

MANAGEMENT'S DISCUSSION AND ANALYSIS

February 13, 2024

In this Management's Discussion and Analysis ("MD&A"), "we", "us", "our", "Shopify" and "the Company" refer to Shopify Inc. and its consolidated subsidiaries, unless the context requires otherwise. In this MD&A, we present Shopify's results of operations for the fourth quarter and the fiscal years ended December 31, 2023, 2022, and 2021, our cash flows for the fiscal years ended December 31, 2023 and 2022, and our financial position as of December 31, 2023. You should read this MD&A together with our sets of audited consolidated financial statements and the accompanying notes for the fiscal years ended December 31, 2023, 2022, and 2021. Additional information regarding Shopify, including our 2023 annual information form ("AIF") and our annual report on Form 40-F for the year ended December 31, 2023, is available on our website at www.shopify.com, or at www.sedarplus.ca and www.sec.gov.

Our audited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). All amounts are in U.S. dollars ("USD") except where otherwise indicated. Beginning in the first quarter of 2023, we began reporting all dollar amounts in millions.

Our MD&A is intended to enable readers to gain an understanding of Shopify's results of operations, cash flows and financial position. To do so, we provide information and analysis comparing our results of operations, cash flows and financial position for the most recently completed period with the same period from the preceding fiscal year. We also provide analysis and commentary that we believe will help investors assess our future prospects. In addition, we provide "forward-looking statements" that are not historical facts, but that are based on our current estimates, beliefs and assumptions and which are subject to known and unknown important risks, uncertainties, assumptions and other factors that could cause actual results to differ materially from current expectations. Forward-looking statements are intended to assist readers in understanding management's expectations as of the date of this MD&A and may not be suitable for other purposes. See "Forward-looking Statements" below.

In this MD&A, references to our "solutions" means the combination of products and services that we offer to merchants, and references to "our merchants" as of a particular date means the total number of unique shops that are paying for a subscription to our platform.

Forward-looking Statements

This MD&A contains forward-looking statements under the provisions of the U.S. Private Securities Litigation Reform Act of 1995, Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), and forward-looking information within the meaning of applicable Canadian securities legislation.

In some cases, you can identify forward-looking statements by words such as "may", "will", "could", "expects", "further", "plans", "anticipates", "believes", "potential", "continue", "estimate", "assumes", "intends", or the negative of these terms or other similar words. In addition, any statements or information that refer to expectations, beliefs, plans, projections, objectives, performance or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking. In particular, forward-looking statements in this MD&A include, but are not limited to, statements about:

- our expectation that we will continue to work with Flexport, Inc. ("Flexport") to optimize logistics offerings to support our merchants and that Flexport will continue to develop fulfillment offerings for our merchants;

- our expectation that we continue leveraging data for the benefit of our merchants with critical safeguards in place to ensure privacy, security, and compliance;
- our exploration of new ways to accelerate checkout;
- our ability to make it easier for merchants to manage their storefronts via their mobile devices;
- whether a merchant using Shopify will ever need to re-platform;
- the continued growth of our app developer, theme designer and partner ecosystem and the effect on the growth of our merchant base;
- the continued expansion of the number of channels for merchants to transact through;
- our plan to continue making investments in our business to drive future growth;
- the impact of the sales of our logistics businesses, including the impact of such sales on gross profit and research and development expenses and the comparability of revenues, gross margin and operating expenses;
- our expectation that the continued growth of merchant solutions may cause a decline in our overall gross margin percentage and that the costs of our merchants' solutions will increase with growth in volumes processed with the expansion of Shopify Payments internationally;
- our expectation that as a result of the continued growth of our merchant solutions offerings, seasonality will continue to affect our quarterly results and our business may become more seasonal in the future, and that historical patterns may not be a reliable indicator of our future performance;
- our expectation that our results of operations and comparability of our quarterly results could be impacted by foreign currency fluctuations as our operations continue to expand internationally and that our foreign currency hedging program will help to mitigate these fluctuations;
- our expectation that the cost of subscription solutions will increase in absolute dollars as we continue to invest in growing our business, and as the number of merchants utilizing the platform increases along with the costs of supporting those merchants;
- our expectation that our subscription solutions gross margin percentage will fluctuate modestly based on the mix of subscription plans that our merchants select and the timing of expenditures related to infrastructure expansion project;
- our expectation that operating expenses, including sales and marketing, research and development and general and administrative costs, will increase over time, but eventually decline as a percentage of total revenues;
- our expectation that transaction and loan losses will increase in absolute dollars over time;
- our expectation that as we continue to roll out local currency billing options in geographies outside of North America, a decrease in the value of other currencies relative to the USD will negatively impact our reported subscription revenue and Monthly Recurring Revenue ("MRR");
- our expectation that over time, any impact to MRR from local currency billing and localized pricing will be offset by reduced friction and an enhanced in-market experience, which we anticipate will attract more merchants to our platform and our merchant solutions;
- our expectation that any short-term impact from any free or paid trial experiences will drive long-term benefits in the form of more merchants on our platform, an increase in MRR once these cohorts of merchants convert to standard Shopify plans, and increase use of our merchant solutions;
- the change in fair value of certain equity and other investments which may fluctuate period to period, and may cause volatility to our earnings;
- our expectation that our share of income and loss from equity investments accounted for under the equity method may cause volatility to our earnings;
- our expectation that we will continue to see an overall trend where merchant solutions revenue make up an increasing component of total revenues over time, most notably in the fourth quarter due to higher holiday volume;
- our belief that we have sufficient liquidity to meet our current and planned financial obligations over the next 12 months;
- our future financing requirements and the availability of capital;
- the future value of our investment income, in particular as a result of changes in interest rates, fair value or due to observable changes in price or impairments;
- the fair market value of the Company's 0.125% convertible senior notes due 2025 (the "Notes") as a result of changes in interest rates or the price of our Class A subordinate voting shares;

- expected credit losses as a result of macroeconomic factors;
- our expectations regarding contractual obligations and contingencies;
- future transactions and the availability of financings related to such transactions;
- our expectation that existing off-balance sheet arrangements, and any obligations arising from such arrangements will not have a material impact on our current or future financial performance of financial condition;
- the impact of inflation on our costs and operations and on our merchants sales;
- our accounting estimates, allowances, provisions, and assumptions made in the preparation of our financial statements; and
- our expectations regarding the impact of recently adopted accounting standards.

The forward-looking statements contained in this MD&A are based on our management's perception of historic trends, current conditions and expected future developments, as well as other assumptions that management believes are appropriate in the circumstances, which include, but are not limited to:

- our ability to increase the functionality of our platform;
- our ability to offer more sales channels that can connect to the platform;
- our belief in the increasing importance of a multi-channel platform that is both fully integrated and easy to use;
- our belief that awareness among buyers that Shopify provides a superior and secure checkout experience is an additional advantage for our merchants;
- our belief that commerce transacted over mobile will continue to grow more rapidly than desktop transactions;
- our ability to expand our merchant base, retain revenue from existing merchants as they grow their businesses, and increase sales to both new and existing merchants;
- our belief that ecommerce growth will proceed at a normalized rate in 2024, supported by continued penetration of retail by ecommerce, subject to inflationary or other macroeconomic pressures on our merchants and their buyers;
- our ability to manage our growth effectively;
- our ability to enhance and protect our intellectual property rights;
- our belief that our merchant solutions make it easier for merchants to start a business and grow on our platform by passing our economies of scale on to merchants;
- our ability to develop new solutions to extend the functionality of our platform and provide a high level of merchant service and support;
- our ability to build with a focus on long-term value;
- our ability to hire, retain and motivate qualified personnel;
- our ability to enhance our ecosystem and partner programs, and the assumption that this will drive growth in our merchant base, further accelerating growth of the ecosystem;
- our belief that our strategic investments and acquisitions will increase our revenue base, improve the retention of this base and strengthen our ability to increase sales to our merchants and help drive our growth;
- our ability to achieve our revenue growth objectives while controlling costs and expenses, and our ability to achieve or maintain profitability;
- our belief that MRR is most closely correlated with the long-term value of our merchant relationships;
- our belief that Attach Rate provides a useful measure of our ability to provide unified commerce solutions to our merchants and the traction of those products;
- our assumptions regarding the principal competitive factors in our markets;
- our ability to predict future commerce trends and technology;
- our assumptions that higher margin solutions such as Shopify Capital will continue to grow through increased adoption and international expansion;
- our expectation that Shopify Payments will continue to expand internationally;

- our belief that our investments in sales and marketing initiatives will continue to be effective in growing the number of merchants using our platform, in retaining revenue from existing merchants and in increasing revenues from both;
- our ability to develop processes, systems and controls to enable our internal support functions to scale with the growth of our business;
- our ability to hire, retain and motivate qualified personnel and to manage our operations in a remote-first model;
- our expectations regarding the impact of litigation matters or loss contingencies on our business, financial positions, results of operations or cash flows;
- our ability to protect against currency, interest rate, investment, concentration of credit and inflation risks;
- our assumptions as to our future expenses and financing requirements;
- our assumptions as to our critical accounting policies and estimates; and
- our assumptions as to the effects of accounting pronouncements to be adopted.

Factors that may cause actual results to differ materially from current expectations may include, but are not limited to, risks and uncertainties that are discussed in greater detail in the "Risk Factors" section of our AIF for the year ended December 31, 2023 and elsewhere in this MD&A, including but not limited to risks relating to:

- sustaining our rapid growth;
- managing our growth;
- our potential inability to compete successfully against current and future competitors;
- the security of personal information we store relating to merchants and their buyers, as well as consumers with whom we have a direct relationship including users of our apps;
- a cyberattack or security breach;
- our ability to innovate;
- the impact of worldwide economic conditions, including the resulting effect on spending by small and medium-sized businesses or their buyers;
- our current reliance on a few suppliers to provide the technology we offer through Shopify Payments;
- the reliance of our growth in part on the success of our strategic relationships with third parties;
- our limited operating history in new and developing markets and new geographic regions;
- international sales and operations and the use of our platform in various countries;
- our potential inability to hire, retain and motivate qualified personnel, including key personnel;
- our reliance on third-party cloud providers to deliver our services;
- complex and changing laws and regulations worldwide;
- our dependence on the continued services and performance of our senior management and other key employees;
- payments processed through Shopify Payments, Shop Pay Installments, or payments processed or funds managed through Shopify Balance;
- our potential failure to effectively maintain, promote and enhance our brand;
- our history of losses and our efforts to maintain profitability;
- serious errors or defects in our software or hardware;
- evolving privacy laws and regulations, cross-border data transfer restrictions, data localization requirements and other domestic or foreign regulations that may limit the use and adoption of our services;
- acquisitions and investments, including strategic investments and fluctuations in the fair value of our equity and other investment holdings and fluctuations in our share of income and loss from equity method investment;
- risks associated with Shopify Capital and other financing and lending products offered to merchants;
- our potential inability to achieve or maintain data transmission capacity;
- potential claims by third parties of intellectual property infringement or other third party or governmental claims, litigation, disputes, or other proceedings;

- activities of merchants or partners or the content of merchants' shops and our ability to detect and address unauthorized activity on our platform;
- unanticipated changes in tax laws or adverse outcomes resulting from examination of our income or other tax returns;
- being required to collect federal, state, provincial or local business taxes, sales and use taxes or other indirect taxes in additional jurisdictions on transactions by our merchants;
- changes to technologies used in our platform or new versions or upgrades of operating systems and internet browsers;
- our potential inability to obtain, maintain and protect our intellectual property rights and proprietary information or prevent third parties from making unauthorized use of our technology;
- our pricing decisions and changes to our pricing models for our solutions;
- our use of open source software;
- seasonal fluctuations in our operating results;
- exchange rate fluctuations that may negatively affect our results of operations;
- our dependence upon buyers' and merchants' access to, and willingness to use, the internet for commerce;
- provisions of our financial instruments including the Notes;
- our potential inability to raise additional funds as may be needed to pursue our growth strategy or continue our operations, on favorable terms or at all;
- our tax loss carryforwards;
- ownership of our shares;
- our ability to maintain an effective system of internal controls over financial reporting;
- the perceived impact of return on investment without issuing a dividend;
- our status as a foreign private issuer and the laws applicable to us as a foreign private issuer;
- the impact of provisions of Canadian law applicable to us; and
- provisions of our constating and charter documents.

Although we believe that the plans, intentions, expectations, assumptions and strategies reflected in our forward-looking statements are reasonable, these statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors which are, in some cases, beyond our control. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future results. You should read this MD&A and the documents that we reference in this MD&A completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements.

The forward-looking statements in this MD&A represent our views as of the date of this MD&A. We anticipate that subsequent events and developments may cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. Therefore, these forward-looking statements do not represent our views as of any date other than the date of this MD&A.

Fiscal Year 2023 Events

Sales of Shopify's Logistics Businesses

On June 6, 2023, the majority of our logistics businesses were sold to Flexport, a leading tech-driven global logistics platform. We received non-cash consideration in the form of a 13% equity interest in Flexport's common stock on a fully-diluted basis inclusive of warrants and options. The consideration received was in addition to our existing equity interest in Flexport. We expect to continue to work with Flexport to optimize Shopify's logistics offerings to support our merchants. Our offerings include Shop Promise, our buyer-facing badge that uses real-time data to predict the delivery promise for every order.

As a result of the sales of our logistics businesses, we recognized an impairment of \$1.3 billion.

Reduction in Workforce

On May 4, 2023, we took steps to change the shape of our business to sharpen our focus on our mission. We reduced our total headcount by approximately 23%. This reduction in workforce has resulted in \$148 million of severance related costs, all of which is recognized in operating expenses in the second quarter of 2023.

Overview

Shopify is a leading global commerce company that provides essential internet infrastructure for commerce, offering trusted tools to start, scale, market, and run a business of any size. Shopify makes commerce better for everyone with a platform and services that are engineered for simplicity and reliability, while delivering a better shopping experience for consumers everywhere.

In an era where social media, cloud computing, mobile devices, augmented reality, artificial intelligence and data analytics are creating new possibilities for commerce, Shopify provides differentiated value by offering merchants:

A multi-channel front-end. Our software enables merchants to easily display, manage, market and sell their products across more than a dozen different sales channels, including web and mobile storefronts, physical retail locations, pop-up shops, directly to other businesses ("B2B"), social media storefronts, native mobile apps, buy buttons, and marketplaces. More than 90% of our merchants have connected their Shopify stores to two or more channels. Beyond our pre-configured channels, the Shopify application programming interface ("API") has been developed to support custom storefronts that let merchants sell anywhere.

A single integrated back-end. Our software provides a single integrated, easy-to-use back-end that merchants use to manage their business and buyers across multiple sales channels. Merchants use their Shopify dashboard, which is available in more than 20 languages, to source and manage products and inventory, manage cash, payments and transactions, fulfill and ship orders, discover new buyers and build customer relationships, leverage analytics and reporting, and access financing.

Infrastructure for data-informed decisions. Our software is delivered to merchants as a service, and operates on a shared infrastructure. This cloud-based infrastructure not only relieves merchants from running and securing their own hardware, it also consolidates data generated by the interactions between buyers and a merchant's products, providing rich data to inform merchant decisions. With a highly-qualified team of data science personnel, we expect to continue to support our merchants in making data-informed decisions with critical safeguards in place to ensure privacy, security, and compliance.

Shopify also enables merchants to own their brands, leverage mobile technology, sell internationally, and handle massive traffic spikes with flexible infrastructure.

Brand ownership. Shopify is designed to help our merchants own their brands, develop direct relationships with their buyers, and make their buyer experiences memorable and distinctive. We recognize that in a world where buyers have more choices than ever before, a merchant's brand is increasingly important. The Shopify platform is designed to allow a merchant to keep their brand present in every interaction in order to build buyer loyalty and create competitive advantages. While our platform is designed to empower merchants first, merchants also benefit when buyers are confident that their payments are secure. We believe that awareness among buyers that Shopify provides a superior and secure checkout experience is an additional advantage for our merchants in an increasingly competitive market. For merchants using Shopify Payments, buyers are already getting a superior experience with embedded features such as Shop Pay and Shop Pay Installments, and with our ongoing investments in opening up additional buyer touchpoints for merchants, such as offline commerce, shipping, and Shop (our all-in-one digital shopping companion app), brands that sell on Shopify can increasingly offer buyers an end-to-end, managed shopping experience.

Mobile. Buyers expect to be able to transact anywhere, anytime, on any device through an experience that is simple, seamless, and secure. Since transactions over mobile devices now represent the majority of transactions across online stores powered by Shopify, the mobile experience has become one of a merchant's primary and most important interactions with buyers. Shopify has focused on enabling mobile commerce and the Shopify platform includes a mobile-optimized checkout system designed to enable merchants' buyers to more easily purchase products on mobile devices. With our platform, our merchants are able to offer their buyers a quick and secure checkout option through Shop Pay, Apple Pay, Meta Pay, Amazon Pay, and Google Pay on the web, and we continue to explore new ways to offer payment flexibility and accelerate checkouts. Just as Shopify's tools enable brands to sell directly to their buyers, the Shop app provides them that same direct sales power through a mobile experience. Buyers can use the Shop app to track packages, discover products from their favorite merchants, earn Shop Cash through our rewards program, and engage with brands directly, all of which help merchants increase opportunities to find new customers and drive greater loyalty and lifetime value of their buyers. Shopify's mobile capabilities are not limited to the front-end; merchants who are often on-the-go find themselves managing their storefronts via their mobile devices, and Shopify continues to strive to make it easier to do so.

Global. Commerce thrives when merchants are able to build global brands and sell beyond their own borders with little friction. Shopify offers merchants across several countries a localized experience within the country in which they are based. In addition, Shopify Markets allows merchants to manage localized storefronts in different countries through one global store, making cross-border commerce easier for entrepreneurs. With Shopify Markets, merchants can easily set up market-specific buying experiences, enabling buyers to shop in their local currencies, languages, domains, and payment methods. Shopify Markets also estimates duty and import fees. Such tailored experiences are designed to increase local buyer trust and conversion, enabling merchants to enter new geographies more easily. In addition, Shopify Markets Pro, introduced in 2022, and made generally available in the United States in September 2023, offers merchants a native merchant-of-record solution.

Infrastructure. We build our platform to address the growing challenges facing merchants and with the aim of making complex tasks simple. The Shopify platform is engineered to enterprise-level standards and functionality and designed for simplicity and ease of use. We also design our platform with a robust technical infrastructure with a view to managing the large spikes in traffic that accompany events such as new product releases, holiday shopping seasons, and flash sales. We are constantly innovating and enhancing our platform, and our continuously deployed, multi-tenant architecture provides our merchants with the latest technology.

This combination of ease of use with enterprise-level functionality allows merchants to grow with our platform, no matter their size. Using Shopify, merchants should never need to re-platform. Our Shopify Plus subscription plan was created to accommodate larger merchants, with additional functionality, scalability and support requirements. The Shopify Plus plan also caters to larger merchants not already on Shopify who want to migrate from their expensive and complex legacy solutions to achieve greater functionality and flexibility. With enterprise-level merchants in mind, in January of 2023, we launched Commerce Components by Shopify ("Commerce Components" or "CCS"). Commerce Components is a modern composable stack where retailers can choose from over 30 modular

Shopify components to integrate with their existing systems, enabling these merchants to create incredible customer experiences while eliminating the need to fully re-platform.

Sustainability

Shopify is a company that wants to see the next century, and has taken many steps to build a sustainable business, including becoming a carbon neutral company in 2019. Our commitment includes powering our global operations with renewable energy, purchasing high quality carbon credits to address travel-related emissions, and by utilizing Google's cloud infrastructure, which is 100% powered by renewable energy, to deliver our software services.

Because we view commerce as a powerful vehicle for positive systemic change, as part of our focus on the long term, in 2019 we launched our Sustainability Fund with the intent to commit at least \$5 million annually to fund what Shopify believes are the most promising and impactful technologies and projects to combat climate change. Since launch, we've partnered with 40 entrepreneurial climate companies to help them prove and scale their carbon removal solutions. Since we launched Frontier, an advance market commitment, in 2022 alongside Stripe, Alphabet, Meta and McKinsey Sustainability, the partnership has grown by adding four new buyers, increasing our combined commitment to purchase over \$1 billion of carbon removal by the end of 2030. 2023 was the fourth consecutive year where Shopify has tracked, calculated, and purchased enough carbon credits to counteract the impact of carbon emissions from shipping orders placed on our platform over the Black Friday/Cyber Monday shopping weekend. Our merchants have the ability to address the carbon associated with shipping their orders by adding our Planet app to their store. We also fund carbon removal through our Sustainability Fund with every order placed using Shop Pay, our checkout accelerator.

Ecosystem

A rich ecosystem of app developers, theme designers and other partners, such as digital and service professionals, marketers, photographers, and affiliates has evolved around the Shopify platform. We believe our partner ecosystem helps drive the growth of our merchant base by extending the functionality of the Shopify platform through the development of apps. At December 31, 2023, more than 13,000 apps were available in the Shopify App Store. The partner ecosystem helps drive the growth of our merchant base, which in turn further accelerates growth of the ecosystem.

Business Overview

Our mission is to make commerce better for everyone and we believe we can help merchants of all verticals and sizes, from aspirational entrepreneurs to companies with large-scale, direct-to-consumer or business-to-business operations, or both, realize their potential at all stages of their business life cycle. In the year ended December 31, 2023, our platform facilitated GMV of \$235.9 billion, representing an increase of 20% from the year ended December 31, 2022. A detailed description of this metric is presented below in the section entitled, "Key Performance Indicators".

During the year ended December 31, 2023, our total revenue was \$7.1 billion, an increase of 26% versus the year ended December 31, 2022. Our business model has two revenue components: a recurring subscription component we call subscription solutions and a merchant success-based component we call merchant solutions.

In the year ended December 31, 2023, subscription solutions revenues accounted for 26% of our total revenues (27% in the year ended December 31, 2022). We offer a range of plans that increase in price depending on additional features and economic considerations. Shopify Plus is offered at a starting rate that is several times that of our standard Shopify plans. Shopify Plus solves for the complexity of merchants as they grow and scale globally, offering additional functionality, and support, including features like Shopify Audiences, B2B features, and Launchpad, for ecommerce automation. Gymshark, Heinz, FTD, Netflix, Kylie Cosmetics, SKIMS and Supreme are a few of the Shopify Plus merchants seeking a reliable, cost-effective and scalable commerce solution. The flexibility of our pricing plans is designed to help our merchants grow in a cost-effective manner and to provide more advanced features and support as their business needs evolve. We have also launched localized pricing plans in

select countries where we bill in local currency in order to reduce friction and attract more merchants to our platform.

Revenue from subscription solutions is generated through the sale of subscriptions to our platform, including variable platform fees, as well as through the sale of subscriptions to our POS Pro offering, the sale of themes, the sale of apps, and the registration of domain names. Subscription solutions revenues increased from \$1.5 billion in the year ended December 31, 2022 to \$1.8 billion in the year ended December 31, 2023, representing an increase of 23%. Our merchants typically enter into monthly subscription agreements. The revenue from these agreements is recognized over time on a ratable basis over the contractual term and therefore we have deferred revenue on our balance sheet. We do not consider this deferred revenue balance to be a good indicator of future revenue. Instead, we believe MRR is most closely correlated with the long-term value of our merchant relationships. As of December 31, 2023, MRR totaled \$149 million, representing an increase of 35% relative to MRR at December 31, 2022. In the year ended December 31, 2023, both subscription solutions revenue and MRR observed higher growth rates due mainly to a higher number of merchants using our platforms, including prospective merchants on the free and paid trials converting to full price subscription plans during the period, and by increases in subscription plan pricing. The paid trial incentives initially launched beginning in the second half of 2022. Prospective merchants that join through these paid trials are included in MRR at their trial price, throughout the trial period, until they convert to a full price subscription plan. These trial incentive amounts are immaterial to MRR as of December 31, 2023. A detailed description of this metric is presented below in the section entitled, "Key Performance Indicators". As of December 31, 2023, we host millions of merchants on our platform.

We offer a variety of merchant solutions that are designed to add value to our merchants by passing on our economies of scale and augment our subscription solutions. During the year ended December 31, 2023, merchant solutions revenues accounted for 74% of total revenues (73% in the year ended December 31, 2022). We principally generate merchant solutions revenues from payment processing fees and currency conversion fees from Shopify Payments. Shopify Payments is a fully integrated payment processing service that allows our merchants to accept and process payment cards online and offline. In addition to payment processing fees and currency conversion fees from Shopify Payments, we also generate merchant solutions revenue from referral fees from third parties, other transaction services and other services rendered as part of strategic partnerships and Shopify Capital. Shopify Capital helps eligible merchants secure financing and is currently available for merchants in the United States, the United Kingdom, Canada, and Australia. In the year ended December 31, 2023, we also generated merchants solutions revenue from our logistics offerings, prior to the sales of our logistics businesses in the second quarter of 2023. The majority of our merchant solutions revenues are directionally correlated with the level of GMV that our merchants process through our platform. Merchant solutions revenues increased from \$4.1 billion in the year ended December 31, 2022 to \$5.2 billion in the year ended December 31, 2023, representing an increase of 27%.

Our business model is driven by our ability to attract new merchants, retain revenue from existing merchants, and increase sales to both new and existing merchants. Our merchants represent a wide array of retail verticals, business sizes, and geographies and no single merchant has ever represented more than five percent of our total revenues in a single reporting period. We believe that our future success depends on many factors, including our ability to expand our merchant base; localize features for specific geographies; retain merchants as they grow their businesses on our platform and adopt more features; offer more sales channels that connect merchants with potential customers; develop new solutions to extend our platform's functionality and catalyze merchants' sales growth; leverage emerging technologies, including artificial intelligence; enhance our ecosystem and partner programs; provide a high level of merchant support; hire, retain and motivate qualified personnel; and build with a focus on maximizing long-term value.

We have focused on rapidly growing our business and plan to continue making investments to drive future growth. We believe that our investments will increase our revenue base, improve the retention of this base and strengthen our ability to increase sales to our merchants. Building a 100-year company requires a balance between growth and profitability, and we maintain a portfolio of investments with varying time horizons.

During the second quarter of 2023, we completed the sales of our logistics businesses assets to third parties, with the majority of the assets being sold to Flexport. We believe this sale to Flexport places the core logistics solution we

had been building in the hands of a mission-aligned partner that will continue developing this solution, and we expect to continue to work with Flexport to optimize Shopify's logistics offerings to support our merchants. Our offerings include Shop Promise, our buyer-facing badge that uses real-time data to predict the delivery promise for every order.

Key Performance Indicators

Key performance indicators, which we do not consider to be non-GAAP measures, that we use to evaluate our business, measure our performance, identify trends affecting our business, formulate financial projections and make strategic decisions include MRR, Gross Merchandise Volume ("GMV") and Attach Rate. Our key performance indicators may be calculated in a manner different than similar key performance indicators used by other companies.

The following table shows MRR, GMV, Revenue and Attach Rate for the years ended December 31, 2023 and 2022:

	Years ended December 31,	
	2023	2022
	(in millions, except percentages)	
Monthly Recurring Revenue	\$ 149	\$ 110
Gross Merchandise Volume	\$ 235,910	\$ 197,167
Revenue	\$ 7,060	\$ 5,600
Attach Rate	2.99 %	2.84 %

Monthly Recurring Revenue

We calculate MRR at the end of each period by multiplying the number of merchants who have subscription plans with us at the period end date by the average monthly subscription plan fee, which excludes variable platform fees, in effect on the last day of that period, assuming they maintain their subscription plans the following month. Subscription plans to both our platform and our POS Pro offering are included in this calculation. When applicable, MRR relating to subscription plans billed in a merchant's local currency is converted to USD using the respective currency exchange rate as of the period end date. Prospective merchants that have joined the platform through special new merchant trial incentives are included in MRR at their trial price while merchants on free trials are excluded from the calculation of MRR through the duration of the free trial. MRR allows us to average our various pricing plans and billing periods into a single, consistent number that we can track over time. We also analyze the factors that make up MRR, specifically the number of paying merchants using our platform and changes in our average revenue earned from subscription plan fees per paying merchant. In addition, we use MRR to forecast monthly, quarterly and annual subscription plan revenue, which makes up the majority of our subscription solutions revenue. We had \$149 million of MRR as of December 31, 2023 compared to \$110 million as of December 31, 2022.

In the year ended December 31, 2023, we observed a higher MRR growth rate, relative to the year ended December 31, 2022. The MRR growth rate in the year ended December 31, 2023 was driven mainly by the effects of the increase in subscription plan pricing during the second quarter of 2023 and merchants converting to full price subscription plans that were previously on paid trial incentives. The paid trial incentives initially launched in the second half of 2022. The amounts associated with prospective merchants that are on these trial incentives are immaterial to MRR as of December 31, 2023, but we expect to continue to see an increase in MRR as these cohorts of merchants convert to full price subscription plans.

Gross Merchandise Volume

GMV is the total dollar value of orders facilitated through our platform including certain apps and channels for which a revenue-sharing arrangement is in place in the period, net of refunds, and inclusive of shipping and

handling, duty and value-added taxes. GMV does not represent revenue earned by us. However, the volume of GMV facilitated through our platform is an indicator of the success of our merchants and the strength of our platform. Our merchant solutions revenues are also directionally correlated with the level of GMV facilitated through our platform. For the year ended December 31, 2023 we facilitated GMV of \$236 billion (2022 - \$197 billion), representing year-over-year growth of 20%. On a constant currency basis, in which GMV in the year ended December 31, 2023 is converted using the comparative period's monthly average exchange rates, year-over-year growth was 16%.

Attach Rate

Attach Rate is defined as total revenue divided by GMV and is a key performance indicator of our business and our ability to generate greater value for our merchants. We believe that Attach Rate provides a useful measure of our ability to provide unified commerce solutions to our merchants and the traction of those products.

In the year ended December 31, 2023, we observed a higher Attach Rate, relative to the year ended December 31, 2022. The Attach Rate growth in the respective periods is largely attributable to the increased adoption of Shopify Payments.

Factors Affecting the Comparability of Our Results

Change in Revenue Mix

As a result of the continued growth of Shopify Payments, referral fees, other transaction services and other services rendered as part of strategic partnerships and Shopify Capital, our revenues from merchant solutions have generally increased significantly. Merchant solutions are intended to complement subscription solutions by providing additional value to our merchants and increasing their use of our platform. Gross profit margins on Shopify Payments, the biggest driver of merchant solutions revenue, are typically lower than on subscription solutions due to the associated third-party costs of providing this solution. We view this revenue stream as beneficial to our operating margins, as Shopify Payments requires significantly less sales and marketing and research and development expense than Shopify's core subscription business. The lower margins on merchant solutions compared to subscription solutions means that the continued growth of merchant solutions may cause a decline in our overall gross margin percentage.

The sales of our logistics businesses in the second quarter of 2023 will impact the comparability of our results in future periods.

Seasonality

Our merchant solutions revenues are directionally correlated with the level of GMV that our merchants facilitated through our platform. Our merchants typically process additional GMV during the fourth quarter holiday season. As a result, we have historically generated higher merchant solutions revenues in our fourth quarter than in other quarters. While we believe that this seasonality has affected and will continue to affect our quarterly results, our rapid growth has largely masked seasonal trends to date. As a result of the continued growth of our merchant solutions offerings, we believe that our business may become more seasonal in the future and that historical patterns in our business may not be a reliable indicator of our future performance.

Foreign Currency Fluctuations

While the majority of our revenues, cost of revenues, and operating expenses are denominated in USD, a significant portion are denominated in foreign currencies. Due to offering Shopify Payments, Shopify Capital, subscriptions, and other billings to select countries in local currency, a significant proportion of revenue transactions are denominated in British pound sterling ("GBP"), Euros ("EUR") and Canadian dollars ("CAD"). We expect to continue to have significant Canadian operations and expand operations internationally, therefore a significant proportion of operating expenses are also incurred and expected to be included in the aforementioned foreign currencies. To help mitigate the impacts associated with foreign currency fluctuations on future cash flows from

operating expenses, we maintain a portfolio of foreign exchange forward contracts and options designated as hedging instruments. As our operations continue to expand internationally, we may be exposed to additional fluctuations in other foreign currencies. Refer to the "Risks and Uncertainties—Foreign Currency Exchange Risk" section below for additional information on the effect on reported results of changes in foreign exchange rates.

Key Components of Results of Operations

Revenues

We derive revenues from subscription solutions and merchant solutions.

Subscription Solutions

We principally generate subscription solutions revenues through the sale of subscriptions to our platform, including variable platform fees, as well as through the sale of subscriptions to our POS Pro offering for brick and mortar merchants. We also generate associated subscription solutions revenues from the sale of apps, the registration of domain names, and the sale of themes.

We offer subscription plans with various price points, for businesses of all sizes from entry level plans to Shopify Plus and Commerce Components by Shopify plans that cater to higher-volume businesses that offer additional functionality, scalability and support. Our subscription plans typically have a one-month term, although merchants can have annual or multi-year subscription terms. Subscription terms automatically renew unless notice of cancellation is provided in advance. Merchants purchase subscription plans directly from us.

We also generate additional subscription solutions revenues from merchants that have subscription plans with us through the sale of apps, the registration of domain names, and the sale of themes. Revenues from the sale of apps, the registration of domain names, and the sale of themes have been classified within subscription solutions on the basis that they are typically sold at the time the merchant enters into the subscription arrangement or because they are charged on a recurring basis.

Merchant Solutions

We principally generate merchant solutions revenues from payment processing fees and currency conversion fees from Shopify Payments, referral fees from partners, Shopify Capital, and Transaction Fees.

Other revenue generating services and products include, but are not limited to, the sale of shipping labels through Shopify Shipping, the sale of point-of-sale ("POS") hardware, advertising on the Shopify App Store and Shop Cash Offers, our buyer acquisition offering.

In the second quarter of 2023, we sold our logistics businesses. Prior to the sales of these businesses, Shopify Fulfillment Network and Deliverr fulfillment services generated revenue from their respective fulfillment solutions, which included picking, packing and preparing orders for shipment, and outbound shipping, as well as additional revenues from inbound shipping, storage, returns processing, and other fulfillment-related services as needed by merchants. We also earned revenues from providing cloud-based software on collaborative warehouse fulfillment solutions.

For a discussion of how we expect seasonal factors to affect our merchant solutions revenue, see "Factors Affecting the Comparability of our Results—Seasonality."

Cost of Revenues

Cost of Subscription Solutions

Cost of subscription solutions consists primarily of third-party infrastructure, hosting costs and other direct costs, an allocation of costs incurred by both the operations and support functions, including personnel-related costs directly associated with subscription solutions such as salaries, benefits and stock-based compensation, processing fees related to billing our merchants, payments for domain registration, and amortization of acquired intangible assets.

We expect that the cost of subscription solutions will increase in absolute dollars as we continue to invest in growing our business, and as the number of merchants utilizing the platform increases along with the costs of supporting those merchants. Over time, we expect that our subscription solutions gross margin percentage will fluctuate modestly based on the mix of subscription plans that our merchants select and the timing of expenditures related to infrastructure expansion projects.

Cost of Merchant Solutions

Cost of merchant solutions primarily consists of costs that we incur when transactions are processed using Shopify Payments, such as credit card network fees (charged by credit card providers such as Visa, MasterCard and American Express) as well as third-party processing fees. Cost of merchant solutions also consists of rewards earned by merchants through our rewards program, processing fees related to billing our merchants, POS hardware costs, product costs associated with expanding our product offerings, including Shopify Balance, third-party infrastructure and hosting costs, chargeback protection program costs, amortization of acquired intangible assets, and an allocation of costs incurred by both the operations and support functions, including personnel-related costs directly associated with merchant solutions such as salaries, benefits and stock-based compensation.

In the second quarter of 2023, we sold our logistics businesses. Prior to the sales of these businesses, merchant solutions cost of revenues included amortization of acquired intangible assets relating mostly to the acquired Deliverr and 6 River Systems, LLC technology, costs associated with picking, packing and preparing orders for shipment, outbound shipping, warehouse storage, overhead costs and other costs for fulfillment-related services as part of our logistics offerings, and materials and third-party manufacturing costs associated with fulfillment robots sold to customers rather than leased to customers, which were capitalized and depreciated into cost of revenues.

We expect that the cost of merchant solutions will increase in absolute dollars in future periods as the number of merchants utilizing these solutions increases, resulting in a growth in volumes processed. We also expect additional increases as we continue to expand Shopify Payments internationally.

Operating Expenses

Sales and Marketing

Sales and marketing expenses consist primarily of marketing programs, partner referral payments related to merchant acquisitions, costs associated with partner and developer conferences, employee-related expenses for marketing, business development and sales, as well as the portion of merchant support required for the onboarding of prospective new merchants. Other costs within sales and marketing include travel-related expenses and corporate overhead allocations. Costs to acquire merchants are expensed as incurred, however, contract costs associated with Shopify Plus merchants are amortized over the expected life of their relative contract. We plan to continue to expand sales and marketing efforts to attract new merchants, retain revenue from existing merchants and increase revenues from both new and existing merchants. Sales and marketing expenses are expected to increase in absolute dollars but over time, we expect sales and marketing expenses will eventually decline as a percentage of total revenues.

Research and Development

Research and development expenses consist primarily of employee-related expenses for product management, product development, product design, data analytics, contractor and consultant fees as well as internal use hosting costs and corporate overhead allocations. We continue to focus our research and development efforts on adding new features and solutions, and increasing the functionality and enhancing the ease of use of our platform. While we expect research and development expenses to increase in absolute dollars as we continue to increase the functionality of our platform, over the long term we expect our research and development expenses will eventually decline as a percentage of total revenues.

General and Administrative

General and administrative expenses consist of employee-related expenses for finance and accounting, legal, administrative, human relations and information technology personnel, impairment related to certain office leases we have ceased using, professional services fees, sales and use tax and other indirect taxes, insurance, the provision for expected credit losses on uncollectible receivables, corporate overhead allocations, legal contingencies and other corporate expenses, including sustainability spend. We expect that over time general and administrative expenses will increase on an absolute dollar basis but may decrease as a percentage of total revenues as we focus on processes, systems and controls to enable our internal support functions to scale with the growth of our business.

Transaction and Loan Losses

Transaction and loan losses consist of expected and actual losses related to Shopify Payments, Shop Pay Installments, Shopify Balance, and Shopify Capital. We are exposed to transaction losses on Shopify Payments, Shop Pay Installments, and Shopify Balance as a result of unrecovered merchant transactions due to returns and disputes. We are also exposed to Shopify Balance losses when a merchant account experiences unauthorized transactions where funds cannot be recovered or reversed. We are exposed to transaction losses on loans and merchant cash advances offered through Shopify Capital as a result of fraud or uncollectibility. Transaction and loan losses are expected to increase in absolute dollars over time as merchant penetration and adoption grow.

Impairment on Sales of Shopify's Logistics Businesses

Impairment on sales of Shopify's logistics businesses consists of impairment charges incurred as the result of the sales of our logistics businesses.

Other Income (Expense)

Other income (expense) consists primarily of unrealized and realized gains or losses on equity and other investments, losses on our equity method investment in Flexport, transaction gains or losses on foreign currency, interest income, and interest expense related to the Notes. Equity and other investments in publicly traded companies with readily determinable fair values are carried at fair value at each balance sheet date based on the closing share price at the end of the period. Equity and other investments in private companies without readily determinable fair values are carried at cost less impairments, with subsequent adjustments for observable changes (referred to as the measurement alternative). We also hold investments in convertible notes of private companies which are classified as available-for-sale debt securities, which we have elected to account for under the fair value option. The results from these equity investments may fluctuate from period to period and may cause volatility to our earnings as well as impact comparability of our results from period to period.

Results of Operations

The following table sets forth our consolidated statement of operations for the years ended December 31, 2023, 2022 and 2021:

	Years ended December 31,		
	2023	2022	2021
	(in millions, except share and per share data)		
Revenues:			
Subscription solutions	\$ 1,837	\$ 1,488	\$ 1,342
Merchant solutions	5,223	4,112	3,270
	<u>7,060</u>	<u>5,600</u>	<u>4,612</u>
Cost of revenues ⁽¹⁾⁽²⁾ :			
Subscription solutions	354	331	264
Merchant solutions	3,191	2,515	1,866
	<u>3,545</u>	<u>2,846</u>	<u>2,130</u>
Gross profit	<u>3,515</u>	<u>2,754</u>	<u>2,482</u>
Operating expenses:			
Sales and marketing ⁽¹⁾⁽²⁾⁽³⁾	1,220	1,230	902
Research and development ⁽¹⁾⁽³⁾	1,730	1,503	854
General and administrative ⁽¹⁾⁽³⁾⁽⁴⁾⁽⁵⁾	491	708	375
Transaction and loan losses	152	135	82
Impairment on sales of Shopify's logistics businesses	1,340	—	—
Total operating expenses	<u>4,933</u>	<u>3,576</u>	<u>2,213</u>
(Loss) income from operations	<u>(1,418)</u>	<u>(822)</u>	<u>269</u>
Other income (expense), net	<u>1,603</u>	<u>(2,801)</u>	<u>2,872</u>
Income (loss) before income taxes	<u>185</u>	<u>(3,623)</u>	<u>3,141</u>
(Provision for) recovery of income taxes	<u>(53)</u>	<u>163</u>	<u>(226)</u>
Net income (loss)	<u>\$ 132</u>	<u>\$ (3,460)</u>	<u>\$ 2,915</u>
Net income (loss) per share attributable to shareholders ⁽⁶⁾ :			
Basic	<u>\$ 0.10</u>	<u>\$ (2.73)</u>	<u>\$ 2.34</u>
Diluted	<u>\$ 0.10</u>	<u>\$ (2.73)</u>	<u>\$ 2.29</u>
Shares used to compute net income (loss) per share attributable to shareholders ⁽⁶⁾ :			
Basic	<u>1,281,554,559</u>	<u>1,266,268,155</u>	<u>1,246,588,910</u>
Diluted	<u>1,295,511,385</u>	<u>1,266,268,155</u>	<u>1,273,647,350</u>

⁽¹⁾ Includes stock-based compensation expense and related payroll taxes as follows:

	Years ended December 31,		
	2023	2022	2021
	(in millions)		
Cost of revenues	\$ 4	\$ 9	\$ 8
Sales and marketing ^(a)	59	65	47
Research and development ^(a)	497	396	251
General and administrative	76	93	91
	<u>\$ 636</u>	<u>\$ 563</u>	<u>\$ 397</u>

^(a) Includes accelerated stock-based compensation of \$5 million and \$164 million in sales and marketing and research and development, respectively, during the year ended December 31, 2023.

⁽²⁾ Includes amortization of acquired intangibles as follows:

	Years ended December 31,		
	2023	2022	2021
	(in millions)		
Cost of revenues	\$ 35	\$ 49	\$ 20
Sales and marketing	3	5	2
	<u>\$ 38</u>	<u>\$ 54</u>	<u>\$ 22</u>

⁽³⁾ In the year ended December 31, 2023, we had \$148 million of severance related costs associated with the reduction in workforce with \$28 million in sales and marketing, \$102 million in research and development and \$18 million in general and administrative. Additionally, in the year ended December 31, 2022, we had \$30 million of severance related costs associated with the reduction in workforce with \$11 million in sales and marketing, \$8 million in research and development, and \$11 million in general and administrative.

⁽⁴⁾ In the year ended December 31, 2022, we incurred \$97 million of expense related to litigation matters.

⁽⁵⁾ In the years ended December 31, 2023, 2022 and 2021, we had \$38 million, \$84 million and \$30 million, respectively, of impairment related costs associated with right-of-use assets and leasehold improvements.

⁽⁶⁾ Fiscal year 2021 share and per share amounts have been retrospectively adjusted to reflect the ten-for-one share split effected in June 2022.

The following table sets forth our consolidated statement of operations as a percentage of total revenues for the years ended December 31, 2023, 2022, and 2021:

	Years ended December 31,		
	2023	2022	2021
Revenues:			
Subscription solutions	26 %	27 %	29 %
Merchant solutions	74 %	73 %	71 %
	<u>100 %</u>	<u>100 %</u>	<u>100 %</u>
Cost of revenues:			
Subscription solutions	5 %	6 %	6 %
Merchant solutions	45 %	45 %	40 %
	<u>50 %</u>	<u>51 %</u>	<u>46 %</u>
Gross profit	<u>50 %</u>	<u>49 %</u>	<u>54 %</u>
Operating expenses:			
Sales and marketing	17 %	22 %	20 %
Research and development	25 %	27 %	19 %
General and administrative	7 %	13 %	8 %
Transaction and loan losses	2 %	2 %	2 %
Impairment on sales of Shopify's logistics businesses	19 %	— %	— %
Total operating expenses	<u>70 %</u>	<u>64 %</u>	<u>48 %</u>
(Loss) income from operations	<u>(20)%</u>	<u>(15)%</u>	<u>6 %</u>
Other income (expense), net	23 %	(50)%	62 %
Income (loss) income before income taxes	<u>3 %</u>	<u>(65)%</u>	<u>68 %</u>
(Provision for) recovery of income taxes	(1)%	3 %	(5)%
Net income (loss)	<u>2 %</u>	<u>(62)%</u>	<u>63 %</u>

The following table sets forth our consolidated revenues by geographic location for the years ended December 31, 2023, 2022, and 2021, based on the location of our merchants:

	Years ended December 31,		
	2023	2022	2021
	(in millions)		
Revenues:			
North America			
Canada	\$ 388	\$ 346	\$ 317
United States	4,649	3,720	2,974
EMEA	1,255	917	799
APAC	699	553	467
Latin America	69	64	55
Total Revenues ⁽¹⁾	<u>\$ 7,060</u>	<u>\$ 5,600</u>	<u>\$ 4,612</u>

⁽¹⁾ Total revenue includes \$147 million and \$46 million for the years ended December 31, 2023 and 2022, respectively, which do not represent revenues recognized in the scope of ASC 606, Revenue from Contracts with Customers. These revenues relate to interest and fees earned from certain lending services.

The following table sets forth our consolidated revenues by geographic location as a percentage of total revenues for the years ended December 31, 2023, 2022, and 2021, based on the location of our merchants:

	Years ended December 31,		
	2023	2022	2021
Revenues:			
North America			
Canada	5 %	6 %	7 %
United States	66 %	67 %	65 %
EMEA	18 %	16 %	17 %
APAC	10 %	10 %	10 %
Latin America	1 %	1 %	1 %
Total Revenues	<u>100 %</u>	<u>100 %</u>	<u>100 %</u>

Discussion of the Results of Operations for the years ended December 31, 2023, 2022, and 2021

Revenues

	Years ended December 31,			2023 vs 2022 % Change	2022 vs 2021 % Change
	2023	2022	2021		
	(in millions, except percentages)				
Revenues:					
Subscription solutions	\$ 1,837	\$ 1,488	\$ 1,342	23 %	11 %
Merchant solutions	5,223	4,112	3,270	27 %	26 %
Total revenues	<u>\$ 7,060</u>	<u>\$ 5,600</u>	<u>\$ 4,612</u>	<u>26 %</u>	<u>21 %</u>
Percentage of revenues:					
Subscription solutions	26 %	27 %	29 %		
Merchant solutions	74 %	73 %	71 %		
	<u>100 %</u>	<u>100 %</u>	<u>100 %</u>		

Subscription Solutions

Subscription solutions revenues increased for the year ended December 31, 2023 compared to the same period in 2022. The increase was primarily a result of growth in MRR, which was driven largely by a higher number of merchants using our platform, as well as prospective merchants on the free and paid trials converting to full price subscription plans during the period, and by an increase in subscription plan pricing for certain plans in 2023.

Merchant Solutions

Merchant solutions revenues increased for the year ended December 31, 2023 compared to the same period in 2022. The increase in merchant solutions revenues was primarily a result of Shopify Payments revenue, relating to payment processing and currency conversion fees, growing by \$888 million, or 30%, in 2023 compared to the same period in 2022. This increase was a result of an increase in our Shopify Payments penetration rate and number of merchants using our platform. These factors drove \$31.0 billion of additional GMV facilitated using Shopify Payments in 2023 compared to the same period in 2022, representing growth of 29% year over year. For the year ended December 31, 2023, the Shopify Payments penetration rate was 58.1%, resulting in GMV of \$137.0 billion that was facilitated using Shopify Payments. This compares to a penetration rate of 53.8%, resulting in GMV of \$106.1 billion that was facilitated using Shopify Payments in the same period in 2022. As of December 31, 2023 Shopify Payments adoption among our merchants was as follows: Canada, 92%, United States, 90%, and other countries where Shopify Payments is available, 83% (December 31, 2022 - Canada, 92%, United States, 88%, and other countries where Shopify Payments is available, 77%).

In addition to the increase in revenue from Shopify Payments, revenues from Shopify Capital, referral fees from partners, non-cash consideration received for services rendered as part of strategic partnerships, and Shop Pay Installments increased during the year ended December 31, 2023 compared to the same period in 2022. Shopify Capital revenue increased mainly as a result of an increase in the loans and advances outstanding throughout the period. The increases in non-cash consideration received for services rendered as part of strategic partnerships and referral fees from partners were driven largely by an increase in the number of arrangements with partners, as well as an increase in referral activity, when compared to the same period in 2022. Shop Pay Installments revenue increased due to an increase in GMV processed through Shop Pay Installments.

Cost of Revenues

	Years ended December 31,			2023 vs 2022	2022 vs 2021
	2023	2022	2021	% Change	% Change
	(in millions, except percentages)				
Cost of revenues:					
Cost of subscription solutions	\$ 354	\$ 331	\$ 264	7 %	25 %
Cost of merchant solutions	3,191	2,515	1,866	27 %	35 %
Total cost of revenues	<u>\$ 3,545</u>	<u>\$ 2,846</u>	<u>\$ 2,130</u>	<u>25 %</u>	<u>34 %</u>
Percentage of revenues:					
Cost of subscription solutions	5 %	6 %	6 %		
Cost of merchant solutions	45 %	45 %	40 %		
	<u>50 %</u>	<u>51 %</u>	<u>46 %</u>		

Cost of Subscription Solutions

Cost of subscription solutions increased for the year ended December 31, 2023 compared to the same period in 2022. The increase was primarily due to an increase in payment processing fees on merchant billings and cloud and infrastructure costs, partially offset by a decrease in support costs. As a percentage of revenues, cost of subscription solutions decreased for the year ended December 31, 2023 compared to the same period in 2022, due to lower growth on cloud and infrastructure costs, relative to the growth in revenue as well as a decrease in support costs.

Cost of Merchant Solutions

Cost of merchant solutions increased for the year ended December 31, 2023 compared to the same period in 2022. The increase was primarily due to higher payment processing fees resulting from an increase in GMV facilitated through Shopify Payments and Shop Cash issued following the program launch in June 2023, offset by a decrease in costs associated with our logistics operations, and a decrease in acquired intangibles, following the sales of our logistics business in the second quarter of 2023. As a percentage of revenues, cost of merchant solutions remained flat for the year ended December 31, 2023 compared to the same period in 2022 due to higher payment processing fees from Shopify Payments caused by increased network costs and changes in payment card type relative to the increase in Shopify Payments revenue and Shop Cash issued following the program launch in June 2023. The increases were offset by the decrease in costs associated with revenue from our logistics operations, and a decrease in amortization of acquired intangibles, following the sales of our logistics business in the second quarter of 2023.

Gross Profit

	Years ended December 31,			2023 vs 2022	2022 vs 2021
	2023	2022	2021	% Change	% Change
	(in millions, except percentages)				
Gross profit	\$ 3,515	\$ 2,754	\$ 2,482	28 %	11 %
Percentage of total revenues	50 %	49 %	54 %		

Gross profit increased for the year ended December 31, 2023 compared to the same period in 2022. As a percentage of total revenues, gross profit increased during the same period, due to the exclusion of costs associated with our logistics businesses and related amortization of acquired intangibles, as a result of the sales of the logistics businesses in the second quarter of 2023, an increase in subscription plan pricing and the decrease in cloud and infrastructure costs relative to revenue. The increases were partially offset by Shopify Payments representing a larger percentage of total revenues, higher payment processing fees from Shopify Payments, caused by an increase in network costs and changes in payment card type relative to the increase in Shopify Payments revenue and higher Shop Cash issued following the program launch in June 2023.

Operating Expenses

Sales and Marketing

	Years ended December 31,			2023 vs 2022	2022 vs 2021
	2023	2022	2021	% Change	% Change
	(in millions, except percentages)				
Sales and marketing	\$ 1,220	\$ 1,230	\$ 902	(1)%	36 %
Percentage of total revenues	17 %	22 %	20 %		

Sales and marketing expenses decreased for the year ended December 31, 2023 compared to the same period in 2022, due to decreases of \$58 million in employee related costs and \$53 million in online marketing spend, partially offset by increases of \$38 million in offline marketing spend, \$30 million in payouts related to our affiliate partner program, and \$17 million in severance related costs.

Research and Development

	Years ended December 31,			2023 vs 2022	2022 vs 2021
	2023	2022	2021	% Change	% Change
	(in millions, except percentages)				
Research and development	\$ 1,730	\$ 1,503	\$ 854	15 %	76 %
Percentage of total revenues	25 %	27 %	19 %		

Research and development expenses increased for the year ended December 31, 2023 compared to the same period in 2022, due to acceleration of stock-based compensation of \$164 million primarily related to the sales of our logistics businesses and an increase in severance related costs of \$93 million. The increases were partially offset by a decrease of \$57 million in employee-related costs.

General and Administrative

	Years ended December 31,			2023 vs 2022	2022 vs 2021
	2023	2022	2021	% Change	% Change
	(in millions, except percentages)				
General and administrative	\$ 491	\$ 708	\$ 375	(31)%	89 %
Percentage of total revenues	7 %	13 %	8 %		

General and administrative expenses decreased for the year ended December 31, 2023 compared to the same period in 2022, due to \$97 million in legal expenses incurred in the third quarter of 2022, a decrease of \$70 million in employee-related costs and a decrease of \$46 million in impairment related costs associated with right-of-use assets and leasehold improvements.

Transaction and Loan Losses

	Years ended December 31,			2023 vs 2022	2022 vs 2021
	2023	2022	2021	% Change	% Change
	(in millions, except percentages)				
Transaction and loan losses	\$ 152	\$ 135	\$ 82	13 %	65 %
Percentage of total revenues	2 %	2 %	2 %		

Transaction and loan losses increased for the year ended December 31, 2023 compared to the same period in 2022, due to an increase of \$11 million in losses related to Shopify Capital driven by an expansion of our Capital offerings and programs relative to the same period in 2022 and an increase of \$4 million in losses related to Shopify Payments, primarily related to higher realized losses in the period with the increase in GMV.

Impairment on Sales of Shopify's Logistics Businesses

In the year ended December 31, 2023, we had a net impairment on the sales of our logistics businesses of \$1.3 billion, inclusive of impairment of \$1.4 billion in goodwill, \$337 million in intangible assets, and \$93 million in net assets and transaction costs, reduced by non-cash consideration received of \$528 million.

Other Income (Expense)

	Years ended December 31,			2023 vs 2022	2022 vs 2021
	2023	2022	2021	% Change	% Change
	(in millions, except percentages)				
Other income (expense), net	\$ 1,603	\$ (2,801)	\$ 2,872	*	*

* Not a meaningful comparison

In the year ended December 31, 2023, we had net unrealized income on equity and other investments of \$1.4 billion, of which \$1.5 billion was in investments with readily determinable fair values and was the result of an unrealized gain on our Klaviyo investment as a result of its initial public offering during the year, and the change in share prices from December 31, 2022 to December 31, 2023 in our Affirm and Global-E investments, partially offset by \$110 million of unrealized losses related to investments without readily determinable fair values due to impairments in the year. Additionally, we had interest income of \$241 million and a net loss of \$58 million on our equity method investment.

In the year ended December 31, 2022, we had an unrealized loss on equity and other investments of \$3.0 billion due to our investments with readily determinable fair values, investments without readily determinable fair values and interest income. The unrealized losses were offset slightly by net realized gains on equity and other investments of \$124 million and interest income of \$75 million.

(Provision for) Recovery of Income Taxes

	Years ended December 31,			2023 vs 2022	2022 vs 2021
	2023	2022	2021	% Change	% Change
	(in millions, except percentages)				
(Provision for) recovery of Income taxes	\$ (53)	\$ 163	\$ (226)	*	*

* Not a meaningful comparison

In the year ended December 31, 2023, we had a provision for income taxes of \$53 million primarily as a result of earnings in jurisdictions outside of North America. This compares to a recovery of income taxes of \$163 million in the same period of 2022 primarily as a result of the unrealized loss on equity and other investments, share-based compensation and the change in valuation allowance related to deferred tax assets in Canada, as well as the United States.

Profit (Loss)

	<u>Years ended December 31,</u>			<u>2023 vs 2022</u>	<u>2022 vs 2021</u>
	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>% Change</u>	<u>% Change</u>
	(in millions, except share and per share data)				
Net income (loss)	\$ 132	\$ (3,460)	\$ 2,915	*	*
Net income (loss) per share attributable to shareholders ⁽¹⁾ :					
Basic	\$ 0.10	\$ (2.73)	\$ 2.34	*	*
Diluted	\$ 0.10	\$ (2.73)	\$ 2.29	*	*
Shares used to compute net income (loss) per share attributable to shareholders ⁽¹⁾ :					
Basic	1,281,554,559	1,266,268,155	1,246,588,910	*	*
Diluted	1,295,511,385	1,266,268,155	1,273,647,350	*	*

⁽¹⁾ Fiscal year 2021 share and per share amounts have been retrospectively adjusted to reflect the ten-for-one share split effected in June 2022.

* Not a meaningful comparison

Quarterly Results of Operations

The following table sets forth our results of operations for the three months ended December 31, 2023 and 2022:

	Three months ended December 31,	
	2023	2022
	(in millions, except share and per share data)	
Revenues:		
Subscription solutions	\$ 525	\$ 400
Merchant solutions	1,619	1,335
	<u>2,144</u>	<u>1,735</u>
Cost of revenues⁽¹⁾⁽²⁾:		
Subscription solutions	97	86
Merchant solutions	985	851
	<u>1,082</u>	<u>937</u>
Gross profit	<u>1,062</u>	<u>798</u>
Operating expenses:		
Sales and marketing ⁽¹⁾⁽²⁾	317	298
Research and development ⁽¹⁾	311	440
General and administrative ⁽¹⁾⁽³⁾	100	214
Transaction and loan losses	45	34
Impairment on sales of Shopify's logistics businesses	—	—
Total operating expenses	<u>773</u>	<u>986</u>
Income (loss) from operations	<u>289</u>	<u>(188)</u>
Other income (expense), net	393	(426)
Income (loss) before income taxes	<u>682</u>	<u>(614)</u>
Provision for income taxes	(25)	(9)
Net income (loss)	<u>\$ 657</u>	<u>\$ (623)</u>
Net income (loss) per share attributable to shareholders:		
Basic	<u>\$ 0.51</u>	<u>\$ (0.49)</u>
Diluted	<u>\$ 0.51</u>	<u>\$ (0.49)</u>
Weighted average shares used to compute net income (loss) per share attributable to shareholders:		
Basic	<u>1,285,498,532</u>	<u>1,273,338,804</u>
Diluted	<u>1,297,295,576</u>	<u>1,273,338,804</u>

⁽¹⁾ Includes stock-based compensation expense and related payroll taxes as follows:

	Three months ended December 31,	
	2023	2022
	(in millions)	
Cost of revenues	\$ 1	\$ 3
Sales and marketing	14	15
Research and development	69	104
General and administrative	19	24
	<u>\$ 103</u>	<u>\$ 146</u>

⁽²⁾ Includes amortization of acquired intangibles as follows:

	Three months ended December 31,	
	2023	2022
	(in millions)	
Cost of revenues	\$ 4	\$ 19
Sales and marketing	—	2
	<u>\$ 4</u>	<u>\$ 21</u>

⁽³⁾ In the three months ended December 31, 2022, we had \$84 million of impairment related costs associated with right-of-use assets and leasehold improvements.

Revenues

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
Revenues:			
Subscription solutions	\$ 525	\$ 400	31 %
Merchant solutions	1,619	1,335	21 %
Total revenues	<u>\$ 2,144</u>	<u>\$ 1,735</u>	<u>24 %</u>
Percentage of revenues:			
Subscription solutions	24 %	23 %	
Merchant solutions	76 %	77 %	
	<u>100 %</u>	<u>100 %</u>	

Subscription Solutions

Subscription solutions revenues increased for the three months ended December 31, 2023 compared to the same period in 2022. The period-over-period increase was primarily a result of growth in MRR, which was driven largely by a higher number of merchants using our platform, including prospective merchants on the free and paid trials beginning in 2022, converting to full price subscription plans through 2023, and by an increase in subscription plan pricing for certain plans in 2023.

Merchant Solutions

Merchant solutions revenues increased for the three months ended December 31, 2023 compared to the same period in 2022. The increase in merchant solutions revenues was primarily a result of Shopify Payments revenue, relating to payment processing and currency conversion fees, growing in the three months ended December 31, 2023 compared to the same period in 2022. This increase was a result of an increase in our Shopify Payments penetration

rate and the number of merchants using our platform. These factors drove \$10.8 billion of additional GMV facilitated using Shopify Payments in the three months ended December 31, 2023 compared to the same period in 2022, representing growth of 32%. For the three months ended December 31, 2023, the Shopify Payments penetration rate was 60%, resulting in GMV of \$45.1 billion that was facilitated using Shopify Payments. This compares to a penetration rate of 56% resulting in GMV of \$34.2 billion that was facilitated using Shopify Payments in the same period in 2022.

Cost of Revenues

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
Cost of revenues:			
Cost of subscription solutions	\$ 97	\$ 86	13 %
Cost of merchant solutions	985	851	16 %
Total cost of revenues	<u>\$ 1,082</u>	<u>\$ 937</u>	<u>15 %</u>
Percentage of revenues:			
Cost of subscription solutions	5 %	5 %	
Cost of merchant solutions	46 %	49 %	
	<u>50 %</u>	<u>54 %</u>	

Cost of Subscription Solutions

Cost of subscription solutions increased for the three months ended December 31, 2023 compared to the same periods in 2022. The increase was due mainly to an increase in cloud and infrastructure costs. As a percentage of revenues, cost of subscription solutions decreased slightly for the three months ended December 31, 2023 compared to the same periods in 2022, due to lower growth on cloud and infrastructure costs, relative to the growth in revenue as well as a decrease in support costs.

Cost of Merchant Solutions

Cost of merchant solutions increased for the three months ended December 31, 2023 compared to the same period in 2022. The increase was primarily due to higher payment processing fees resulting from an increase in GMV facilitated through Shopify Payments, offset by a decrease in costs associated with our logistics operations, and decrease in amortization of acquired intangibles, as a result of the sales of our logistics businesses in the second quarter of 2023. As a percentage of revenues, cost of merchant solutions decreased for the three months ended December 31, 2023, compared to the same period in 2022, primarily due to decreased costs associated with revenue from our logistics operations and amortization of acquired intangibles, following the sales of our logistics businesses in the second quarter of 2023.

Gross Profit

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
Gross profit	\$ 1,062	\$ 798	33 %
Percentage of total revenues	50 %	46 %	

Gross profit increased for the three months ended December 31, 2023 compared to the same period in 2022. As a percentage of total revenues, gross profit increased for the three months ended December 31, 2023, principally due

to the exclusion of costs associated with our logistics businesses and related amortization of acquired intangibles, as a result of the sales of our logistics businesses in the second quarter of 2023.

Operating Expenses

Sales and Marketing

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
Sales and marketing	\$ 317	\$ 298	6 %
Percentage of total revenues	15 %	17 %	

Sales and marketing expenses increased for the three months ended December 31, 2023 compared to the same period in 2022, due to increases of \$20 million in online marketing spend, \$11 million in offline marketing spend, and \$4 million in payouts related to our affiliate partner program, partially offset by a decrease of \$20 million in employee-related costs.

Research and Development

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
Research and development	\$ 311	\$ 440	(29)%
Percentage of total revenues	15 %	25 %	

Research and development expenses decreased for the three months ended December 31, 2023 compared to the same period in 2022, due to a decrease of \$131 million in employee-related costs.

General and Administrative

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
General and administrative	\$ 100	\$ 214	(53)%
Percentage of total revenues	5 %	12 %	

General and administrative expenses decreased for the three months ended December 31, 2023 compared to the same period in 2022, due to \$84 million in impairment expenses related to certain office locations we ceased using in 2022 and a decrease of \$29 million in employee-related costs.

Transaction and Loan Losses

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
Transaction and loan losses	\$ 45	\$ 34	32 %
Percentage of total revenues	2 %	2 %	

Transaction and loan losses increased for the three months ended December 31, 2023 compared to the same period in 2022, primarily due to an increase of \$12 million in losses related to Shopify Capital driven by an expansion of our Capital offerings and programs relative to the same period in 2022.

Other Income (Expenses), net

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
Other income (expenses), net	\$ 393	\$ (426)	*

* Not a meaningful comparison

In the three months ended December 31, 2023, we had an unrealized gain on equity and other investments of \$373 million, which included a \$448 million unrealized gain in investments with readily determinable fair values and was the result of the net change in share prices from September 30, 2023 to December 31, 2023 in our Affirm, Global-E, and Klaviyo, Inc. investments, partially offset by \$83 million of unrealized losses related to investments without readily determinable fair values in the quarter. Additionally, we had interest income of \$68 million recognized on investments and a net loss of \$48 million on our equity method investment.

In the three months ended December 31, 2022 where we had unrealized loss on equity and other investments of \$475 million due mainly to unrealized losses of \$314 million on our investments in Affirm and Global-E caused by the change in their share prices from September 30, 2022 to December 31, 2022 and unrealized losses of \$145 million related to investments without readily determinable fair values due to impairments in the year. The unrealized loss was partially offset by interest income of \$38 million recognized on our investments during the period.

Provision for Income Taxes

	Three months ended December 31,		2023 vs. 2022
	2023	2022	% Change
	(in millions, except percentages)		
Provision for income taxes	\$ (25)	\$ (9)	*

* Not a meaningful comparison

We had a provision for income taxes of \$25 million in the three months ended December 31, 2023, compared to a provision for income taxes of \$9 million in the three months ended December 31, 2022, both on account of earnings in jurisdictions outside of North America.

Summary of Quarterly Results

The following table sets forth selected unaudited quarterly results of operations data for each of the eight quarters ended December 31, 2023. The information for each of these quarters has been derived from unaudited condensed consolidated financial statements that were prepared on the same basis as the audited annual financial statements and, in the opinion of management, reflects all adjustments, which include only normal recurring adjustments, necessary for the fair presentation of the results of operations for these periods in accordance with U.S. GAAP. This data should be read in conjunction with our unaudited condensed consolidated financial statements and audited consolidated financial statements and related notes for the relevant period. These quarterly operating results are not necessarily indicative of our operating results for a full year or any future periods.

	Three months ended							
	Dec 31, 2023	Sep 30, 2023	June 30, 2023	Mar 31, 2023	Dec 31, 2022	Sep 30, 2022	Jun 30, 2022	Mar 31, 2022
	(in millions, except per share data)							
Revenues:								
Subscription solutions	\$ 525	\$ 486	\$ 444	\$ 382	\$ 400	\$ 377	\$ 366	\$ 345
Merchant solutions	1,619	1,228	1,250	1,126	1,335	989	929	859
	<u>2,144</u>	<u>1,714</u>	<u>1,694</u>	<u>1,508</u>	<u>1,735</u>	<u>1,366</u>	<u>1,295</u>	<u>1,204</u>
Cost of revenues ⁽¹⁾⁽²⁾ :								
Subscription solutions	97	88	85	84	86	82	85	78
Merchant solutions	985	725	774	707	851	622	554	488
	<u>1,082</u>	<u>813</u>	<u>859</u>	<u>791</u>	<u>937</u>	<u>704</u>	<u>639</u>	<u>566</u>
Gross profit	<u>1,062</u>	<u>901</u>	<u>835</u>	<u>717</u>	<u>798</u>	<u>662</u>	<u>656</u>	<u>638</u>
Operating expenses:								
Sales and marketing ⁽¹⁾⁽²⁾⁽⁴⁾	317	295	321	287	298	302	327	303
Research and development ⁽¹⁾⁽⁴⁾	311	313	648	458	440	412	347	304
General and administrative ⁽¹⁾⁽³⁾⁽⁴⁾⁽⁵⁾	100	137	131	123	214	255	130	109
Transaction and loan losses	45	34	31	42	34	39	42	20
Impairment on sales of Shopify's logistics businesses	—	—	1,340	—	—	—	—	—
Total operating expenses	<u>773</u>	<u>779</u>	<u>2,471</u>	<u>910</u>	<u>986</u>	<u>1,008</u>	<u>846</u>	<u>736</u>
Income (loss) from operations	<u>289</u>	<u>122</u>	<u>(1,636)</u>	<u>(193)</u>	<u>(188)</u>	<u>(346)</u>	<u>(190)</u>	<u>(98)</u>
Other income (expenses), net	393	606	335	269	(426)	188	(1,008)	(1,555)
Income (loss) before income taxes	<u>682</u>	<u>728</u>	<u>(1,301)</u>	<u>76</u>	<u>(614)</u>	<u>(158)</u>	<u>(1,198)</u>	<u>(1,653)</u>
(Provision for) recovery of income taxes	(25)	(10)	(10)	(8)	(9)	(1)	(6)	179
Net income (loss)	<u>\$ 657</u>	<u>\$ 718</u>	<u>\$ (1,311)</u>	<u>\$ 68</u>	<u>\$ (623)</u>	<u>\$ (159)</u>	<u>\$ (1,204)</u>	<u>\$ (1,474)</u>
Net income (loss) per share attributable to shareholders:								
Basic	\$ 0.51	\$ 0.56	\$ (1.02)	\$ 0.05	\$ (0.49)	\$ (0.12)	\$ (0.95)	\$ (1.17)
Diluted	\$ 0.51	\$ 0.55	\$ (1.02)	\$ 0.05	\$ (0.49)	\$ (0.12)	\$ (0.95)	\$ (1.17)

⁽¹⁾ Includes stock-based compensation expense and related payroll taxes as follows:

	Three months ended							
	Dec 31, 2023	Sep 30, 2023	June 30, 2023	Mar 31, 2023	Dec 31, 2022	Sep 30, 2022	Jun 30, 2022	Mar 31, 2022
	(in millions)							
Cost of revenues	\$ 1	\$ —	\$ 1	\$ 2	\$ 2	\$ 3	\$ 2	\$ 2
Sales and marketing ^(a)	14	17	13	15	15	17	17	16
Research and development ^(a)	69	70	252	106	104	108	99	85
General and administrative	19	20	19	18	24	26	23	20
	<u>\$ 103</u>	<u>\$ 107</u>	<u>\$ 285</u>	<u>\$ 141</u>	<u>\$ 145</u>	<u>\$ 154</u>	<u>\$ 141</u>	<u>\$ 123</u>

^(a) Includes accelerated stock-based compensation of \$1 million and \$4 million in sales and marketing during the third and second quarter of 2023, respectively, and \$164 million in research and development during the second quarter of 2023.

⁽²⁾ Includes amortization of acquired intangibles as follows:

	Three months ended							
	Dec 31, 2023	Sep 30, 2023	June 30, 2023	Mar 31, 2023	Dec 31, 2022	Sep 30, 2022	Jun 30, 2022	Mar 31, 2022
	(in millions)							
Cost of revenues	\$ 4	\$ 4	\$ 8	\$ 19	\$ 19	\$ 17	\$ 7	\$ 6
Sales and marketing	—	—	1	2	2	2	—	1
	<u>\$ 4</u>	<u>\$ 4</u>	<u>\$ 9</u>	<u>\$ 21</u>	<u>\$ 21</u>	<u>\$ 19</u>	<u>\$ 7</u>	<u>\$ 7</u>

⁽³⁾ In the third quarter of 2022, we incurred \$97 million of expenses related to legal matters.

⁽⁴⁾ In the second quarter of 2023, we had \$148 million of severance related costs associated with reductions in workforce with \$28 million in sales and marketing, \$102 million in research and development, and \$18 million in general and administrative. In the third quarter of 2022, we had \$30 million of severance related costs associated with reductions in workforce with \$11 million in sales and marketing, \$8 million in research and development, and \$11 million in general and administrative.

⁽⁵⁾ In the third quarter of 2023 and the fourth quarter of 2022, we had \$38 million and \$84 million of impairment related costs associated with right-of-use assets and leasehold improvements, respectively.

The following table sets forth selected unaudited quarterly statements of operations data as a percentage of total revenues for each of the eight quarters ended December 31, 2023:

	Three months ended							
	Dec 31, 2023	Sep 30, 2023	June 30, 2023	Mar 31, 2023	Dec 31, 2022	Sep 30, 2022	Jun 30, 2022	Mar 31, 2022
Revenues:								
Subscription solutions	24%	28%	26%	25%	23%	28%	28%	29%
Merchant solutions	76%	72%	74%	75%	77%	72%	72%	71%
	100%	100%	100%	100%	100%	100%	100%	100%
Cost of revenues:								
Subscription solutions	5%	5%	5%	6%	5%	6%	7%	6%
Merchant solutions	46%	42%	46%	47%	49%	45%	43%	41%
	50%	47%	51%	52%	54%	52%	49%	47%
Gross profit	50%	53%	49%	48%	46%	48%	51%	53%
Operating expenses:								
Sales and marketing	15%	17%	19%	19%	17%	22%	25%	25%
Research and development	15%	18%	38%	30%	25%	30%	27%	25%
General and administrative	5%	8%	8%	8%	12%	19%	10%	9%
Transaction and loan losses	2%	2%	2%	3%	2%	3%	3%	2%
Impairment on sales of Shopify's logistics businesses	—%	—%	79%	—%	—%	—%	—%	—%
Total operating expenses	36%	45%	146%	60%	57%	74%	65%	61%
Income (loss) from operations	13%	7%	(97)%	(13)%	(11)%	(25)%	(15)%	(8)%
Other income (expense), net	18%	35%	20%	18%	(25)%	14%	(78)%	(129)%
Income (loss) before income taxes	32%	42%	(77)%	5%	(35)%	(12)%	(93)%	(137)%
(Provision for) recovery of income taxes	(1)%	(1)%	(1)%	(1)%	(1)%	0%	0%	15%
Net income (loss)	31%	42%	(77)%	5%	(36)%	(12)%	(93)%	(122)%

We believe that year-over-year comparisons are more meaningful than our sequential results due to seasonality in our business. While we believe that this seasonality has affected and will continue to affect our quarterly results, our rapid growth has largely masked seasonal trends to date. Our merchant solutions revenues are directionally correlated with our merchants' GMV. Our merchants' GMV typically increases during the fourth-quarter holiday season. As a result, we have historically generated higher merchant solutions revenues in our fourth quarter than in other quarters. As a result of the growth of our merchant solutions offerings, we believe that our business may become more seasonal in the future, and that historical patterns in our business may not be a reliable indicator of our future performance.

Quarterly Revenue and Gross Margin Trends

Historically, revenues experienced a seasonal decrease in our first quarter as consumers typically reduce their spending following the holiday season resulting in a seasonal decrease in GMV per merchant, which was not completely offset by merchant and MRR growth. Subsequently, revenues have increased in each of the next three quarters as a result of merchant, MRR and overall GMV growth. Our merchants have processed additional GMV during the fourth-quarter holiday seasons, and as a result we have generated higher merchant solutions revenues in our fourth quarters compared to other quarters. Due to the continued growth of our merchant solutions offerings, we believe that our business may become more seasonal in the future.

Our gross margin percentage has varied over the past eight quarters and is generally driven by the mix between our higher margin subscription solutions revenue and lower margin merchant solutions revenue. While our total revenues have increased in recent periods, the mix has shifted towards merchant solutions revenue, most notably in

the fourth quarter due to higher holiday volume of orders facilitated and the resulting Shopify Payments revenue during this period. We expect this overall trend to continue over time.

In connection with expanding our operations internationally, we anticipate a growing proportion of our revenues and cost of sales transactions to be incurred in foreign currencies as compared to USD due to increased Shopify Payments, Shopify Capital, subscriptions, and other billings to select countries in local currency. Fluctuations in foreign currencies relative to the USD may impact identified quarterly and yearly trends.

The acquisition of Deliverr, which closed in the third quarter of 2022, and the sales of our logistics businesses in the second quarter of 2023 has impacted the comparability of our revenues and gross margin.

Quarterly Operating Expenses Trends

Historically, total operating expenses have increased sequentially for each period presented as we grow our operations. In recent quarters, our operating expense dollars, excluding the items discussed in this section, did not grow significantly. We recognized an impairment on the sales of our logistics businesses in the second quarter of 2023. We recognized restructuring expenses in the second quarter of 2023 which caused an increase in research and development, sales and marketing, and general and administrative spend relative to revenue in the quarter. We impaired certain office spaces in the third quarter of 2023 and the fourth quarter of 2022, which caused an increase in general and administrative spend relative to revenue. In the third quarter of 2022, we recorded litigation contingencies which caused an increase in general and administrative spend relative to revenue in that quarter. Total operating expenses have historically increased primarily due to the addition of personnel in connection with the expansion of our business and additional marketing initiatives to attract potential merchants, but as a result of the workforce reduction in the second quarter of 2023 we have seen a decrease in personnel expenses in the second half of 2023. In addition, the Deliverr acquisition, which closed in the third quarter of 2022, and the sales of our logistics businesses in the second quarter of 2023, has impacted the comparability of operating expenses. We note a significant portion of our operating expenses are incurred in foreign currencies which may impact the comparability of our quarterly and yearly trends.

Quarterly Other Income (Expense) Trends

Historically, there have been no consistent trends associated with other income (expense) as changes are impacted by fluctuations in the fair value of our equity investments in public companies with readily determinable fair values, observable changes or impairments associated with our equity investments in private companies without readily determinable fair values, changes in our equity method investment based on our share of income and loss, including amortization of the basis difference, changes in the fair value of our investments in convertible notes of private companies, foreign exchange rates and interest rates. The results from these changes may fluctuate from period to period and may cause volatility to our earnings as well as impact comparability of our results from period to period.

Key Balance Sheet Information

	As of	
	December 31, 2023	December 31, 2022
	(in millions)	
Cash, cash equivalents and marketable securities	\$ 5,008	\$ 5,053
Total assets	\$ 11,299	\$ 10,757
Total liabilities	\$ 2,233	\$ 2,518
Total non-current liabilities	\$ 1,335	\$ 1,662

Total net assets increased \$827 million as of December 31, 2023 compared to December 31, 2022, due to the increase of \$542 million in total assets and the decrease of \$285 million in total liabilities. The increase in net assets is primarily due to a \$1.4 billion increase in Equity and other investments from net unrealized gains on our

investments and cash provided by operating activities of \$0.9 billion offset by the impairment of \$1.3 billion incurred from the sales of our logistics businesses.

Liquidity and Capital Resources

To date, we have financed our operations primarily through the sale of equity securities as well as the sale of the Notes, raising approximately \$7.8 billion, net of issuance costs, from investors.

In September 2022, due to the expiry of our previous short-form base shelf prospectus, we filed a new short-form base shelf prospectus with the securities commissions in each of the provinces and territories of Canada, except Quebec, and a corresponding shelf registration statement on Form F-10 with the U.S. Securities and Exchange Commission. This shelf prospectus and registration statement allows Shopify to offer an unlimited amount of Class A subordinate voting shares, preferred shares, debt securities, warrants, subscription receipts, units, or any combination thereof, from time to time during the 25-month period that the shelf prospectus is effective, which commenced September 9, 2022.

Our principal cash requirements are for working capital and ongoing operations. Excluding current deferred revenue, working capital as of December 31, 2023 was \$5.7 billion. As a result of our employee compensation program there is a potential for an increase in cash usage as employees have the ability to elect how much of their total compensation will be in the form of cash versus stock-based compensation awards. Given the ongoing cash generated from operations and our existing cash and cash equivalents, we believe there is sufficient liquidity to meet our current and planned financial obligations over the next 12 months. Our future financing requirements will depend on many factors, including but not limited to our growth rate, subscription renewal activity, the timing and extent of spending to support development of our platform, the expansion of sales and marketing activities, the macroeconomic conditions and overall levels of consumer spending on goods, and potential strategic investments and acquisitions activity. Although we currently are not a party to any material undisclosed agreement and do not have any understanding with any third parties with respect to potential material investments in, or material acquisitions of, businesses or technologies, we may enter into these types of arrangements in the future, which could also require us to seek additional equity or debt financing. Additional funds may not be available on terms favorable to us or at all.

Cash, Cash Equivalents and Marketable Securities

Cash, cash equivalents, and marketable securities decreased by \$45 million to \$5.0 billion as of December 31, 2023 from \$5.1 billion as of December 31, 2022, primarily as a result of the purchase and origination of loans, net of repayments, and the purchase of equity and other investments offset by cash provided by our operating activities, the maturity of merchant cash advances, and proceeds from the exercise of stock options.

Cash equivalents and marketable securities include money market funds, U.S. and Canadian federal bonds and agency securities, and corporate bonds and commercial paper, all maturing within the 12 months from December 31, 2023.

The following table summarizes our total cash, cash equivalents and marketable securities as of December 31, 2023 and 2022 as well as our operating, investing and financing activities for the years ended December 31, 2023 and 2022:

	Years ended December 31,	
	2023	2022
	(in millions)	
Cash, cash equivalents and marketable securities (end of year)	<u>\$ 5,008</u>	<u>\$ 5,053</u>
Net cash provided by (used in):		
Operating activities	\$ 944	\$ (136)
Investing activities	(1,244)	(719)
Financing activities	60	18
Effect of foreign exchange on cash and cash equivalents	4	(17)
Net decrease in cash and cash equivalents	(236)	(854)
Change in marketable securities ⁽¹⁾	191	(1,861)
Net decrease in cash, cash equivalents and marketable securities	<u>\$ (45)</u>	<u>\$ (2,715)</u>

⁽¹⁾ Excludes \$115 million of marketable securities classified in "Equity and other investments".

Cash Flows From Operating Activities

Our largest source of operating cash is from merchant solutions. Within merchant solutions, the largest source of cash flows are Shopify Payments processing fee arrangements, which are received on a daily basis as transactions are processed. We also generate significant cash flows from our subscription solutions with subscription revenues being our single largest source of cash flows. These payments are typically paid to us at the beginning of the applicable subscription period, except for our Shopify Plus merchants who typically pay us at the end of their monthly billing cycle.

Our primary uses of cash from operating activities are for third-party payment processing fees, employee-related expenditures, marketing programs, providing cash advances to merchants through Shopify Capital, and outsourced hosting costs.

For the year ended December 31, 2023, net cash provided by operating activities was primarily the result of operating income, once adjusted for non-cash items.

Cash Flows From Investing Activities

Net cash used in investing activities in the year ended December 31, 2023 was driven by \$523 million used for purchases and originations of loans, net of repayments, \$364 million used to purchase equity and other investments, \$251 million used for purchases of marketable securities, net of maturities, \$39 million used to purchase property and equipment, which consisted mainly of leasehold improvements and computer equipment, and \$31 million used for business acquisitions.

Cash Flows From Financing Activities

Net cash provided by financing activities in the year ended December 31, 2023 was driven by proceeds from the issuance of Class A subordinate voting shares and Class B restricted multiple voting shares as a result of stock options exercises.

Contractual Obligations

Our principal commitments consist of our Notes and obligations under our operating leases for office space. The following table summarizes our contractual obligations as of December 31, 2023:

	Payments Due by Period				Total
	Less Than 1 Year	1 to 3 Years	3 to 5 Years	More Than 5 Years	
	(in millions)				
Convertible senior notes ⁽¹⁾	\$ 1	\$ 921	\$ —	\$ —	\$ 922
Operating lease and unconditional purchase obligations ⁽²⁾	53	91	98	241	483
Total contractual obligations	\$ 54	\$ 1,012	\$ 98	\$ 241	\$ 1,405

⁽¹⁾ \$920 million of the payments due in one to three years may be settled in Class A subordinate voting shares instead of cash, at our option.

⁽²⁾ Consists of payment obligations under our office space leases.

Off-Balance Sheet Arrangements

In connection with the sales of our logistics businesses in the second quarter of 2023, we retained our guarantee of certain leases. We also entered into an indemnification agreement that governs the liability obligations of the purchaser in connection with these guarantees. These arrangements, and our obligations arising from such arrangements, are not expected to have a material impact on the current or future financial performance or financial condition of the Company.

Litigation and Loss Contingencies

On August 31, 2022, a jury in the U.S. District Court for the District of Delaware returned a verdict finding that Shopify infringed three web technology patents owned by Express Mobile, Inc. We have challenged the verdict through post-trial motions and the Plaintiff has moved for interest on the amount of the verdict.

We are not aware of any other litigation matters or loss contingencies that would be expected to have a material adverse effect on the business, consolidated financial position, results of operations, or cash flows.

Related Parties

In November 2023, we entered a commercial agreement with Flexport following the sale of our logistics businesses in the second quarter of 2023. Under the terms of the commercial agreement, Flexport will provide fulfillment services to Shopify merchants.

In December 2023, we made a separate investment in Flexport with the purchase of convertible notes of \$260. This investment is classified within "Equity and other investments" and we have elected to account for it using the fair value option.

Risks and Uncertainties

We are exposed to a variety of risks, as discussed in Note 3 in our consolidated financial statements and the accompanying notes for the fiscal year ended December 31, 2023. We regularly assess these risks to minimize any adverse effects on our business as a result of those factors. Our risk over foreign currency exchange fluctuations, changes in interest rates and inflation is discussed below.

Foreign Currency Exchange Risk

While the majority of our revenues, cost of revenues, and operating expenses are denominated in USD, a significant portion are denominated in foreign currencies. Due to offering Shopify Payments, Shopify Capital, subscriptions,

and other billing to select countries in local currency, a significant proportion of revenue transactions are denominated in GBP, EUR and CAD. As we continue to have significant Canadian operations and as operations continue to expand internationally, a significant proportion of operating expenses are also incurred in the aforementioned foreign currencies. To help mitigate the impacts associated with foreign currency fluctuations on future cash flows from operating expenses, we maintain a portfolio of foreign exchange derivative products designated as hedging instruments.

Effect of Foreign Exchange Rates

The following non-GAAP financial measure converts our revenues, cost of revenues, operating expenses, and loss from operations using the comparative period's monthly average exchange rates:

	Three months ended December 31,			
	2023			2022
	At Prior Year Effective Rates ⁽¹⁾	Exchange Rate Effect ⁽²⁾	GAAP Amounts as Reported	GAAP Amounts As Reported
	(in millions)			
Revenues	\$ 2,135	\$ 9	\$ 2,144	\$ 1,735
Cost of revenues	(1,079)	(3)	(1,082)	(937)
Operating expenses	(780)	7	(773)	(986)
Income (loss) from operations	\$ 276	\$ 13	\$ 289	\$ (188)

	Year ended December 31,			
	2023			2022
	At Prior Year Effective Rates ⁽¹⁾	Exchange Rate Effect ⁽²⁾	GAAP Amounts as Reported	GAAP Amounts As Reported
	(in millions)			
Revenues	\$ 7,069	\$ (9)	\$ 7,060	\$ 5,600
Cost of revenues	(3,554)	9	(3,545)	(2,846)
Operating expenses	(4,986)	53	(4,933)	(3,576)
Loss from operations	\$ (1,471)	\$ 53	\$ (1,418)	\$ (822)

⁽¹⁾ Represents the outcome that would have resulted if the comparative period's effective foreign exchange rates are applied to the current reporting period.

⁽²⁾ Represents the increase or decrease in GAAP amounts reported resulting from using the comparative period's effective foreign exchange rates. The exchange rate effect is primarily driven by fluctuations in CAD, EUR and GBP foreign exchange rates.

This effect of foreign exchange rates on our consolidated statements of operations disclosure is a supplement to our consolidated financial statements, which are prepared and presented in accordance with U.S. GAAP. We have provided the above non-GAAP disclosure as we believe it presents a clear comparison of our year to year operating results by removing the impact of fluctuations in foreign exchange rates and to assist investors in understanding our financial and operating performance. Non-GAAP financial measures are not recognized measures for financial statement presentation under U.S. GAAP, do not have standardized meanings, and may not be comparable to similar measures presented by other public companies. Such non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, or superior to, the corresponding measures calculated in accordance with U.S. GAAP.

The following table summarizes the effects on revenues, cost of revenues, operating expenses, and loss from operations of a 10% strengthening of all foreign currencies the Company transacts in versus the USD without considering the impact of the Company's hedging activities and factoring in any potential changes in demand for the Company's solutions as a result of fluctuations in exchange rates:

	Years Ended					
	December 31, 2023			December 31, 2022		
	GAAP Amounts As Reported \$	Exchange Rate Effect (1)(2) \$	At 10% Stronger Rates (3) \$	GAAP Amounts As Reported \$	Exchange Rate Effect (2) \$	At 10% Stronger Rates (1)(3) \$
Revenues	7,060	125	7,185	5,600	76	5,676
Cost of revenues	(3,545)	(64)	(3,609)	(2,846)	(45)	(2,891)
Operating expenses	(4,933)	(117)	(5,050)	(3,576)	(119)	(3,695)
Loss from operations	(1,418)	(56)	(1,474)	(822)	(88)	(910)

(1) A 10% weakening of the foreign currencies versus the USD would have an equal and opposite impact on the Company's revenues, cost of revenues, operating expenses and loss from operations as presented in the table.

(2) Represents the increase or decrease in GAAP amounts reported resulting from a 10% strengthening in foreign exchange rates relative to the USD.

(3) Represents the outcome that would have resulted had the foreign exchange rates relative to the USD in those periods been 10% stronger than they actually were, excluding the impact of our hedging program and without factoring in any potential changes in demand for the Company's solutions as a result of changes in exchange rates.

Equity and Other Investments

We hold equity and other investments that are subject to market-related risks that could substantially reduce or increase the fair value of our holdings. As of December 31, 2023, we had equity and other investments in public and private companies totaling \$4.4 billion. Our equity and other investments with readily determinable fair values, which relate to Affirm, Global-E, and Klaviyo, representing \$2.4 billion of our investments, are recorded at fair value, which is subject to market price volatility. Our equity investments in private companies, representing \$505 million of our investments, are recorded using the measurement alternative and are assessed each reporting period for observable price changes and impairments, which may involve estimates and judgments given the lack of readily available market data. Certain equity investments in private companies are in the early stages of development and are inherently risky due to their lack of operational history. Our equity method investment in Flexport, representing \$780 million, is subject to risks based on our share of income or loss, including amortization of the basis difference, from this investment which may cause volatility to our earnings. Our debt investments in convertible notes of private companies are recorded at fair value and represent \$495 million of our investments, which are impacted by the underlying entities' valuations and interest rates. Our investment option derivative to purchase Series B common shares in Klaviyo, Inc., represents \$122 million of our investments, is impacted by market price volatility and interest rates.

Our marketable securities greater than one year, representing \$115 million of our investments, are recorded at carrying value and any changes in the fair value due to the interest rate are not recorded until the investment is sold as they are classified as "held to maturity". The results from these changes may fluctuate from period to period and may cause volatility to our earnings as well as impact comparability of our results from period to period.

Interest Rate Sensitivity

We had cash, cash equivalents and marketable securities in our cash management program totaling \$5.0 billion as of December 31, 2023. The cash and cash equivalents are held for operations and working capital purposes. Our investments within cash, cash equivalents and marketable securities are made for capital preservation purposes. We do not enter into these types of investments for trading or speculative purposes.

Our cash equivalents and our portfolio of marketable securities are subject to market risk due to changes in interest rates. Fixed rate securities may have their market value adversely affected due to a rise in interest rates. Our future

investment income may fall short of our expectations due to changes in interest rates or we may suffer losses in principal if we are forced to sell securities that decline in market value due to changes in interest rates. However, because we classify our debt securities as "held to maturity", no gains or losses are recognized due to changes in interest rates unless such securities are sold prior to maturity or declines in fair value are determined to be other than temporary.

In September 2020, we issued \$920 million aggregate principal amount of Notes. The Notes have a fixed annual interest rate of 0.125%; accordingly, we do not have economic interest rate exposure on the Notes. However, the fair market value of the Notes is exposed to interest rate risk. Generally, the fair market value of our fixed interest rate Notes will increase as interest rates fall and decrease as interest rates rise. In addition, the fair market value of the Notes will generally fluctuate as the price of our Class A subordinate voting shares fluctuates. We carry the Notes at face value less debt offering costs, plus any amortization of offering costs, and we present the fair value for required disclosure purposes only.

The Company holds convertible notes in private companies. These investments are classified as available-for-sale debt securities, for which we have elected to account for under the fair value option. These investments are carried at fair value at each balance sheet date and any movements in the fair value are recognized in "Net income (loss)" in the consolidated statement of operations and comprehensive income (loss). The underlying entity's valuation includes inputs such as interest rates which impact the market value of the investment.

Concentration of Credit Risk

The Company's cash and cash equivalents, marketable securities, trade and other receivables, loans, merchant cash advances, and foreign exchange derivative instruments subject the Company to concentrations of credit risk. Management mitigates this risk associated with cash and cash equivalents by making deposits and entering into foreign exchange derivative products only with large banks and financial institutions that are considered to be highly creditworthy. We limit the amount of credit exposure with any one financial institution and conduct timely evaluations of the credit worthiness of these financial institutions. Management mitigates the risks associated with marketable securities by adhering to its investment policy, which stipulates minimum rating requirements, maximum investment exposures and maximum maturities. Due to the Company's diversified merchant base, there is no particular concentration of credit risk related to the Company's trade and other receivables, loans receivable and merchant cash advances. Trade and other receivables, loans receivable and merchant cash advances are monitored on an ongoing basis to ensure timely collection of amounts. The Company has mitigated some of the risks associated with Shopify Capital by opening insurance policies with Export Development Canada ("EDC"), a wholly-owned corporation of the Government of Canada, who is AAA rated as of December 31, 2023. The Company pays EDC a monthly premium based on total eligible dollars advanced, and records this as "General and administrative" expense in the consolidated statements of operations and comprehensive income (loss). All policies include a deductible set at either a specified dollar loss threshold or calculated as a percentage of eligible advances issued. After considering the Company's deductible and the insurer's maximum liability under the policies, the majority of the Company's gross outstanding balance of loans and merchant cash advances as of December 31, 2023 is covered. The receivable related to insurance recoveries, if any, is included in "Loans and merchant cash advances, net" in the consolidated balance sheets. There are no receivables from individual merchants accounting for 10% or more of revenues or receivables.

Inflation Risk

We are subject to inflation risk that could have a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations. Furthermore, our merchants are also subject to risks associated with inflationary pressures that could impact their business and financial condition. These pressures could subsequently result in impacts to our GMV and further affect our business, particularly if economic growth has slowed across many of the regions in which we operate.

Disclosure Controls and Procedures and Internal Control Over Financial Reporting

All control systems, no matter how well designed, have inherent limitations. Accordingly, even disclosure controls and procedures, and internal controls over financial reporting determined to be effective can only provide reasonable assurance of achieving their control objectives with respect to financial statement preparation and presentation.

Disclosure Controls and Procedures

Management of the Company, under the supervision of the Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining disclosure controls and procedures (as defined by the United States Securities and Exchange Commission ("SEC") in Rule 13a-15(e) under the Exchange Act for the Company to ensure that material information relating to the Company, including its consolidated subsidiaries, that is required to be made known to the Chief Executive Officer and Chief Financial Officer by others within the Company and disclosed by the Company in reports filed or submitted by it under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and (ii) accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

We, including the Chief Executive Officer and Chief Financial Officer, have evaluated the effectiveness of the Company's disclosure controls and procedures as of December 31, 2023 and have concluded that the Company's disclosure controls and procedures were effective as of December 31, 2023.

Management's Annual Report on Internal Control Over Financial Reporting

Management of the Company, under the supervision of the Chief Executive Officer and the Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over the Company's financial reporting.

Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with United States generally accepted accounting principles.

We, including the Chief Executive Officer and Chief Financial Officer, have assessed the effectiveness of the Company's internal control over financial reporting in accordance with Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, we, including the Chief Executive Officer and Chief Financial Officer, have determined that the Company's internal control over financial reporting was effective as of December 31, 2023. Additionally, based on our assessment, we determined that there were no material weaknesses in the Company's internal control over financial reporting as of December 31, 2023.

Attestation Report of the Independent Registered Public Accounting Firm

The effectiveness of the Company's internal control over financial reporting as of December 31, 2023 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report on the audited consolidated financial statements for December 31, 2023.

Changes in Internal Control Over Financial Reporting

In the year ended December 31, 2023, there were no changes in the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with U.S. GAAP. In the preparation of these consolidated financial statements, we are required to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. To the extent that there are material differences between these estimates and actual results, our financial condition or results of operations would be affected. We base our estimates on past experience and other assumptions that we believe are reasonable under the circumstances, and we re-evaluate these estimates on an ongoing basis. We refer to accounting estimates of this type as significant accounting policies and estimates, which we discuss below and in further detail in Note 3 - Significant Accounting Policies of our audited consolidated financial statements for the year ended December 31, 2023.

Revenue Recognition

For revenue streams that involve another party that contributes to providing a specified service to a customer, the Company determines whether it is the principal or an agent. In these instances, the Company determines whether it has promised to provide the specified service itself (as principal) or to arrange for the specified service to be provided by another party (as an agent). This determination depends on the facts and circumstances of each arrangement and, in some instances, involves significant judgment. The Company recognizes revenue from certain services, such as the sale of shipping labels, the sale of apps, the sale of themes, card services and installments services, on a net basis as the Company is the agent in the arrangement with customers. All other revenue is reported on a gross basis, as the Company has determined it is the principal in the respective arrangements.

Equity and Other Investments

The Company evaluates each investment to determine if the investment is a variable interest entity and, if so, whether the Company is the primary beneficiary of the variable interest entity. As of December 31, 2023 and 2022, there were no variable interest entities required to be consolidated in the Company's consolidated financial statements.

The Company also assesses each investment to determine its classification based on fair value measurements and other factors, which then are classified as equity and other investments with readily determinable fair values, equity and other investments without readily determinable fair values and equity and other investments under the equity method of accounting.

Equity and other investments in private companies without readily determinable fair values are carried at cost less impairments, with subsequent adjustments for observable changes (referred to as the measurement alternative). Estimates and judgments are involved in applying the measurement alternative associated with equity and other investments without readily determinable fair values by developing certain key assumptions, including revenue growth rates and revenue multiples based on market comparables.

The Company also holds investments in convertible notes of private companies which are classified as available-for-sale debt securities, for which the Company has elected to account for under the fair value option. The investments are carried at fair value at each balance sheet date and any movements in the fair values are classified as "Other income (expense), net" in the consolidated statement of operations and comprehensive income (loss).

The Company evaluates each investment to determine if the investment should be accounted for as an equity method investment based upon equity ownership, significant influence and ongoing involvement in the investee, including factors such as representation on the investee's Board of Directors. Investments that qualify for the equity method of accounting treatment are carried at the Company's investment amounts and adjusted each period for the Company's share of the investee's income or loss and amortization of the basis difference, which is the difference between the fair value of our investment in the company and the underlying equity in the net assets of the investee.

The Company assesses its equity and other investments in private companies and equity method investment for impairment through analyzing market conditions, business results and other qualitative measures that suggest that the carrying amount of the investment may be impaired, and the decline in value below the carrying amount is determined to be other than temporary.

Loss Contingencies

The Company records accruals for loss contingencies when losses are probable and reasonably estimable. The Company evaluates developments in legal matters that could affect the amount of liability that has been previously accrued and makes adjustments as appropriate. Significant judgment is required to determine both probability and the estimated amount of a loss or potential loss. The Company may be unable to reasonably estimate the reasonably possible loss or range of loss for a particular legal contingency for various reasons, including, among others, because: (i) the damages sought are indeterminate; (ii) the proceedings are in the relative early stages; (iii) there is uncertainty as to the outcome of pending proceedings (including motions and appeals); (iv) there is uncertainty as to the likelihood of settlement and the outcome of any negotiations with respect thereto; (v) there remain significant factual issues to be determined or resolved; (vi) the relevant law is unsettled; or (vii) the proceedings involve novel or untested legal theories. In such instances, there may be considerable uncertainty regarding the ultimate resolution of such matters, including the likelihood or magnitude of a possible eventual loss, if any.

Shares Outstanding

Shopify is a publicly traded company listed on the New York Stock Exchange (NYSE: SHOP) and on the Toronto Stock Exchange (TSX: SHOP). As of February 7, 2024 there were 1,207,926,050 Class A subordinate voting shares issued and outstanding, 79,261,346 Class B restricted voting shares issued and outstanding, and 1 Founder share issued and outstanding.

As of February 7, 2024 there were 539,110 options outstanding under the Company's Fourth Amended and Restated Incentive Stock Option Plan, of which 539,110 were vested as of such date. Each such option is or will become exercisable for one Class B restricted voting share. As of February 7, 2024 there were 10,661,820 options outstanding under the Company's Amended and Restated Stock Option Plan, of which 7,128,780 were vested as of such date. Each such option is or will become exercisable for one Class A subordinate voting share. As of February 7, 2024 there were 108,062 options outstanding under the Deliverr, Inc 2017 Stock Option and Grant Plan, which the Company assumed on closing of its acquisition of Deliverr on July 8, 2022. Of these options, 23,970 were vested as of such date. Each option is or will become exercisable for one Class A subordinate voting share.

As of February 7, 2024 there were 3,476,818 Restricted Share Units ("RSUs") and 13,517 Deferred Share Units ("DSUs") outstanding under the Company's Amended and Restated Long Term Incentive Plan. Each such RSU or DSU will vest as one Class A subordinate voting share. As of February 7, 2024 there were 320 RSUs outstanding under the Deliverr, Inc 2017 Stock Option and Grant Plan, which the Company assumed on closing of its acquisition of Deliverr on July 8, 2022. Each such RSU will vest as one Class A subordinate voting share.