiety. However, our customers have continued to express a strong desire for Amazon to provide a better alternative to the inefficient and unsatisfying broader healthcare experience. We decided to start with primary care as it's a prevalent first stop in the patient journey. We evaluated and studied the existing landscape extensively, including some early Amazon experiments like Amazon Care. During this process, we identified One Medical's patient-focused experience as an excellent foundation upon which to build our future business; and in July 2022, we announced our acquisition of One Medical. There are several elements that customers love about One Medical. It has a fantastic digital app that makes it easy for patients to discuss issues with a medical practitioner via chat or video conference. If a physical visit is required, One Medical has offices in cities across the US where patients can book same or next day appointments. One Medical has relationships with specialty physicians in each of its cities and works closely with local hospital systems to make seeing specialists easy, so One Medical members can quickly access these resources when needed. Going forward, we strongly believe that One Medical and Amazon will continue to innovate together to change what primary care will look like for customers.

Kuiper is another example of Amazon innovating for customers over the long term in an area where there's high customer need. Our vision for Kuiper is to create a low-Earth orbit satellite system to deliver high-quality broadband internet service to places around the world that don't currently have it. There are hundreds of millions of households and businesses who don't have reliable access to the internet. Imagine what they'll be able to do with reliable connectivity, from people taking online education courses, using financial services, starting their own businesses, doing their shopping, enjoying entertainment, to businesses and governments improving their coverage, efficiency, and operations. Kuiper will deliver not only accessibility, but affordability. Our teams have developed low-cost antennas (i.e. customer terminals) that will lower the barriers to access. We recently unveiled the new terminals that will communicate with the satellites passing overhead, and we expect to be able to produce our standard residential version for less than \$400 each. They're small: 11 inches square, 1 inch thick, and weigh less than 5 pounds without their mounting bracket, but they deliver speeds up to 400 megabits per second. And they're powered by Amazon-designed baseband chips. We're preparing to launch two prototype satellites to test the entire end-to-end communications network this year, and plan to be in beta with commercial customers in 2024. The customer reaction to what we've shared thus far about Kuiper has been very positive, and we believe Kuiper represents a very large potential opportunity for Amazon. It also shares several similarities to AWS in that it's capital intensive at the start, but has a large prospective consumer, enterprise, and government customer base, significant revenue and operating profit potential, and relatively few companies with the technical and inventive aptitude, as well as the investment hypothesis to go after it.

One final investment area that I'll mention, that's core to setting Amazon up to invent in every area of our business for many decades to come, and where we're investing heavily is **Large Language Models ("LLMs") and Generative AI**. Machine learning has been a technology with high promise for several decades, but it's only been the last five to ten years that it's started to be used more pervasively by companies. This shift was driven by several factors, including access to higher volumes of compute capacity at lower prices than was ever available. Amazon has been using machine learning extensively for 25 years, employing it in everything from personalized ecommerce recommendations, to fulfillment center pick paths, to drones for Prime Air, to Alexa, to the many machine learning services AWS offers (where AWS has the broadest machine learning functionality and customer base of any cloud provider). More recently, a newer form of machine learning, called Generative AI, has burst onto the scene and promises to significantly accelerate machine learning adoption. Generative AI is based on very Large Language Models (trained on up to hundreds of billions of parameters, and growing), across expansive datasets, and has radically general and broad recall and learning capabilities. We have been working on our own LLMs for a while now, believe it will transform and improve virtually every customer experience, and will continue to invest substantially in these models across all of our consumer, seller, brand, and creator experiences. Additionally, as we've done for years in AWS, we're democratizing this technology so companies of all sizes can leverage Generative AI. AWS is offering the most price-performant machine learning chips in Trainium and Inferentia so small and large companies can afford to train and run their LLMs in production. We enable companies to choose from various LLMs and build applications with all of the AWS security, privacy and other features that customers are accustomed to using. And, we're delivering applications like AWS's CodeWhisperer, which revolutionizes

developer productivity by generating code suggestions in real time. I could write an entire letter on LLMs and Generative AI as I think they will be that transformative, but I'll leave that for a future letter. Let's just say that LLMs and Generative AI are going to be a big deal for customers, our shareholders, and Amazon.

So, in closing, I'm optimistic that we'll emerge from this challenging macroeconomic time in a stronger position than when we entered it. There are several reasons for it and I've mentioned many of them above. But, there are two relatively simple statistics that underline our immense future opportunity. While we have a consumer business that's \$434B in 2022, the vast majority of total market segment share in global retail still resides in physical stores (roughly 80%). And, it's a similar story for Global IT spending, where we have AWS revenue of \$80B in 2022, with about 90% of Global IT spending still on-premises and yet to migrate to the cloud. As these equations steadily flip—as we're already seeing happen—we believe our leading customer experiences, relentless invention, customer focus, and hard work will result in significant growth in the coming years. And, of course, this doesn't include the other businesses and experiences we're pursuing at Amazon, all of which are still in their early days.

I strongly believe that our best days are in front of us, and I look forward to working with my teammates at Amazon to make it so.

Sincerely,

A handwritten signature in black ink that reads "Andy Jassy". The signature is fluid and cursive, with the first name "Andy" and last name "Jassy" clearly legible.

Andy Jassy
President and Chief Executive Officer
Amazon.com, Inc.

P.S. As we have always done, our original 1997 Shareholder Letter follows. What's written there is as true today as it was in 1997.



1997 LETTER TO SHAREHOLDERS (Reprinted from the 1997 Annual Report)

To our shareholders:

Amazon.com passed many milestones in 1997: by year-end, we had served more than 1.5 million customers, yielding 838% revenue growth to \$147.8 million, and extended our market leadership despite aggressive competitive entry.

But this is Day 1 for the Internet and, if we execute well, for Amazon.com. Today, online commerce saves customers money and precious time. Tomorrow, through personalization, online commerce will accelerate the very process of discovery. Amazon.com uses the Internet to create real value for its customers and, by doing so, hopes to create an enduring franchise, even in established and large markets.

We have a window of opportunity as larger players marshal the resources to pursue the online opportunity and as customers, new to purchasing online, are receptive to forming new relationships. The competitive landscape has continued to evolve at a fast pace. Many large players have moved online with credible offerings and have devoted substantial energy and resources to building awareness, traffic, and sales. Our goal is to move quickly to solidify and extend our current position while we begin to pursue the online commerce opportunities in other areas. We see substantial opportunity in the large markets we are targeting. This strategy is not without risk: it requires serious investment and crisp execution against established franchise leaders.

It's All About the Long Term

We believe that a fundamental measure of our success will be the shareholder value we create over the *long term*. This value will be a direct result of our ability to extend and solidify our current market leadership position. The stronger our market leadership, the more powerful our economic model. Market leadership can translate directly to higher revenue, higher profitability, greater capital velocity, and correspondingly stronger returns on invested capital.

Our decisions have consistently reflected this focus. We first measure ourselves in terms of the metrics most indicative of our market leadership: customer and revenue growth, the degree to which our customers continue to purchase from us on a repeat basis, and the strength of our brand. We have invested and will continue to invest aggressively to expand and leverage our customer base, brand, and infrastructure as we move to establish an enduring franchise.

Because of our emphasis on the long term, we may make decisions and weigh tradeoffs differently than some companies. Accordingly, we want to share with you our fundamental management and decision-making approach so that you, our shareholders, may confirm that it is consistent with your investment philosophy:

- We will continue to focus relentlessly on our customers.
- We will continue to make investment decisions in light of long-term market leadership considerations rather than short-term profitability considerations or short-term Wall Street reactions.
- We will continue to measure our programs and the effectiveness of our investments analytically, to jettison those that do not provide acceptable returns, and to step up our investment in those that work best. We will continue to learn from both our successes and our failures.

- We will make bold rather than timid investment decisions where we see a sufficient probability of gaining market leadership advantages. Some of these investments will pay off, others will not, and we will have learned another valuable lesson in either case.
- When forced to choose between optimizing the appearance of our GAAP accounting and maximizing the present value of future cash flows, we'll take the cash flows.
- We will share our strategic thought processes with you when we make bold choices (to the extent competitive pressures allow), so that you may evaluate for yourselves whether we are making rational long-term leadership investments.
- We will work hard to spend wisely and maintain our lean culture. We understand the importance of continually reinforcing a cost-conscious culture, particularly in a business incurring net losses.
- We will balance our focus on growth with emphasis on long-term profitability and capital management. At this stage, we choose to prioritize growth because we believe that scale is central to achieving the potential of our business model.
- We will continue to focus on hiring and retaining versatile and talented employees, and continue to weight their compensation to stock options rather than cash. We know our success will be largely affected by our ability to attract and retain a motivated employee base, each of whom must think like, and therefore must actually be, an owner.

We aren't so bold as to claim that the above is the "right" investment philosophy, but it's ours, and we would be remiss if we weren't clear in the approach we have taken and will continue to take.

With this foundation, we would like to turn to a review of our business focus, our progress in 1997, and our outlook for the future.

Obsess Over Customers

From the beginning, our focus has been on offering our customers compelling value. We realized that the Web was, and still is, the World Wide Wait. Therefore, we set out to offer customers something they simply could not get any other way, and began serving them with books. We brought them much more selection than was possible in a physical store (our store would now occupy 6 football fields), and presented it in a useful, easy-to-search, and easy-to-browse format in a store open 365 days a year, 24 hours a day. We maintained a dogged focus on improving the shopping experience, and in 1997 substantially enhanced our store. We now offer customers gift certificates, 1-ClickSM shopping, and vastly more reviews, content, browsing options, and recommendation features. We dramatically lowered prices, further increasing customer value. Word of mouth remains the most powerful customer acquisition tool we have, and we are grateful for the trust our customers have placed in us. Repeat purchases and word of mouth have combined to make Amazon.com the market leader in online bookselling.

By many measures, Amazon.com came a long way in 1997:

- Sales grew from \$15.7 million in 1996 to \$147.8 million – an 838% increase.
- Cumulative customer accounts grew from 180,000 to 1,510,000 – a 738% increase.
- The percentage of orders from repeat customers grew from over 46% in the fourth quarter of 1996 to over 58% in the same period in 1997.
- In terms of audience reach, per Media Metrix, our Web site went from a rank of 90th to within the top 20.
- We established long-term relationships with many important strategic partners, including America Online, Yahoo!, Excite, Netscape, GeoCities, AltaVista, @Home, and Prodigy.

Infrastructure

During 1997, we worked hard to expand our business infrastructure to support these greatly increased traffic, sales, and service levels:

- Amazon.com's employee base grew from 158 to 614, and we significantly strengthened our management team.
- Distribution center capacity grew from 50,000 to 285,000 square feet, including a 70% expansion of our Seattle facilities and the launch of our second distribution center in Delaware in November.
- Inventories rose to over 200,000 titles at year-end, enabling us to improve availability for our customers.
- Our cash and investment balances at year-end were \$125 million, thanks to our initial public offering in May 1997 and our \$75 million loan, affording us substantial strategic flexibility.

Our Employees

The past year's success is the product of a talented, smart, hard-working group, and I take great pride in being a part of this team. Setting the bar high in our approach to hiring has been, and will continue to be, the single most important element of Amazon.com's success.

It's not easy to work here (when I interview people I tell them, "You can work long, hard, or smart, but at Amazon.com you can't choose two out of three"), but we are working to build something important, something that matters to our customers, something that we can all tell our grandchildren about. Such things aren't meant to be easy. We are incredibly fortunate to have this group of dedicated employees whose sacrifices and passion build Amazon.com.

Goals for 1998

We are still in the early stages of learning how to bring new value to our customers through Internet commerce and merchandising. Our goal remains to continue to solidify and extend our brand and customer base. This requires sustained investment in systems and infrastructure to support outstanding customer convenience, selection, and service while we grow. We are planning to add music to our product offering, and over time we believe that other products may be prudent investments. We also believe there are significant opportunities to better serve our customers overseas, such as reducing delivery times and better tailoring the customer experience. To be certain, a big part of the challenge for us will lie not in finding new ways to expand our business, but in prioritizing our investments.

We now know vastly more about online commerce than when Amazon.com was founded, but we still have so much to learn. Though we are optimistic, we must remain vigilant and maintain a sense of urgency. The challenges and hurdles we will face to make our long-term vision for Amazon.com a reality are several: aggressive, capable, well-funded competition; considerable growth challenges and execution risk; the risks of product and geographic expansion; and the need for large continuing investments to meet an expanding market opportunity. However, as we've long said, online bookselling, and online commerce in general, should prove to be a very large market, and it's likely that a number of companies will see significant benefit. We feel good about what we've done, and even more excited about what we want to do.

1997 was indeed an incredible year. We at Amazon.com are grateful to our customers for their business and trust, to each other for our hard work, and to our shareholders for their support and encouragement.



Jeffrey P. Bezos
Founder and Chief Executive Officer
Amazon.com, Inc.

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File No. 000-22513

AMAZON.COM, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

91-1646860
(I.R.S. Employer
Identification No.)

410 Terry Avenue North
Seattle, Washington 98109-5210
(206) 266-1000

(Address and telephone number, including area code, of registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, par value \$.01 per share	AMZN	Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

Aggregate market value of voting stock held by non-affiliates of the registrant as of June 30, 2022	\$	944,744,113,598
Number of shares of common stock outstanding as of January 25, 2023		10,247,259,757

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III of this Report, to the extent not set forth herein, is incorporated herein by reference from the registrant's definitive proxy statement relating to the Annual Meeting of Shareholders to be held in 2023, which definitive proxy statement shall be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year to which this Report relates.

AMAZON.COM, INC.
FORM 10-K
For the Fiscal Year Ended December 31, 2022

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PART I

Item 1. Business

This Annual Report on Form 10-K and the documents incorporated herein by reference contain forward-looking statements based on expectations, estimates, and projections as of the date of this filing. Actual results and outcomes may differ materially from those expressed in forward-looking statements. See Item 1A of Part I — “Risk Factors.” As used herein, “Amazon.com,” “we,” “our,” and similar terms include Amazon.com, Inc. and its subsidiaries, unless the context indicates otherwise.

General

We seek to be Earth’s most customer-centric company. We are guided by four principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking. In each of our segments, we serve our primary customer sets, consisting of consumers, sellers, developers, enterprises, content creators, advertisers, and employees.

We have organized our operations into three segments: North America, International, and Amazon Web Services (“AWS”). These segments reflect the way the Company evaluates its business performance and manages its operations. Information on our net sales is contained in Item 8 of Part II, “Financial Statements and Supplementary Data — Note 10 — Segment Information.”

Consumers

We serve consumers through our online and physical stores and focus on selection, price, and convenience. We design our stores to enable hundreds of millions of unique products to be sold by us and by third parties across dozens of product categories. Customers access our offerings through our websites, mobile apps, Alexa, devices, streaming, and physically visiting our stores. We also manufacture and sell electronic devices, including Kindle, Fire tablet, Fire TV, Echo, Ring, Blink, and eero, and we develop and produce media content. We seek to offer our customers low prices, fast and free delivery, easy-to-use functionality, and timely customer service. In addition, we offer subscription services such as Amazon Prime, a membership program that includes fast, free shipping on millions of items, access to award-winning movies and series, and other benefits.

We fulfill customer orders in a number of ways, including through: North America and International fulfillment networks that we operate; co-sourced and outsourced arrangements in certain countries; digital delivery; and through our physical stores. We operate customer service centers globally, which are supplemented by co-sourced arrangements. See Item 2 of Part I, “Properties.”

Sellers

We offer programs that enable sellers to grow their businesses, sell their products in our stores, and fulfill orders through us. We are not the seller of record in these transactions. We earn fixed fees, a percentage of sales, per-unit activity fees, interest, or some combination thereof, for our seller programs.

Developers and Enterprises

We serve developers and enterprises of all sizes, including start-ups, government agencies, and academic institutions, through AWS, which offers a broad set of on-demand technology services, including compute, storage, database, analytics, and machine learning, and other services.

Content Creators

We offer programs that allow authors, independent publishers, musicians, filmmakers, Twitch streamers, skill and app developers, and others to publish and sell content.

Advertisers

We provide advertising services to sellers, vendors, publishers, authors, and others, through programs such as sponsored ads, display, and video advertising.

Competition

Our businesses encompass a large variety of product types, service offerings, and delivery channels. The worldwide marketplace in which we compete is evolving rapidly and intensely competitive, and we face a broad array of competitors from many different industry sectors around the world. Our current and potential competitors include: (1) physical, e-commerce, and omnichannel retailers, publishers, vendors, distributors, manufacturers, and producers of the products we offer and sell to consumers and businesses; (2) publishers, producers, and distributors of physical, digital, and interactive media of all types and all distribution channels; (3) web search engines, comparison shopping websites, social networks, web portals, and other online and app-based means of discovering, using, or acquiring goods and services, either directly or in collaboration with other retailers; (4) companies that provide e-commerce services, including website development and hosting, omnichannel sales, inventory and supply chain management, advertising, fulfillment, customer service, and payment processing; (5) companies that provide fulfillment and logistics services for themselves or for third parties, whether online or offline; (6) companies that provide information technology services or products, including on-premises or cloud-based infrastructure and other services; (7) companies that design, manufacture, market, or sell consumer electronics, telecommunication, and electronic devices; (8) companies that sell grocery products online and in physical stores; and (9) companies that provide advertising services, whether in digital or other formats. We believe that the principal competitive factors in our retail businesses include selection, price, and convenience, including fast and reliable fulfillment. Additional competitive factors for our seller and enterprise services include the quality, speed, and reliability of our services and tools, as well as customers' ability and willingness to change business practices. Some of our current and potential competitors have greater resources, longer histories, more customers, greater brand recognition, and greater control over inputs critical to our various businesses. They may secure better terms from suppliers, adopt more aggressive pricing, pursue restrictive distribution agreements that restrict our access to supply, direct consumers to their own offerings instead of ours, lock-in potential customers with restrictive terms, and devote more resources to technology, infrastructure, fulfillment, and marketing. The Internet facilitates competitive entry and comparison shopping, which enhances the ability of new, smaller, or lesser-known businesses to compete against us. Each of our 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 also may enter into business combinations or alliances that strengthen their competitive positions.

Intellectual Property

We regard our trademarks, service marks, copyrights, patents, domain names, trade dress, trade secrets, proprietary technologies, and similar intellectual property as critical to our success, and we rely on trademark, copyright, and patent law, trade-secret protection, and confidentiality and/or license agreements with our employees, customers, partners, and others to protect our proprietary rights. We have registered, or applied for the registration of, a number of U.S. and international domain names, trademarks, service marks, and copyrights. Additionally, we have filed U.S. and international patent applications covering certain of our proprietary technology.

Seasonality

Our business is affected by seasonality, which historically has resulted in higher sales volume during our fourth quarter, which ends December 31.

Human Capital

Our employees are critical to our mission of being Earth's most customer-centric company. As of December 31, 2022, we employed approximately 1,541,000 full-time and part-time employees. Additionally, we use independent contractors and temporary personnel to supplement our workforce. Competition for qualified personnel is intense, particularly for software engineers, computer scientists, and other technical staff, and constrained labor markets have increased competition for personnel across other parts of our business.

As we strive to be Earth's best employer, we focus on investment and innovation, inclusion and diversity, safety, and engagement to hire and develop the best talent. We rely on numerous and evolving initiatives to implement these objectives and invent mechanisms for talent development, including competitive pay and benefits, flexible work arrangements, and skills training and educational programs such as Amazon Career Choice (funded education for hourly employees) and the Amazon Technical Academy (software development engineer training). Over 100,000 Amazon employees around the world have participated in Career Choice. We also continue to inspect and refine the mechanisms we use to hire, develop, evaluate, and retain our employees to promote equity for all candidates and employees. In addition, safety is integral to everything we do at Amazon and we continue to invest in safety improvements such as capital improvements, new safety technology, vehicle safety controls, and engineering ergonomic solutions. Our safety team is dedicated to using the science of safety to solve complex problems and establish new industry best practices. We also provide mentorship and support resources to our employees, and have deployed numerous programs that advance employee engagement, communication, and feedback.

Available Information

Our investor relations website is amazon.com/ir and we encourage investors to use it as a way of easily finding information about us. We promptly make available on this website, free of charge, the reports that we file or furnish with the Securities and Exchange Commission (“SEC”), corporate governance information (including our Code of Business Conduct and Ethics), and select press releases.

Executive Officers and Directors

The following tables set forth certain information regarding our Executive Officers and Directors as of January 25, 2023:

Information About Our Executive Officers

Name	Age	Position
Jeffrey P. Bezos	59	Executive Chair
Andrew R. Jassy	55	President and Chief Executive Officer
Douglas J. Herrington	56	CEO Worldwide Amazon Stores
Brian T. Olsavsky	59	Senior Vice President and Chief Financial Officer
Shelley L. Reynolds	58	Vice President, Worldwide Controller, and Principal Accounting Officer
Adam N. Selipsky	56	CEO Amazon Web Services
David A. Zapolsky	59	Senior Vice President, General Counsel, and Secretary

Jeffrey P. Bezos. Mr. Bezos founded Amazon.com in 1994 and has served as Executive Chair since July 2021. He has served as Chair of the Board since 1994 and served 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 R. Jassy. Mr. Jassy has served as President and Chief Executive Officer since July 2021, CEO Amazon Web Services from April 2016 until July 2021, and Senior Vice President, Amazon Web Services, from April 2006 until April 2016.

Douglas J. Herrington. Mr. Herrington has served as CEO Worldwide Amazon Stores since July 2022, Senior Vice President, North America Consumer from January 2015 to July 2022, and Senior Vice President, Consumables from May 2014 to December 2014.

Brian T. Olsavsky. Mr. Olsavsky has served as Senior Vice President and Chief Financial Officer since June 2015, Vice President, Finance for the Global Consumer Business from December 2011 to June 2015, and numerous financial leadership roles across Amazon with global responsibility since April 2002.

Shelley L. Reynolds. Ms. Reynolds has served as Vice President, Worldwide Controller, and Principal Accounting Officer since April 2007.

Adam N. Selipsky. Mr. Selipsky has served as CEO Amazon Web Services since July 2021, Senior Vice President, Amazon Web Services from May 2021 until July 2021, President and CEO of Tableau Software from September 2016 until May 2021, and Vice President, Marketing, Sales and Support of Amazon Web Services from May 2005 to September 2016.

David A. Zapolsky. Mr. Zapolsky has served as Senior Vice President, General Counsel, and Secretary since May 2014, Vice President, General Counsel, and Secretary from September 2012 to May 2014, and as Vice President and Associate General Counsel for Litigation and Regulatory matters from April 2002 until September 2012.

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

Item 1A. Risk Factors

Please carefully consider the following discussion of significant factors, events, and uncertainties that make an investment in our securities risky. The events and consequences discussed in these risk factors could, in circumstances we may or may not be able to accurately predict, recognize, or control, have a material adverse effect on our business, growth, reputation, prospects, financial condition, operating results (including components of our financial results), cash flows, liquidity, and stock price. These risk factors do not identify all risks that we face; our operations could also be affected by factors, events, or uncertainties that are not presently known to us or that we currently do not consider to present significant risks to our operations. In addition to the factors discussed in Item 7 of Part II, “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Overview,” and in the risk factors below, global economic and geopolitical conditions and additional or unforeseen circumstances, developments, or events may give rise to or amplify many of the risks discussed below. Many of the risks discussed below also impact our customers, including third-party sellers, which could indirectly have a material adverse effect on us.

Business and Industry Risks

We Face Intense Competition

Our businesses are rapidly evolving and intensely competitive, and we have many competitors across geographies, including cross-border competition, and in different industries, including physical, e-commerce, and omnichannel retail, e-commerce services, web and infrastructure computing services, electronic devices, digital content, advertising, grocery, and transportation and logistics services. Some of our current and potential competitors have greater resources, longer histories, more customers, and/or greater brand recognition, particularly with our newly-launched products and services and in our newer geographic regions. They may secure better terms from vendors, adopt more aggressive pricing, and devote more resources to technology, infrastructure, fulfillment, and marketing.

Competition continues to intensify, including with the development of new business models and the entry of new and well-funded competitors, and as our competitors enter into business combinations or alliances and established companies in other market segments expand to become competitive with our business. In addition, new and enhanced technologies, including search, web and infrastructure computing services, digital content, and electronic devices continue to increase our competition. The Internet facilitates competitive entry and comparison shopping, which enhances the ability of new, smaller, or lesser known businesses to compete against us. As a result of competition, our product and service offerings may not be successful, we may fail to gain or may lose business, and we may be required to increase our spending or lower prices, any of which could materially reduce our sales and profits.

Our Expansion into New Products, Services, Technologies, and Geographic Regions Subjects Us to Additional Risks

We may have limited or no experience in our newer market segments, and our customers may not adopt our product or service offerings. These offerings, which can present new and difficult technology challenges, may subject us to claims if customers of these offerings experience, or are otherwise impacted by, service disruptions, delays, setbacks, or failures or quality issues. In addition, profitability, if any, in our newer activities may not meet our expectations, and we may not be successful enough in these newer activities to recoup our investments in them, which investments are often significant. Failure to realize the benefits of amounts we invest in new technologies, products, or services could result in the value of those investments being written down or written off. In addition, our sustainability initiatives may be unsuccessful for a variety of

reasons, including if we are unable to realize the expected benefits of new technologies or if we do not successfully plan or execute new strategies, which could harm our business or damage our reputation.

Our International Operations Expose Us to a Number of Risks

Our international activities are significant to our revenues and profits, and we plan to further expand internationally. In certain international market segments, we have relatively little operating experience and may not benefit from any first-to-market advantages or otherwise succeed. It is costly to establish, develop, and maintain international operations and stores, and promote our brand internationally. Our international operations may not become profitable on a sustained basis.

In addition to risks described elsewhere in this section, our international sales and operations are subject to a number of risks, including:

- local economic and political conditions;
- government regulation (such as regulation of our product and service offerings and of competition); restrictive governmental actions (such as trade protection measures, including export duties and quotas and custom duties and tariffs); nationalization; and restrictions on foreign ownership;
- restrictions on sales or distribution of certain products or services and uncertainty regarding liability for products, services, and content, including uncertainty as a result of less Internet-friendly legal systems, local laws, lack of legal precedent, and varying rules, regulations, and practices regarding the physical and digital distribution of media products and enforcement of intellectual property rights;
- business licensing or certification requirements, such as for imports, exports, web services, and electronic devices;
- limitations on the repatriation and investment of funds and foreign currency exchange restrictions;
- limited fulfillment and technology infrastructure;
- shorter payable and longer receivable cycles and the resultant negative impact on cash flow;
- laws and regulations regarding privacy, data use, data protection, data security, data localization, network security, consumer protection, payments, advertising, and restrictions on pricing or discounts;
- lower levels of use of the Internet;
- lower levels of consumer spending and fewer opportunities for growth compared to the U.S.;
- lower levels of credit card usage and increased payment risk;
- difficulty in staffing, developing, and managing foreign operations as a result of distance, language, and cultural differences;
- different employee/employer relationships and the existence of works councils and labor unions;
- compliance with the U.S. Foreign Corrupt Practices Act and other applicable U.S. and foreign laws prohibiting corrupt payments to government officials and other third parties;
- laws and policies of the U.S. and other jurisdictions affecting trade, foreign investment, loans, and taxes; and
- geopolitical events, including war and terrorism.

As international physical, e-commerce, and omnichannel retail, cloud services, and other services grow, competition will intensify, including through adoption of evolving business models. Local companies may have a substantial competitive advantage because of their greater understanding of, and focus on, the local customer, as well as their more established local brand names. The inability to hire, train, retain, and manage sufficient required personnel may limit our international growth.

The People's Republic of China ("PRC") and India regulate Amazon's and its affiliates' businesses and operations in country through regulations and license requirements that may restrict (i) foreign investment in and operation of the Internet, IT infrastructure, data centers, retail, delivery, and other sectors, (ii) Internet content, and (iii) the sale of media and other products and services. For example, in order to meet local ownership, regulatory licensing, and cybersecurity requirements, we provide certain technology services in China through contractual relationships with third parties that hold PRC licenses to provide services. In India, the government restricts the ownership or control of Indian companies by foreign entities involved in online multi-brand retail trading activities. For www.amazon.in, we provide certain marketing tools and logistics services to third-party sellers to enable them to sell online and deliver to customers, and we hold indirect minority interests in entities that are third-party sellers on the www.amazon.in marketplace. Although we believe these structures and activities comply with existing laws, they involve unique risks, and the PRC and India may from time to time consider and implement additional changes in their regulatory, licensing, or other requirements that could impact these structures and activities. There are substantial uncertainties regarding the interpretation of PRC and Indian laws and regulations, and it is possible that these governments will

ultimately take a view contrary to ours. In addition, our Chinese and Indian businesses and operations may be unable to continue to operate if we or our affiliates are unable to access sufficient funding or, in China, enforce contractual relationships we or our affiliates have in place. Violation of any existing or future PRC, Indian, or other laws or regulations or changes in the interpretations of those laws and regulations could result in our businesses in those countries being subject to fines and other financial penalties, having licenses revoked, or being forced to restructure our operations or shut down entirely.

The Variability in Our Retail Business Places Increased Strain on Our Operations

Demand for our products and services can fluctuate significantly for many reasons, including as a result of seasonality, promotions, product launches, or unforeseeable events, such as in response to global economic conditions such as recessionary fears or rising inflation, natural or human-caused disasters (including public health crises) or extreme weather (including as a result of climate change), or geopolitical events. For example, we expect a disproportionate amount of our retail sales to occur during our fourth quarter. Our failure to stock or restock popular products in sufficient amounts such that we fail to meet customer demand could significantly affect our revenue and our future growth. When we overstock products, we may be required to take significant inventory markdowns or write-offs and incur commitment costs, which could materially reduce profitability. We regularly experience increases in our net shipping cost due to complimentary upgrades, split-shipments, and additional long-zone shipments necessary to ensure timely delivery for the holiday season. If too many customers access our websites within a short period of time due to increased demand, we may experience system interruptions that make our websites unavailable or prevent us from efficiently fulfilling orders, which may reduce the volume of goods we offer or sell and the attractiveness of our products and services. In addition, we may be unable to adequately staff our fulfillment network and customer service centers during these peak periods and delivery and other fulfillment companies and customer service co-sourcers may be unable to meet the seasonal demand. Risks described elsewhere in this Item 1A relating to fulfillment network optimization and inventory are magnified during periods of high demand.

As a result of holiday sales, as of December 31 of each year, our cash, cash equivalents, and marketable securities balances typically reach their highest level (other than as a result of cash flows provided by or used in investing and financing activities) because consumers primarily use credit cards in our stores and the related receivables settle quickly. Typically, there is also a corresponding increase in accounts payable as of December 31 due to inventory purchases and third-party seller sales. Our accounts payable balance generally declines during the first three months of the year as vendors and sellers are paid, resulting in a corresponding decline in our cash, cash equivalents, and marketable securities balances.

We Are Impacted by Fraudulent or Unlawful Activities of Sellers

The law relating to the liability of online service providers is currently unsettled. In addition, governmental agencies have in the past and could in the future require changes in the way this business is conducted. Under our seller programs, we maintain policies and processes designed to prevent sellers from collecting payments, fraudulently or otherwise, when buyers never receive the products they ordered or when the products received are materially different from the sellers' descriptions, and to prevent sellers in our stores or through other stores from selling unlawful, counterfeit, pirated, or stolen goods, selling goods in an unlawful or unethical manner, violating the proprietary rights of others, or otherwise violating our policies. When these policies and processes are circumvented or fail to operate sufficiently, it can harm our business or damage our reputation and we could face civil or criminal liability for unlawful activities by our sellers. Under our A-to-z Guarantee, we may reimburse customers for payments up to certain limits in these situations, and as our third-party seller sales grow, the cost of this program will increase and could negatively affect our operating results.

We Face Risks Related to Adequately Protecting Our Intellectual Property Rights and Being Accused of Infringing Intellectual Property Rights of Third Parties

We regard our trademarks, service marks, copyrights, patents, trade dress, trade secrets, proprietary technology, and similar intellectual property as critical to our success, and we rely on trademark, copyright, and patent law, trade secret protection, and confidentiality and/or license agreements with our employees, customers, and others to protect our proprietary rights. Effective intellectual property protection is not available in every country in which our products and services are made available. We also may not be able to acquire or maintain appropriate domain names in all countries in which we do business. Furthermore, regulations governing domain names may not protect our trademarks and similar proprietary rights. We may be unable to prevent third parties from acquiring domain names that are similar to, infringe upon, or diminish the value of our trademarks and other proprietary rights.

We are not always able to discover or determine the extent of any unauthorized use of our proprietary rights. Actions taken by third parties that license our proprietary rights may materially diminish the value of our proprietary rights or reputation. The protection of our intellectual property requires the expenditure of significant financial and managerial resources. Moreover, the steps we take to protect our intellectual property do not always adequately protect our rights or prevent third

parties from infringing or misappropriating our proprietary rights. We also cannot be certain that others will not independently develop or otherwise acquire equivalent or superior technology or other intellectual property rights.

We have been subject to, and expect to continue to be subject to, claims and legal proceedings regarding alleged infringement by us of the intellectual property rights of third parties. Such claims, whether or not meritorious, have in the past, and may in the future, result in the expenditure of significant financial and managerial resources, injunctions against us, or significant payments for damages, including to satisfy indemnification obligations or to obtain licenses from third parties who allege that we have infringed their rights. Such licenses may not be available on terms acceptable to us or at all. These risks have been amplified by the increase in third parties whose sole or primary business is to assert such claims.

Our digital content offerings depend in part on effective digital rights management technology to control access to digital content. Breach or malfunctioning of the digital rights management technology that we use could subject us to claims, and content providers may be unwilling to include their content in our service.

We Have Foreign Exchange Risk

The results of operations of, and certain of our intercompany balances associated with, our international stores and product and service offerings are exposed to foreign exchange rate fluctuations. Due to these fluctuations, operating results may differ materially from expectations, and we may record significant gains or losses on the remeasurement of intercompany balances. As we have expanded our international operations, our exposure to exchange rate fluctuations has increased. We also hold cash equivalents and/or marketable securities in foreign currencies such as British Pounds, Canadian Dollars, Euros, and Japanese Yen. When the U.S. Dollar strengthens compared to these currencies, cash equivalents, and marketable securities balances, when translated, may be materially less than expected and vice versa.

Operating Risks

Our Expansion Places a Significant Strain on our Management, Operational, Financial, and Other Resources

We are continuing to rapidly and significantly expand our global operations, including increasing our product and service offerings and scaling our infrastructure to support our retail and services businesses. The complexity of the current scale of our business can place significant strain on our management, personnel, operations, systems, technical performance, financial resources, and internal financial control and reporting functions, and our expansion increases these factors. Failure to manage growth effectively could damage our reputation, limit our growth, and negatively affect our operating results.

We Experience Significant Fluctuations in Our Operating Results and Growth Rate

We are not always able to accurately forecast our growth rate. We base our expense levels and investment plans on sales estimates. A significant portion of our expenses and investments is fixed, and we are not always able to adjust our spending quickly enough if our sales are less than expected.

Our revenue growth may not be sustainable, and our percentage growth rates may decrease. Our revenue and operating profit growth depends on the continued growth of demand for the products and services offered by us or our sellers, and our business is affected by general economic, business, and geopolitical conditions worldwide. A softening of demand, whether caused by changes in customer preferences or a weakening of the U.S. or global economies, may result in decreased revenue or growth.

Our sales and operating results will also fluctuate for many other reasons, including due to factors described elsewhere in this section and the following:

- our ability to retain and increase sales to existing customers, attract new customers, and satisfy our customers' demands;
- our ability to retain and expand our network of sellers;
- our ability to offer products on favorable terms, manage inventory, and fulfill orders;
- the introduction of competitive stores, websites, products, services, price decreases, or improvements;
- changes in usage or adoption rates of the Internet, e-commerce, electronic devices, and web services, including outside the U.S.;
- timing, effectiveness, and costs of expansion and upgrades of our systems and infrastructure;
- the success of our geographic, service, and product line expansions;
- the extent to which we finance, and the terms of any such financing for, our current operations and future growth;

- the outcomes of legal proceedings and claims, which may include significant monetary damages or injunctive relief and could have a material adverse impact on our operating results;
- variations in the mix of products and services we sell;
- variations in our level of merchandise and vendor returns;
- the extent to which we offer fast and free delivery, continue to reduce prices worldwide, and provide additional benefits to our customers;
- factors affecting our reputation or brand image (including any actual or perceived inability to achieve our goals or commitments, whether related to sustainability, customers, employees, or other topics);
- the extent to which we invest in technology and content, fulfillment, and other expense categories;
- increases in the prices of transportation (including fuel), energy products, commodities like paper and packing supplies and hardware products, and technology infrastructure products, including as a result of inflationary pressures;
- constrained labor markets, which increase our payroll costs;
- the extent to which operators of the networks between our customers and our stores successfully charge fees to grant our customers unimpaired and unconstrained access to our online services;
- our ability to collect amounts owed to us when they become due;
- the extent to which new and existing technologies, or industry trends, restrict online advertising or affect our ability to customize advertising or otherwise tailor our product and service offerings;
- the extent to which use of our services is affected by spyware, viruses, phishing and other spam emails, denial of service attacks, data theft, computer intrusions, outages, and similar events; and
- disruptions from natural or human-caused disasters (including public health crises) or extreme weather (including as a result of climate change), geopolitical events and security issues (including terrorist attacks and armed hostilities), labor or trade disputes (including restrictive governmental actions impacting us and our third-party sellers in China or other foreign countries), and similar events.

We Face Risks Related to Successfully Optimizing and Operating Our Fulfillment Network and Data Centers

Failures to adequately predict customer demand or otherwise optimize and operate our fulfillment network and data centers successfully from time to time result in excess or insufficient fulfillment or data center capacity, service interruptions, increased costs, and impairment charges, any of which could materially harm our business. As we continue to add fulfillment and data center capability or add new businesses with different requirements, our fulfillment and data center networks become increasingly complex and operating them becomes more challenging. There can be no assurance that we will be able to operate our networks effectively.

In addition, failure to optimize inventory or staffing in our fulfillment network increases our net shipping cost by requiring long-zone or partial shipments. We and our co-sourcers may be unable to adequately staff our fulfillment network and customer service centers. For example, productivity across our fulfillment network currently is being affected by regional labor market and global supply chain constraints, which increase payroll costs and make it difficult to hire, train, and deploy a sufficient number of people to operate our fulfillment network as efficiently as we would like.

Under some of our commercial agreements, we maintain the inventory of other companies, thereby increasing the complexity of tracking inventory and operating our fulfillment network. Our failure to properly handle such inventory or the inability of the other businesses on whose behalf we perform inventory fulfillment services to accurately forecast product demand may result in us being unable to secure sufficient storage space or to optimize our fulfillment network or cause other unexpected costs and other harm to our business and reputation.

We rely on a limited number of shipping companies to deliver inventory to us and completed orders to our customers. An inability to negotiate acceptable terms with these companies or performance problems, staffing limitations, or other difficulties experienced by these companies or by our own transportation systems, including as a result of labor market constraints and related costs, could negatively impact our operating results and customer experience. In addition, our ability to receive inbound inventory efficiently and ship completed orders to customers also may be negatively affected by natural or human-caused disasters (including public health crises) or extreme weather (including as a result of climate change), geopolitical events and security issues, labor or trade disputes, and similar events.

We Could Be Harmed by Data Loss or Other Security Breaches

Because we collect, process, store, and transmit large amounts of data, including confidential, sensitive, proprietary, and business and personal information, failure to prevent or mitigate data loss, theft, misuse, or other security breaches or vulnerabilities affecting our or our vendors' or customers' technology, products, and systems, could: expose us or our customers to a risk of loss, disclosure, or misuse of such information; adversely affect our operating results; result in litigation, liability, or regulatory action (including under laws related to privacy, data use, data protection, data security, network security, and consumer protection); deter customers or sellers from using our stores, products, and services; and otherwise harm our business and reputation. We use third-party technology and systems for a variety of reasons, including, without limitation, encryption and authentication technology, employee email, content delivery to customers, back-office support, and other functions. Some of our systems have experienced past security breaches, and, although they did not have a material adverse effect on our operating results, there can be no assurance that future incidents will not have material adverse effects on our operations or financial results. Although we have developed systems and processes that are designed to protect customer data and prevent such incidents, including systems and processes designed to reduce the impact of a security breach at a third-party vendor or customer, such measures cannot provide absolute security and may fail to operate as intended or be circumvented.

We Face Risks Related to System Interruption and Lack of Redundancy

We experience occasional system interruptions and delays that make our websites and services unavailable or slow to respond and prevent us from efficiently accepting or fulfilling orders or providing services to customers and third parties, which may reduce our net sales and the attractiveness of our products and services. Steps we take to add software and hardware, upgrade our systems and network infrastructure, and improve the stability and efficiency of our systems may not be sufficient to avoid system interruptions or delays that could adversely affect our operating results.

Our computer and communications systems and operations in the past have been, or in the future could be, damaged or interrupted due to events such as natural or human-caused disasters (including public health crises) or extreme weather (including as a result of climate change), geopolitical events and security issues (including terrorist attacks and armed hostilities), computer viruses, physical or electronic break-ins, operational failures (including from energy shortages), and similar events or disruptions. Any of these events could cause system interruption, delays, and loss of critical data, and could prevent us from accepting and fulfilling customer orders and providing services, which could make our product and service offerings less attractive and subject us to liability. Our systems are not fully redundant and our disaster recovery planning may not be sufficient. In addition, our insurance may not provide sufficient coverage to compensate for related losses. Any of these events could damage our reputation and be expensive to remedy.

The Loss of Key Senior Management Personnel or the Failure to Hire and Retain Highly Skilled and Other Personnel Could Negatively Affect Our Business

We depend on our senior management and other key personnel, including our President and CEO. We do not have "key person" life insurance policies. We also rely on other highly skilled personnel. Competition for qualified personnel in the industries in which we operate, as well as senior management, has historically been intense. For example, we experience significant competition in the technology industry, particularly for software engineers, computer scientists, and other technical staff. In addition, changes we make to our current and future work environments may not meet the needs or expectations of our employees or may be perceived as less favorable compared to other companies' policies, which could negatively impact our ability to hire and retain qualified personnel. The loss of any of our executive officers or other key employees, the failure to successfully transition key roles, or the inability to hire, train, retain, and manage qualified personnel, could harm our business.

We also rely on a significant number of personnel to operate our stores, fulfillment network, and data centers and carry out our other operations. Failure to successfully hire, train, manage, and retain sufficient personnel to meet our needs can strain our operations, increase payroll and other costs, and harm our business and reputation. In addition, changes in laws and regulations applicable to employees, independent contractors, and temporary personnel could increase our payroll costs, decrease our operational flexibility, and negatively impact how we are able to staff our operations and supplement our workforce.

We are also subject to labor union efforts to organize groups of our employees from time to time. These organizational efforts, if successful, decrease our operational flexibility, which could adversely affect our operating efficiency. In addition, our response to any organizational efforts could be perceived negatively and harm our business and reputation.

Our Supplier Relationships Subject Us to a Number of Risks

We have significant suppliers, including content and technology licensors, and in some cases, limited or single-sources of supply, that are important to our sourcing, services, manufacturing, and any related ongoing servicing of merchandise and content. We do not have long-term arrangements with most of our suppliers to guarantee availability of merchandise, content,

components, or services, particular payment terms, or the extension of credit limits. Decisions by our current suppliers to limit or stop selling or licensing merchandise, content, components, or services to us on acceptable terms, or delay delivery, including as a result of one or more supplier bankruptcies due to poor economic conditions, as a result of natural or human-caused disasters (including public health crises), or for other reasons, may result in our being unable to procure alternatives from other suppliers in a timely and efficient manner and on acceptable terms, or at all. In addition, violations by our suppliers or other vendors of applicable laws, regulations, contractual terms, intellectual property rights of others, or our Supply Chain Standards, as well as products or practices regarded as unethical, unsafe, or hazardous, could expose us to claims, damage our reputation, limit our growth, and negatively affect our operating results.

Our Commercial Agreements, Strategic Alliances, and Other Business Relationships Expose Us to Risks

We provide physical, e-commerce, and omnichannel retail, cloud services, and other services to businesses through commercial agreements, strategic alliances, and business relationships. Under these agreements, we provide web services, technology, fulfillment, computing, digital storage, and other services, as well as enable sellers to offer products or services through our stores. These arrangements are complex and require substantial infrastructure capacity, personnel, and other resource commitments, which may limit the amount of business we can service. We may not be able to implement, maintain, and develop the components of these commercial relationships, which may include web services, fulfillment, customer service, inventory management, tax collection, payment processing, hardware, content, and third-party software, and engaging third parties to perform services. The amount of compensation we receive under certain of our commercial agreements is partially dependent on the volume of the other company's sales. Therefore, when the other company's offerings are not successful, the compensation we receive may be lower than expected or the agreement may be terminated. Moreover, we may not be able to enter into additional or alternative commercial relationships and strategic alliances on favorable terms. We also may be subject to claims from businesses to which we provide these services if we are unsuccessful in implementing, maintaining, or developing these services.

As our agreements terminate, we may be unable to renew or replace these agreements on comparable terms, or at all. We may in the future enter into amendments on less favorable terms or encounter parties that have difficulty meeting their contractual obligations to us, which could adversely affect our operating results.

Our present and future commercial agreements, strategic alliances, and business relationships create additional risks such as:

- disruption of our ongoing business, including loss of management focus on existing businesses;
- impairment of other relationships;
- variability in revenue and income from entering into, amending, or terminating such agreements or relationships; and
- difficulty integrating under the commercial agreements.

Our Business Suffers When We Are Unsuccessful in Making, Integrating, and Maintaining Acquisitions and Investments

We have acquired and invested in a number of companies, and we may in the future acquire or invest in or enter into joint ventures with additional companies. These transactions involve risks such as:

- disruption of our ongoing business, including loss of management focus on existing businesses;
- problems retaining key personnel;
- additional operating losses and expenses of the businesses we acquired or in which we invested;
- the potential impairment of tangible and intangible assets and goodwill, including as a result of acquisitions;
- the potential impairment of customer and other relationships of the company we acquired or in which we invested or our own customers as a result of any integration of operations;
- the difficulty of completing such transactions, including obtaining regulatory approvals or satisfying other closing conditions, and achieving anticipated benefits within expected timeframes, or at all;
- the difficulty of incorporating acquired operations, technology, and rights into our offerings, and unanticipated expenses related to such integration;
- the difficulty of integrating a new company's accounting, financial reporting, management, information and data security, human resource, and other administrative systems to permit effective management, and the lack of control if such integration is delayed or not successfully implemented;
- losses we may incur as a result of declines in the value of an investment or as a result of incorporating an investee's financial performance into our financial results;

- for investments in which an investee’s financial performance is incorporated into our financial results, either in full or in part, or investments for which we are required to file financial statements or provide financial information, the dependence on the investee’s accounting, financial reporting, and similar systems, controls, and processes;
- the difficulty of implementing at companies we acquire the controls, procedures, and policies appropriate for a larger public company;
- the risks associated with businesses we acquire or invest in, which may differ from or be more significant than the risks our other businesses face;
- potential unknown liabilities associated with a company we acquire or in which we invest; and
- for foreign transactions, additional risks related to the integration of operations across different cultures and languages, and the economic, political, and regulatory risks associated with specific countries.

As a result of future acquisitions or mergers, we might need to issue additional equity securities, spend our cash, or incur debt, contingent liabilities, or amortization expenses related to intangible assets, any of which could reduce our profitability and harm our business or only be available on unfavorable terms, if at all. In addition, valuations supporting our acquisitions and strategic investments could change rapidly. We could determine that such valuations have experienced impairments or other-than-temporary declines in fair value which could adversely impact our financial results.

We Face Significant Inventory Risk

In addition to risks described elsewhere in this Item 1A relating to fulfillment network and inventory optimization by us and third parties, we are exposed to significant inventory risks that may adversely affect our operating results as a result of seasonality, new product launches, rapid changes in product cycles and pricing, defective merchandise, changes in customer demand and consumer spending patterns, changes in consumer tastes with respect to our products, spoilage, and other factors. We endeavor to accurately predict these trends and avoid overstocking or understocking products we manufacture and/or sell. Demand for products, however, can change significantly between the time inventory or components are ordered and the date of sale. In addition, when we begin selling or manufacturing a new product, it may be difficult to establish vendor relationships, determine appropriate product or component selection, and accurately forecast demand. The acquisition of certain types of inventory or components requires significant lead-time and prepayment and they may not be returnable. We carry a broad selection and significant inventory levels of certain products, such as consumer electronics, and at times we are unable to sell products in sufficient quantities or to meet demand during the relevant selling seasons. Any one of the inventory risk factors set forth above may adversely affect our operating results.

We Are Subject to Payments-Related Risks

We accept payments using a variety of methods, including credit card, debit card, credit accounts (including promotional financing), gift cards, direct debit from a customer’s bank account, consumer invoicing, physical bank check, and payment upon delivery. For existing and future payment options we offer to our customers, we currently are subject to, and may become subject to additional, regulations and compliance requirements (including obligations to implement enhanced authentication processes that could result in significant costs and reduce the ease of use of our payments products), as well as fraud. For certain payment methods, including credit and debit cards, we pay interchange and other fees, which may increase over time and raise our operating costs and lower profitability. We rely on third parties to provide certain Amazon-branded payment methods and payment processing services, including the processing of credit cards, debit cards, electronic checks, and promotional financing. In each case, it could disrupt our business if these companies become unwilling or unable to provide these services to us. We also offer co-branded credit card programs, which could adversely affect our operating results if renewed on less favorable terms or terminated. We are also subject to payment card association operating rules, including data security rules, certification requirements, and rules governing electronic funds transfers, which could change or be reinterpreted to make it difficult or impossible for us to comply. Failure to comply with these rules or requirements, as well as any breach, compromise, or failure to otherwise detect or prevent fraudulent activity involving our data security systems, could result in our being liable for card issuing banks’ costs, subject to fines and higher transaction fees, and loss of our ability to accept credit and debit card payments from our customers, process electronic funds transfers, or facilitate other types of online payments, and our business and operating results could be adversely affected.

In addition, we provide regulated services in certain jurisdictions because we enable customers to keep account balances with us and transfer money to third parties, and because we provide services to third parties to facilitate payments on their behalf. Jurisdictions subject us to requirements for licensing, regulatory inspection, bonding and capital maintenance, the use, handling, and segregation of transferred funds, consumer disclosures, maintaining or processing data, and authentication. We are also subject to or voluntarily comply with a number of other laws and regulations relating to payments, money laundering, international money transfers, privacy, data use, data protection, data security, data localization, network security, consumer

protection, and electronic fund transfers. If we were found to be in violation of applicable laws or regulations, we could be subject to additional requirements and civil and criminal penalties, or forced to cease providing certain services.

We Have a Rapidly Evolving Business Model and Our Stock Price Is Highly Volatile

We have a rapidly evolving business model. The trading price of our common stock fluctuates significantly in response to, among other risks, the risks described elsewhere in this Item 1A, as well as:

- changes in interest rates;
- conditions or trends in the Internet and the industry segments we operate in;
- quarterly variations in operating results;
- fluctuations in the stock market in general and market prices for Internet-related companies in particular;
- changes in financial estimates by us or decisions to increase or decrease future spending or investment levels;
- changes in financial estimates and recommendations by securities analysts;
- changes in our capital structure, including issuance of additional debt or equity to the public;
- changes in the valuation methodology of, or performance by, other e-commerce or technology companies; and
- transactions in our common stock by major investors and certain analyst reports, news, and speculation.

Volatility in our stock price could adversely affect our business and financing opportunities and force us to increase our cash compensation to employees or grant larger stock awards than we have historically, which could hurt our operating results or reduce the percentage ownership of our existing stockholders, or both.

Legal and Regulatory Risks

Government Regulation Is Evolving and Unfavorable Changes Could Harm Our Business

We are subject to general business regulations and laws, as well as regulations and laws specifically governing the Internet, physical, e-commerce, and omnichannel retail, digital content, web services, electronic devices, advertising, artificial intelligence technologies and services, and other products and services that we offer or sell. These regulations and laws cover taxation, privacy, data use, data protection, data security, data localization, network security, consumer protection, pricing, content, copyrights, distribution, transportation, mobile communications, electronic device certification, electronic waste, energy consumption, environmental regulation, electronic contracts and other communications, competition, employment, trade and protectionist measures, web services, the provision of online payment services, registration, licensing, and information reporting requirements, unencumbered Internet access to our services or access to our facilities, the design and operation of websites, health, safety, and sanitation standards, the characteristics, legality, and quality of products and services, product labeling, the commercial operation of unmanned aircraft systems, healthcare, and other matters. It is not clear how existing laws governing issues such as property ownership, libel, privacy, data use, data protection, data security, data localization, network security, and consumer protection apply to aspects of our operations such as the Internet, e-commerce, digital content, web services, electronic devices, advertising, and artificial intelligence technologies and services. A large number of jurisdictions regulate our operations, and the extent, nature, and scope of such regulations is evolving and expanding as the scope of our businesses expand. We are regularly subject to formal and informal reviews, investigations, and other proceedings by governments and regulatory authorities under existing laws, regulations, or interpretations or pursuing new and novel approaches to regulate our operations. For example, we face a number of open investigations based on claims that aspects of our operations violate competition rules, including aspects of Amazon's U.S. and European marketplace for sellers, particularly with respect to use of data, fulfillment services, and featured offers, and legislative and regulatory initiatives in Europe and elsewhere allow authorities to restrict or prohibit certain operations or actions pre-emptively without the need to assess specific competitive effects. Unfavorable regulations, laws, decisions, or interpretations by government or regulatory authorities applying those laws and regulations, or inquiries, investigations, or enforcement actions threatened or initiated by them, could cause us to incur substantial costs, expose us to unanticipated civil and criminal liability or penalties (including substantial monetary fines), diminish the demand for, or availability of, our products and services, increase our cost of doing business, require us to change our business practices in a manner materially adverse to our business, damage our reputation, impede our growth, or otherwise have a material effect on our operations. The media, political, and regulatory scrutiny we face, which may continue to increase, amplifies these risks.

Claims, Litigation, Government Investigations, and Other Proceedings May Adversely Affect Our Business and Results of Operations

As an innovative company offering a wide range of consumer and business products and services around the world, we are regularly subject to actual and threatened claims, litigation, reviews, investigations, and other proceedings, including proceedings by governments and regulatory authorities, involving a wide range of issues, including 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, goods and services offered by us and by third parties, and other matters. The number and scale of these proceedings have increased over time as our businesses have expanded in scope and geographic reach, as our products, services, and operations have become more complex and available to, and used by, more people, and as governments and regulatory authorities seek to regulate us on a pre-emptive basis. For example, we are litigating a number of matters alleging price fixing, monopolization, and consumer protection claims, including those brought by state attorneys general. Any of these types of proceedings can have an adverse effect on us because of legal costs, disruption of our operations, diversion of management resources, negative publicity, and other factors. The outcomes of these matters are inherently unpredictable and subject to significant uncertainties. Determining legal reserves or possible losses from such matters involves judgment and may not reflect the full range of uncertainties and unpredictable outcomes. Until the final resolution of such matters, we may be exposed to losses in excess of the amount recorded, and such amounts could be material. Should any of our estimates and assumptions change or prove to have been incorrect, it could have a material effect on our business, consolidated financial position, results of operations, or cash flows. In addition, it is possible that a resolution of one or more such proceedings, including as a result of a settlement, could involve licenses, sanctions, consent decrees, or orders requiring us to make substantial future payments, preventing us from offering certain products or services, requiring us to change our business practices in a manner materially adverse to our business, requiring development of non-infringing or otherwise altered products or technologies, damaging our reputation, or otherwise having a material effect on our operations.

We Are Subject to Product Liability Claims When People or Property Are Harmed by the Products We Sell or Manufacture

Some of the products we sell or manufacture expose us to product liability or food safety claims relating to personal injury or illness, death, or environmental or property damage, and can require product recalls or other actions. Third parties who sell products using our services and stores also expose us to product liability claims. Additionally, under our A-to-z Guarantee, we may reimburse customers for certain product liability claims up to certain limits in these situations, and as our third-party seller sales grow, the cost of this program will increase and could negatively affect our operating results. Although we maintain liability insurance, we cannot be certain that our coverage will be adequate for liabilities actually incurred or that insurance will continue to be available to us on economically reasonable terms, or at all. Although we impose contractual terms on sellers that are intended to prohibit sales of certain type of products, we may not be able to detect, enforce, or collect sufficient damages for breaches of such agreements. In addition, some of our agreements with our vendors and sellers do not indemnify us from product liability.

We Face Additional Tax Liabilities and Collection Obligations

We are subject to a variety of taxes and tax collection obligations in the U.S. (federal and state) and numerous foreign jurisdictions. We may recognize additional tax expense and be subject to additional tax liabilities, including other liabilities for tax collection obligations due to changes in laws, regulations, administrative practices, principles, and interpretations related to tax, including changes to the global tax framework, competition, and other laws and accounting rules in various jurisdictions. Such changes could come about as a result of economic, political, and other conditions. An increasing number of jurisdictions are considering or have adopted laws or administrative practices that impose new tax measures, including revenue-based taxes, targeting online commerce and the remote selling of goods and services. These include new obligations to withhold or collect sales, consumption, value added, or other taxes on online marketplaces and remote sellers, or other requirements that may result in liability for third party obligations. For example, non-U.S. jurisdictions have proposed or enacted taxes on online advertising and marketplace service revenues. Proliferation of these or similar unilateral tax measures may continue unless broader international tax reform is implemented. Our results of operations and cash flows could be adversely affected by additional taxes imposed on us prospectively or retroactively or additional taxes or penalties resulting from the failure to comply with any collection obligations or failure to provide information about our customers, suppliers, and other third parties for tax reporting purposes to various government agencies. In some cases we also may not have sufficient notice to enable us to build systems and adopt processes to properly comply with new reporting or collection obligations by the effective date.

Our tax expense and liabilities are also affected by other factors, such as changes in our business operations, acquisitions, investments, entry into new businesses and geographies, intercompany transactions, the relative amount of our foreign earnings, losses incurred in jurisdictions for which we are not able to realize related tax benefits, the applicability of special or extraterritorial tax regimes, changes in foreign currency exchange rates, changes in our stock price, changes to our forecasts of income and loss and the mix of jurisdictions to which they relate, and changes in our tax assets and liabilities and their

valuation. In the ordinary course of our business, there are many transactions and calculations for which the ultimate tax determination is uncertain. Significant judgment is required in evaluating and estimating our tax expense, assets, and liabilities.

We are also subject to tax controversies in various jurisdictions that can result in tax assessments against us. Developments in an audit, investigation, or other tax controversy can have a material effect on our operating results or cash flows in the period or periods for which that development occurs, as well as for prior and subsequent periods. Due to the inherent complexity and uncertainty of these matters, interpretations of certain tax laws by authorities, and judicial, administrative, and regulatory processes in certain jurisdictions, the final outcome of any such controversy may be materially different from our expectations. For example, in February 2023, the Indian Tax Authority determined that tax applies to cloud services fees paid to the U.S. We are contesting this determination; however, if this matter is adversely resolved, we may be required to pay additional amounts with respect to current and prior periods and our taxes in the future could increase. We regularly assess the likelihood of an adverse outcome resulting from these proceedings to determine the adequacy of our tax accruals. Although we believe our tax estimates are reasonable, the final outcome of audits, investigations, and any other tax controversies could be materially different from our historical tax accruals.

We Are Subject to Risks Related to Government Contracts and Related Procurement Regulations

Our contracts with U.S., as well as state, local, and foreign, government entities are subject to various procurement regulations and other requirements relating to their formation, administration, and performance. We are subject to audits and investigations relating to our government contracts, and any violations could result in various civil and criminal penalties and administrative sanctions, including termination of contract, refunding or suspending of payments, forfeiture of profits, payment of fines, and suspension or debarment from future government business. In addition, some of these contracts are subject to periodic funding approval and/or provide for termination by the government at any time, without cause.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. Properties

As of December 31, 2022, we operated the following facilities (in thousands):

Description of Use	Leased Square Footage (1)	Owned Square Footage	Location
Office space	30,611	6,792	North America
Office space	23,956	1,802	International
Physical stores (2)	22,881	662	North America
Physical stores (2)	291	—	International
Fulfillment, data centers, and other	391,598	22,058	North America
Fulfillment, data centers, and other	148,146	12,613	International
Total	617,483	43,927	

(1) For leased properties, represents the total leased space excluding sub-leased space.

(2) This includes 611 North America and 32 International stores as of December 31, 2022.

Segment	Leased Square Footage (1)	Owned Square Footage (1)
North America	403,984	13,595
International	140,898	6,292
AWS	18,034	15,446
Total	562,916	35,333

(1) Segment amounts exclude corporate facilities. Shared facilities are allocated among the segments based on usage and primarily relate to facilities that hold our technology infrastructure. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 10 — Segment Information.”

We own and lease our corporate headquarters in Washington’s Puget Sound region and Arlington, Virginia.

Item 3. Legal Proceedings

See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 7 — Commitments and Contingencies — Legal Proceedings.”

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. *Market for the Registrant's Common Stock, Related Shareholder Matters, and Issuer Purchases of Equity Securities*

Market Information

Our common stock is traded on the Nasdaq Global Select Market under the symbol "AMZN."

Holdings

As of January 25, 2023, there were 10,845 shareholders of record of our common stock, although there is a much larger number of beneficial owners.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

None.

Item 6. *Reserved*

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

Forward-Looking Statements

This Annual Report on Form 10-K includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact, including statements regarding guidance, industry prospects, or future results of operations or financial position, made in this Annual Report on Form 10-K are forward-looking. We use words such as anticipates, believes, expects, future, intends, and similar expressions to identify forward-looking statements. Forward-looking statements reflect management's current expectations and are inherently uncertain. Actual results and outcomes could differ materially for a variety of reasons, including, among others, fluctuations in foreign exchange rates, changes in global economic conditions and customer demand and spending, inflation, interest rates, regional labor market and global supply chain constraints, world events, the rate of growth of the Internet, online commerce, and cloud services, the amount that Amazon.com invests in new business opportunities and the timing of those investments, the mix of products and services sold to customers, the mix of net sales derived from products as compared with services, the extent to which we owe income or other taxes, competition, management of growth, potential fluctuations in operating results, international growth and expansion, the outcomes of claims, litigation, government investigations, and other proceedings, fulfillment, sortation, delivery, and data center optimization, risks of inventory management, variability in demand, the degree to which we enter into, maintain, and develop commercial agreements, proposed and completed acquisitions and strategic transactions, payments risks, and risks of fulfillment throughput and productivity. In addition, global economic and geopolitical conditions and additional or unforeseen circumstances, developments, or events may give rise to or amplify many of these risks. These risks and uncertainties, as well as other risks and uncertainties that could cause our actual results or outcomes to differ significantly from management's expectations, are described in greater detail in Item 1A of Part I, "Risk Factors."

Overview

Our primary source of revenue is the sale of a wide range of products and services to customers. The products offered through our stores include merchandise and content we have purchased for resale and products offered by third-party sellers, and we also manufacture and sell electronic devices and produce media content. Generally, we recognize gross revenue from items we sell from our inventory as product sales and recognize our net share of revenue of items sold by third-party sellers as service sales. We seek to increase unit sales across our stores, through increased product selection, across numerous product categories. We also offer other services such as compute, storage, and database offerings, fulfillment, advertising, publishing, and digital content subscriptions.

Our financial focus is on long-term, sustainable growth in free cash flows. Free cash flows are driven primarily by increasing operating income and efficiently managing accounts receivable, inventory, accounts payable, and cash capital expenditures, including our decision to purchase or lease property and equipment. Increases in operating income primarily result from increases in sales of products and services and efficiently managing our operating costs, partially offset by investments we make in longer-term strategic initiatives, including capital expenditures focused on improving the customer experience. To increase sales of products and services, we focus on improving all aspects of the customer experience, including lowering prices, improving availability, offering faster delivery and performance times, increasing selection, producing original content, increasing product categories and service offerings, expanding product information, improving ease of use, improving reliability, and earning customer trust. See "Results of Operations — Non-GAAP Financial Measures" below for additional information on our non-GAAP free cash flows financial measures.

We seek to reduce our variable costs per unit and work to leverage our fixed costs. Our variable costs include product and content costs, payment processing and related transaction costs, picking, packaging, and preparing orders for shipment, transportation, customer service support, costs necessary to run AWS, and a portion of our marketing costs. Our fixed costs include the costs necessary to build and run our technology infrastructure; to build, enhance, and add features to our online stores, web services, electronic devices, and digital offerings; and to build and optimize our fulfillment network. Variable costs generally change directly with sales volume, while fixed costs generally are dependent on the timing of capacity needs, geographic expansion, category expansion, and other factors. To decrease our variable costs on a per unit basis and enable us to lower prices for customers, we seek to increase our direct sourcing, increase discounts from suppliers, and reduce defects in our processes. To minimize unnecessary growth in fixed costs, we seek to improve process efficiencies and maintain a lean culture.

We seek to turn inventory quickly and collect from consumers before our payments to vendors and sellers become due. Because consumers primarily use credit cards in our stores, our receivables from consumers settle quickly. We expect variability in inventory turnover over time since it is affected by numerous factors, including our product mix, the mix of sales by us and by third-party sellers, our continuing focus on in-stock inventory availability and selection of product offerings, supply chain disruptions and resulting vendor lead times, our investment in new geographies and product lines, and the extent to which we choose to utilize third-party fulfillment providers. We also expect some variability in accounts payable days over time since they are affected by several factors, including the mix of product sales, the mix of sales by third-party sellers, the mix

of suppliers, seasonality, and changes in payment and other terms over time, including the effect of balancing pricing and timing of payment terms with suppliers.

We expect spending in technology and content will increase over time as we add computer scientists, designers, software and hardware engineers, and merchandising employees. Our technology and content investment and capital spending projects often support a variety of product and service offerings due to geographic expansion and the cross-functionality of our systems and operations. We seek to invest efficiently in several areas of technology and content, including AWS, and expansion of new and existing product categories and service offerings, as well as in technology infrastructure to enhance the customer experience and improve our process efficiencies. We believe that advances in technology, specifically the speed and reduced cost of processing power, data storage and analytics, improved wireless connectivity, and the practical applications of artificial intelligence and machine learning, will continue to improve users' experience on the Internet and increase its ubiquity in people's lives. To best take advantage of these continued advances in technology, we are investing in AWS, which offers a broad set of on-demand technology services, including compute, storage, database, analytics, and machine learning, and other services, to developers and enterprises of all sizes. We are also investing in initiatives to build and deploy innovative and efficient software and electronic devices as well as other initiatives including the development of a satellite network for global broadband service and autonomous vehicles for ride-hailing services.

We seek to efficiently manage shareholder dilution while maintaining the flexibility to issue shares for strategic purposes, such as financings, acquisitions, and aligning employee compensation with shareholders' interests. We utilize restricted stock units as our primary vehicle for equity compensation because we believe this compensation model aligns the long-term interests of our shareholders and employees. In measuring shareholder dilution, we include all vested and unvested stock awards outstanding, without regard to estimated forfeitures. Total shares outstanding plus outstanding stock awards were 10.5 billion and 10.6 billion as of December 31, 2021 and 2022.

Our financial reporting currency is the U.S. Dollar and changes in foreign exchange rates significantly affect our reported results and consolidated trends. For example, if the U.S. Dollar weakens year-over-year relative to currencies in our international locations, our consolidated net sales and operating expenses will be higher than if currencies had remained constant. Likewise, if the U.S. Dollar strengthens year-over-year relative to currencies in our international locations, our consolidated net sales and operating expenses will be lower than if currencies had remained constant. We believe that our increasing diversification beyond the U.S. economy through our growing international businesses benefits our shareholders over the long-term. We also believe it is useful to evaluate our operating results and growth rates before and after the effect of currency changes.

In addition, the remeasurement of our intercompany balances can result in significant gains and losses associated with the effect of movements in foreign currency exchange rates. Currency volatilities may continue, which may significantly impact (either positively or negatively) our reported results and consolidated trends and comparisons.

For additional information about each line item addressed above, refer to Item 8 of Part II, "Financial Statements and Supplementary Data — Note 1 — Description of Business, Accounting Policies, and Supplemental Disclosures."

Our Annual Report on Form 10-K for the year ended December 31, 2021 includes a discussion and analysis of our financial condition and results of operations for the year ended December 31, 2020 in Item 7 of Part II, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Critical Accounting Estimates

The preparation of financial statements in conformity with generally accepted accounting principles of the United States ("GAAP") requires estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses, and related disclosures of contingent liabilities in the consolidated financial statements and accompanying notes. Critical accounting estimates are those estimates made in accordance with GAAP that involve a significant level of estimation uncertainty and have had or are reasonably likely to have a material impact on the financial condition or results of operations of the Company. Based on this definition, we have identified the critical accounting estimates addressed below. We also have other key accounting policies, which involve the use of estimates, judgments, and assumptions that are significant to understanding our results. For additional information, see Item 8 of Part II, "Financial Statements and Supplementary Data — Note 1 — Description of Business, Accounting Policies, and Supplemental Disclosures." Although we believe that our estimates, assumptions, and judgments are reasonable, they are based upon information presently available. Actual results may differ significantly from these estimates under different assumptions, judgments, or conditions.

Inventories

Inventories, consisting of products available for sale, are primarily accounted for using the first-in first-out method, and are valued at the lower of cost and net realizable value. This valuation requires us to make judgments, based on currently available information, about the likely method of disposition, such as through sales to individual customers, returns to product

vendors, or liquidations, and expected recoverable values of each disposition category. These assumptions about future disposition of inventory are inherently uncertain and changes in our estimates and assumptions may cause us to realize material write-downs in the future. As a measure of sensitivity, for every 1% of additional inventory valuation allowance as of December 31, 2022, we would have recorded an additional cost of sales of approximately \$390 million.

In addition, we enter into supplier commitments for certain electronic device components and certain products. These commitments are based on forecasted customer demand. If we reduce these commitments, we may incur additional costs.

Income Taxes

We are subject to income taxes in the U.S. (federal and state) and numerous foreign jurisdictions. Tax laws, regulations, administrative practices, principles, and interpretations in various jurisdictions may be subject to significant change, with or without notice, due to economic, political, and other conditions, and significant judgment is required in evaluating and estimating our provision and accruals for these taxes. There are many transactions that occur during the ordinary course of business for which the ultimate tax determination is uncertain. In addition, our actual and forecasted earnings are subject to change due to economic, political, and other conditions and significant judgment is required in determining our ability to use our deferred tax assets.

Our effective tax rates could be affected by numerous factors, such as changes in our business operations, acquisitions, investments, entry into new businesses and geographies, intercompany transactions, the relative amount of our foreign earnings, including earnings being lower than anticipated in jurisdictions where we have lower statutory rates and higher than anticipated in jurisdictions where we have higher statutory rates, losses incurred in jurisdictions for which we are not able to realize related tax benefits, the applicability of special tax regimes, changes in foreign currency exchange rates, changes in our stock price, changes to our forecasts of income and loss and the mix of jurisdictions to which they relate, changes in our deferred tax assets and liabilities and their valuation, changes in the laws, regulations, administrative practices, principles, and interpretations related to tax, including changes to the global tax framework, competition, and other laws and accounting rules in various jurisdictions. In addition, a number of countries have enacted or are actively pursuing changes to their tax laws applicable to corporate multinationals.

We are also currently subject to tax controversies in various jurisdictions, and these jurisdictions may assess additional income tax liabilities against us. Developments in an audit, investigation, or other tax controversy could have a material effect on our operating results or cash flows in the period or periods for which that development occurs, as well as for prior and subsequent periods. We regularly assess the likelihood of an adverse outcome resulting from these proceedings to determine the adequacy of our tax accruals. Although we believe our tax estimates are reasonable, the final outcome of audits, investigations, and any other tax controversies could be materially different from our historical income tax provisions and accruals.

Liquidity and Capital Resources

Cash flow information is as follows (in millions):

	Year Ended December 31,	
	2021	2022
Cash provided by (used in):		
Operating activities	\$ 46,327	\$ 46,752
Investing activities	(58,154)	(37,601)
Financing activities	6,291	9,718

Our principal sources of liquidity are cash flows generated from operations and our cash, cash equivalents, and marketable securities balances, which, at fair value, were \$96.0 billion and \$70.0 billion as of December 31, 2021 and 2022. Amounts held in foreign currencies were \$22.7 billion and \$18.3 billion as of December 31, 2021 and 2022. Our foreign currency balances include British Pounds, Canadian Dollars, Euros, and Japanese Yen.

Cash provided by (used in) operating activities was \$46.3 billion and \$46.8 billion in 2021 and 2022. Our operating cash flows result primarily from cash received from our consumer, seller, developer, enterprise, and content creator customers, and advertisers, offset by cash payments we make for products and services, employee compensation, payment processing and related transaction costs, operating leases, and interest payments. Cash received from our customers and other activities generally corresponds to our net sales. The increase in operating cash flow in 2022, compared to the prior year, was primarily due to the increase in net income, excluding non-cash expenses, partially offset by changes in working capital. Working capital at any specific point in time is subject to many variables, including variability in demand, inventory management and category expansion, the timing of cash receipts and payments, customer and vendor payment terms, and fluctuations in foreign exchange rates.

Cash provided by (used in) investing activities corresponds with cash capital expenditures, including leasehold improvements, incentives received from property and equipment vendors, proceeds from asset sales, cash outlays for acquisitions, investments in other companies and intellectual property rights, and purchases, sales, and maturities of marketable securities. Cash provided by (used in) investing activities was \$(58.2) billion and \$(37.6) billion in 2021 and 2022, with the variability caused primarily by purchases, sales, and maturities of marketable securities. Cash capital expenditures were \$55.4 billion, and \$58.3 billion in 2021 and 2022, which primarily reflect investments in technology infrastructure (the majority of which is to support AWS business growth) and in additional capacity to support our fulfillment network. We expect to continue these investments over time, with increased spending on technology infrastructure. We made cash payments, net of acquired cash, related to acquisition and other investment activity of \$2.0 billion and \$8.3 billion in 2021 and 2022. We funded the acquisition of MGM Holdings Inc. with cash on hand. We expect to fund the acquisitions of iLife Healthcare, Inc. (One Medical) and iRobot Corporation with cash on hand.

Cash provided by (used in) financing activities was \$6.3 billion and \$9.7 billion in 2021 and 2022. Cash inflows from financing activities resulted from proceeds from short-term debt, and other and long-term-debt of \$27.0 billion and \$62.7 billion in 2021 and 2022. Cash outflows from financing activities resulted from repurchases of common stock, payments of short-term debt, and other, long-term debt, finance leases, and financing obligations of \$20.7 billion and \$53.0 billion in 2021 and 2022. Property and equipment acquired under finance leases was \$7.1 billion and \$675 million in 2021 and 2022.

We had no borrowings outstanding under the two unsecured revolving credit facilities, \$6.8 billion of borrowings outstanding under the commercial paper programs, and \$1.0 billion of borrowings outstanding under the secured revolving credit facility as of December 31, 2022. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 6 — Debt” for additional information.

As of December 31, 2022, cash, cash equivalents, and marketable securities held by foreign subsidiaries were \$4.7 billion. We intend to invest substantially all of our foreign subsidiary earnings, as well as our capital in our foreign subsidiaries, indefinitely outside of the U.S. in those jurisdictions in which we would incur significant, additional costs upon repatriation of such amounts.

Our U.S. taxable income is reduced by accelerated depreciation deductions and increased by the impact of capitalized research and development expenses. U.S. tax rules provide for enhanced accelerated depreciation deductions by allowing the election of full expensing of qualified property, primarily equipment, through 2022. Our federal tax provision included a partial election for 2020 and 2021, and a full election for 2022. Effective January 1, 2022, research and development expenses are required to be capitalized and amortized for U.S. tax purposes, which delays the deductibility of these expenses. Cash taxes paid (net of refunds) were \$3.7 billion and \$6.0 billion for 2021 and 2022.

As of December 31, 2021 and 2022, restricted cash, cash equivalents, and marketable securities were \$260 million and \$365 million. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 6 — Debt” and “Financial Statements and Supplementary Data — Note 7 — Commitments and Contingencies” for additional discussion of our principal contractual commitments, as well as our pledged assets. Additionally, we have purchase obligations and open purchase orders, including for inventory and capital expenditures, that support normal operations and are primarily due in the next twelve months. These purchase obligations and open purchase orders are generally cancellable in full or in part through the contractual provisions.

We believe that cash flows generated from operations and our cash, cash equivalents, and marketable securities balances, as well as our borrowing arrangements, will be sufficient to meet our anticipated operating cash needs for at least the next twelve months. However, any projections of future cash needs and cash flows are subject to substantial uncertainty. See Item 1A of Part I, “Risk Factors.” We continually evaluate opportunities to sell additional equity or debt securities, obtain credit facilities, obtain finance and operating lease arrangements, enter into financing obligations, repurchase common stock, pay dividends, or repurchase, refinance, or otherwise restructure our debt for strategic reasons or to further strengthen our financial position.

The sale of additional equity or convertible debt securities would be dilutive to our shareholders. In addition, we will, from time to time, consider the acquisition of, or investment in, complementary businesses, products, services, capital infrastructure, and technologies, which might affect our liquidity requirements or cause us to secure additional financing, or issue additional equity or debt securities. There can be no assurance that additional credit lines or financing instruments will be available in amounts or on terms acceptable to us, if at all. In addition, economic conditions and actions by policymaking bodies are contributing to rising interest rates and significant capital market volatility, which, along with increases in our borrowing levels, could increase our future borrowing costs.

Results of Operations

We have organized our operations into three segments: North America, International, and AWS. These segments reflect the way the Company evaluates its business performance and manages its operations. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 10 — Segment Information.”

Overview

Macroeconomic factors, including inflation, increased interest rates, significant capital market volatility, the prolonged COVID-19 pandemic, global supply chain constraints, and global economic and geopolitical developments, have direct and indirect impacts on our results of operations that are difficult to isolate and quantify. These factors contributed to increases in our operating costs during 2022, particularly across our North America and International segments, primarily due to a return to more normal, seasonal demand volumes in relation to our fulfillment network fixed costs, increased transportation and utility costs, and increased wage rates. In addition, rising fuel, utility, and food costs, rising interest rates, and recessionary fears may impact customer demand and our ability to forecast consumer spending patterns. We also expect the current macroeconomic environment and enterprise customer cost optimization efforts to impact our AWS revenue growth rates. We expect some or all of these factors to continue to impact our operations into Q1 2023.

Net Sales

Net sales include product and service sales. Product sales represent revenue from the sale of products and related shipping fees and digital media content where we record revenue gross. Service sales primarily represent third-party seller fees, which includes commissions and any related fulfillment and shipping fees, AWS sales, advertising services, Amazon Prime membership fees, and certain digital content subscriptions. Net sales information is as follows (in millions):

	Year Ended December 31,	
	2021	2022
Net Sales:		
North America	\$ 279,833	\$ 315,880
International	127,787	118,007
AWS	62,202	80,096
Consolidated	<u>\$ 469,822</u>	<u>\$ 513,983</u>
Year-over-year Percentage Growth (Decline):		
North America	18 %	13 %
International	22	(8)
AWS	37	29
Consolidated	22	9
Year-over-year Percentage Growth, excluding the effect of foreign exchange rates:		
North America	18 %	13 %
International	20	4
AWS	37	29
Consolidated	21	13
Net sales mix:		
North America	60 %	61 %
International	27	23
AWS	13	16
Consolidated	<u>100 %</u>	<u>100 %</u>

Sales increased 9% in 2022, compared to the prior year. Changes in foreign currency exchange rates reduced net sales by \$15.5 billion in 2022. For a discussion of the effect of foreign exchange rates on sales growth, see “Effect of Foreign Exchange Rates” below.

North America sales increased 13% in 2022, compared to the prior year. The sales growth primarily reflects increased unit sales, including sales by third-party sellers, advertising sales, and subscription services. Increased unit sales were driven largely by our continued focus on price, selection, and convenience for our customers, including from our shipping offers.

International sales decreased 8% in 2022, compared to the prior year, primarily due to the impact of changes in foreign currency exchange rates, partially offset by increased unit sales, including sales by third-party sellers, advertising sales, and subscription services. Increased unit sales were driven largely by our continued focus on price, selection, and convenience for our customers, including from our shipping offers. Changes in foreign currency exchange rates reduced International net sales by \$15.0 billion in 2022.

AWS sales increased 29% in 2022, compared to the prior year. The sales growth primarily reflects increased customer usage, partially offset by pricing changes, primarily driven by long-term customer contracts.

Operating Income (Loss)

Operating income (loss) by segment is as follows (in millions):

	<u>Year Ended December 31,</u>	
	<u>2021</u>	<u>2022</u>
Operating Income (Loss)		
North America	\$ 7,271	\$ (2,847)
International	(924)	(7,746)
AWS	18,532	22,841
Consolidated	<u>\$ 24,879</u>	<u>\$ 12,248</u>

Operating income was \$24.9 billion and \$12.2 billion for 2021 and 2022. We believe that operating income is a more meaningful measure than gross profit and gross margin due to the diversity of our product categories and services.

The North America operating loss in 2022, as compared to the operating income in the prior year, is primarily due to increased fulfillment and shipping costs, due in part to increases in investments in our fulfillment network, transportation costs, and wage rates and incentives, increased technology and content costs, and growth in certain operating expenses, partially offset by increased unit sales, including sales by third-party sellers, and advertising sales. Changes in foreign currency exchange rates positively impacted operating loss by \$274 million in 2022.

The increase in International operating loss in absolute dollars in 2022, compared to the prior year, is primarily due to increased fulfillment and shipping costs, due in part to increases in investments in our fulfillment network, transportation costs, and wage rates and incentives, increased technology and content costs, and growth in certain operating expenses, partially offset by increased advertising sales and increased unit sales, including sales by third-party sellers. Changes in foreign currency exchange rates negatively impacted operating loss by \$857 million in 2022.

The increase in AWS operating income in absolute dollars in 2022, compared to the prior year, is primarily due to increased sales and cost structure productivity, including a reduction in depreciation and amortization expense from our change in the estimated useful lives of our servers and networking equipment, partially offset by increased payroll and related expenses and spending on technology infrastructure, all of which were primarily driven by additional investments to support AWS business growth. Changes in foreign currency exchange rates positively impacted operating income by \$1.4 billion in 2022.

Operating Expenses

Information about operating expenses is as follows (in millions):

	Year Ended December 31,	
	2021	2022
Operating expenses:		
Cost of sales	\$ 272,344	\$ 288,831
Fulfillment	75,111	84,299
Technology and content	56,052	73,213
Sales and marketing	32,551	42,238
General and administrative	8,823	11,891
Other operating expense (income), net	62	1,263
Total operating expenses	<u>\$ 444,943</u>	<u>\$ 501,735</u>
Year-over-year Percentage Growth (Decline):		
Cost of sales	17 %	6 %
Fulfillment	28	12
Technology and content	31	31
Sales and marketing	48	30
General and administrative	32	35
Other operating expense (income), net	(183)	1,936
Percent of Net Sales:		
Cost of sales	58.0 %	56.2 %
Fulfillment	16.0	16.4
Technology and content	11.9	14.2
Sales and marketing	6.9	8.2
General and administrative	1.9	2.3
Other operating expense (income), net	0.0	0.2

Cost of Sales

Cost of sales primarily consists of the purchase price of consumer products, inbound and outbound shipping costs, including costs related to sortation and delivery centers and where we are the transportation service provider, and digital media content costs where we record revenue gross, including video and music.

The increase in cost of sales in absolute dollars in 2022, compared to the prior year, is primarily due to increased shipping and product costs resulting from increased sales and increases in investments in our fulfillment network, transportation costs, and wage rates and incentives. Changes in foreign exchange rates reduced cost of sales by \$10.8 billion in 2022.

Shipping costs to receive products from our suppliers are included in our inventory and recognized as cost of sales upon sale of products to our customers. Shipping costs, which include sortation and delivery centers and transportation costs, were \$76.7 billion and \$83.5 billion in 2021 and 2022. We expect our cost of shipping to continue to increase to the extent our customers accept and use our shipping offers at an increasing rate, we use more expensive shipping methods, including faster delivery, and we offer additional services. We seek to mitigate costs of shipping over time in part through achieving higher sales volumes, optimizing our fulfillment network, negotiating better terms with our suppliers, and achieving better operating efficiencies. We believe that offering low prices to our customers is fundamental to our future success, and one way we offer lower prices is through shipping offers.

Costs to operate our AWS segment are primarily classified as "Technology and content" as we leverage a shared infrastructure that supports both our internal technology requirements and external sales to AWS customers.

Fulfillment

Fulfillment costs primarily consist of those costs incurred in operating and staffing our North America and International fulfillment centers, physical stores, and customer service centers and payment processing costs. While AWS payment processing and related transaction costs are included in "Fulfillment," AWS costs are primarily classified as "Technology and content." Fulfillment costs as a percentage of net sales may vary due to several factors, such as payment processing and related

transaction costs, our level of productivity and accuracy, changes in volume, size, and weight of units received and fulfilled, the extent to which third-party sellers utilize Fulfillment by Amazon services, timing of fulfillment network and physical store expansion, the extent we utilize fulfillment services provided by third parties, mix of products and services sold, and our ability to affect customer service contacts per unit by implementing improvements in our operations and enhancements to our customer self-service features. Additionally, sales by our sellers have higher payment processing and related transaction costs as a percentage of net sales compared to our retail sales because payment processing costs are based on the gross purchase price of underlying transactions.

The increase in fulfillment costs in absolute dollars in 2022, compared to the prior year, is primarily due to increased investments in our fulfillment network and variable costs corresponding with increased product and service sales volume and inventory levels, and increased wage rates and incentives. Changes in foreign exchange rates reduced fulfillment costs by \$2.5 billion in 2022.

We seek to expand our fulfillment network to accommodate a greater selection and in-stock inventory levels and to meet anticipated shipment volumes from sales of our own products as well as sales by third parties for which we provide the fulfillment services. We regularly evaluate our facility requirements.

Technology and Content

Technology and content costs include payroll and related expenses for employees involved in the research and development of new and existing products and services, development, design, and maintenance of our stores, curation and display of products and services made available in our online stores, and infrastructure costs. Infrastructure costs include servers, networking equipment, and data center related depreciation and amortization, rent, utilities, and other expenses necessary to support AWS and other Amazon businesses. Collectively, these costs reflect the investments we make in order to offer a wide variety of products and services to our customers, including expenditures related to initiatives to build and deploy innovative and efficient software and electronic devices and the development of a satellite network for global broadband service and autonomous vehicles for ride-hailing services.

We seek to invest efficiently in numerous areas of technology and content so we may continue to enhance the customer experience and improve our process efficiency through rapid technology developments, while operating at an ever increasing scale. Our technology and content investment and capital spending projects often support a variety of product and service offerings due to geographic expansion and the cross-functionality of our systems and operations. We expect spending in technology and content to increase over time as we continue to add employees and technology infrastructure. These costs are allocated to segments based on usage. The increase in technology and content costs in absolute dollars in 2022, compared to the prior year, is primarily due to increased payroll and related costs associated with technical teams responsible for expanding our existing products and services and initiatives to introduce new products and service offerings, and an increase in spending on technology infrastructure, partially offset by a reduction in depreciation and amortization expense from our change in the estimated useful lives of our servers and networking equipment. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 1 — Description of Business, Accounting Policies, and Supplemental Disclosures — Use of Estimates” for additional information on the change in estimated useful lives of our servers and networking equipment.

Sales and Marketing

Sales and marketing costs include advertising and payroll and related expenses for personnel engaged in marketing and selling activities, including sales commissions related to AWS. We direct customers to our stores primarily through a number of marketing channels, such as our sponsored search, social and online advertising, third party customer referrals, television advertising, and other initiatives. Our marketing costs are largely variable, based on growth in sales and changes in rates. To the extent there is increased or decreased competition for these traffic sources, or to the extent our mix of these channels shifts, we would expect to see a corresponding change in our marketing costs.

The increase in sales and marketing costs in absolute dollars in 2022, compared to the prior year, is primarily due to increased payroll and related expenses for personnel engaged in marketing and selling activities and higher marketing spend.

While costs associated with Amazon Prime membership benefits and other shipping offers are not included in sales and marketing expense, we view these offers as effective worldwide marketing tools, and intend to continue offering them indefinitely.

General and Administrative

The increase in general and administrative costs in absolute dollars in 2022, compared to the prior year, is primarily due to increases in payroll and related expenses and professional fees.

Other Operating Expense (Income), Net

Other operating expense (income), net was \$62 million and \$1.3 billion during 2021 and 2022, and was primarily related to the amortization of intangible assets and, for 2022, \$1.1 billion of impairments of property and equipment and operating leases.

Interest Income and Expense

Our interest income was \$448 million and \$989 million during 2021 and 2022, primarily due to an increase in prevailing rates. We generally invest our excess cash in AAA-rated money market funds and investment grade short- to intermediate-term fixed income securities. Our interest income corresponds with the average balance of invested funds based on the prevailing rates, which vary depending on the geographies and currencies in which they are invested.

Interest expense was \$1.8 billion and \$2.4 billion in 2021 and 2022 and was primarily related to debt and finance leases. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 4 — Leases and Note 6 — Debt” for additional information.

Our long-term lease liabilities were \$67.7 billion and \$73.0 billion as of December 31, 2021 and 2022. Our long-term debt was \$48.7 billion and \$67.1 billion as of December 31, 2021 and 2022. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 4 — Leases and Note 6 — Debt” for additional information.

Other Income (Expense), Net

Other income (expense), net was \$14.6 billion and \$(16.8) billion during 2021 and 2022. The primary components of other income (expense), net are related to equity securities valuations and adjustments, equity warrant valuations, and foreign currency. Included in other income (expense), net in 2021 and 2022 is a marketable equity securities valuation gain (loss) of \$11.8 billion and \$(12.7) billion from our equity investment in Rivian.

Income Taxes

Our effective tax rate is subject to significant variation due to several factors, including variability in our pre-tax and taxable income and loss and the mix of jurisdictions to which they relate, intercompany transactions, the applicability of special tax regimes, changes in how we do business, acquisitions, investments, developments in tax controversies, changes in our stock price, changes in our deferred tax assets and liabilities and their valuation, foreign currency gains (losses), changes in statutes, regulations, case law, and administrative practices, principles, and interpretations related to tax, including changes to the global tax framework, competition, and other laws and accounting rules in various jurisdictions, and relative changes of expenses or losses for which tax benefits are not recognized. Our effective tax rate can be more or less volatile based on the amount of pre-tax income or loss. For example, the impact of discrete items and non-deductible expenses on our effective tax rate is greater when our pre-tax income is lower. In addition, we record valuation allowances against deferred tax assets when there is uncertainty about our ability to generate future income in relevant jurisdictions.

We recorded a provision (benefit) for income taxes of \$4.8 billion and \$(3.2) billion in 2021 and 2022. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 9 — Income Taxes” for additional information.

Non-GAAP Financial Measures

Regulation G, Conditions for Use of Non-GAAP Financial Measures, and other SEC regulations define and prescribe the conditions for use of certain non-GAAP financial information. Our measures of free cash flows and the effect of foreign exchange rates on our consolidated statements of operations meet the definition of non-GAAP financial measures.

We provide multiple measures of free cash flows because we believe these measures provide additional perspective on the impact of acquiring property and equipment with cash and through finance leases and financing obligations.

Free Cash Flow

Free cash flow is cash flow from operations reduced by “Purchases of property and equipment, net of proceeds from sales and incentives.” The following is a reconciliation of free cash flow to the most comparable GAAP cash flow measure, “Net cash provided by (used in) operating activities,” for 2021 and 2022 (in millions):

	Year Ended December 31,	
	2021	2022
Net cash provided by (used in) operating activities	\$ 46,327	\$ 46,752
Purchases of property and equipment, net of proceeds from sales and incentives	(55,396)	(58,321)
Free cash flow	<u>\$ (9,069)</u>	<u>\$ (11,569)</u>
Net cash provided by (used in) investing activities	\$ (58,154)	\$ (37,601)
Net cash provided by (used in) financing activities	\$ 6,291	\$ 9,718

Free Cash Flow Less Principal Repayments of Finance Leases and Financing Obligations

Free cash flow less principal repayments of finance leases and financing obligations is free cash flow reduced by “Principal repayments of finance leases” and “Principal repayments of financing obligations.” Principal repayments of finance leases and financing obligations approximates the actual payments of cash for our finance leases and financing obligations. The following is a reconciliation of free cash flow less principal repayments of finance leases and financing obligations to the most comparable GAAP cash flow measure, “Net cash provided by (used in) operating activities,” for 2021 and 2022 (in millions):

	Year Ended December 31,	
	2021	2022
Net cash provided by (used in) operating activities	\$ 46,327	\$ 46,752
Purchases of property and equipment, net of proceeds from sales and incentives	(55,396)	(58,321)
Free cash flow	(9,069)	(11,569)
Principal repayments of finance leases	(11,163)	(7,941)
Principal repayments of financing obligations	(162)	(248)
Free cash flow less principal repayments of finance leases and financing obligations	<u>\$ (20,394)</u>	<u>\$ (19,758)</u>
Net cash provided by (used in) investing activities	\$ (58,154)	\$ (37,601)
Net cash provided by (used in) financing activities	\$ 6,291	\$ 9,718

Free Cash Flow Less Equipment Finance Leases and Principal Repayments of All Other Finance Leases and Financing Obligations

Free cash flow less equipment finance leases and principal repayments of all other finance leases and financing obligations is free cash flow reduced by equipment acquired under finance leases, which is included in “Property and equipment acquired under finance leases, net of remeasurements and modifications,” principal repayments of all other finance lease liabilities, which is included in “Principal repayments of finance leases,” and “Principal repayments of financing obligations.” All other finance lease liabilities and financing obligations consists of property. In this measure, equipment acquired under finance leases is reflected as if these assets had been purchased with cash, which is not the case as these assets have been leased. The following is a reconciliation of free cash flow less equipment finance leases and principal repayments of all other finance leases and financing obligations to the most comparable GAAP cash flow measure, “Net cash provided by (used in) operating activities,” for 2021 and 2022 (in millions):

	Year Ended December 31,	
	2021	2022
Net cash provided by (used in) operating activities	\$ 46,327	\$ 46,752
Purchases of property and equipment, net of proceeds from sales and incentives	(55,396)	(58,321)
Free cash flow	(9,069)	(11,569)
Equipment acquired under finance leases (1)	(4,422)	(299)
Principal repayments of all other finance leases (2)	(687)	(670)
Principal repayments of financing obligations	(162)	(248)
Free cash flow less equipment finance leases and principal repayments of all other finance leases and financing obligations	<u>\$ (14,340)</u>	<u>\$ (12,786)</u>
Net cash provided by (used in) investing activities	\$ (58,154)	\$ (37,601)
Net cash provided by (used in) financing activities	\$ 6,291	\$ 9,718

- (1) For the year ended December 31, 2021 and 2022, this amount relates to equipment included in “Property and equipment acquired under finance leases, net of remeasurements and modifications” of \$7,061 million and \$675 million.
- (2) For the year ended December 31, 2021 and 2022, this amount relates to property included in “Principal repayments of finance leases” of \$11,163 million and \$7,941 million.

All of these free cash flows measures have limitations as they omit certain components of the overall cash flow statement and do not represent the residual cash flow available for discretionary expenditures. For example, these measures of free cash flows do not incorporate the portion of payments representing principal reductions of debt or cash payments for business acquisitions. Additionally, our mix of property and equipment acquisitions with cash or other financing options may change over time. Therefore, we believe it is important to view free cash flows measures only as a complement to our entire consolidated statements of cash flows.

Effect of Foreign Exchange Rates

Information regarding the effect of foreign exchange rates, versus the U.S. Dollar, on our net sales, operating expenses, and operating income is provided to show reported period operating results had the foreign exchange rates remained the same as those in effect in the comparable prior year period. The effect on our net sales, operating expenses, and operating income from changes in our foreign exchange rates versus the U.S. Dollar is as follows (in millions):

	Year Ended December 31, 2021			Year Ended December 31, 2022		
	As Reported	Exchange Rate Effect (1)	At Prior Year Rates (2)	As Reported	Exchange Rate Effect (1)	At Prior Year Rates (2)
Net sales	\$469,822	\$ (3,804)	\$466,018	\$513,983	\$ 15,495	\$529,478
Operating expenses	444,943	(3,653)	441,290	501,735	16,356	518,091
Operating income	24,879	(151)	24,728	12,248	(861)	11,387

- (1) Represents the change in reported amounts resulting from changes in foreign exchange rates from those in effect in the comparable prior year period for operating results.
- (2) Represents the outcome that would have resulted had foreign exchange rates in the reported period been the same as those in effect in the comparable prior year period for operating results.

Guidance

We provided guidance on February 2, 2023, in our earnings release furnished on Form 8-K as set forth below. These forward-looking statements reflect Amazon.com's expectations as of February 2, 2023, and are subject to substantial uncertainty. Our results are inherently unpredictable and may be materially affected by many factors, such as uncertainty regarding the impacts of the COVID-19 pandemic, fluctuations in foreign exchange rates, changes in global economic and geopolitical conditions and customer demand and spending (including the impact of recessionary fears), inflation, interest rates, regional labor market and global supply chain constraints, world events, the rate of growth of the Internet, online commerce, and cloud services, as well as those outlined in Item 1A of Part I, "Risk Factors."

First Quarter 2023 Guidance

- Net sales are expected to be between \$121.0 billion and \$126.0 billion, or to grow between 4% and 8% compared with first quarter 2022. This guidance anticipates an unfavorable impact of approximately 210 basis points from foreign exchange rates.
- Operating income is expected to be between \$0 and \$4.0 billion, compared with \$3.7 billion in first quarter 2022.
- This guidance assumes, among other things, that no additional business acquisitions, restructurings, or legal settlements are concluded.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

We are exposed to market risk for the effect of interest rate changes, foreign currency fluctuations, and changes in the market values of our investments. Information relating to quantitative and qualitative disclosures about market risk is set forth below and in Item 7 of Part II, “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources.”

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and our debt. Our long-term debt is carried at amortized cost and fluctuations in interest rates do not impact our consolidated financial statements. However, the fair value of our long-term debt, which pays interest at a fixed rate, will generally fluctuate with movements of interest rates, increasing in periods of declining rates of interest and declining in periods of increasing rates of interest.

We generally invest our excess cash in AAA-rated money market funds and investment grade short- to intermediate-term fixed income securities. Fixed income securities may have their fair market value adversely affected due to a rise in interest rates, and we may suffer losses in principal if forced to sell securities that have declined in market value due to changes in interest rates. The following table provides information about our cash equivalents and marketable fixed income securities, including principal cash flows by expected maturity and the related weighted-average interest rates as of December 31, 2022 (in millions, except percentages):

	2023	2024	2025	2026	2027	Thereafter	Total	Estimated Fair Value as of December 31, 2022
Money market funds	\$ 27,899	\$ —	\$ —	\$ —	\$ —	\$ —	\$27,899	\$ 27,899
Weighted average interest rate	4.18 %	— %	— %	— %	— %	— %	4.18 %	
Corporate debt securities	17,500	2,486	2,332	748	9	—	23,075	22,627
Weighted average interest rate	4.06 %	0.97 %	1.23 %	1.45 %	2.33 %	— %	3.35 %	
U.S. government and agency securities	819	358	554	396	80	75	2,282	2,146
Weighted average interest rate	1.05 %	0.98 %	0.81 %	0.83 %	1.24 %	1.83 %	0.98 %	
Asset-backed securities	1,059	872	413	146	128	72	2,690	2,572
Weighted average interest rate	0.99 %	1.30 %	1.37 %	1.39 %	1.41 %	1.06 %	1.19 %	
Foreign government and agency securities	519	19	—	—	—	—	538	535
Weighted average interest rate	4.24 %	0.60 %	— %	— %	— %	— %	4.11 %	
Other fixed income securities	138	61	48	—	—	—	247	237
Weighted average interest rate	0.40 %	0.56 %	1.15 %	— %	— %	— %	0.58 %	
	<u>\$ 47,934</u>	<u>\$ 3,796</u>	<u>\$ 3,347</u>	<u>\$ 1,290</u>	<u>\$ 217</u>	<u>\$ 147</u>	<u>\$56,731</u>	
Cash equivalents and marketable fixed income securities								<u>\$ 56,016</u>

As of December 31, 2022, we had long-term debt with a face value of \$70.5 billion, including the current portion, primarily consisting of fixed rate unsecured senior notes. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 6 — Debt” for additional information.

Foreign Exchange Risk

During 2022, net sales from our International segment accounted for 23% of our consolidated revenues. Net sales and related expenses generated from our internationally-focused stores, including within Canada and Mexico (which are included in our North America segment), are primarily denominated in the functional currencies of the corresponding stores and primarily include Euros, British Pounds, and Japanese Yen. The results of operations of, and certain of our intercompany balances associated with, our internationally-focused stores and AWS are exposed to foreign exchange rate fluctuations. Upon consolidation, as foreign exchange rates vary, net sales and other operating results may differ materially from expectations, and we may record significant gains or losses on the remeasurement of intercompany balances. For example, as a result of fluctuations in foreign exchange rates throughout the year compared to rates in effect the prior year, International segment net sales decreased by \$15.0 billion in comparison with the prior year.

We have foreign exchange risk related to foreign-denominated cash, cash equivalents, and marketable securities (“foreign funds”). Based on the balance of foreign funds as of December 31, 2022, of \$18.3 billion, an assumed 5%, 10%, and 20% adverse change to foreign exchange would result in declines of \$915 million, \$1.8 billion, and \$3.7 billion.

We also have foreign exchange risk related to our intercompany balances denominated in various foreign currencies. Based on the intercompany balances as of December 31, 2022, an assumed 5%, 10%, and 20% adverse change to foreign exchange rates would result in losses of \$275 million, \$555 million, and \$1.1 billion, recorded to “Other income (expense), net.”

See Item 7 of Part II, “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations — Effect of Foreign Exchange Rates” for additional information on the effect on reported results of changes in foreign exchange rates.

Equity Investment Risk

As of December 31, 2022, our recorded value in equity and equity warrant investments in public and private companies was \$7.2 billion. Our equity and equity warrant investments in publicly traded companies, which primarily relate to Rivian, represent \$5.0 billion of our investments as of December 31, 2022, and are recorded at fair value, which is subject to market price volatility. We record our equity warrant investments in private companies at fair value and adjust our equity investments in private companies for observable price changes or impairments. Valuations of private companies are inherently more complex due to the lack of readily available market data. The current global economic conditions provide additional uncertainty. As such, we believe that market sensitivities are not practicable. See Item 8 of Part II, “Financial Statements and Supplementary Data — Note 1 — Description of Business, Accounting Policies, and Supplemental Disclosures” for additional information.

Item 8. *Financial Statements and Supplementary Data*

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
Amazon.com, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Amazon.com, Inc. (the Company) as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 2, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Uncertain Tax Positions

*Description of
the Matter*

As discussed in Notes 1 and 9 of the consolidated financial statements, the Company is subject to income taxes in the U.S. and numerous foreign jurisdictions and during the ordinary course of business, there are many tax positions for which the ultimate tax determination is uncertain. As a result, significant judgment is required in evaluating the Company's tax positions and determining its provision for income taxes. The Company uses significant judgment in (1) determining whether a tax position's technical merits are more likely than not to be sustained and (2) measuring the amount of tax benefit that qualifies for recognition. As of December 31, 2022, the Company reported accrued liabilities of \$4.0 billion for various tax contingencies.

Auditing the recognition and measurement of the Company's tax contingencies was challenging because the evaluation of whether a tax position is more likely than not to be sustained and the measurement of the benefit of various tax positions can be complex and involves significant auditor judgment. Management's evaluation of tax positions is based on interpretations of tax laws and legal rulings, and may be impacted by regulatory changes and judicial and examination activity.

*How We
Addressed the
Matter in Our
Audit*

We tested controls over the Company's process to assess the technical merits of its tax contingencies, including controls over: the assessment as to whether a tax position is more likely than not to be sustained; the measurement of the benefit of its tax positions, both initially and on an ongoing basis; and the development of the related disclosures.

We involved our international tax, transfer pricing, and research and development tax professionals in assessing the technical merits of certain of the Company's tax positions. Depending on the nature of the specific tax position and, as applicable, developments with the relevant tax authorities relating thereto, our procedures included obtaining and examining the Company's analysis including the Company's correspondence with such tax authorities and evaluating the underlying facts upon which the tax positions are based. We used our knowledge of and experience with international, transfer pricing, and other income tax laws of the relevant taxing jurisdictions to evaluate the Company's accounting for its tax contingencies. We evaluated developments in the applicable regulatory environments to assess potential effects on the Company's positions, including recent decisions in relevant court cases. We analyzed the appropriateness of the Company's assumptions and the accuracy of the Company's calculations and data used to determine the amount of tax benefits to recognize. We evaluated the Company's income tax disclosures in relation to these matters.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1996.
Seattle, Washington
February 2, 2023

AMAZON.COM, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	Year Ended December 31,		
	2020	2021	2022
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH, BEGINNING OF PERIOD	\$ 36,410	\$ 42,377	\$ 36,477
OPERATING ACTIVITIES:			
Net income (loss)	21,331	33,364	(2,722)
Adjustments to reconcile net income (loss) to net cash from operating activities:			
Depreciation and amortization of property and equipment and capitalized content costs, operating lease assets, and other	25,180	34,433	41,921
Stock-based compensation	9,208	12,757	19,621
Other expense (income), net	(2,582)	(14,306)	16,966
Deferred income taxes	(554)	(310)	(8,148)
Changes in operating assets and liabilities:			
Inventories	(2,849)	(9,487)	(2,592)
Accounts receivable, net and other	(8,169)	(18,163)	(21,897)
Accounts payable	17,480	3,602	2,945
Accrued expenses and other	5,754	2,123	(1,558)
Unearned revenue	1,265	2,314	2,216
Net cash provided by (used in) operating activities	<u>66,064</u>	<u>46,327</u>	<u>46,752</u>
INVESTING ACTIVITIES:			
Purchases of property and equipment	(40,140)	(61,053)	(63,645)
Proceeds from property and equipment sales and incentives	5,096	5,657	5,324
Acquisitions, net of cash acquired, and other	(2,325)	(1,985)	(8,316)
Sales and maturities of marketable securities	50,237	59,384	31,601
Purchases of marketable securities	(72,479)	(60,157)	(2,565)
Net cash provided by (used in) investing activities	<u>(59,611)</u>	<u>(58,154)</u>	<u>(37,601)</u>
FINANCING ACTIVITIES:			
Common stock repurchased	—	—	(6,000)
Proceeds from short-term debt, and other	6,796	7,956	41,553
Repayments of short-term debt, and other	(6,177)	(7,753)	(37,554)
Proceeds from long-term debt	10,525	19,003	21,166
Repayments of long-term debt	(1,553)	(1,590)	(1,258)
Principal repayments of finance leases	(10,642)	(11,163)	(7,941)
Principal repayments of financing obligations	(53)	(162)	(248)
Net cash provided by (used in) financing activities	<u>(1,104)</u>	<u>6,291</u>	<u>9,718</u>
Foreign currency effect on cash, cash equivalents, and restricted cash	618	(364)	(1,093)
Net increase (decrease) in cash, cash equivalents, and restricted cash	<u>5,967</u>	<u>(5,900)</u>	<u>17,776</u>
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH, END OF PERIOD	<u>\$ 42,377</u>	<u>\$ 36,477</u>	<u>\$ 54,253</u>

See accompanying notes to consolidated financial statements.

AMAZON.COM, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in millions, except per share data)

	Year Ended December 31,		
	2020	2021	2022
Net product sales	\$ 215,915	\$ 241,787	\$ 242,901
Net service sales	170,149	228,035	271,082
Total net sales	386,064	469,822	513,983
Operating expenses:			
Cost of sales	233,307	272,344	288,831
Fulfillment	58,517	75,111	84,299
Technology and content	42,740	56,052	73,213
Sales and marketing	22,008	32,551	42,238
General and administrative	6,668	8,823	11,891
Other operating expense (income), net	(75)	62	1,263
Total operating expenses	363,165	444,943	501,735
Operating income	22,899	24,879	12,248
Interest income	555	448	989
Interest expense	(1,647)	(1,809)	(2,367)
Other income (expense), net	2,371	14,633	(16,806)
Total non-operating income (expense)	1,279	13,272	(18,184)
Income (loss) before income taxes	24,178	38,151	(5,936)
Benefit (provision) for income taxes	(2,863)	(4,791)	3,217
Equity-method investment activity, net of tax	16	4	(3)
Net income (loss)	\$ 21,331	\$ 33,364	\$ (2,722)
Basic earnings per share	\$ 2.13	\$ 3.30	\$ (0.27)
Diluted earnings per share	\$ 2.09	\$ 3.24	\$ (0.27)
Weighted-average shares used in computation of earnings per share:			
Basic	10,005	10,117	10,189
Diluted	10,198	10,296	10,189

See accompanying notes to consolidated financial statements.

AMAZON.COM, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in millions)

	Year Ended December 31,		
	2020	2021	2022
Net income (loss)	\$ 21,331	\$ 33,364	\$ (2,722)
Other comprehensive income (loss):			
Foreign currency translation adjustments, net of tax of \$(36), \$47, and \$100	561	(819)	(2,586)
Net change in unrealized gains (losses) on available-for-sale debt securities:			
Unrealized gains (losses), net of tax of \$(83), \$72, and \$159	273	(343)	(823)
Reclassification adjustment for losses (gains) included in "Other income (expense), net," net of tax of \$8, \$13, and \$0	(28)	(34)	298
Net unrealized gains (losses) on available-for-sale debt securities	245	(377)	(525)
Total other comprehensive income (loss)	806	(1,196)	(3,111)
Comprehensive income (loss)	\$ 22,137	\$ 32,168	\$ (5,833)

See accompanying notes to consolidated financial statements.

AMAZON.COM, INC.
CONSOLIDATED BALANCE SHEETS
(in millions, except per share data)

	December 31,	
	2021	2022
<u>ASSETS</u>		
Current assets:		
Cash and cash equivalents	\$ 36,220	\$ 53,888
Marketable securities	59,829	16,138
Inventories	32,640	34,405
Accounts receivable, net and other	32,891	42,360
Total current assets	161,580	146,791
Property and equipment, net	160,281	186,715
Operating leases	56,082	66,123
Goodwill	15,371	20,288
Other assets	27,235	42,758
Total assets	\$ 420,549	\$ 462,675
<u>LIABILITIES AND STOCKHOLDERS' EQUITY</u>		
Current liabilities:		
Accounts payable	\$ 78,664	\$ 79,600
Accrued expenses and other	51,775	62,566
Unearned revenue	11,827	13,227
Total current liabilities	142,266	155,393
Long-term lease liabilities	67,651	72,968
Long-term debt	48,744	67,150
Other long-term liabilities	23,643	21,121
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock (\$0.01 par value; 500 shares authorized; no shares issued or outstanding)	—	—
Common stock (\$0.01 par value; 100,000 shares authorized; 10,644 and 10,757 shares issued; 10,175 and 10,242 shares outstanding)	106	108
Treasury stock, at cost	(1,837)	(7,837)
Additional paid-in capital	55,437	75,066
Accumulated other comprehensive income (loss)	(1,376)	(4,487)
Retained earnings	85,915	83,193
Total stockholders' equity	138,245	146,043
Total liabilities and stockholders' equity	\$ 420,549	\$ 462,675

See accompanying notes to consolidated financial statements.

AMAZON.COM, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

	<u>Common Stock</u>			Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount	Treasury Stock				
Balance as of January 1, 2020	9,950	\$ 104	\$ (1,837)	\$ 33,559	\$ (986)	\$ 31,220	\$ 62,060
Net income	—	—	—	—	—	21,331	21,331
Other comprehensive income (loss)	—	—	—	—	806	—	806
Stock-based compensation and issuance of employee benefit plan stock	116	1	—	9,206	—	—	9,207
Balance as of December 31, 2020	10,066	105	(1,837)	42,765	(180)	52,551	93,404
Net income	—	—	—	—	—	33,364	33,364
Other comprehensive income (loss)	—	—	—	—	(1,196)	—	(1,196)
Stock-based compensation and issuance of employee benefit plan stock	109	1	—	12,672	—	—	12,673
Balance as of December 31, 2021	10,175	106	(1,837)	55,437	(1,376)	85,915	138,245
Net loss	—	—	—	—	—	(2,722)	(2,722)
Other comprehensive income (loss)	—	—	—	—	(3,111)	—	(3,111)
Stock-based compensation and issuance of employee benefit plan stock	113	2	—	19,629	—	—	19,631
Common stock repurchased	(46)	—	(6,000)	—	—	—	(6,000)
Balance as of December 31, 2022	<u>10,242</u>	<u>\$ 108</u>	<u>\$ (7,837)</u>	<u>\$ 75,066</u>	<u>\$ (4,487)</u>	<u>\$ 83,193</u>	<u>\$ 146,043</u>

See accompanying notes to consolidated financial statements.

AMAZON.COM, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 — DESCRIPTION OF BUSINESS, ACCOUNTING POLICIES, AND SUPPLEMENTAL DISCLOSURES

Description of Business

We seek to be Earth's most customer-centric company. In each of our segments, we serve our primary customer sets, consisting of consumers, sellers, developers, enterprises, content creators, advertisers, and employees. We serve consumers through our online and physical stores and focus on selection, price, and convenience. We offer programs that enable sellers to grow their businesses, sell their products in our stores, and fulfill orders through us, and programs that allow authors, independent publishers, musicians, filmmakers, Twitch streamers, skill and app developers, and others to publish and sell content. We serve developers and enterprises of all sizes through AWS, which offers a broad set of on-demand technology services, including compute, storage, database, analytics, and machine learning, and other services. We also manufacture and sell electronic devices. In addition, we provide advertising services to sellers, vendors, publishers, authors, and others, through programs such as sponsored ads, display, and video advertising.

We have organized our operations into three segments: North America, International, and AWS. See "Note 10 — Segment Information."

Common Stock Split

On May 27, 2022, we effected a 20-for-1 stock split of our common stock and proportionately increased the number of authorized shares of common stock. All share, restricted stock unit ("RSU"), and per share or per RSU information throughout this Annual Report on Form 10-K has been retroactively adjusted to reflect the stock split. The shares of common stock retain a par value of \$0.01 per share. Accordingly, an amount equal to the par value of the increased shares resulting from the stock split was reclassified from "Additional paid-in capital" to "Common stock."

Prior Period Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation. "Other operating expense (income), net" was reclassified into "Depreciation and amortization of property and equipment and capitalized content costs, operating lease assets, and other" on our consolidated statements of cash flows.

Principles of Consolidation

The consolidated financial statements include the accounts of Amazon.com, Inc. and its consolidated entities (collectively, the "Company"), consisting of its wholly-owned subsidiaries and those entities in which we have a variable interest and of which we are the primary beneficiary, including certain entities in India and certain entities that support our seller lending financing activities. Intercompany balances and transactions between consolidated entities are eliminated.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses, and related disclosures of contingent liabilities in the consolidated financial statements and accompanying notes. Estimates are used for, but not limited to, income taxes, useful lives of equipment, commitments and contingencies, valuation of acquired intangibles and goodwill, stock-based compensation forfeiture rates, vendor funding, inventory valuation, collectability of receivables, impairment of property and equipment and operating leases, valuation and impairment of investments, self-insurance liabilities, and viewing patterns of capitalized video content. Actual results could differ materially from these estimates. We review the useful lives of equipment on an ongoing basis, and effective January 1, 2022 we changed our estimate of the useful lives for our servers from four years to five years and for our networking equipment from five years to six years. The longer useful lives are due to continuous improvements in our hardware, software, and data center designs. The effect of this change in estimate for the year ended December 31, 2022, based on servers and networking equipment that were included in "Property and equipment, net" as of December 31, 2021 and those acquired during the year ended December 31, 2022, was a reduction in depreciation and amortization expense of \$3.6 billion and a benefit to net loss of \$2.8 billion, or \$0.28 per basic share and \$0.28 per diluted share.

For the year ended December 31, 2022, we recorded approximately \$1.1 billion, of which \$720 million was recorded in the fourth quarter, of impairments of property and equipment and operating leases primarily related to physical stores. These charges were recorded in "Other operating expense (income), net" on our consolidated statements of operations and primarily impacted our North America segment. For the year ended December 31, 2022, we also recorded expenses of approximately

\$480 million primarily in “Fulfillment” on our consolidated statements of operations relating to terminating contracts for certain leases not yet commenced as well as other purchase commitments, which primarily impacted our North America segment.

For the year ended December 31, 2022, we recorded approximately \$720 million, of which \$640 million was recorded in the fourth quarter, of estimated severance costs primarily related to planned role eliminations. These charges were recorded primarily in “Technology and content,” “Fulfillment,” and “General and administrative” on our consolidated statements of operations and primarily impacted our North America segment.

Supplemental Cash Flow Information

The following table shows supplemental cash flow information (in millions):

	Year Ended December 31,		
	2020	2021	2022
SUPPLEMENTAL CASH FLOW INFORMATION:			
Cash paid for interest on debt	\$ 916	\$ 1,098	\$ 1,561
Cash paid for operating leases	\$ 4,475	\$ 6,722	\$ 8,633
Cash paid for interest on finance leases	\$ 612	\$ 521	\$ 374
Cash paid for interest on financing obligations	\$ 102	\$ 153	\$ 207
Cash paid for income taxes, net of refunds	\$ 1,713	\$ 3,688	\$ 6,035
Assets acquired under operating leases	\$ 16,217	\$ 25,369	\$ 18,800
Property and equipment acquired under finance leases, net of remeasurements and modifications	\$ 11,588	\$ 7,061	\$ 675
Property and equipment recognized during the construction period of build-to-suit lease arrangements	\$ 2,267	\$ 5,846	\$ 3,187
Property and equipment derecognized after the construction period of build-to-suit lease arrangements, with the associated leases recognized as operating	\$ —	\$ 230	\$ 5,158

Earnings Per Share

Basic earnings per share is calculated using our weighted-average outstanding common shares. Diluted earnings per share is calculated using our weighted-average outstanding common shares including the dilutive effect of stock awards as determined under the treasury stock method. In periods when we have a net loss, stock awards are excluded from our calculation of earnings per share as their inclusion would have an antidilutive effect.

The following table shows the calculation of diluted shares (in millions):

	Year Ended December 31,		
	2020	2021	2022
Shares used in computation of basic earnings per share	10,005	10,117	10,189
Total dilutive effect of outstanding stock awards	193	179	—
Shares used in computation of diluted earnings per share	10,198	10,296	10,189

Revenue

Revenue is measured based on the amount of consideration that we expect to receive, reduced by estimates for return allowances, promotional discounts, and rebates. Revenue also excludes any amounts collected on behalf of third parties, including sales and indirect taxes. In arrangements where we have multiple performance obligations, the transaction price is allocated to each performance obligation using the relative stand-alone selling price. We generally determine stand-alone selling prices based on the prices charged to customers or using expected cost plus a margin.

A description of our principal revenue generating activities is as follows:

Retail sales - We offer consumer products through our online and physical stores. Revenue is recognized when control of the goods is transferred to the customer, which generally occurs upon our delivery to a third-party carrier or, in the case of an Amazon delivery, to the customer.

Third-party seller services - We offer programs that enable sellers to sell their products in our stores, and fulfill orders through us. We are not the seller of record in these transactions. The commissions and any related fulfillment and shipping fees we earn from these arrangements are recognized when the services are rendered, which generally occurs upon delivery of the related products to a third-party carrier or, in the case of an Amazon delivery, to the customer.

Subscription services - Our subscription sales include fees associated with Amazon Prime memberships and access to content including digital video, audiobooks, digital music, e-books, and other non-AWS subscription services. Prime memberships provide our customers with access to an evolving suite of benefits that represent a single stand-ready obligation. Subscriptions are paid for at the time of or in advance of delivering the services. Revenue from such arrangements is recognized over the subscription period.

Advertising services - We provide advertising services to sellers, vendors, publishers, authors, and others, through programs such as sponsored ads, display, and video advertising. Revenue is recognized as ads are delivered based on the number of clicks or impressions.

AWS - Our AWS arrangements include global sales of compute, storage, database, and other services. Revenue is allocated to services using stand-alone selling prices and is primarily recognized when the customer uses these services, based on the quantity of services rendered, such as compute or storage capacity delivered on-demand. Certain services, including compute and database, are also offered as a fixed quantity over a specified term, for which revenue is recognized ratably. Sales commissions we pay in connection with contracts that exceed one year are capitalized and amortized over the contract term.

Other - Other revenue includes sales related to various other offerings, such as certain licensing and distribution of video content and shipping services, and our co-branded credit card agreements. Revenue is recognized when content is licensed or distributed and as or when services are performed.

Return Allowances

Return allowances, which reduce revenue and cost of sales, are estimated using historical experience. Liabilities for return allowances are included in “Accrued expenses and other” and were \$859 million, \$1.0 billion, and \$1.3 billion as of December 31, 2020, 2021, and 2022. Additions to the allowance were \$3.5 billion, \$5.1 billion, and \$5.5 billion and deductions from the allowance were \$3.6 billion, \$4.9 billion, and \$5.2 billion in 2020, 2021, and 2022. Included in “Inventories” on our consolidated balance sheets are assets totaling \$852 million, \$882 million, and \$948 million as of December 31, 2020, 2021, and 2022, for the rights to recover products from customers associated with our liabilities for return allowances.

Cost of Sales

Cost of sales primarily consists of the purchase price of consumer products, inbound and outbound shipping costs, including costs related to sortation and delivery centers and where we are the transportation service provider, and digital media content costs where we record revenue gross, including video and music. Shipping costs to receive products from our suppliers are included in our inventory, and recognized as cost of sales upon sale of products to our customers. Payment processing and related transaction costs, including those associated with seller transactions, are classified in “Fulfillment” on our consolidated statements of operations.

Vendor Agreements

We have agreements with our vendors to receive consideration primarily for cooperative marketing efforts, promotions, incentives, and volume rebates. We generally consider these amounts received from vendors to be a reduction of the prices we pay for their goods, including property and equipment, or services, and are recorded as a reduction of the cost of inventory, cost of services, or cost of property and equipment. Volume rebates typically depend on reaching minimum purchase thresholds. We evaluate the likelihood of reaching purchase thresholds using past experience and current year forecasts. When volume rebates can be reasonably estimated, we record a portion of the rebate as we make progress towards the purchase threshold.

Fulfillment

Fulfillment costs primarily consist of those costs incurred in operating and staffing our North America and International segments’ fulfillment centers, physical stores, and customer service centers, including facilities and equipment expenses, such as depreciation and amortization, and rent; costs attributable to buying, receiving, inspecting, and warehousing inventories; picking, packaging, and preparing customer orders for shipment; payment processing and related transaction costs, including costs associated with our guarantee for certain seller transactions; responding to inquiries from customers; and supply chain management for our manufactured electronic devices. Fulfillment costs also include amounts paid to third parties that assist us in fulfillment and customer service operations.

Technology and Content

Technology and content costs include payroll and related expenses for employees involved in the research and development of new and existing products and services, development, design, and maintenance of our stores, curation and display of products and services made available in our online stores, and infrastructure costs. Infrastructure costs include servers, networking equipment, and data center related depreciation and amortization, rent, utilities, and other expenses necessary to support AWS and other Amazon businesses. Collectively, these costs reflect the investments we make in order to offer a wide variety of products and services to our customers, including expenditures related to initiatives to build and deploy innovative and efficient software and electronic devices and the development of a satellite network for global broadband service and autonomous vehicles for ride-hailing services. Technology and content costs are generally expensed as incurred.

Sales and Marketing

Sales and marketing costs include advertising and payroll and related expenses for personnel engaged in marketing and selling activities, including sales commissions related to AWS. We pay commissions to third parties when their customer referrals result in sales. We also participate in cooperative advertising arrangements with certain of our vendors, and other third parties.

Advertising and other promotional costs to market our products and services are expensed as incurred and were \$10.9 billion, \$16.9 billion, and \$20.6 billion in 2020, 2021, and 2022.

General and Administrative

General and administrative expenses primarily consist of costs for corporate functions, including payroll and related expenses; facilities and equipment expenses, such as depreciation and amortization expense and rent; and professional fees.

Stock-Based Compensation

Compensation cost for all equity-classified stock awards expected to vest is measured at fair value on the date of grant and recognized over the service period. The fair value of restricted stock units is determined based on the number of shares granted and the quoted price of our common stock. Such value is recognized as expense over the service period, net of estimated forfeitures, using the accelerated method. The estimated number of stock awards that will ultimately vest requires judgment, and to the extent actual results or updated estimates differ from our current estimates, such amounts will be recorded as a cumulative adjustment in the period estimates are revised. We consider many factors when estimating expected forfeitures, including historical forfeiture experience by grant year and employee level. Additionally, stock-based compensation includes stock appreciation rights that are expected to settle in cash. These liability-classified awards are remeasured to fair value at the end of each reporting period until settlement or expiration.

Other Operating Expense (Income), Net

Other operating expense (income), net, consists primarily of the amortization of intangible assets and, for 2020, a benefit from accelerated vesting of warrants to acquire equity of a vendor partially offset by a lease impairment and, for 2022, \$1.1 billion of impairments of property and equipment and operating leases.

Other Income (Expense), Net

Other income (expense), net, is as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
Marketable equity securities valuation gains (losses)	\$ 525	\$ 11,526	\$ (13,870)
Equity warrant valuation gains (losses)	1,527	1,315	(2,132)
Upward adjustments relating to equity investments in private companies	342	1,866	76
Foreign currency gains (losses)	35	(55)	(340)
Other, net	(58)	(19)	(540)
Total other income (expense), net	<u>2,371</u>	<u>14,633</u>	<u>(16,806)</u>

Included in other income (expense), net in 2021 and 2022 is a marketable equity securities valuation gain (loss) of \$11.8 billion and \$(12.7) billion from our equity investment in Rivian Automotive, Inc. (“Rivian”). Our investment in Rivian’s preferred stock was accounted for at cost, with adjustments for observable changes in prices or impairments, prior to Rivian’s initial public offering in November 2021, which resulted in the conversion of our preferred stock to Class A common stock. As of December 31, 2022, we held 158 million shares of Rivian’s Class A common stock, representing an approximate 17% ownership interest, and an approximate 16% voting interest. We determined that we have the ability to exercise significant influence over Rivian through our equity investment, our commercial arrangement for the purchase of electric vehicles, and one of our employees serving on Rivian’s board of directors. We elected the fair value option to account for our equity investment in Rivian, which is included in “Marketable securities” on our consolidated balance sheets.

Required summarized financial information of Rivian as disclosed in its most recent SEC filings is as follows (in millions):

	<u>Year Ended December 31, 2020</u>	<u>Year Ended December 31, 2021</u>	<u>Nine Months Ended September 30, 2022</u>
Revenues	\$ —	\$ 55	\$ 995
Gross profit	—	(465)	(2,123)
Loss from operations	(1,021)	(4,220)	(5,061)
Net loss	(1,018)	(4,688)	(5,029)
		<u>December 31, 2021</u>	<u>September 30, 2022</u>
Total current assets		\$ 18,559	\$ 14,424
Total assets		22,294	19,023
Total current liabilities		1,313	2,109
Total liabilities		2,780	3,686

Income Taxes

Income tax expense includes U.S. (federal and state) and foreign income taxes. Certain foreign subsidiary earnings and losses are subject to current U.S. taxation and the subsequent repatriation of those earnings is not subject to tax in the U.S. We intend to invest substantially all of our foreign subsidiary earnings, as well as our capital in our foreign subsidiaries, indefinitely outside of the U.S. in those jurisdictions in which we would incur significant, additional costs upon repatriation of such amounts.

Deferred income tax balances reflect the effects of temporary differences between the carrying amounts of assets and liabilities and their tax bases, as well as net operating loss and tax credit carryforwards, and are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered.

Deferred tax assets represent amounts available to reduce income taxes payable in future periods. Deferred tax assets are evaluated for future realization and reduced by a valuation allowance to the extent we believe they will not be realized. We consider many factors when assessing the likelihood of future realization of our deferred tax assets, including recent cumulative loss experience and expectations of future earnings, capital gains and investment in such jurisdiction, the carry-forward periods available to us for tax reporting purposes, and other relevant factors.

We utilize a two-step approach to recognizing and measuring uncertain income tax positions (tax contingencies). The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates it is more likely than not the position will be sustained on audit, including resolution of related appeals or litigation processes. The second step is to measure the tax benefit as the largest amount which is more than 50% likely of being realized upon ultimate settlement. We consider many factors when evaluating our tax positions and estimating our tax benefits, which may require periodic adjustments and which may not accurately forecast actual outcomes. We include interest and penalties related to our tax contingencies in income tax expense.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. To increase the comparability of fair value measures, the following hierarchy prioritizes the inputs to valuation methodologies used to measure fair value:

Level 1 — Valuations based on quoted prices for identical assets and liabilities in active markets.

Level 2 — Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3 — Valuations based on unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants. These valuations require significant judgment.

We measure the fair value of money market funds and certain marketable equity securities based on quoted prices in active markets for identical assets or liabilities. Other marketable securities were valued either based on recent trades of securities in inactive markets or based on quoted market prices of similar instruments and other significant inputs derived from or corroborated by observable market data. We did not hold significant amounts of marketable securities categorized as Level 3 assets as of December 31, 2021 and 2022.

We hold equity warrants giving us the right to acquire stock of other companies. As of December 31, 2021 and 2022, these warrants had a fair value of \$3.4 billion and \$2.1 billion, and are recorded within “Other assets” on our consolidated balance sheets with gains and losses recognized in “Other income (expense), net” on our consolidated statements of operations. These warrants are primarily classified as Level 2 assets.

Cash and Cash Equivalents

We classify all highly liquid instruments with an original maturity of three months or less as cash equivalents.

Inventories

Inventories, consisting of products available for sale, are primarily accounted for using the first-in, first-out method, and are valued at the lower of cost and net realizable value. This valuation requires us to make judgments, based on currently available information, about the likely method of disposition, such as through sales to individual customers, returns to product vendors, or liquidations, and expected recoverable values of each disposition category. The inventory valuation allowance, representing a write-down of inventory, was \$2.6 billion and \$2.8 billion as of December 31, 2021 and 2022.

We provide Fulfillment by Amazon services in connection with certain of our sellers’ programs. Third-party sellers maintain ownership of their inventory, regardless of whether fulfillment is provided by us or the third-party sellers, and therefore these products are not included in our inventories.

We also purchase electronic device components from a variety of suppliers and use several contract manufacturers to provide manufacturing services for our products. During the normal course of business, in order to manage manufacturing lead times and help ensure adequate supply, we enter into agreements with contract manufacturers and suppliers for certain electronic device components. We have certain non-cancellable purchase commitments arising from these agreements. These commitments are based on forecasted customer demand. If we reduce these commitments, we may incur additional costs. We also have firm, non-cancellable commitments for certain products offered in our Whole Foods Market stores.

Accounts Receivable, Net and Other

Included in “Accounts receivable, net and other” on our consolidated balance sheets are amounts primarily related to customers, vendors, and sellers. As of December 31, 2021 and 2022, customer receivables, net, were \$20.2 billion and \$26.6 billion, vendor receivables, net, were \$5.3 billion and \$6.9 billion, and seller receivables, net, were \$1.0 billion and \$1.3 billion. Seller receivables are amounts due from sellers related to our seller lending program, which provides funding to sellers primarily to procure inventory.

We estimate losses on receivables based on expected losses, including our historical experience of actual losses. Receivables are considered impaired and written-off when it is probable that all contractual payments due will not be collected in accordance with the terms of the agreement. The allowance for doubtful accounts was \$1.1 billion, \$1.1 billion, and \$1.4 billion as of December 31, 2020, 2021, and 2022. Additions to the allowance were \$1.4 billion, \$1.0 billion, and \$1.6 billion, and deductions to the allowance were \$1.0 billion, \$1.1 billion, and \$1.3 billion in 2020, 2021, and 2022.

Software Development Costs

We incur software development costs related to products to be sold, leased, or marketed to external users, internal-use software, and our websites. Software development costs capitalized were not significant for the years presented. All other costs, including those related to design or maintenance, are expensed as incurred.

Property and Equipment, Net

Property and equipment are stated at cost less accumulated depreciation and amortization. Incentives that we receive from property and equipment vendors are recorded as a reduction to our costs. Property includes buildings and land that we own, along with property we have acquired under build-to-suit lease arrangements when we have control over the building during the construction period and finance lease arrangements. Equipment includes assets such as servers and networking equipment, heavy equipment, and other fulfillment equipment. Depreciation and amortization is recorded on a straight-line basis over the estimated useful lives of the assets (generally the lesser of 40 years or the remaining life of the underlying building, four years prior to January 1, 2022 and five years subsequent to January 1, 2022 for our servers, five years prior to January 1, 2022 and six years subsequent to January 1, 2022 for our networking equipment, ten years for heavy equipment, and three to ten years for other fulfillment equipment). Depreciation and amortization expense is classified within the corresponding operating expense categories on our consolidated statements of operations.

Leases

We categorize leases with contractual terms longer than twelve months as either operating or finance. Finance leases are generally those leases that allow us to substantially utilize or pay for the entire asset over its estimated life. Assets acquired under finance leases are recorded in "Property and equipment, net." All other leases are categorized as operating leases. Our leases generally have terms that range from one to ten years for equipment and one to twenty years for property.

Certain lease contracts include obligations to pay for other services, such as operations and maintenance. For leases of property, we account for these other services as a component of the lease. For substantially all other leases, the services are accounted for separately and we allocate payments to the lease and other services components based on estimated stand-alone prices.

Lease liabilities are recognized at the present value of the fixed lease payments, reduced by landlord incentives using a discount rate based on similarly secured borrowings available to us. Lease assets are recognized based on the initial present value of the fixed lease payments, reduced by landlord incentives, plus any direct costs from executing the leases or lease prepayments reclassified from "Other assets" upon lease commencement. Leasehold improvements are capitalized at cost and amortized over the lesser of their expected useful life or the lease term.

When we have the option to extend the lease term, terminate the lease before the contractual expiration date, or purchase the leased asset, and it is reasonably certain that we will exercise the option, we consider the option in determining the classification and measurement of the lease. Our leases may include variable payments based on measures that include changes in price indices, market interest rates, or the level of sales at a physical store, which are expensed as incurred.

Costs associated with operating lease assets are recognized on a straight-line basis within operating expenses over the term of the lease. Finance lease assets are amortized within operating expenses on a straight-line basis over the shorter of the estimated useful lives of the assets or, in the instance where title does not transfer at the end of the lease term, the lease term. The interest component of a finance lease is included in interest expense and recognized using the effective interest method over the lease term.

We establish assets and liabilities for the present value of estimated future costs to retire long-lived assets at the termination or expiration of a lease. Such assets are amortized over the lease period into operating expense, and the recorded liabilities are accreted to the future value of the estimated retirement costs.

Financing Obligations

We record assets and liabilities for estimated construction costs under build-to-suit lease arrangements when we have control over the building during the construction period. If we continue to control the building after the construction period, the arrangement is classified as a financing obligation instead of a lease. The building is depreciated over the shorter of its useful life or the term of the obligation.

If we do not control the building after the construction period ends, the assets and liabilities for construction costs are derecognized, and we classify the lease as operating.

Goodwill and Indefinite-Lived Intangible Assets

We evaluate goodwill and indefinite-lived intangible assets for impairment annually or more frequently when an event occurs or circumstances change that indicate the carrying value may not be recoverable. We may elect to utilize a qualitative assessment to evaluate whether it is more likely than not that the fair value of a reporting unit or indefinite-lived intangible asset is less than its carrying value and if so, we perform a quantitative test. We compare the carrying value of each reporting unit and indefinite-lived intangible asset to its estimated fair value and if the fair value is determined to be less than the carrying value, we recognize an impairment loss for the difference. We estimate the fair value of the reporting units using discounted cash

flows. Forecasts of future cash flows are based on our best estimate of future net sales and operating expenses, based primarily on expected category expansion, pricing, market segment share, and general economic conditions.

We completed the required annual impairment test of goodwill for all reporting units and indefinite-lived intangible assets as of April 1, 2022, resulting in no impairments. The fair value of our reporting units substantially exceeded their carrying value. There were no events that caused us to update our annual impairment test. See “Note 5 — Acquisitions, Goodwill, and Acquired Intangible Assets.”

Other Assets

Included in “Other assets” on our consolidated balance sheets are amounts primarily related to video and music content, net of accumulated amortization; long-term deferred tax assets; acquired intangible assets, net of accumulated amortization; equity warrant assets and certain equity investments; and satellite network launch services deposits. We recognize certain transactions with governments when there is reasonable assurance that incentives included in the agreements, such as cash or certain tax credits, will be received and we are able to comply with any related conditions. These incentives are recorded as reductions to the cost of related assets or expenses.

Digital Video and Music Content

We obtain video content, inclusive of episodic television and movies, and music content for customers through licensing agreements that have a wide range of licensing provisions including both fixed and variable payment schedules. When the license fee for a specific video or music title is determinable or reasonably estimable and the content is available to us, we recognize an asset and a corresponding liability for the amounts owed. We reduce the liability as payments are made and we amortize the asset to “Cost of sales” on an accelerated basis, based on estimated usage or viewing patterns, or on a straight-line basis. If the licensing fee is not determinable or reasonably estimable, no asset or liability is recorded and licensing costs are expensed as incurred. We also develop original video content for which the production costs are capitalized and amortized to “Cost of sales” predominantly on an accelerated basis that follows the estimated viewing patterns associated with the content. The weighted average remaining life of our capitalized video content is 2.6 years. We review usage and viewing patterns impacting the amortization of capitalized video content on an ongoing basis and reflect any changes prospectively. Changes in historical and anticipated viewing patterns are lengthening the weighted average life of our capitalized video content. We anticipate the changes in viewing patterns will positively impact 2023 operating income by approximately \$1.0 billion, generally ratably throughout the year.

Our produced and licensed video content is primarily monetized together as a unit, referred to as a film group, in each major geography where we offer Amazon Prime memberships. These film groups are evaluated for impairment whenever an event occurs or circumstances change indicating the fair value is less than the carrying value. The total capitalized costs of video, which is primarily released content, and music as of December 31, 2021 and 2022 were \$10.7 billion and \$16.7 billion. Total video and music expense was \$13.0 billion and \$16.6 billion for the year ended December 31, 2021 and 2022. Total video and music expense includes licensing and production costs associated with content offered within Amazon Prime memberships, and costs associated with digital subscriptions and sold or rented content.

Investments

We generally invest our excess cash in AAA-rated money market funds and investment grade short- to intermediate-term fixed income securities. Such investments are included in “Cash and cash equivalents” or “Marketable securities” on the accompanying consolidated balance sheets.

Marketable fixed income securities are classified as available-for-sale and reported at fair value with unrealized gains and losses included in “Accumulated other comprehensive income (loss).” Each reporting period, we evaluate whether declines in fair value below carrying value are due to expected credit losses, as well as our ability and intent to hold the investment until a forecasted recovery occurs. Expected credit losses are recorded as an allowance through “Other income (expense), net” on our consolidated statements of operations.

Equity investments in private companies for which we do not have the ability to exercise significant influence are accounted for at cost, with adjustments for observable changes in prices or impairments, and are classified as “Other assets” on our consolidated balance sheets with adjustments recognized in “Other income (expense), net” on our consolidated statements of operations. Each reporting period, we perform a qualitative assessment to evaluate whether the investment is impaired. Our assessment includes a review of recent operating results and trends, recent sales/acquisitions of the investee securities, and other publicly available data. If the investment is impaired, we write it down to its estimated fair value. As of December 31, 2021 and 2022, these investments had a carrying value of \$603 million and \$715 million.

Equity investments are accounted for using the equity method of accounting, or at fair value if we elect the fair value option, if the investment gives us the ability to exercise significant influence, but not control, over an investee. Equity-method

investments are included within “Other assets” on our consolidated balance sheets. Our share of the earnings or losses as reported by equity-method investees, amortization of basis differences, related gains or losses, and impairments, if any, are recognized in “Equity-method investment activity, net of tax” on our consolidated statements of operations. Each reporting period, we evaluate whether declines in fair value below carrying value are other-than-temporary and if so, we write down the investment to its estimated fair value.

Equity investments that have readily determinable fair values, including investments for which we have elected the fair value option, are included in “Marketable securities” on our consolidated balance sheets and measured at fair value with changes recognized in “Other income (expense), net” on our consolidated statements of operations.

Long-Lived Assets

Long-lived assets, other than goodwill and indefinite-lived intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets might not be recoverable. Conditions that would necessitate an impairment assessment include a significant decline in the observable market value of an asset, a significant change in the extent or manner in which an asset is used, or any other significant adverse change that would indicate that the carrying amount of an asset or group of assets may not be recoverable.

For long-lived assets used in operations, including lease assets, impairment losses are only recorded if the asset’s carrying amount is not recoverable through its undiscounted, probability-weighted future cash flows. We measure the impairment loss based on the difference between the carrying amount and estimated fair value. Long-lived assets are considered held for sale when certain criteria are met, including when management has committed to a plan to sell the asset, the asset is available for sale in its immediate condition, and the sale is probable within one year of the reporting date. Assets held for sale are reported at the lower of cost or fair value less costs to sell. Assets held for sale were not significant as of December 31, 2021 and 2022.

Accrued Expenses and Other

Included in “Accrued expenses and other” on our consolidated balance sheets are liabilities primarily related to leases and asset retirement obligations, tax-related liabilities, current debt, payroll and related expenses, unredeemed gift cards, self-insurance liabilities, customer liabilities, marketing liabilities, acquired digital media content, and other operating expenses.

As of December 31, 2021 and 2022, our liabilities for payroll related expenses were \$7.4 billion and \$7.7 billion and our liabilities for unredeemed gift cards were \$5.2 billion and \$5.4 billion. We reduce the liability for a gift card when redeemed by a customer. The portion of gift cards that we do not expect to be redeemed is recognized based on customer usage patterns.

Self-Insurance Liabilities

Although we maintain certain high-deductible, third-party insurance coverage for catastrophic losses, we effectively self-insure for exposure primarily related to workers’ compensation, employee health care benefits, general and product liability, and automobile liability, including liability resulting from third-party transportation service providers. We estimate self-insurance liabilities by considering historical claims experience, frequency and costs of claims, projected claims development, inflation, and other actuarial assumptions. Changes in the number or costs of claims, healthcare costs, judgment and settlement amounts, associated legal expenses, and other factors could cause actual results to differ materially from these estimates. As of December 31, 2021 and 2022, our total self-insurance liabilities were \$2.2 billion and \$4.0 billion and are included in “Accrued expenses and other” on our consolidated balance sheets. In the fourth quarter of 2022, we increased our reserves for general, product, and automobile liabilities by \$1.3 billion primarily driven by changes in our estimates about the costs of asserted and unasserted claims, which was primarily recorded in “Cost of sales” on our consolidated statements of operations and impacted our North America segment.

Unearned Revenue

Unearned revenue is recorded when payments are received or due in advance of performing our service obligations and is recognized over the service period. Unearned revenue primarily relates to prepayments of AWS services and Amazon Prime memberships. Our total unearned revenue as of December 31, 2021 was \$14.0 billion, of which \$11.3 billion was recognized as revenue during the year ended December 31, 2022 and our total unearned revenue as of December 31, 2022 was \$16.1 billion. Included in “Other long-term liabilities” on our consolidated balance sheets was \$2.2 billion and \$2.9 billion of unearned revenue as of December 31, 2021 and 2022.

Additionally, we have performance obligations, primarily related to AWS, associated with commitments in customer contracts for future services that have not yet been recognized in our financial statements. For contracts with original terms that exceed one year, those commitments not yet recognized were \$110.4 billion as of December 31, 2022. The weighted average remaining life of our long-term contracts is 3.7 years. However, the amount and timing of revenue recognition is largely driven by customer usage, which can extend beyond the original contractual term.

Other Long-Term Liabilities

Included in “Other long-term liabilities” on our consolidated balance sheets are liabilities primarily related to financing obligations, asset retirement obligations, unearned revenue, tax contingencies, digital video and music content, and deferred tax liabilities.

Foreign Currency

We have internationally-focused stores for which the net sales generated, as well as most of the related expenses directly incurred from those operations, are denominated in local functional currencies. The functional currency of our subsidiaries that either operate or support these stores is generally the same as the local currency. Assets and liabilities of these subsidiaries are translated into U.S. Dollars at period-end foreign exchange rates, and revenues and expenses are translated at average rates prevailing throughout the period. Translation adjustments are included in “Accumulated other comprehensive income (loss),” a separate component of stockholders’ equity. Transaction gains and losses including intercompany transactions denominated in a currency other than the functional currency of the entity involved are included in “Other income (expense), net” on our consolidated statements of operations. In connection with the settlement and remeasurement of intercompany balances, we recorded gains (losses) of \$(118) million, \$19 million, and \$386 million in 2020, 2021, and 2022.

Note 2 — FINANCIAL INSTRUMENTS

Cash, Cash Equivalents, Restricted Cash, and Marketable Securities

As of December 31, 2021 and 2022, our cash, cash equivalents, restricted cash, and marketable securities primarily consisted of cash, AAA-rated money market funds, U.S. and foreign government and agency securities, other investment grade securities, and marketable equity securities. Cash equivalents and marketable securities are recorded at fair value. The following table summarizes, by major security type, our cash, cash equivalents, restricted cash, and marketable securities that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy (in millions):

	December 31, 2021			
	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Total Estimated Fair Value
Cash	\$ 10,942	\$ —	\$ —	\$ 10,942
Level 1 securities:				
Money market funds	20,312	—	—	20,312
Equity securities (1)				1,646
Level 2 securities:				
Foreign government and agency securities	181	—	—	181
U.S. government and agency securities	4,316	9	(25)	4,300
Corporate debt securities	35,810	75	(121)	35,764
Asset-backed securities	6,763	7	(32)	6,738
Other fixed income securities	688	2	(4)	686
Equity securities (1)(3)				15,740
	<u>\$ 79,012</u>	<u>\$ 93</u>	<u>\$ (182)</u>	<u>\$ 96,309</u>
Less: Restricted cash, cash equivalents, and marketable securities (2)				<u>(260)</u>
Total cash, cash equivalents, and marketable securities				<u><u>\$ 96,049</u></u>

	December 31, 2022			
	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Total Estimated Fair Value
Cash	\$ 10,666	\$ —	\$ —	\$ 10,666
Level 1 securities:				
Money market funds	27,899	—	—	27,899
Equity securities (1)(3)				3,709
Level 2 securities:				
Foreign government and agency securities	537	—	(2)	535
U.S. government and agency securities	2,301	—	(155)	2,146
Corporate debt securities	23,111	—	(484)	22,627
Asset-backed securities	2,721	—	(149)	2,572
Other fixed income securities	249	—	(12)	237
	<u>\$ 67,484</u>	<u>\$ —</u>	<u>\$ (802)</u>	<u>\$ 70,391</u>
Less: Restricted cash, cash equivalents, and marketable securities (2)				<u>(365)</u>
Total cash, cash equivalents, and marketable securities				<u>\$ 70,026</u>

- (1) The related unrealized gain (loss) recorded in “Other income (expense), net” was \$448 million, \$11.6 billion, and \$(13.6) billion for the years ended December 31, 2020, 2021, and 2022.
- (2) We are required to pledge or otherwise restrict a portion of our cash, cash equivalents, and marketable fixed income securities primarily as collateral for real estate, amounts due to third-party sellers in certain jurisdictions, debt, and standby and trade letters of credit. We classify cash, cash equivalents, and marketable fixed income securities with use restrictions of less than twelve months as “Accounts receivable, net and other” and of twelve months or longer as non-current “Other assets” on our consolidated balance sheets. See “Note 7 — Commitments and Contingencies.”
- (3) Our equity investment in Rivian had a fair value of \$15.6 billion and \$2.9 billion as of December 31, 2021 and December 31, 2022, respectively. The investment was subject to regulatory sales restrictions resulting in a discount for lack of marketability of approximately \$800 million as of December 31, 2021, which expired in Q1 2022.

The following table summarizes gross gains and gross losses realized on sales of marketable fixed income securities (in millions):

	Year Ended December 31,		
	2020	2021	2022
Realized gains	\$ 92	\$ 85	\$ 43
Realized losses	56	38	341

The following table summarizes the remaining contractual maturities of our cash equivalents and marketable fixed income securities as of December 31, 2022 (in millions):

	Amortized Cost	Estimated Fair Value
Due within one year	\$ 46,854	\$ 46,782
Due after one year through five years	7,622	7,047
Due after five years through ten years	602	565
Due after ten years	1,740	1,622
Total	<u>\$ 56,818</u>	<u>\$ 56,016</u>

Actual maturities may differ from the contractual maturities because borrowers may have certain prepayment conditions.

Consolidated Statements of Cash Flows Reconciliation

The following table provides a reconciliation of the amount of cash, cash equivalents, and restricted cash reported within the consolidated balance sheets to the total of the same such amounts shown in the consolidated statements of cash flows (in millions):

	<u>December 31, 2021</u>	<u>December 31, 2022</u>
Cash and cash equivalents	\$ 36,220	\$ 53,888
Restricted cash included in accounts receivable, net and other	242	358
Restricted cash included in other assets	15	7
Total cash, cash equivalents, and restricted cash shown in the consolidated statements of cash flows	<u>\$ 36,477</u>	<u>\$ 54,253</u>

Note 3 — PROPERTY AND EQUIPMENT

Property and equipment, at cost, consisted of the following (in millions):

	<u>December 31,</u>	
	<u>2021</u>	<u>2022</u>
Gross property and equipment (1):		
Land and buildings	\$ 81,104	\$ 91,650
Equipment	128,683	157,458
Other assets	4,118	4,602
Construction in progress	24,895	30,020
Gross property and equipment	<u>238,800</u>	<u>283,730</u>
Total accumulated depreciation and amortization (1)	<u>78,519</u>	<u>97,015</u>
Total property and equipment, net	<u>\$ 160,281</u>	<u>\$ 186,715</u>

(1) Includes the original cost and accumulated depreciation of fully-depreciated assets.

Depreciation and amortization expense on property and equipment was \$16.2 billion, \$22.9 billion, and \$24.9 billion which includes amortization of property and equipment acquired under finance leases of \$8.5 billion, \$9.9 billion, and \$6.1 billion for 2020, 2021, and 2022.

Note 4 — LEASES

We have entered into non-cancellable operating and finance leases for fulfillment, delivery, office, data center, physical store, and sortation facilities as well as server and networking equipment, vehicles, and aircraft. Gross assets acquired under finance leases, inclusive of those where title transfers at the end of the lease, are recorded in “Property and equipment, net” and were \$72.2 billion and \$68.0 billion as of December 31, 2021 and 2022. Accumulated amortization associated with finance leases was \$43.4 billion and \$45.2 billion as of December 31, 2021 and 2022.

Lease cost recognized in our consolidated statements of operations is summarized as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
Operating lease cost	\$ 5,019	\$ 7,199	\$ 8,847
Finance lease cost:			
Amortization of lease assets	8,452	9,857	6,097
Interest on lease liabilities	617	473	361
Finance lease cost	9,069	10,330	6,458
Variable lease cost	1,238	1,556	1,852
Total lease cost	\$ 15,326	\$ 19,085	\$ 17,157

Other information about lease amounts recognized in our consolidated financial statements is as follows:

	December 31, 2021	December 31, 2022
Weighted-average remaining lease term – operating leases	11.3 years	11.6 years
Weighted-average remaining lease term – finance leases	8.1 years	10.3 years
Weighted-average discount rate – operating leases	2.2 %	2.8 %
Weighted-average discount rate – finance leases	2.0 %	2.3 %

Our lease liabilities were as follows (in millions):

	December 31, 2021		
	Operating Leases	Finance Leases	Total
Gross lease liabilities	\$ 66,269	\$ 25,866	\$ 92,135
Less: imputed interest	(7,939)	(2,113)	(10,052)
Present value of lease liabilities	58,330	23,753	82,083
Less: current portion of lease liabilities	(6,349)	(8,083)	(14,432)
Total long-term lease liabilities	\$ 51,981	\$ 15,670	\$ 67,651
	December 31, 2022		
	Operating Leases	Finance Leases	Total
Gross lease liabilities	\$ 81,273	\$ 18,019	\$ 99,292
Less: imputed interest	(12,233)	(2,236)	(14,469)
Present value of lease liabilities	69,040	15,783	84,823
Less: current portion of lease liabilities	(7,458)	(4,397)	(11,855)
Total long-term lease liabilities	\$ 61,582	\$ 11,386	\$ 72,968

Note 5 — ACQUISITIONS, GOODWILL, AND ACQUIRED INTANGIBLE ASSETS

2020 Acquisition Activity

During 2020, we acquired certain companies for an aggregate purchase price of \$1.2 billion, net of cash acquired, of which \$1.1 billion was capitalized to in-process research and development intangible assets (“IPR&D”).

2021 Acquisition Activity

During 2021, we acquired certain companies for an aggregate purchase price of \$496 million, net of cash acquired.

2022 Acquisition Activity

On March 17, 2022, we acquired MGM Holdings Inc., for cash consideration of approximately \$6.1 billion, net of cash acquired, to provide more digital media content options for customers. We also assumed \$2.5 billion of debt, which we repaid immediately after closing. The acquired assets primarily consist of \$3.4 billion of video content and \$4.9 billion of goodwill.

During 2022, we also acquired certain other companies for an aggregate purchase price of \$141 million, net of cash acquired.

Pro forma results of operations have not been presented because the effects of the 2022 acquisitions, individually and in the aggregate, were not material to our consolidated results of operations. Acquisition-related costs were expensed as incurred and were not significant.

Goodwill

The goodwill of the acquired companies is primarily related to expected improvements in technology performance and functionality, as well as sales growth from future product and service offerings and new customers, together with certain intangible assets that do not qualify for separate recognition. The goodwill of the acquired companies is generally not deductible for tax purposes. The following summarizes our goodwill activity in 2021 and 2022 by segment (in millions):

	North America	International	AWS	Consolidated
Goodwill - January 1, 2021	\$ 12,527	\$ 1,288	\$ 1,202	\$ 15,017
New acquisitions	230	60	76	366
Other adjustments (1)	1	(21)	8	(12)
Goodwill - December 31, 2021	12,758	1,327	1,286	15,371
New acquisitions	3,943	1,054	—	4,997
Other adjustments (1)	(80)	30	(30)	(80)
Goodwill - December 31, 2022	<u>\$ 16,621</u>	<u>\$ 2,411</u>	<u>\$ 1,256</u>	<u>\$ 20,288</u>

(1) Primarily includes changes in foreign exchange rates.

Intangible Assets

Acquired identifiable intangible assets are valued primarily by using discounted cash flows. These assets are included within “Other assets” on our consolidated balance sheets and consist of the following (in millions):

	December 31,						
	2021			2022			Weighted Average Life Remaining
	Acquired Intangibles, Gross (1)	Accumulated Amortization (1)	Acquired Intangibles, Net	Acquired Intangibles, Gross (1)	Accumulated Amortization (1)	Acquired Intangibles, Net	
Finite-lived intangible assets (2):							
Marketing-related	\$ 2,286	\$ (548)	\$ 1,738	\$ 2,407	\$ (601)	\$ 1,806	18.6
Contract-based	2,327	(565)	1,762	3,661	(813)	2,848	12.8
Technology- and content-based	976	(610)	366	883	(643)	240	3.2
Customer-related	197	(103)	94	184	(128)	56	2.2
Total finite-lived intangible assets	\$ 5,786	\$ (1,826)	\$ 3,960	\$ 7,135	\$ (2,185)	\$ 4,950	14.4
IPR&D and other (3)	\$ 1,147		\$ 1,147	\$ 1,147		\$ 1,147	
Total acquired intangibles	<u>\$ 6,933</u>	<u>\$ (1,826)</u>	<u>\$ 5,107</u>	<u>\$ 8,282</u>	<u>\$ (2,185)</u>	<u>\$ 6,097</u>	

(1) Excludes the original cost and accumulated amortization of fully-amortized intangibles.

(2) Finite-lived intangible assets, excluding acquired video content, have estimated useful lives of between one and twenty-five years, and are being amortized to operating expenses on a straight-line basis.

(3) Intangible assets acquired in a business combination that are in-process and used in research and development activities are considered indefinite-lived until the completion or abandonment of the research and development efforts. Once the research and development efforts are completed, we determine the useful life and begin amortizing the assets.

Amortization expense for acquired finite-lived intangibles was \$509 million, \$512 million, and \$604 million in 2020, 2021, and 2022. Expected future amortization expense of acquired finite-lived intangible assets as of December 31, 2022 is as follows (in millions):

Year Ended December 31,	
2023	\$ 530
2024	456
2025	371
2026	324
2027	314
Thereafter	2,955
	<u>\$ 4,950</u>

Note 6 — DEBT

As of December 31, 2022, we had \$69.5 billion of unsecured senior notes outstanding (the “Notes”), including \$12.8 billion issued in April 2022 and \$8.3 billion issued in December 2022 for general corporate purposes, and \$1.0 billion of borrowings under our secured revolving credit facility. Our total long-term debt obligations are as follows (in millions):

	<u>Maturities (1)</u>	<u>Stated Interest Rates</u>	<u>Effective Interest Rates</u>	<u>December 31, 2021</u>	<u>December 31, 2022</u>
2012 Notes issuance of \$3.0 billion	2022	2.50%	2.66%	1,250	—
2014 Notes issuance of \$6.0 billion	2024 - 2044	3.80% - 4.95%	3.90% - 5.12%	4,000	4,000
2017 Notes issuance of \$17.0 billion	2023 - 2057	2.40% - 5.20%	2.56% - 4.33%	16,000	16,000
2020 Notes issuance of \$10.0 billion	2023 - 2060	0.40% - 2.70%	0.56% - 2.77%	10,000	10,000
2021 Notes issuance of \$18.5 billion	2023 - 2061	0.25% - 3.25%	0.35% - 3.31%	18,500	18,500
April 2022 Notes issuance of \$12.8 billion	2024 - 2062	2.73% - 4.10%	2.83% - 4.15%	—	12,750
December 2022 Notes issuance of \$8.3 billion	2024 - 2032	4.55% - 4.70%	4.61% - 4.83%	—	8,250
Credit Facility				803	1,042
Total face value of long-term debt				50,553	70,542
Unamortized discount and issuance costs, net				(318)	(393)
Less: current portion of long-term debt				(1,491)	(2,999)
Long-term debt				<u>\$ 48,744</u>	<u>\$ 67,150</u>

(1) The weighted-average remaining lives of the 2014, 2017, 2020, 2021, April 2022, and December 2022 Notes were 12.6, 14.2, 16.7, 13.3, 13.3, and 5.9 years as of December 31, 2022. The combined weighted-average remaining life of the Notes was 13.1 years as of December 31, 2022.

Interest on the Notes is payable semi-annually in arrears. We may redeem the Notes at any time in whole, or from time to time, in part at specified redemption prices. We are not subject to any financial covenants under the Notes. The estimated fair value of the Notes was approximately \$53.3 billion and \$61.4 billion as of December 31, 2021 and 2022, which is based on quoted prices for our debt as of those dates.

We have a \$1.5 billion secured revolving credit facility with a lender that is secured by certain seller receivables, which we increased from \$1.0 billion to \$1.5 billion in August 2022 and we may from time to time increase in the future subject to lender approval (the “Credit Facility”). The Credit Facility is available until August 2025, bears interest based on the daily Secured Overnight Financing Rate plus 1.25%, and has a commitment fee of up to 0.45% on the undrawn portion. There were \$803 million and \$1.0 billion of borrowings outstanding under the Credit Facility as of December 31, 2021 and 2022, which had an interest rate of 1.5% and 5.6%, respectively. As of December 31, 2021 and 2022, we have pledged \$918 million and \$1.2 billion of our cash and seller receivables as collateral for debt related to our Credit Facility. The estimated fair value of the Credit Facility, which is based on Level 2 inputs, approximated its carrying value as of December 31, 2021 and 2022.

As of December 31, 2022, future principal payments for our total long-term debt were as follows (in millions):

Year Ended December 31,	
2023	\$ 3,000
2024	8,500
2025	5,249
2026	3,543
2027	8,750
Thereafter	41,500
	<u>\$ 70,542</u>

We have U.S. Dollar and Euro commercial paper programs (the “Commercial Paper Programs”) under which we may from time to time issue unsecured commercial paper up to a total of \$20.0 billion (including up to €3.0 billion) at the date of issue, with individual maturities that may vary but will not exceed 397 days from the date of issue. In March 2022, we increased the size of the Commercial Paper Programs from \$10.0 billion to \$20.0 billion. There were \$725 million and \$6.8 billion of borrowings outstanding under the Commercial Paper Programs as of December 31, 2021 and 2022, which were

included in “Accrued expenses and other” on our consolidated balance sheets and had a weighted-average effective interest rate, including issuance costs, of 0.08% and 4.47%, respectively. We use the net proceeds from the issuance of commercial paper for general corporate purposes.

We have a \$10.0 billion unsecured revolving credit facility with a syndicate of lenders (the “Credit Agreement”), which was amended and restated in March 2022 to increase the borrowing capacity from \$7.0 billion to \$10.0 billion and to extend the term to March 2025. It may be extended for up to three additional one-year terms if approved by the lenders. The interest rate applicable to outstanding balances under the Credit Agreement is the applicable benchmark rate specified in the Credit Agreement plus 0.45%, with a commitment fee of 0.03% on the undrawn portion of the credit facility. There were no borrowings outstanding under the Credit Agreement as of December 31, 2021 and 2022.

In November 2022, we entered into a \$10.0 billion unsecured 364-day revolving credit facility with a syndicate of lenders (the “Short-Term Credit Agreement”), which matures in November 2023 and may be extended for one additional period of 364 days if approved by the lenders. The interest rate applicable to outstanding balances under the Short-Term Credit Agreement is the Secured Overnight Financing Rate specified in the Short-Term Credit Agreement plus 0.45%, with a commitment fee of 0.05% on the undrawn portion. There were no borrowings outstanding under the Short-Term Credit Agreement as of December 31, 2022.

We also utilize other short-term credit facilities for working capital purposes. There were \$318 million and \$1.2 billion of borrowings outstanding under these facilities as of December 31, 2021 and 2022, which were included in “Accrued expenses and other” on our consolidated balance sheets. In addition, we had \$6.9 billion of unused letters of credit as of December 31, 2022.

In January 2023, we entered into an \$8.0 billion unsecured 364-day term loan with a syndicate of lenders (the “Term Loan”), which matures in January 2024 and bears interest at the Secured Overnight Financing Rate specified in the Term Loan plus 0.75%. If we exercise our option to extend the Term Loan’s maturity to January 2025, the interest rate spread will increase from 0.75% to 1.05%. As of the date of this filing, the entire Term Loan is outstanding.

Note 7 — COMMITMENTS AND CONTINGENCIES

Commitments

The following summarizes our principal contractual commitments, excluding open orders for purchases that support normal operations and are generally cancellable, as of December 31, 2022 (in millions):

	Year Ended December 31,						Total
	2023	2024	2025	2026	2027	Thereafter	
Long-term debt principal and interest	\$ 5,165	\$10,618	\$ 7,146	\$ 5,253	\$10,399	\$ 63,815	\$102,396
Operating lease liabilities	9,574	8,658	8,024	7,393	6,675	40,949	81,273
Finance lease liabilities, including interest	4,575	2,248	1,422	1,279	1,088	7,407	18,019
Financing obligations, including interest (1)	465	464	456	464	471	6,712	9,032
Leases not yet commenced	1,252	2,043	2,185	2,160	2,152	17,237	27,029
Unconditional purchase obligations (2)	8,156	7,217	5,366	4,525	3,419	6,093	34,776
Other commitments (3)(4)	3,173	1,608	1,027	982	622	8,652	16,064
Total commitments	<u>\$32,360</u>	<u>\$32,856</u>	<u>\$25,626</u>	<u>\$22,056</u>	<u>\$24,826</u>	<u>\$150,865</u>	<u>\$288,589</u>

- (1) Includes non-cancellable financing obligations for fulfillment, sortation, and data center facilities. Excluding interest, current financing obligations of \$196 million and \$266 million are recorded within “Accrued expenses and other” and \$6.2 billion and \$6.7 billion are recorded within “Other long-term liabilities” as of December 31, 2021 and 2022. The weighted-average remaining term of the financing obligations was 18.8 years and 17.9 years and the weighted-average imputed interest rate was 3.2% and 3.1% as of December 31, 2021 and 2022.
- (2) Includes unconditional purchase obligations related to long-term agreements to acquire and license digital media content that are not reflected on the consolidated balance sheets and certain products offered in our Whole Foods Market stores. For those digital media content agreements with variable terms, we do not estimate the total obligation beyond any minimum quantities and/or pricing as of the reporting date. Purchase obligations associated with renewal provisions solely at the option of the content provider are included to the extent such commitments are fixed or a minimum amount is specified.
- (3) Includes asset retirement obligations, liabilities associated with digital media content agreements with initial terms greater than one year, and the estimated timing and amounts of payments for rent and tenant improvements associated with build-to-suit lease arrangements that are under construction.
- (4) Excludes approximately \$4.0 billion of accrued tax contingencies for which we cannot make a reasonably reliable estimate of the amount and period of payment, if any.

In July 2022, we entered into an agreement to acquire 1Life Healthcare, Inc. (One Medical) for approximately \$3.9 billion, including its debt, subject to customary closing conditions. In August 2022, we entered into an agreement to acquire iRobot Corporation for approximately \$1.7 billion, including its debt, subject to customary closing conditions. We expect to fund these acquisitions with cash on hand.

Suppliers

During 2022, no vendor accounted for 10% or more of our purchases. We generally do not have long-term contracts or arrangements with our vendors to guarantee the availability of merchandise, particular payment terms, or the extension of credit limits.

Other Contingencies

We are disputing claims and denials of refunds or credits related to various non-income taxes (such as sales, value added, consumption, service, and similar taxes), including in jurisdictions in which we already collect and remit these taxes. These non-income tax controversies typically relate to (i) the taxability of products and services, including cross-border intercompany transactions, (ii) collection and withholding on transactions with third parties, and (iii) the adequacy of compliance with reporting obligations, including evolving documentation requirements. Due to the inherent complexity and uncertainty of these matters and the judicial and regulatory processes in certain jurisdictions, the final outcome of any such controversies may be materially different from our expectations.

Legal Proceedings

The Company is involved from time to time in claims, proceedings, and litigation, including the following:

In November 2015, Eolas Technologies, Inc. filed a complaint against Amazon.com, Inc. in the United States District Court for the Eastern District of Texas. The complaint alleges, among other things, that the use of “interactive features” on www.amazon.com, including “search suggestions and search results,” infringes U.S. Patent No. 9,195,507, entitled “Distributed Hypermedia Method and System for Automatically Invoking External Application Providing Interaction and Display of Embedded Objects Within a Hypermedia Document.” The complaint sought a judgment of infringement together with costs and attorneys’ fees. In February 2016, Eolas filed an amended complaint seeking, among other things, an unspecified amount of damages. In February 2017, Eolas alleged in its damages report that in the event of a finding of liability Amazon could be subject to \$130 to \$250 million in damages. In April 2017, the case was transferred to the United States District Court for the Northern District of California. In May 2022, the district court granted summary judgment holding that the patent is invalid. In June 2022, Eolas filed a notice of appeal. We dispute the allegations of wrongdoing and intend to defend ourselves vigorously in this matter.

In May 2018, Rensselaer Polytechnic Institute and CF Dynamic Advances LLC filed a complaint against Amazon.com, Inc. in the United States District Court for the Northern District of New York. The complaint alleges, among other things, that “Alexa Voice Software and Alexa enabled devices” infringe U.S. Patent No. 7,177,798, entitled “Natural Language Interface Using Constrained Intermediate Dictionary of Results.” The complaint seeks an injunction, an unspecified amount of damages, enhanced damages, an ongoing royalty, interest, attorneys’ fees, and costs. We dispute the allegations of wrongdoing and intend to defend ourselves vigorously in this matter.

In December 2018, Kove IO, Inc. filed a complaint against Amazon Web Services, Inc. in the United States District Court for the Northern District of Illinois. The complaint alleges, among other things, that Amazon S3 and DynamoDB infringe U.S. Patent Nos. 7,814,170 and 7,103,640, both entitled “Network Distributed Tracking Wire Transfer Protocol”; and 7,233,978, entitled “Method and Apparatus for Managing Location Information in a Network Separate from the Data to Which the Location Information Pertains.” The complaint seeks an unspecified amount of damages, enhanced damages, attorneys’ fees, costs, interest, and injunctive relief. In March 2022, the case was stayed pending resolution of review petitions we filed with the United States Patent and Trademark Office. In November 2022, the stay was lifted. We dispute the allegations of wrongdoing and intend to defend ourselves vigorously in this matter.

Beginning in March 2020, with *Frame-Wilson v. Amazon.com, Inc.* filed in the United States District Court for the Western District of Washington, private litigants have filed a number of cases in the U.S. and Canada alleging, among other things, price fixing arrangements between Amazon.com, Inc. and vendors and third-party sellers in Amazon’s stores, monopolization and attempted monopolization, and consumer protection and unjust enrichment claims. Attorneys General for the District of Columbia and California brought similar suits in May 2021 and September 2022 in the Superior Court of the District of Columbia and the California Superior Court for the County of San Francisco, respectively. Some of the private cases include allegations of several distinct purported classes, including consumers who purchased a product through Amazon’s stores and consumers who purchased a product offered by Amazon through another e-commerce retailer. The complaints seek billions of dollars of alleged actual damages, treble damages, punitive damages, injunctive relief, civil penalties, attorneys’ fees, and costs. In March 2022 and January 2023, Amazon’s motions to dismiss were granted in part and denied in part in *Frame-Wilson* and *De Coster v. Amazon.com, Inc. (WD Wash)*, respectively; both courts dismissed claims alleging that Amazon’s pricing policies are inherently illegal and denied dismissal of claims alleging that Amazon’s pricing policies are an unlawful restraint of trade. In March 2022, the DC Superior Court dismissed the DC Attorney General’s lawsuit in its entirety; the dismissal is under appeal as of January 2023. We dispute the allegations of wrongdoing and intend to defend ourselves vigorously in these matters.

In October 2020, BroadbandiTV, Inc. filed a complaint against Amazon.com, Inc., Amazon.com Services LLC, and Amazon Web Services, Inc. in the United States District Court for the Western District of Texas. The complaint alleges, among other things, that certain Amazon Prime Video features and services infringe U.S. Patent Nos. 9,648,388, 10,546,750, and 10,536,751, each entitled “Video-On-Demand Content Delivery System for Providing Video-On-Demand Services to TV Services Subscribers”; 10,028,026, entitled “System for Addressing On-Demand TV Program Content on TV Services Platform of a Digital TV Services Provider”; and 9,973,825, entitled “Dynamic Adjustment of Electronic Program Guide Displays Based on Viewer Preferences for Minimizing Navigation in VOD Program Selection.” The complaint seeks an unspecified amount of damages. In April 2022, BroadbandiTV alleged in its damages report that, in the event of a finding of liability, Amazon could be subject to \$166 to \$986 million in damages. In September 2022, the court granted summary judgment, holding that the patents are invalid. In October 2022, BroadbandiTV filed a notice of appeal. We dispute the allegations of wrongdoing and will continue to defend ourselves vigorously in this matter.

In November 2020, the European Commission issued a Statement of Objections alleging that Amazon uses data relating to our marketplace sellers in a manner that infringes EU competition rules. The Statement of Objections sought to impose unspecified fines and remedial actions. In December 2022, the European Commission adopted formal commitments without fines, fully resolving the investigation.

In July 2021, the Luxembourg National Commission for Data Protection (the “CNPD”) issued a decision against Amazon Europe Core S.à r.l. claiming that Amazon’s processing of personal data did not comply with the EU General Data Protection Regulation. The decision imposes a fine of €746 million and corresponding practice revisions. We believe the CNPD’s decision to be without merit and intend to defend ourselves vigorously in this matter.

In November 2021, Jawbone Innovations, LLC filed a complaint against Amazon.com, Inc. and Amazon.com Services, Inc. in the United States District Court for the Eastern District of Texas. The complaint alleges, among other things, that Amazon Echo smart speakers and displays, Fire TV Cube, and Echo Buds infringe U.S. Patent Nos. 7,246,058, entitled “Detecting Voiced and Unvoiced Speech Using Both Acoustic and Nonacoustic Sensors”; 8,019,091, entitled “Voice Activity Detector (VAD)-Based Multiple-Microphone Acoustic Noise Suppression”; 8,280,072, entitled “Microphone Array with Rear Venting”; 8,321,213 and 8,326,611, both entitled “Acoustic Voice Activity Detection (AVAD) for Electronic Systems”; 8,467,543, entitled “Microphone and Voice Activity Detection (VAD) Configurations for Use with Communications Systems”; 8,503,691, entitled “Virtual Microphone Arrays Using Dual Omnidirectional Microphone Array (DOMA)”; 10,779,080, entitled “Dual Omnidirectional Microphone Array (DOMA)”; and 11,122,357, entitled “Forming Virtual Microphone Arrays Using Dual Omnidirectional Microphone Array (DOMA).” The complaint seeks an unspecified amount of damages, enhanced damages, attorneys’ fees, costs, interest, and injunctive relief. In November 2022, the case was transferred to the United States District Court for the Northern District of California. We dispute the allegations of wrongdoing and intend to defend ourselves vigorously in this matter.

In December 2021, the Italian Competition Authority (the “ICA”) issued a decision against Amazon Services Europe S.à r.l., Amazon Europe Core S.à r.l., Amazon EU S.à r.l., Amazon Italia Services S.r.l., and Amazon Italia Logistica S.r.l. claiming that certain of our marketplace and logistics practices in Italy infringe EU competition rules. The decision imposes remedial actions and a fine of €1.13 billion, which we are paying and will seek to recover pending conclusion of all appeals. We believe the ICA’s decision to be without merit and intend to defend ourselves vigorously in this matter.

In July 2022, Acceleration Bay, LLC filed a complaint against Amazon Web Services, Inc. in the United States District Court for the District of Delaware. The complaint alleges, among other things, that Amazon EC2, Amazon CloudFront, AWS Lambda, Amazon Lumberyard, Luna, Amazon Prime Video, Twitch, Amazon GameLift, GridMate, Amazon EKS, AWS App Mesh, and Amazon VPC infringe U.S. Patent Nos. 6,701,344, entitled “Distributed Game Environment”; 6,714,966, entitled “Information Delivery Service”; 6,732,147, entitled “Leaving a Broadcast Channel”; 6,829,634, entitled “Broadcasting Network”; and 6,910,069, entitled “Joining a Broadcast Channel.” The complaint seeks injunctive relief, an unspecified amount of damages, enhanced damages, interest, attorneys’ fees, and costs. We dispute the allegations of wrongdoing and intend to defend ourselves vigorously in this matter.

In November 2022, LightGuide, Inc. filed a complaint against Amazon.com, Inc. and Amazon.com Services LLC in the United States District Court for the Eastern District of Texas. The complaint alleges, among other things, that Amazon’s Nike Intent Detection System used in certain fulfillment centers infringes U.S. Patent Nos. 7,515,981, entitled “Light Guided Assembly System”; and 9,658,614 and 10,528,036, each entitled “Light Guided Assembly System and Method.” The complaint seeks an unspecified amount of damages, enhanced damages, attorneys’ fees, costs, interest, and injunctive relief. We dispute the allegations of wrongdoing and intend to defend ourselves vigorously in this matter.

In addition, we are regularly subject to claims, litigation, and other proceedings, including potential regulatory proceedings, involving patent and other intellectual property matters, taxes, labor and employment, competition and antitrust, privacy and data protection, consumer protection, commercial disputes, goods and services offered by us and by third parties, and other matters.

The outcomes of our legal proceedings and other contingencies are inherently unpredictable, subject to significant uncertainties, and could be material to our operating results and cash flows for a particular period. We evaluate, on a regular basis, developments in our legal proceedings and other contingencies that could affect the amount of liability, including amounts in excess of any previous accruals and reasonably possible losses disclosed, and make adjustments and changes to our accruals and disclosures as appropriate. For the matters we disclose that do not include an estimate of the amount of loss or range of losses, such an estimate is not possible or is immaterial, and we may be unable to estimate the possible loss or range of losses that could potentially result from the application of non-monetary remedies. Until the final resolution of such matters, if any of our estimates and assumptions change or prove to have been incorrect, we may experience losses in excess of the amounts recorded, which could have a material effect on our business, consolidated financial position, results of operations, or cash flows.

See also “Note 9 — Income Taxes.”

Note 8 — STOCKHOLDERS' EQUITY

Preferred Stock

We have authorized 500 million shares of \$0.01 par value preferred stock. No preferred stock was outstanding for any year presented.

Common Stock

Common shares outstanding plus shares underlying outstanding stock awards totaled 10.4 billion, 10.5 billion, and 10.6 billion, as of December 31, 2020, 2021, and 2022. These totals include all vested and unvested stock awards outstanding, including those awards we estimate will be forfeited.

Stock Repurchase Activity

In March 2022, the Board of Directors authorized a program to repurchase up to \$10.0 billion of our common stock, with no fixed expiration, which replaced the previous \$5.0 billion stock repurchase authorization, approved by the Board of Directors in February 2016. We repurchased 46.2 million shares of our common stock for \$6.0 billion in 2022 under these programs. There were no repurchases of common stock in 2020 or 2021. As of December 31, 2022, we have \$6.1 billion remaining under the repurchase program.

Stock Award Plans

Employees vest in restricted stock unit awards over the corresponding service term, generally between two and five years.

Stock Award Activity

Stock-based compensation expense is as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
Cost of sales	\$ 283	\$ 540	\$ 757
Fulfillment	1,357	1,946	2,745
Technology and content	5,061	6,645	10,621
Sales and marketing	1,710	2,530	3,875
General and administrative	797	1,096	1,623
Total stock-based compensation expense (1)	<u>\$ 9,208</u>	<u>\$ 12,757</u>	<u>\$ 19,621</u>

(1) The related tax benefits were \$1.9 billion, \$2.7 billion, and \$4.3 billion for 2020, 2021, and 2022.

The following table summarizes our restricted stock unit activity (in millions):

	Number of Units	Weighted Average
		Grant-Date Fair Value
Outstanding as of January 1, 2020	286.7	\$ 73
Units granted	158.6	119
Units vested	(115.5)	62
Units forfeited	(26.5)	82
Outstanding as of December 31, 2020	<u>303.3</u>	<u>100</u>
Units granted	127.3	167
Units vested	(108.4)	85
Units forfeited	(42.3)	116
Outstanding as of December 31, 2021	<u>279.9</u>	<u>134</u>
Units granted	262.8	142
Units vested	(113.3)	114
Units forfeited	(45.0)	143
Outstanding as of December 31, 2022	<u>384.4</u>	<u>144</u>

Scheduled vesting for outstanding restricted stock units as of December 31, 2022, is as follows (in millions):

	Year Ended						
	2023	2024	2025	2026	2027	Thereafter	Total
Scheduled vesting — restricted stock units	140.8	136.6	67.3	35.8	1.7	2.2	384.4

As of December 31, 2022, there was \$23.8 billion of net unrecognized compensation cost related to unvested stock-based compensation arrangements. This compensation is recognized on an accelerated basis with more than half of the compensation expected to be expensed in the next twelve months, and has a remaining weighted-average recognition period of 1.1 years. The estimated forfeiture rate as of December 31, 2020, 2021, and 2022 was 26.7%, 26.5%, and 26.5%. Changes in our estimates and assumptions relating to forfeitures may cause us to realize material changes in stock-based compensation expense in the future.

During 2020, 2021, and 2022, the fair value of restricted stock units that vested was \$15.5 billion, \$18.2 billion, and \$12.8 billion.

Common Stock Available for Future Issuance

As of December 31, 2022, common stock available for future issuance to employees is 1.7 billion shares.

Note 9 — INCOME TAXES

In 2020, 2021, and 2022, we recorded net tax provision (benefit) of \$2.9 billion, \$4.8 billion, and \$(3.2) billion. Our U.S. taxable income is reduced by accelerated depreciation deductions and increased by the impact of capitalized research and development expenses. Cash taxes paid, net of refunds, were \$1.7 billion, \$3.7 billion, and \$6.0 billion for 2020, 2021, and 2022.

Certain foreign subsidiary earnings and losses are subject to current U.S. taxation and the subsequent repatriation of those earnings is not subject to tax in the U.S. The U.S. tax rules also provide for enhanced accelerated depreciation deductions by allowing the election of full expensing of qualified property, primarily equipment, through 2022. Our federal tax provision included a partial election for 2020 and 2021, and a full election for 2022. Effective January 1, 2022, research and development expenses are required to be capitalized and amortized for U.S. tax purposes.

The components of the provision (benefit) for income taxes, net are as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
U.S. Federal:			
Current	\$ 1,835	\$ 2,129	\$ 2,175
Deferred	(151)	155	(6,686)
Total	1,684	2,284	(4,511)
U.S. State:			
Current	626	763	1,074
Deferred	(190)	(178)	(1,302)
Total	436	585	(228)
International:			
Current	956	2,209	1,682
Deferred	(213)	(287)	(160)
Total	743	1,922	1,522
Provision (benefit) for income taxes, net	\$ 2,863	\$ 4,791	\$ (3,217)

U.S. and international components of income (loss) before income taxes are as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
U.S.	\$ 20,219	\$ 35,879	\$ (8,225)
International	3,959	2,272	2,289
Income (loss) before income taxes	\$ 24,178	\$ 38,151	\$ (5,936)

The items accounting for differences between income taxes computed at the federal statutory rate and the provision recorded for income taxes are as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
Income taxes computed at the federal statutory rate	\$ 5,078	\$ 8,012	\$ (1,246)
Effect of:			
Tax impact of foreign earnings and losses	(538)	(1,349)	(370)
State taxes, net of federal benefits	343	465	(173)
Tax credits	(639)	(1,136)	(1,006)
Stock-based compensation (1)	(1,107)	(1,094)	612
Foreign income deduction (2)	(372)	(301)	(1,258)
Other, net	98	194	224
Total	<u>\$ 2,863</u>	<u>\$ 4,791</u>	<u>\$ (3,217)</u>

- (1) Includes non-deductible stock-based compensation and excess tax benefits or shortfalls from stock-based compensation. Our tax provision includes \$1.8 billion and \$1.9 billion of excess tax benefits from stock-based compensation for 2020 and 2021, and a \$33 million tax shortfall from stock-based compensation for 2022.
- (2) U.S. companies are eligible for a deduction that lowers the effective tax rate on certain foreign income. This regime is referred to as the Foreign-Derived Intangible Income deduction.

Our provision for income taxes in 2021 was higher than in 2020 primarily due to an increase in pretax income. This was partially offset by an increase in U.S. federal research and development credits and the impact of the distribution of certain intangible assets from Luxembourg to the U.S. in Q4 2021, resulting in the utilization of \$2.6 billion of Luxembourg deferred tax assets previously subject to a valuation allowance.

We generated an income tax benefit in 2022 as compared to a provision for income taxes in 2021 primarily due to a decrease in pretax income and an increase in the foreign income deduction. This was partially offset by a reduction in excess tax benefits from stock-based compensation and a decrease in the tax impact of foreign earnings and losses driven by a decline in the favorable effects of corporate restructuring transactions. The foreign income deduction benefit recognized in 2022 reflects a change in our application of tax regulations related to the computation of qualifying foreign income and includes an income tax benefit of approximately \$655 million related to years prior to 2022.

We intend to invest substantially all of our foreign subsidiary earnings, as well as our capital in our foreign subsidiaries, indefinitely outside of the U.S. in those jurisdictions in which we would incur significant, additional costs upon repatriation of such amounts.

Deferred income tax assets and liabilities are as follows (in millions):

	December 31,	
	2021	2022
Deferred tax assets (1):		
Loss carryforwards U.S. - Federal/States	228	386
Loss carryforwards - Foreign	2,417	2,831
Accrued liabilities, reserves, and other expenses	2,821	3,280
Stock-based compensation	2,738	4,295
Depreciation and amortization	941	1,009
Operating lease liabilities	15,399	18,285
Capitalized research and development	—	6,824
Other items	603	1,023
Tax credits	626	950
Total gross deferred tax assets	<u>25,773</u>	<u>38,883</u>
Less valuation allowances (2)	<u>(3,596)</u>	<u>(4,374)</u>
Deferred tax assets, net of valuation allowances	22,177	34,509
Deferred tax liabilities:		
Depreciation and amortization	(3,562)	(9,039)
Operating lease assets	(14,422)	(17,140)
Assets held for investment	(4,019)	—
Other items	(668)	(817)
Net deferred tax assets (liabilities), net of valuation allowances	<u>\$ (494)</u>	<u>\$ 7,513</u>

(1) Deferred tax assets are presented after tax effects and net of tax contingencies.

(2) Relates primarily to deferred tax assets that would only be realizable upon the generation of net income in certain foreign taxing jurisdictions or future capital gains, as well as tax credits.

Our valuation allowances primarily relate to foreign deferred tax assets, including substantially all of our foreign net operating loss carryforwards as of December 31, 2022. Our foreign net operating loss carryforwards for income tax purposes as of December 31, 2022 were approximately \$10.4 billion before tax effects and certain of these amounts are subject to annual limitations under applicable tax law. If not utilized, a portion of these losses will begin to expire in 2023.

Tax Contingencies

We are subject to income taxes in the U.S. (federal and state) and numerous foreign jurisdictions. Significant judgment is required in evaluating our tax positions and determining our provision for income taxes. During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. We establish reserves for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. These reserves are established when we believe that certain positions might be challenged despite our belief that our tax return positions are fully supportable. We adjust these reserves in light of changing facts and circumstances, such as the outcome of tax audits. The provision for income taxes includes the impact of reserve provisions and changes to reserves that are considered appropriate.

The reconciliation of our tax contingencies is as follows (in millions):

	December 31,		
	2020	2021	2022
Gross tax contingencies – January 1	\$ 3,923	\$ 2,820	\$ 3,242
Gross increases to tax positions in prior periods	88	403	274
Gross decreases to tax positions in prior periods	(465)	(354)	(172)
Gross increases to current period tax positions	507	507	706
Settlements with tax authorities	(1,207)	(60)	(20)
Lapse of statute of limitations	(26)	(74)	(28)
Gross tax contingencies – December 31 (1)	<u>\$ 2,820</u>	<u>\$ 3,242</u>	<u>\$ 4,002</u>

(1) As of December 31, 2022, we had approximately \$4.0 billion of accrued tax contingencies of which \$2.2 billion, if fully recognized, would decrease our effective tax rate.

As of December 31, 2021 and 2022, we had accrued interest and penalties, net of federal income tax benefit, related to tax contingencies of \$110 million and \$103 million. Interest and penalties, net of federal income tax benefit, recognized for the years ended December 31, 2020, 2021, and 2022 were \$(48) million, \$28 million, and \$(7) million.

We are under examination, or may be subject to examination, by the Internal Revenue Service for the calendar year 2016 and thereafter. These examinations may lead to ordinary course adjustments or proposed adjustments to our taxes or our net operating losses with respect to years under examination as well as subsequent periods.

We are also subject to taxation in various states and other foreign jurisdictions including China, France, Germany, India, Japan, Luxembourg, and the United Kingdom. We are under, or may be subject to, audit or examination and additional assessments by the relevant authorities in respect of these particular jurisdictions primarily for 2011 and thereafter. We are currently disputing tax assessments in multiple jurisdictions, including with respect to the allocation and characterization of income.

In September 2022, the Luxembourg Tax Authority (“LTA”) denied the tax basis of certain intangible assets that we distributed from Luxembourg to the U.S. in 2021. We believe the LTA’s position is without merit and intend to defend ourselves vigorously in this matter.

In February 2023, we received a decision by the Indian Tax Authority (“ITA”) that tax applies to cloud services fees paid to the U.S. We will need to remit taxes on the services in question, including for a portion of prior years, until this matter is resolved, which payments could be significant in the aggregate. We believe the ITA’s decision is without merit, we intend to defend our position vigorously, and we expect to recoup taxes paid. If this matter is adversely resolved, we would reflect significant additional tax expense, including for taxes previously paid.

In October 2014, the European Commission opened a formal investigation to examine whether decisions by the tax authorities in Luxembourg with regard to the corporate income tax paid by certain of our subsidiaries comply with European Union rules on state aid. On October 4, 2017, the European Commission announced its decision that determinations by the tax authorities in Luxembourg did not comply with European Union rules on state aid. Based on that decision the European Commission announced an estimated recovery amount of approximately €250 million, plus interest, for the period May 2006 through June 2014, and ordered Luxembourg tax authorities to calculate the actual amount of additional taxes subject to recovery. Luxembourg computed an initial recovery amount, consistent with the European Commission’s decision, which we deposited into escrow in March 2018, subject to adjustment pending conclusion of all appeals. In December 2017, Luxembourg appealed the European Commission’s decision. In May 2018, we appealed. On May 12, 2021, the European Union General Court annulled the European Commission’s state aid decision. In July 2021, the European Commission appealed the decision to the European Court of Justice. We will continue to defend ourselves vigorously in this matter.

Changes in tax laws, regulations, administrative practices, principles, and interpretations may impact our tax contingencies. Due to various factors, including the inherent complexities and uncertainties of the judicial, administrative, and regulatory processes in certain jurisdictions, the timing of the resolution of income tax controversies is highly uncertain, and the amounts ultimately paid, if any, upon resolution of the issues raised by the taxing authorities may differ from the amounts accrued. It is reasonably possible that within the next twelve months we will receive additional assessments by various tax authorities or possibly reach resolution of income tax controversies in one or more jurisdictions. These assessments or settlements could result in changes to our contingencies related to positions on prior years’ tax filings. The actual amount of any change could vary significantly depending on the ultimate timing and nature of any settlements. We cannot currently provide an estimate of the range of possible outcomes.

Note 10 — SEGMENT INFORMATION

We have organized our operations into three segments: North America, International, and AWS. We allocate to segment results the operating expenses “Fulfillment,” “Technology and content,” “Sales and marketing,” and “General and administrative” based on usage, which is generally reflected in the segment in which the costs are incurred. The majority of technology infrastructure costs are allocated to the AWS segment based on usage. The majority of the remaining non-infrastructure technology costs are incurred in the U.S. and are allocated to our North America segment. There are no internal revenue transactions between our reportable segments. These segments reflect the way our chief operating decision maker evaluates the Company’s business performance and manages its operations.

North America

The North America segment primarily consists of amounts earned from retail sales of consumer products (including from sellers) and subscriptions through North America-focused online and physical stores. This segment includes export sales from these online stores.

International

The International segment primarily consists of amounts earned from retail sales of consumer products (including from sellers) and subscriptions through internationally-focused online stores. This segment includes export sales from these internationally-focused online stores (including export sales from these online stores to customers in the U.S., Mexico, and Canada), but excludes export sales from our North America-focused online stores.

AWS

The AWS segment consists of amounts earned from global sales of compute, storage, database, and other services for start-ups, enterprises, government agencies, and academic institutions.

Information on reportable segments and reconciliation to consolidated net income (loss) is as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
North America			
Net sales	\$ 236,282	\$ 279,833	\$ 315,880
Operating expenses	227,631	272,562	318,727
Operating income (loss)	<u>\$ 8,651</u>	<u>\$ 7,271</u>	<u>\$ (2,847)</u>
International			
Net sales	\$ 104,412	\$ 127,787	\$ 118,007
Operating expenses	103,695	128,711	125,753
Operating income (loss)	<u>\$ 717</u>	<u>\$ (924)</u>	<u>\$ (7,746)</u>
AWS			
Net sales	\$ 45,370	\$ 62,202	\$ 80,096
Operating expenses	31,839	43,670	57,255
Operating income	<u>\$ 13,531</u>	<u>\$ 18,532</u>	<u>\$ 22,841</u>
Consolidated			
Net sales	\$ 386,064	\$ 469,822	\$ 513,983
Operating expenses	363,165	444,943	501,735
Operating income	22,899	24,879	12,248
Total non-operating income (expense)	1,279	13,272	(18,184)
Benefit (provision) for income taxes	(2,863)	(4,791)	3,217
Equity-method investment activity, net of tax	16	4	(3)
Net income (loss)	<u>\$ 21,331</u>	<u>\$ 33,364</u>	<u>\$ (2,722)</u>

Net sales by groups of similar products and services, which also have similar economic characteristics, is as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
Net Sales:			
Online stores (1)	\$ 197,346	\$ 222,075	\$ 220,004
Physical stores (2)	16,227	17,075	18,963
Third-party seller services (3)	80,461	103,366	117,716
Subscription services (4)	25,207	31,768	35,218
Advertising services (5)	19,773	31,160	37,739
AWS	45,370	62,202	80,096
Other (6)	1,680	2,176	4,247
Consolidated	<u>\$ 386,064</u>	<u>\$ 469,822</u>	<u>\$ 513,983</u>

- (1) Includes product sales and digital media content where we record revenue gross. We leverage our retail infrastructure to offer a wide selection of consumable and durable goods that includes media products available in both a physical and digital format, such as books, videos, games, music, and software. These product sales include digital products sold on a transactional basis. Digital product subscriptions that provide unlimited viewing or usage rights are included in “Subscription services.”
- (2) Includes product sales where our customers physically select items in a store. Sales to customers who order goods online for delivery or pickup at our physical stores are included in “Online stores.”
- (3) Includes commissions and any related fulfillment and shipping fees, and other third-party seller services.
- (4) Includes annual and monthly fees associated with Amazon Prime memberships, as well as digital video, audiobook, digital music, e-book, and other non-AWS subscription services.
- (5) Includes sales of advertising services to sellers, vendors, publishers, authors, and others, through programs such as sponsored ads, display, and video advertising.
- (6) Includes sales related to various other offerings, such as certain licensing and distribution of video content and shipping services, and our co-branded credit card agreements.

Net sales are attributed to countries primarily based on country-focused online and physical stores or, for AWS purposes, the selling entity. Net sales attributed to countries that represent a significant portion of consolidated net sales are as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
United States	\$ 263,520	\$ 314,006	\$ 356,113
Germany	29,565	37,326	33,598
United Kingdom	26,483	31,914	30,074
Japan	20,461	23,071	24,396
Rest of world	46,035	63,505	69,802
Consolidated	<u>\$ 386,064</u>	<u>\$ 469,822</u>	<u>\$ 513,983</u>

Total segment assets exclude corporate assets, such as cash and cash equivalents, marketable securities, other long-term investments, corporate facilities, goodwill and other acquired intangible assets, and tax assets. Technology infrastructure assets are allocated among the segments based on usage, with the majority allocated to the AWS segment. Total segment assets reconciled to consolidated amounts are as follows (in millions):

	December 31,		
	2020	2021	2022
North America (1)	\$ 108,405	\$ 161,255	\$ 185,268
International (1)	42,212	57,983	64,666
AWS (2)	47,574	63,835	88,491
Corporate	123,004	137,476	124,250
Consolidated	\$ 321,195	\$ 420,549	\$ 462,675

- (1) North America and International segment assets primarily consist of property and equipment, operating leases, inventory, and accounts receivable.
(2) AWS segment assets primarily consist of property and equipment and accounts receivable.

Property and equipment, net by segment is as follows (in millions):

	December 31,		
	2020	2021	2022
North America	\$ 54,912	\$ 83,640	\$ 90,076
International	15,375	21,718	23,347
AWS	32,151	43,245	60,324
Corporate	10,676	11,678	12,968
Consolidated	\$ 113,114	\$ 160,281	\$ 186,715

Total net additions to property and equipment by segment are as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
North America (1)	\$ 29,889	\$ 37,397	\$ 23,682
International (1)	8,072	10,259	6,711
AWS (2)	16,530	22,047	27,755
Corporate	3,485	2,622	2,688
Consolidated	\$ 57,976	\$ 72,325	\$ 60,836

- (1) Includes property and equipment added under finance leases of \$5.6 billion, \$3.6 billion, and \$422 million in 2020, 2021, and 2022, and under build-to-suit lease arrangements of \$2.7 billion, \$5.6 billion, and \$3.2 billion in 2020, 2021, and 2022.
(2) Includes property and equipment added under finance leases of \$7.7 billion, \$3.5 billion, and \$253 million in 2020, 2021, and 2022, and under build-to-suit lease arrangements of \$130 million, \$51 million, and \$20 million in 2020, 2021, and 2022.

U.S. property and equipment, net and operating leases were \$109.5 billion, \$155.0 billion, and \$180.0 billion, as of December 31, 2020, 2021, and 2022, and non-U.S. property and equipment, net and operating leases were \$41.2 billion, \$61.3 billion, and \$72.9 billion as of December 31, 2020, 2021, and 2022. Except for the U.S., property and equipment, net and operating leases in any single country were less than 10% of consolidated property and equipment, net and operating leases.

Depreciation and amortization expense on property and equipment, including corporate property and equipment, are allocated to all segments based on usage. Total depreciation and amortization expense, by segment, is as follows (in millions):

	Year Ended December 31,		
	2020	2021	2022
North America	\$ 6,421	\$ 9,234	\$ 11,565
International	2,215	3,022	3,483
AWS	7,603	10,653	9,876
Consolidated	\$ 16,239	\$ 22,909	\$ 24,924

Item 9. *Changes in and Disagreements with Accountants On Accounting and Financial Disclosure*

None.

Item 9A. *Controls and Procedures*

Evaluation of Disclosure Controls and Procedures

We carried out an evaluation required by the Securities Exchange Act of 1934 (the “1934 Act”), under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rule 13a-15(e) of the 1934 Act, as of December 31, 2022. Based on this evaluation, our principal executive officer and principal financial officer concluded that, as of December 31, 2022, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the 1934 Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms and to provide reasonable assurance that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Management’s Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) of the 1934 Act. Management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2022 based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. As a result of this assessment, management concluded that, as of December 31, 2022, our internal control over financial reporting was effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Ernst & Young has independently assessed the effectiveness of our internal control over financial reporting and its report is included below.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2022 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Controls

Our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives as specified above. Management does not expect, however, that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that its objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
Amazon.com, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Amazon.com, Inc.'s internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Amazon.com, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2022 and the related notes and our report dated February 2, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Seattle, Washington
February 2, 2023

Item 9B. *Other Information*

Not applicable.

Item 9C. *Disclosure Regarding Foreign Jurisdictions that Prevent Inspections*

Not applicable.

PART III

Item 10. *Directors, Executive Officers, and Corporate Governance*

Information regarding our Executive Officers required by Item 10 of Part III is set forth in Item 1 of Part I “Business — Information About Our Executive Officers.” Information required by Item 10 of Part III regarding our Directors and any material changes to the process by which security holders may recommend nominees to the Board of Directors is included in our Proxy Statement relating to our 2023 Annual Meeting of Shareholders, and is incorporated herein by reference. Information relating to our Code of Business Conduct and Ethics and, to the extent applicable, compliance with Section 16(a) of the 1934 Act is set forth in our Proxy Statement relating to our 2023 Annual Meeting of Shareholders and is incorporated herein by reference. To the extent permissible under Nasdaq rules, we intend to disclose amendments to our Code of Business Conduct and Ethics, as well as waivers of the provisions thereof, on our investor relations website under the heading “Corporate Governance” at amazon.com/ir.

Item 11. *Executive Compensation*

Information required by Item 11 of Part III is included in our Proxy Statement relating to our 2023 Annual Meeting of Shareholders and is incorporated herein by reference.

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters*

Information required by Item 12 of Part III is included in our Proxy Statement relating to our 2023 Annual Meeting of Shareholders and is incorporated herein by reference.

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

Information required by Item 13 of Part III is included in our Proxy Statement relating to our 2023 Annual Meeting of Shareholders and is incorporated herein by reference.

Item 14. *Principal Accountant Fees and Services*

Information required by Item 14 of Part III is included in our Proxy Statement relating to our 2023 Annual Meeting of Shareholders and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) List of Documents Filed as a Part of This Report:

(1) Index to Consolidated Financial Statements:

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm

Consolidated Statements of Cash Flows for each of the three years ended December 31, 2022

Consolidated Statements of Operations for each of the three years ended December 31, 2022

Consolidated Statements of Comprehensive Income (Loss) for each of the three years ended December 31, 2022

Consolidated Balance Sheets as of December 31, 2021 and 2022

Consolidated Statements of Stockholders' Equity for each of the three years ended December 31, 2022

Notes to Consolidated Financial Statements

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm

(2) Index to Financial Statement Schedules:

All schedules have been omitted because the required information is included in the consolidated financial statements or the notes thereto, or because it is not required.

(3) Index to Exhibits

See exhibits listed under Part (b) below.

(b) Exhibits:

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of Amazon.com, Inc. (incorporated by reference to the Company's Current Report on Form 8-K, filed May 27, 2022).
3.2	Amended and Restated Bylaws of Amazon.com, Inc. (incorporated by reference to the Company's Current Report on Form 8-K, filed January 6, 2023).
4.1	Indenture, dated as of November 29, 2012, between Amazon.com, Inc. and Wells Fargo Bank, National Association, as trustee (incorporated by reference to the Company's Current Report on Form 8-K, filed November 29, 2012).
4.2	Supplemental Indenture, dated as of April 13, 2022, among Amazon.com, Inc., Wells Fargo Bank, National Association, as prior trustee, and Computershare Trust Company, National Association, as successor trustee, containing Form of 2.730% Note due 2024, Form of 3.000% Note due 2025, Form of 3.300% Note due 2027, Form of 3.450% Note due 2029, Form of 3.600% Note due 2032, Form of 3.950% Note due 2052, and Form of 4.100% Note due 2062 (incorporated by reference to the Company's Current Report on Form 8-K, filed April 13, 2022).
4.3	Officers' Certificate of Amazon.com, Inc., dated as of December 5, 2014, containing Form of 2.600% Note due 2019, Form of 3.300% Note due 2021, Form of 3.800% Note due 2024, Form of 4.800% Note due 2034, and Form of 4.950% Note due 2044 (incorporated by reference to the Company's Current Report on Form 8-K, filed December 5, 2014).
4.4	Officers' Certificate of Amazon.com, Inc., dated as of August 22, 2017, containing Form of 1.900% Note due 2020, Form of 2.400% Note due 2023, Form of 2.800% Note due 2024, Form of 3.150% Note due 2027, Form of 3.875% Note due 2037, Form of 4.050% Note due 2047, and Form of 4.250% Note due 2057 (incorporated by reference to the Company's Current Report on Form 8-K, filed August 22, 2017).
4.5	Officers' Certificate of Amazon.com, Inc., dated as of December 20, 2017, containing Form of 5.200% Note due 2025 (incorporated by reference to the Company's Current Report on Form 8-K, filed December 20, 2017).

- 4.6 Officers' Certificate of Amazon.com, Inc., dated as of June 3, 2020, containing Form of 0.400% Note due 2023, Form of 0.800% Note due 2025, Form of 1.200% Note due 2027, Form of 1.500% Note due 2030, Form of 2.500% Note due 2050, and Form of 2.700% Note due 2060 (incorporated by reference to the Company's Current Report on Form 8-K, filed June 3, 2020).
- 4.7 Officers' Certificate of Amazon.com, Inc., dated as of May 12, 2021, containing Form of 0.250% Note due 2023, Form of 0.450% Note due 2024, Form of 1.000% Note due 2026, Form of 1.650% Note due 2028, Form of 2.100% Note due 2031, Form of 2.875% Note due 2041, Form of 3.100% Note due 2051, and Form of 3.250% Note due 2061 (incorporated by reference to the Company's Current Report on Form 8-K, filed May 12, 2021).
- 4.8 Officers' Certificate of Amazon.com, Inc., dated as of December 1, 2022, containing Form of 4.700% Note due 2024, Form of 4.600% Note due 2025, Form of 4.550% Note due 2027, Form of 4.650% Note due 2029, and Form of 4.700% Note due 2032 (incorporated by reference to the Company's Current Report on Form 8-K, filed December 1, 2022).
- 4.9 Description of Securities (incorporated by reference to the Company's Annual Report on Form 10-K for the Year ended December 31, 2019).
- 10.1† 1997 Stock Incentive Plan (amended and restated) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Quarter ended June 30, 2022).
- 10.2† 1999 Nonofficer Employee Stock Option Plan (amended and restated) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Quarter ended June 30, 2022).
- 10.3† Form of Indemnification Agreement between Amazon.com, Inc. and each of its Directors (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-1 (Registration No. 333-23795) filed March 24, 1997, as amended on April 21, 1997).
- 10.4† Form of Restricted Stock Unit Agreement for Officers and Employees (incorporated by reference to the Company's Annual Report on Form 10-K for the Year ended December 31, 2002).
- 10.5† Form of Restricted Stock Unit Agreement for Directors (incorporated by reference to the Company's Annual Report on Form 10-K for the Year ended December 31, 2002).
- 10.6† Form of Restricted Stock Agreement (incorporated by reference to the Company's Annual Report on Form 10-K for the Year ended December 31, 2001).
- 10.7† Form of Global Restricted Stock Unit Award Agreement for Executive Officers (incorporated by reference to the Company's Annual Report on Form 10-K for the Year ended December 31, 2021).
- 10.8 Amended and Restated Credit Agreement, dated as of March 29, 2022, among Amazon.com, Inc., JPMorgan Chase Bank, N.A., as administrative agent, and the other lenders party thereto (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Quarter ended March 31, 2022).
- 10.9 364-Day Revolving Credit Agreement, dated as of November 18, 2022, among Amazon.com, Inc., JPMorgan Chase Bank, N.A., as administrative agent, and the other lenders party thereto (incorporated by reference to the Company's Current Report on Form 8-K, filed November 18, 2022).
- 10.10 Term Loan Agreement, dated as of January 3, 2023, among Amazon.com, Inc., Toronto Dominion (Texas) LLC, as administrative agent, and the other lenders party thereto (incorporated by reference to the Company's Current Report on Form 8-K, filed January 3, 2023).
- 21.1 List of Significant Subsidiaries.
- 23.1 Consent of Independent Registered Public Accounting Firm.
- 31.1 Certification of Andrew R. Jassy, President and Chief Executive Officer of Amazon.com, Inc., pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.
- 31.2 Certification of Brian T. Olsavsky, Senior Vice President and Chief Financial Officer of Amazon.com, Inc., pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.

- 32.1 Certification of Andrew R. Jassy, President and Chief Executive Officer of Amazon.com, Inc., pursuant to 18 U.S.C. Section 1350.
- 32.2 Certification of Brian T. Olsavsky, Senior Vice President and Chief Financial Officer of Amazon.com, Inc., pursuant to 18 U.S.C. Section 1350.
- 101 The following financial statements from the Company's Annual Report on Form 10-K for the year ended December 31, 2022, formatted in Inline XBRL: (i) Consolidated Statements of Cash Flows, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Income (Loss), (iv) Consolidated Balance Sheets, (v) Consolidated Statements of Stockholders' Equity, and (vi) Notes to Consolidated Financial Statements, tagged as blocks of text and including detailed tags.
- As permitted by Item 601(b)(4)(iii)(A) of Regulation S-K, the Company has not filed with this Annual Report on Form 10-K certain instruments defining the rights of holders of long-term debt of the Company and its subsidiaries because the total amount of securities authorized thereunder does not exceed 10 percent of the total assets of the Company and its subsidiaries on a consolidated basis. The Company agrees to furnish a copy of such agreements to the Commission upon request.
- 104 The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2022, formatted in Inline XBRL (included as Exhibit 101).

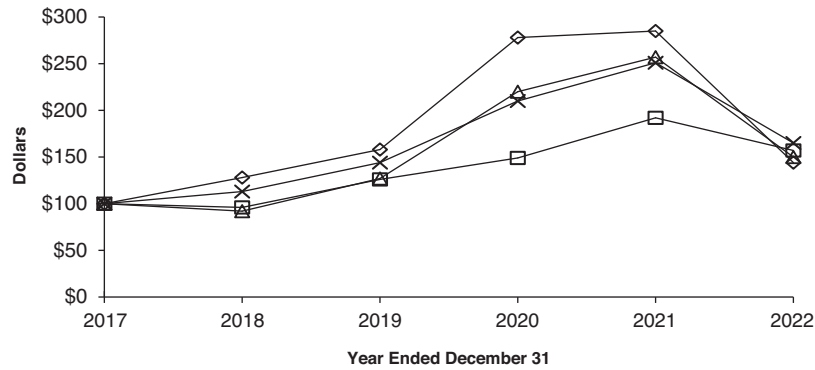
† Executive Compensation Plan or Agreement.

Item 16. Form 10-K Summary

None.

Stock Price Performance Graph

The graph set forth below compares cumulative total return on the common stock with the cumulative total return of the NYSE Technology Index, the S&P 500 Index, and the S&P 500 Retailing Index, resulting from an initial investment of \$100 in each and, except in the case of the NYSE Technology Index, assuming the reinvestment of any dividends, based on closing prices. Measurement points are the last trading day of each of Amazon’s fiscal years ended December 31, 2017, 2018, 2019, 2020, 2021, and 2022.



	<u>Legend</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Amazon.com, Inc.	—◇—	\$100	\$128	\$158	\$278	\$285	\$144
NYSE Technology Index	—△—	100	92	127	220	257	150
S&P 500 Index	—□—	100	96	126	149	192	157
S&P 500 Retailing Index	—×—	100	113	144	210	251	165

Note: Stock price performance shown in the Stock Price Performance Graph for the common stock is historical and not necessarily indicative of future price performance.



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