

MANAGEMENT'S DISCUSSION AND ANALYSIS

October 29, 2020

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 explain Shopify's results of operations for the three and nine months ended September 30, 2020 and 2019, our cash flows for the nine months ended September 30, 2020 and 2019 and our financial position as of September 30, 2020. You should read this MD&A together with our unaudited condensed consolidated financial statements and the accompanying notes for the fiscal quarter ended September 30, 2020, as well as with our audited consolidated financial statements and the accompanying notes for the fiscal year ended December 31, 2019. Additional information regarding Shopify, including our 2019 annual information form and our annual report on Form 40-F for the year ended December 31, 2019, is available on our website at www.shopify.com, or at www.sedar.com and www.sec.gov.

Our unaudited condensed 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.

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 quarter with the same quarter 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, 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", "intends", "plans", "anticipates", "believes", "potential", "continue", 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:

- the extent of the impact of the novel coronavirus ("COVID-19") on our business, financial performance, revenues, and results of operations;
- disruption to our operations due to the impact of COVID-19 and the impact of COVID-19 on our employees, suppliers, partners, and our merchants and their customers, the success of and risk related to

- new products and initiatives launched in response to COVID-19, and the effect of economic conditions as a result of COVID-19 on the value of our investments and our share price;
- our expectation that Shopify employees will continue to work remotely for the remainder of 2020 and beyond 2020 the majority will work remotely permanently ("digital-by-design");
 - our plan to repurpose or reconfigure our remaining office space and potentially terminate additional leases or sublet other spaces;
 - our exploration of new ways to accelerate checkout;
 - our ability to make it easier for merchants to manage their storefronts via their mobile devices;
 - the achievement of innovations and enhancements to, and expansion of, our platform and our solutions;
 - 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 to drive future growth;
 - our expectation that we will continue to invest in, develop and scale Shopify Fulfillment Network to provide our merchants with fast and affordable fulfillment and our expectation that Shopify Fulfillment Network is well positioned to improve supply chain economics and delivery for merchants;
 - our intention to accelerate the development of Shopify Fulfillment Network;
 - our expectation that the gross margin percentage of merchant solutions will decline in the short term as we develop Shopify Fulfillment Network and 6 River Systems Inc. ("6RS");
 - our expectation that the continued growth of merchant solutions may cause a decline in our overall gross margin percentage;
 - our expectation that as a result of the continued growth of our merchant solutions offerings, our 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 we may experience a decrease in gross merchandise volume ("GMV") as a result of lower consumer spending, which decrease would be partially offset by more traditional businesses expanding or migrating online;
 - our expectation that our results of operations will be adversely impacted by an increase in the value of the Canadian dollar ("CAD") relative to the USD;
 - our expectation that our monthly recurring revenue ("MRR") growth rate will decelerate in the near term, due to the timing of the expiration of our extended free trial periods;
 - our expectation that the cost of subscription solutions will increase and that our subscription solutions gross margin percentage will fluctuate modestly over time;
 - our expectation that the cost of merchant solutions will increase in absolute dollars in future periods;
 - our 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, including adding sales personnel and expanding our marketing activities to continue to generate additional leads and build brand awareness;
 - our expectation that our research and development expenses will increase in absolute dollars as we continue to increase the functionality of our platform, but will eventually decline as a percentage of total revenues;
 - our expectation that general and administrative expenses will increase on an absolute dollar basis, but may decrease as a percentage of our total revenues as we focus on processes, systems and controls to enable our internal support functions to scale with the growth of our business;
 - our expectation that transaction and loan losses related to Shopify Payments and Shopify Capital will increase on an absolute dollar basis over time, including as a result of the ongoing COVID-19 pandemic;
 - our expectation that the overall trend of merchant solutions revenue making up an increasing component of total revenues over time, most notably in the fourth quarter due to higher holiday volume, will continue over time;
 - expected credit losses related to the impact of COVID-19;

- our belief that we have sufficient liquidity to meet our current and planned financial obligations over the next 12 months, including any potential negative impacts to cash that may occur as a result of the impact from COVID-19;
- 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 or due to observable changes in price or impairments;
- the fair market value of our convertible senior notes (the "Notes") as a result of changes in interest rates or the price of our Class A subordinate voting shares;
- our expectations regarding contractual obligations and contingencies;
- the impact of inflation on our costs and operations;
- our accounting estimates, allowances, provisions, and assumptions made in the preparation of our financial statements, including the potential impact from COVID-19 and our move to "digital-by-design"; 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 an increasing 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 ability to manage our growth effectively;
- our ability to 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;
- our ability to develop new solutions to extend the functionality of our platform, provide a high level of merchant service and support;
- 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 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 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 and Shopify Shipping will continue to grow through increased adoption and international expansion;
- our expectation that a portion of increased funding to Shopify Capital will go toward business continuity instead of growth activities;
- our expectation that Shopify Payments will continue to expand internationally;
- our expectation that Shopify Fulfillment Network will continue to scale and grow;

- 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 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 obtain sufficient space for our growing employee base;
- our ability to retain key personnel;
- our ability to protect against currency, interest rate, 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 Annual Information Form for the year ended December 31, 2019 and elsewhere in this MD&A, including but not limited to risks relating to:

- the COVID-19 pandemic and its impact on our business, financial condition and results of operations including the impact of measures taken to contain the virus and the impact on the global economy and consumer spending and on our merchants' and partners' ecosystem;
- shifting our operations to be “digital-by-design”, which may adversely affect our business, including our culture, and our financial position and operating results;
- sustaining our rapid growth;
- managing our growth;
- our history of losses and our potential inability to achieve profitability;
- our limited operating history in new and developing markets and new geographic regions;
- our ability to innovate;
- the security of personal information we store relating to merchants and their buyers, as well as buyers with whom we have a direct relationship including users of our apps;
- a denial of service attack or security breach;
- our potential inability to compete successfully against current and future competitors;
- international sales and the use of our platform in various countries;
- the reliance of our growth in part on the success of our strategic relationships with third parties;
- our potential failure to effectively maintain, promote and enhance our brand;
- our use of a single cloud-based platform to deliver our services;
- our potential inability to achieve or maintain data transmission capacity;
- our current reliance on a single supplier to provide the technology we offer through Shopify Payments;
- payments processed through Shopify Payments;
- our potential inability to hire, retain and motivate qualified personnel;
- serious errors or defects in our software or hardware or issues with our hardware supply chain;
- evolving privacy laws and regulations, cross-border data transfer restrictions, data localization requirements and other domestic or foreign regulations may limit the use and adoption of our services;
- our potential failure to maintain a consistently high level of customer service;
- exchange rate fluctuations that may negatively affect our results of operations;
- our dependence on the continued services and performance of our senior management and other key employees;
- ineffective operations of our solutions when accessed through mobile devices;
- changes to technologies used in our platform or new versions or upgrades of operating systems and internet browsers;
- the impact of worldwide economic conditions, including the resulting effect on spending by small and medium-sized businesses ("SMBs") or their buyers;
- potential claims by third parties of intellectual property infringement;
- 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 use of open source software;
- our potential inability to generate traffic to our website through search engines and social networking sites;
- activities of merchants or partners or the content of merchants' shops;
- acquisitions and investments;
- seasonal fluctuations;
- our reliance on computer hardware, purchased or leased, software licensed from and services rendered by third parties, in order to provide our solutions and run our business, sometimes by a single-source supplier;
- Shopify Capital and offering financing;
- our ability to successfully operate and scale Shopify Fulfillment Network;
- our pricing decisions for our solutions;
- provisions of our financial instruments;
- 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;
- unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns;
- new tax laws could be enacted or existing laws could be applied to us or our merchants;
- being required to collect federal, state, provincial or local business taxes and sales and use taxes or other indirect taxes in additional jurisdictions or for past sales;
- our tax loss carryforwards;
- our dependence upon buyers' and merchants' access to, and willingness to use, the internet for commerce;
- ownership of our shares;
- our sensitivity to interest rate fluctuations; and
- our concentration of credit risk, and the ability to mitigate that risk using third parties, and the risk of inflation.

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.

COVID-19

In light of the ongoing COVID-19 pandemic, we have continued to focus on the health and well-being of our employees, partners, service providers, and communities. We have also accelerated products that we believe will best serve our merchants as they deal with the challenges of COVID-19.

In the third quarter, we partnered with the Government of Canada to launch "Go Digital Canada" which was developed to support the digitization of business in Canada. Through this partnership, small businesses across Canada could launch their business online through an extended 90-day free trial for all new standard plan sign-ups through March 31, 2021 and eligible merchants received a free Tap & Chip Reader and POS Pro for their retail stores.

This initiative built on efforts earlier in the year to support our merchants in this difficult time, including offering an extended 90-day free trial for all new standard plan sign-ups from March 21, 2020 through May 31, 2020; availability of gift card capabilities to merchants on all plans; local in-store or curbside pick up and delivery for POS merchants; an increased funding commitment of \$200 million above the March 31, 2020 level for the remainder of 2020 for Shopify Capital; an expansion of Shopify Capital to the United Kingdom and Canada; and the launch of the Express theme, as well as tipping capabilities, aimed at helping local restaurants and coffee shops and other merchants looking to connect with customers online.

MRR growth accelerated in the quarter as merchants who were on the extended 90-day free trial converted into paying merchants. As a result, the third quarter saw merchants from both the 90-day free trial and standard 14-day free trial, offered from June 1, 2020 onwards, simultaneously impacting the growth in MRR until late into August. However, we anticipate a lower MRR growth rate in the fourth quarter of 2020, relative to the third quarter, as the conversion period associated with the extended free trial has ended.

During the third quarter we observed sustained strong momentum in GMV, buoyed by restrictions related to COVID-19, as consumers increasingly looked for ways to purchase at a safe distance, utilizing ecommerce and benefiting from features such as curbside pickup and local delivery. GMV in the three months ended September 30, 2020 grew by 2.7% compared to the three months ended June 30, 2020. Year over year, GMV in the three months ended September 30, 2020 grew 108.6% compared to the three months ended September 30, 2019. Going forward, we may experience a decrease in GMV as a result of lower consumer spending, but also expect that any decrease would be at least partially offset by more traditional retail businesses expanding or migrating their operations online with our platform and services. The effect of COVID-19 on other aspects of our results of operations and financial performance in the long-term, such as revenues, remains uncertain and may only be reflected in future periods.

Demand for Shopify Capital remained strong in Q3, with merchants receiving \$252.1 million in funding across the U.S., the U.K. and Canada. This represents a 78.8% increase in funding over the third quarter of 2019. Merchants' access to capital is even tougher as a result of COVID-19, which makes it even more important to continue lowering this barrier by making it quick and easy to access capital, so merchants can focus on growing their business. While we provisioned for higher credit losses, we saw transaction and loan losses of \$11.8 million in the three months ended September 30, 2020, which is higher than the losses in the three months ended September 30, 2019, but in line with historical loss ratios and expectations.

The effects of COVID-19 have led us to reimagine the way we work resulting in the decision to be a "digital-by-design" company. Shopify employees will continue to work remotely for the remainder of 2020 and beyond 2020. Shopify will embrace this digital-first way of thinking, working, and operating with the intention that the majority of employees will work remotely permanently. We believe the near-term costs of reducing our leased footprint and transitioning remaining spaces to their future intended purpose, including use for team collaboration and events will yield longer-term benefits, including leveling the playing field for employees who already work from home, helping our employees stay healthy and safe, opening a diverse global talent pool, eliminating unnecessary commutes and fast-tracking new and better ways to work together that are more productive and rewarding. As a result of this decision, we have terminated certain lease agreements or sought to sublet space at certain office locations which resulted in an impairment charge of \$31.6 million in the second quarter of 2020. We continue to assess the ongoing need for the remaining offices and may repurpose them to accommodate physical distancing measures, reconfigure them for use in a digital-by-design framework, or look to sublease or terminate the related leases in the future. We have accelerated depreciation of certain leasehold improvements and furniture, totaling \$40.5 million, in order to reflect these expected changes which will be depreciated over the next two to three years.

Overview

Shopify is a leading global commerce company, providing trusted tools to start, grow, market, and manage a retail business of any size. Shopify makes commerce better for everyone with a platform and services that are engineered for reliability, while delivering a better shopping experience for consumers everywhere. Merchants use the Company's software to run their business across all of their sales channels, including web and mobile storefronts, physical retail locations, social media storefronts, and marketplaces. The Shopify platform provides merchants with

a single view of their business and customers across all of their sales channels and enables them to manage products and inventory, process orders and payments, fulfill and ship orders, build customer relationships, source products, leverage analytics and reporting, and access financing, all from one integrated back office.

In an era where social media, cloud computing, mobile devices, 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, and sell their products across over a dozen different sales channels, including web and mobile storefronts, physical retail locations, pop-up shops, social media storefronts, native mobile apps, buy buttons, and marketplaces. More than two-thirds of our merchants use two or more channels. The Shopify application program interface ("API") has been developed to support custom storefronts that let merchants sell anywhere, in any language.

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

A data advantage. Our software is delivered to merchants as a service, and operates on a shared infrastructure. With each new transaction processed, we grow our data proficiency. 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 merchants' shops, as well as those of our merchants on the Shopify platform, providing rich data to inform both our own decisions as well as those of our merchants.

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

Brand ownership. Shopify is designed to help our merchants own their brand, develop a direct relationship with their buyers, and make their buyer experience 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 to help build buyer loyalty and competitive advantage. While our platform is designed to empower merchants first, merchants benefit when buyers are confident that their payments are secure. We believe that an increasing 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, and with our investments in additional touchpoints with their buyers, such as retail, fulfillment, and shipping, brands that sell on Shopify can offer buyers an end-to-end, managed shopping experience that previously was only available to much larger businesses.

Mobile. As ecommerce expands as a percentage of overall retail transactions, today's buyers expect to be able to transact anywhere, anytime, on any device through an experience that is simple, seamless, and secure. As transactions over mobile devices represent the majority of transactions across online stores powered by Shopify, the mobile experience is a merchant's primary and most important interaction with online buyers. For several years Shopify has focused on enabling mobile commerce, and the Shopify platform now includes a mobile-optimized checkout system, designed to enable merchants' buyers to more easily buy products over mobile websites. Our merchants are able to offer their buyers the ability to quickly and securely check out by using Shopify Pay, Apple Pay, and Google Pay on the web, and we continue to explore other new ways to accelerate checkout. 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, as Shopify continues to strive to make it ever easier to do so.

Infrastructure. We build our platform to address the growing challenges facing merchants with the aim of making complex tasks simple. The Shopify platform is engineered to enterprise-level standards and functionality while being designed for simplicity and ease of use. We also design our platform with a robust technical infrastructure able to manage 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, with our continuously deployed, multi-tenant architecture ensuring all of our merchants are always using the latest technology.

This combination of ease of use with enterprise-level functionality allows merchants to start with a Shopify store and grow with our platform to almost any size. Using Shopify, merchants may never need to re-platform. Our Shopify Plus subscription plan was created to accommodate larger merchants, with additional functionality, scalability and support requirements. Shopify Plus is also designed for larger merchants not already on Shopify who want to migrate from their expensive and complex legacy solutions and get more functionality.

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. Approximately 37,400 of these partners have referred merchants to Shopify over the last year, and this strong, symbiotic relationship continues to grow. We believe this ecosystem has grown in part due to the platform's functionality, which is highly extensible and can be expanded through our API and the approximately 5,300 apps 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.

Our mission is to make commerce better for everyone, and we believe we can help merchants of nearly all sizes, from aspirational entrepreneurs to large enterprises, and all retail verticals realize their potential at all stages of their business life cycle. While our platform can scale to meet the needs of large merchants, we focus on selling to small and medium-sized businesses and entrepreneurs. Most of our merchants are on subscription plans that cost less than \$50 per month, which is in line with our focus of providing cost effective solutions for early stage businesses. In the nine months ended September 30, 2020, our platform facilitated GMV of \$78.4 billion, representing an increase of 93.6% from the nine months ended September 30, 2019. A detailed description of this metric is presented below in the section entitled, "Key Performance Indicators".

Our business has experienced rapid growth. During the nine months ended September 30, 2020, our total revenue was \$1,951.7 million, an increase of 81.9% versus the nine months ended September 30, 2019. Our business model has two revenue streams: a recurring subscription component we call subscription solutions and a merchant success-based component we call merchant solutions.

In the nine months ended September 30, 2020, subscription solutions revenues accounted for 32.2% of our total revenues (42.8% in the nine months ended September 30, 2019). We offer a range of plans that increase in price depending on additional features and economic considerations. Our highest-end plan, 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 Flow and Launchpad, for ecommerce automation, and dedicated account management where appropriate. Allbirds, Gymshark, Nestle, and Staples 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.

Revenue from subscription solutions is generated through the sale of subscriptions to our platform, including variable platform fees, and from the sale of themes, apps, and the registration of domain names. 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. Subscription solutions revenues increased from \$459.1 million in the nine months ended September 30, 2019 to \$629.3 million in the nine months ended September 30, 2020, representing an increase of 37.1%. As of September 30, 2020, MRR totaled \$74.4 million, representing an increase of 46.8% relative to MRR at September 30, 2019. Over the past few years, subscription solutions revenue has been growing faster than MRR due to apps and platform fees increasing as a percentage of total subscription solutions. In the three months ended September 30, 2020, MRR grew at a faster rate than subscription solutions revenues as merchants on the extended free trial converted into paying merchants. A detailed description of this metric is presented below in the section entitled, "Key Performance Indicators".

We offer a variety of merchant solutions that are designed to add value to our merchants and augment our subscription solutions. During the nine months ended September 30, 2020, merchant solutions revenues accounted for 67.8% of total revenues (57.2% in the nine months ended September 30, 2019). We principally generate merchant solutions revenues from payment processing 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 from Shopify Payments, we also generate merchant solutions revenue from other transaction services, referral fees, Shopify Capital, Shopify Shipping, Shopify Fulfillment Network, the sale of Point-of-Sale ("POS") hardware and collaborative warehouse fulfillment solutions. Shopify Capital is available for merchants in the United States, the United Kingdom and Canada. Our merchant solutions revenues are directionally correlated with the level of GMV that our merchants process through our platform. Merchant solutions revenues increased from \$613.9 million in the nine months ended September 30, 2019 to \$1,322.4 million in the nine months ended September 30, 2020, representing an increase of 115.4%.

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 is dependent on many factors, including our ability to expand our merchant base, retain merchants as they grow their businesses on our platform, offer more sales channels that connect merchants with their specific target audience, develop new solutions to extend our platform's functionality and catalyze merchants' sales growth, 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.

Consistent with investing for the long-term, we announced in June 2019, at our Unite 2019 partner conference, that we expect to spend approximately \$1B over five years to build and operate Shopify Fulfillment Network, a network of fulfillment centers dispersed across the United States, to help ensure merchants' orders are delivered to buyers quickly and cost-effectively. We expect Shopify Fulfillment Network is well positioned to improve supply chain economics and delivery for merchants by leveraging our scale with deep machine learning tools, including demand forecasting, smart inventory allocation across warehouses and intelligent order routing.

On October 17, 2019, we completed the acquisition of 6RS, a company based in Waltham, Massachusetts, United States, that provides collaborative warehouse fulfillment solutions. By adding 6RS' cloud-based software and collaborative mobile robots, we gained a leadership team with experience in fulfillment; expanded our addressable market to include warehouse automation; and intend to accelerate the development of Shopify Fulfillment Network.

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 Monthly Recurring Revenue ("MRR") and Gross Merchandise Volume ("GMV"). 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 and GMV for the three and nine months ended September 30, 2020 and 2019.

	Three months ended September 30,		Nine months ended September 30,	
	2020	2019	2020	2019
	(in thousands)		(in thousands)	
Monthly Recurring Revenue	\$ 74,360	\$ 50,650	\$ 74,360	\$ 50,650
Gross Merchandise Volume	\$ 30,917,155	\$ 14,821,110	\$ 78,437,873	\$ 40,507,131

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. Merchants on free trials are excluded from this calculation 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 subscriptions solutions revenue. We had \$74.4 million of MRR as at September 30, 2020 compared to \$50.7 million as at September 30, 2019. Our MRR growth rate increased in the three months ended September 30, 2020, when compared to previous quarters. This increase was driven by shops that were created during the extended free trial period offered from March 21, 2020 to May 31, 2020 remaining on the platform and converting to paying merchants in the three months ended September 30, 2020. However, we anticipate a lower MRR growth rate in the fourth quarter of 2020, relative to the third quarter, as the conversion period associated with the extended free trial has ended.

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 three and nine months ended September 30, 2020, we facilitated GMV of \$30.9 billion and \$78.4 billion, respectively (2019 - \$14.8 billion and \$40.5 billion, respectively). Going forward, we may experience a decrease in GMV as a result of lower consumer spending, but also expect that any decrease would be at least partially offset by more traditional retail businesses expanding or migrating their operations online with our platform and services.

Factors Affecting the Comparability of Our Results

Change in Revenue Mix

As a result of the continued growth of Shopify Payments, transaction fees, revenue sharing agreements, Shopify Capital, and Shopify Shipping, 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. We expect to see our gross margin percentage for merchant solutions decline in the short term as we develop Shopify Fulfillment Network and 6RS. 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.

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. In addition, the ongoing effect of the COVID-19 pandemic has accelerated the shift of purchase habits to ecommerce. This contributed to additional GMV during the second and third quarters of 2020. Going forward, we may experience a decrease in GMV as a result of lower consumer spending, although we expect that any decrease would at least be partially offset by more traditional retail businesses expanding or migrating their operations online with our platform and services.

Foreign Currency Fluctuations

While most of our revenues are denominated in USD, a significant portion of our operating expenses are incurred in CAD. As a result, our results of operations will be adversely impacted by an increase in the value of the CAD relative to the USD. In addition, a portion of Shopify Payments revenue is based on the local currency of the country in which the applicable merchant is located and these transactions expose us to currency fluctuations to the extent non-USD based payment processing and other merchant solutions revenues increase. Refer to the "Quantitative and Qualitative Disclosures about Market Risk—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

During the three and nine months ended September 30, 2020, the only significant changes to the key components of results of operations, when compared to our key components for the year ended December 31, 2019, was to discretely disclose transaction and loan losses expenses, which were previously presented within general and administrative expenses, to disclose unrealized gains on equity and other investments measured at fair value presented within other income, and to disclose interest expense related to the Notes within other income.

Transaction and loan losses consist of expected and actual losses related to Shopify Payments and Shopify Capital. We are exposed to transaction losses on Shopify Payments due to chargebacks as a result of fraud or uncollectibility. We are exposed to transaction losses on merchant cash advances offered through Shopify Capital as a result of fraud or uncollectibility. We incur loan losses whenever the amortized cost of loans exceeds their fair value. Transaction and loan losses are expected to increase in absolute dollars over time.

The Company has equity investments in private companies without readily determinable fair values that it carries at cost with adjustments for observable changes in price or impairments, with the assets recorded on the balance sheet and any resulting unrealized gains (losses) recorded on the income statement in other income. The results from these equity investments may fluctuate from period to period based on observable changes in price or impairments and may cause volatility to our earnings as well as impact comparability of our results from period to period.

See Management's Discussion and Analysis dated February 12, 2020 as well as our Annual Report on Form 40-F for the year ended December 31, 2019 for details on the other key components of results of operations.

Quarterly Results of Operations

The following table sets forth our results of operations for the three and nine months ended September 30, 2020 and 2019.

	Three months ended September 30,		Nine months ended September 30,	
	2020	2019	2020	2019
(in thousands, except share and per share data)				
Revenues:				
Subscription solutions	\$ 245,274	\$ 165,577	\$ 629,317	\$ 459,075
Merchant solutions	522,131	224,975	1,322,430	613,938
	<u>767,405</u>	<u>390,552</u>	<u>1,951,747</u>	<u>1,073,013</u>
Cost of revenues⁽¹⁾⁽²⁾:				
Subscription solutions	52,170	33,263	134,282	90,786
Merchant solutions	310,087	140,593	780,333	380,475
	<u>362,257</u>	<u>173,856</u>	<u>914,615</u>	<u>471,261</u>
Gross profit	<u>405,148</u>	<u>216,696</u>	<u>1,037,132</u>	<u>601,752</u>
Operating expenses:				
Sales and marketing ⁽¹⁾⁽²⁾	147,608	116,546	447,320	340,778
Research and development ⁽¹⁾⁽²⁾	143,427	90,387	393,050	252,262
General and administrative ⁽¹⁾	51,799	38,022	179,948	103,247
Transaction and loan losses	11,753	7,399	39,202	16,533
Total operating expenses	<u>354,587</u>	<u>252,354</u>	<u>1,059,520</u>	<u>712,820</u>
Income (loss) from operations	<u>50,561</u>	<u>(35,658)</u>	<u>(22,388)</u>	<u>(111,068)</u>
Other income, net	135,806	11,212	152,999	33,793
Income (loss) before income taxes	<u>186,367</u>	<u>(24,446)</u>	<u>130,611</u>	<u>(77,275)</u>
Recovery of (provision for) income taxes	4,701	(48,338)	65,026	(48,338)
Net income (loss)	<u>\$ 191,068</u>	<u>\$ (72,784)</u>	<u>\$ 195,637</u>	<u>\$ (125,613)</u>
Net income (loss) per share attributable to shareholders:				
Basic	\$ 1.59	\$ (0.64)	\$ 1.65	\$ (1.12)
Diluted	\$ 1.54	\$ (0.64)	\$ 1.59	\$ (1.12)
Shares used to compute net income (loss) per share attributable to shareholders:				
Basic	<u>120,511,484</u>	<u>113,086,997</u>	<u>118,692,898</u>	<u>112,015,160</u>
Diluted	<u>124,908,279</u>	<u>113,086,997</u>	<u>123,399,606</u>	<u>112,015,160</u>

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

	Three months ended September 30,		Nine months ended September 30,	
	2020	2019	2020	2019
(in thousands)				
Cost of revenues	\$ 2,914	\$ 1,041	\$ 5,767	\$ 2,881
Sales and marketing	11,481	9,692	36,346	26,848
Research and development	47,741	25,913	133,987	72,284
General and administrative	13,266	7,853	35,715	21,328
	<u>\$ 75,402</u>	<u>\$ 44,499</u>	<u>\$ 211,815</u>	<u>\$ 123,341</u>

(2) Includes amortization of acquired intangibles as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2020	2019	2020	2019
	(in thousands)			
Cost of revenues	\$ 4,531	\$ 1,649	\$ 14,956	\$ 4,804
Sales and marketing	388	—	1,164	—
Research and development	58	58	174	174
	<u>\$ 4,977</u>	<u>\$ 1,707</u>	<u>\$ 16,294</u>	<u>\$ 4,978</u>

Revenues

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
	(in thousands, except percentages)					
Revenues:						
Subscription solutions	\$ 245,274	\$ 165,577	48.1 %	\$ 629,317	\$ 459,075	37.1 %
Merchant solutions	522,131	224,975	132.1 %	1,322,430	613,938	115.4 %
	<u>\$ 767,405</u>	<u>\$ 390,552</u>	<u>96.5 %</u>	<u>\$ 1,951,747</u>	<u>\$ 1,073,013</u>	<u>81.9 %</u>
Percentage of revenues:						
Subscription solutions	32.0 %	42.4 %		32.2 %	42.8 %	
Merchant solutions	68.0 %	57.6 %		67.8 %	57.2 %	
Total revenues	<u>100.0 %</u>	<u>100.0 %</u>		<u>100.0 %</u>	<u>100.0 %</u>	

Subscription Solutions

Subscription solutions revenues increased \$79.7 million, or 48.1%, for the three months ended September 30, 2020 compared to the same period in 2019. The period-over-period increase was primarily a result of growth in MRR, which was driven largely by the higher number of merchants using our platform. For the three months ended September 30, 2020, the MRR growth rate was elevated as merchants who entered into the extended free trial between March 21, 2020 and May 31, 2020 converted into paying merchants.

Subscription solutions revenues increased \$170.2 million, or 37.1%, for the nine months ended September 30, 2020 compared to the same period in 2019. The period-over-period increase was primarily a result of growth in MRR, which was driven largely by the higher number of merchants using our platform. For the nine months ended September 30, 2020, MRR growth was higher than subscriptions solutions revenue largely due to reduced subscriptions solutions revenue while the extended free trial on all new standard plans ran from the end of March to the end of August.

Merchant Solutions

Merchant solutions revenues increased \$297.2 million, or 132.1%, for the three months ended September 30, 2020 compared to the same period in 2019. The increase in merchant solutions revenues was primarily a result of Shopify Payments revenue growing in the three months ended September 30, 2020 compared to the same period in 2019. This increase was a result of consumers turning to ecommerce for more of their purchases due to the impacts of COVID-19, an increase in number of merchants using our platform, improved pricing, continued expansion into new geographical regions, and an increase in our Shopify Payments penetration rate, which was 45.2%, resulting in GMV of \$14.0 billion that was facilitated using Shopify Payments for the three months ended September 30, 2020. This compares to a penetration rate of 42.1% resulting in GMV of \$6.2 billion that was facilitated using Shopify Payments in the same period in 2019.

Merchant solutions revenues increased \$708.5 million, or 115.4%, for the nine months ended September 30, 2020 compared to the same period in 2019. The increase in merchant solutions revenues was primarily a result of Shopify Payments revenue growing in the nine months ended September 30, 2020 compared to the same period in 2019. This increase was a result of consumers turning to ecommerce for more of their purchases due to the impacts of COVID-19, an increase in number of merchants using our platform, continued expansion into new geographical regions, and an increase in our Shopify Payments penetration, which was 44.3%, resulting in GMV of \$34.8 billion that was facilitated using Shopify Payments for the nine months ended September 30, 2020. This compares to a penetration rate of 41.7% resulting in GMV of \$16.9 billion that was facilitated using Shopify Payments in the same period in 2019.

In addition to the increase in revenue from Shopify Payments, revenue from transaction fees, referral fees from partners, Shopify Shipping, Shopify Capital and Shopify Fulfillment Network increased during the three and nine months ended September 30, 2020 compared to the same periods in 2019, as a result of the increase in GMV facilitated through our platform compared to the same periods in 2019.

Cost of Revenues

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
(in thousands, except percentages)						
Cost of revenues:						
Cost of subscription solutions	\$ 52,170	\$ 33,263	56.8 %	\$ 134,282	\$ 90,786	47.9 %
Cost of merchant solutions	310,087	140,593	120.6 %	780,333	380,475	105.1 %
Total cost of revenues	<u>\$ 362,257</u>	<u>\$ 173,856</u>	<u>108.4 %</u>	<u>\$ 914,615</u>	<u>\$ 471,261</u>	<u>94.1 %</u>
Percentage of revenues:						
Cost of subscription solutions	6.8 %	8.5 %		6.9 %	8.5 %	
Cost of merchant solutions	40.4 %	36.0 %		40.0 %	35.5 %	
	<u>47.2 %</u>	<u>44.5 %</u>		<u>46.9 %</u>	<u>44.0 %</u>	

Cost of Subscription Solutions

Cost of subscription solutions increased \$18.9 million, or 56.8%, for the three months ended September 30, 2020 compared to the same period in 2019. The increase was due to an increase in the costs necessary to support a greater number of merchants using our platform, resulting in an increase in: infrastructure and hosting costs, payments to third-party theme developers, credit card fees for processing merchant billings, employee-related costs and payments to third-party partners for the registration of domain names. As a percentage of revenues, cost of subscription solutions decreased from 8.5% in the three months ended September 30, 2019 to 6.8% in the three months ended September 30, 2020 due to subscription solutions representing a smaller percentage of our total revenues as higher GMV generated on the platform shifted the weighting of revenues towards merchant solutions.

Cost of subscription solutions increased \$43.5 million, or 47.9%, for the nine months ended September 30, 2020 compared to the same period in 2019. The increase was due to an increase in the costs necessary to support a greater number of merchants using our platform, resulting in an increase in: infrastructure and hosting costs, payments to third-party theme developers, employee-related costs, credit card fees for processing merchant billings, and payments to third-party partners for the registration of domain names. As a percentage of revenues, cost of subscription solutions decreased from 8.5% in the nine months ended September 30, 2019 to 6.9% in the nine months ended September 30, 2020 due to subscription solutions representing a smaller percentage of our total revenues as higher GMV generated on the platform shifted the weighting of revenues towards merchant solutions.

Cost of Merchant Solutions

Cost of merchant solutions increased \$169.5 million, or 120.6%, for the three months ended September 30, 2020 compared to the same period in 2019. The increase was primarily due to higher payment processing and interchange fees resulting from an increase in GMV facilitated through Shopify Payments. The increase was also due to an increase in costs associated with operating Shopify Fulfillment Network, product costs associated with expanding our product offerings, credit card fees for processing merchant billings, amortization related to acquired intangibles from the acquisition of 6RS, employee-related costs associated with 6RS, materials and third-party manufacturing costs associated with 6RS, cost of POS hardware units and infrastructure and hosting costs. Cost of merchant solutions as a percentage of revenues increased from 36.0% in the three months ended September 30, 2019 to 40.4% in the three months ended September 30, 2020 due to merchant solutions representing a larger percentage of our total revenues, as higher GMV generated on the platform shifted the weighting of revenues, and due to continuing the development of Shopify Fulfillment Network and 6RS.

Cost of merchant solutions increased \$399.9 million, or 105.1%, for the nine months ended September 30, 2020 compared to the same period in 2019. The increase was primarily due to higher payment processing and interchange fees resulting from an increase in GMV facilitated through Shopify Payments. The increase was also due to an increase in costs associated with operating Shopify Fulfillment Network, amortization related to acquired intangibles from the acquisition of 6RS, product costs associated with expanding our product offerings, credit card fees for processing merchant billings, employee-related costs associated with 6RS, materials and third-party manufacturing costs associated with 6RS, cost of POS hardware units, and infrastructure and hosting costs. Cost of merchant solutions as a percentage of revenues increased from 35.5% in the nine months ended September 30, 2019 to 40.0% in the nine months ended September 30, 2020, due to merchant solutions representing a larger percentage of our total revenues, as higher GMV generated on the platform shifted the weighting of revenues, and due to continuing the development of Shopify Fulfillment Network and 6RS.

Gross Profit

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
	(in thousands, except percentages)					
Gross profit	\$ 405,148	\$ 216,696	87.0 %	\$ 1,037,132	\$ 601,752	72.4 %
Percentage of total revenues	52.8 %	55.5 %		53.1 %	56.1 %	

Gross profit increased \$188.5 million, or 87.0%, for the three months ended September 30, 2020 compared to the same period in 2019. As a percentage of total revenues, gross profit decreased from 55.5% in the three months ended September 30, 2019 to 52.8% in the three months ended September 30, 2020, principally due to Shopify Payments representing a larger percentage of total revenues, amortization related to acquired intangibles from the acquisition of 6RS and the costs associated with the continued development of Shopify Fulfillment Network. This was partly offset by higher revenues from higher margin products such as referral revenue, Shopify Shipping, and Shopify Capital.

Gross profit increased \$435.4 million, or 72.4%, for the nine months ended September 30, 2020 compared to the same period in 2019. As a percentage of total revenues, gross profit decreased from 56.1% in the nine months ended September 30, 2019 to 53.1% in the nine months ended September 30, 2020, principally due to Shopify Payments representing a larger percentage of total revenues, amortization related to acquired intangibles from the acquisition of 6RS, and the costs associated with the continued development of Shopify Fulfillment Network. This was partly offset by higher revenues from higher margin products such as referral revenue, Shopify Shipping, and Shopify Capital.

Operating Expenses

Sales and Marketing

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
(in thousands, except percentages)						
Sales and marketing	\$ 147,608	\$ 116,546	26.7 %	\$ 447,320	\$ 340,778	31.3 %
Percentage of total revenues	19.2 %	29.8 %		22.9 %	31.8 %	

Sales and marketing expenses increased \$31.1 million, or 26.7%, for the three months ended September 30, 2020 compared to the same period in 2019, due to an increase of \$16.7 million in marketing programs, driven mainly by advertisements on search engines and social media, all of which support the growth of our business. These increases were slightly offset by lower spend on Shopify Studios, brand and media. Additional increases in overall sales and marketing expenses include an increase of \$13.1 million in employee-related costs (\$1.8 million of which related to stock-based compensation and related payroll taxes), an increase of \$1.2 million related to computer hardware and software and an increase of \$0.1 million in facilities related costs, including the impact of accelerating depreciation at certain offices.

Sales and marketing expenses increased \$106.5 million, or 31.3%, for the nine months ended September 30, 2020 compared to the same period in 2019, due to an increase of \$51.4 million in marketing programs, driven mainly by advertisements on search engines, display advertising and social media spend, all of which support the growth of our business. These increases were slightly offset by lower spend on Shopify Studios and as a result of the shift from in person corporate events, such as Shopify Unite, to virtual events, such a Shopify Reunite, due to COVID-19. Additional increases in overall sales and marketing expenses include an increase of \$47.8 million in employee-related costs (\$9.5 million of which related to stock-based compensation and related payroll taxes), an increase of \$4.0 million related to computer hardware and software and an increase of \$3.3 million in facilities related costs, including the impact of accelerating depreciation at certain offices.

Research and Development

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
(in thousands, except percentages)						
Research and development	\$ 143,427	\$ 90,387	58.7 %	\$ 393,050	\$ 252,262	55.8 %
Percentage of total revenues	18.7 %	23.1 %		20.1 %	23.5 %	

Research and development expenses increased \$53.0 million, or 58.7%, for the three months ended September 30, 2020 compared to the same period in 2019, due to an increase of \$46.5 million in employee-related costs (\$21.8 million of which related to stock-based compensation and related payroll taxes), a \$3.5 million increase in computer hardware and software costs, all as a result of the growth in our employee base and expanded development programs, a \$1.7 million increase in facilities-related costs, including the impact of accelerating depreciation at certain offices and a \$1.3 million increase in professional services fees.

Research and development expenses increased \$140.8 million, or 55.8%, for the nine months ended September 30, 2020 compared to the same period in 2019, due to an increase of \$123.2 million in employee-related costs (\$61.7 million of which related to stock-based compensation and related payroll taxes), a \$9.0 million increase in computer hardware and software costs, all as a result of the growth in our employee base and expanded development programs, a \$7.7 million increase in facilities related costs, including the impact of accelerating depreciation at certain offices, and a \$0.9 million increase in professional services fees.

General and Administrative

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
	(in thousands, except percentages)					
General and administrative	\$ 51,799	\$ 38,022	36.2 %	\$ 179,948	\$ 103,247	74.3 %
Percentage of total revenues	6.7 %	9.7 %		9.2 %	9.6 %	

General and administrative expenses increased \$13.8 million, or 36.2%, for the three months ended September 30, 2020 compared to the same period in 2019, due to an increase of \$8.9 million in employee-related costs (\$5.4 million of which related to stock-based compensation and related payroll taxes), a \$3.9 million increase in finance costs, which includes sales and use and other value added taxes, insurance, and an increase in general bad debt expense related to expected credit losses on trade and other receivables, and a \$1.0 million increase in computer and software costs.

General and administrative expenses increased \$76.7 million, or 74.3%, for the nine months ended September 30, 2020 compared to the same period in 2019, due largely to an impairment of \$31.6 million relating to certain office leases we have ceased using, and have been or will be terminated or sublet, as we move from a primarily physical office-centric work model to a primarily digital work-from-home-centric work model. \$16.8 million of the impairment related to our leasehold improvements and \$14.8 million of the impairment related to our right-of-use assets. In addition, this increase is also due to an increase of \$27.2 million in employee-related costs (\$14.4 million of which related to stock-based compensation and related payroll taxes), a \$11.1 million increase in finance costs, which includes insurance, sales and use and other value added taxes, corporate donations, and an increase in general bad debt expense related to expected credit losses related to the potential impact from COVID-19 on trade and other receivables, a \$3.5 million increase in computer and software costs, a \$3.0 million increase in facilities related costs, including the impact of accelerating depreciation at certain offices, and a \$0.3 million increase in professional services for legal and tax services.

Transaction and Loan Losses

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
	(in thousands, except percentages)					
Transaction and loan losses	\$ 11,753	\$ 7,399	58.8 %	\$ 39,202	\$ 16,533	137.1 %
Percentage of total revenues	1.5 %	1.9 %		2.0 %	1.5 %	

Transaction and loan losses increased \$4.4 million, or 58.8%, for the three months ended September 30, 2020 compared to the same period in 2019, due to an increase of \$2.9 million in losses related to Shopify Capital driven by an expansion of our Capital offerings and programs, along with a relative increase in the provision for expected credit losses related to the potential impact from COVID-19, and a \$1.5 million increase in losses related to Shopify Payments, which is correlated to increased GMV processed through Shopify Payments, as well as a relative increase in the provision for losses related to the potential impact from COVID-19.

Transaction and loan losses increased \$22.7 million, or 137.1%, for the nine months ended September 30, 2020 compared to the same period in 2019, due to an increase of \$13.7 million in losses related to Shopify Payments, which is correlated to increased GMV processed through Shopify Payments, as well as a relative increase in the provision for losses related to the potential impact from COVID-19, and a \$9.0 million increase in losses related to Shopify Capital driven by an expansion of our Capital offerings and programs, along with a relative increase in the provision for expected credit losses related to the potential impact from COVID-19.

Other Income (Expenses)

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
	(in thousands, except percentages)					
Other income (expenses), net	\$ 135,806	\$ 11,212	*	\$ 152,999	\$ 33,793	*

* Not a meaningful comparison

In the three months ended September 30, 2020 we had other income of \$135.8 million, compared to other income of \$11.2 million in the same period in 2019. The increase was driven mainly by an unrealized gain on equity and other investments of \$133.2 million related to an investment in a private company. In addition, the increase was due to a \$0.4 million change from a foreign exchange loss to a foreign exchange gain. These increases were offset by a decrease in interest income of \$7.9 million, primarily as a result of lower interest rates, and a \$1.2 million increase in interest expense related to the Notes.

In the nine months ended September 30, 2020 we had other income of \$153.0 million, compared to other income of \$33.8 million in the same period in 2019. The increase was driven mainly by an unrealized gain on equity and other investments of \$133.2 million related to an investment in a private company. In addition, the increase was due to a change in the foreign exchange loss of \$2.1 million in 2019 to a foreign exchange gain of \$0.8 million in 2020, resulting in an increase in other income of \$2.9 million. These increases were offset by a decrease in interest income of \$15.7 million, primarily as a result of lower interest rates, and a \$1.2 million increase in interest expense related to the Notes.

Recovery of (Provision for) Income Taxes

	Three months ended September 30,		2020 vs. 2019	Nine months ended September 30,		2020 vs. 2019
	2020	2019	% Change	2020	2019	% Change
	(in thousands, except percentages)					
Recovery of (provision for) income taxes	\$ 4,701	\$ (48,338)	*	\$ 65,026	\$ (48,338)	*

* Not a meaningful comparison

In the third quarter of 2019, we formally established our EMEA headquarters in Ireland and our Asia-Pacific headquarters in Singapore. As a result of these actions, we transferred regional relationship and territory rights from our Canadian entity to enable each regional headquarters to develop and maintain merchant and commercial operations within its respective region, while keeping the ownership of all of the Company's current developed technology within Canada. These transfers reflect the growing proportion of our business occurring internationally and resulted in a one-time capital gain.

As a result of the application of our effective tax rate on the results of ongoing operations, other discrete items, primarily related to tax benefits for share-based compensation, the impairment of right-of-use assets and fixed assets, unrealized gains on equity and other investments, our ability to carry-back losses to prior years in Canada, and the recognition of deferred tax assets in the United States, we had a recovery of income taxes of \$4.7 million in the three months ended September 30, 2020, compared to a provision for income taxes of \$48.3 million in the same period in 2019. In the nine months ended September 30, 2020 we had a recovery of income taxes of \$65.0 million, compared to a provision of income taxes of \$48.3 million in the same period of 2019.

Summary of Quarterly Results

The following table sets forth selected unaudited quarterly results of operations data for each of the eight quarters ended September 30, 2020. 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 period.

	Three months ended							
	Sep 30, 2020	June 30, 2020	Mar 31, 2020	Dec 31, 2019	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	Dec 31, 2018
	(in thousands, except per share data)							
Revenues:								
Subscription solutions	\$ 245,274	\$ 196,434	\$ 187,609	\$ 183,166	\$ 165,577	\$ 153,047	\$ 140,451	\$ 133,560
Merchant solutions	522,131	517,907	282,392	321,994	224,975	208,932	180,031	210,302
	<u>767,405</u>	<u>714,341</u>	<u>470,001</u>	<u>505,160</u>	<u>390,552</u>	<u>361,979</u>	<u>320,482</u>	<u>343,862</u>
Cost of revenues: ⁽¹⁾⁽²⁾								
Subscription solutions	52,170	44,400	37,712	37,369	33,263	29,538	27,985	26,706
Merchant solutions	310,087	294,907	175,339	203,900	140,593	127,676	112,206	131,413
	<u>362,257</u>	<u>339,307</u>	<u>213,051</u>	<u>241,269</u>	<u>173,856</u>	<u>157,214</u>	<u>140,191</u>	<u>158,119</u>
Gross profit	<u>405,148</u>	<u>375,034</u>	<u>256,950</u>	<u>263,891</u>	<u>216,696</u>	<u>204,765</u>	<u>180,291</u>	<u>185,743</u>
Operating expenses:								
Sales and marketing ⁽¹⁾⁽²⁾	147,608	144,850	154,862	132,063	116,546	119,210	105,022	95,163
Research and development ⁽¹⁾⁽²⁾	143,427	133,227	116,396	102,753	90,387	85,520	76,355	67,024
General and administrative ⁽¹⁾	51,799	83,307	44,842	50,518	38,022	34,922	30,303	29,980
Transaction and loan losses	11,753	13,366	14,083	8,636	7,399	4,733	4,401	3,034
Total operating expenses	<u>354,587</u>	<u>374,750</u>	<u>330,183</u>	<u>293,970</u>	<u>252,354</u>	<u>244,385</u>	<u>216,081</u>	<u>195,201</u>
Income (loss) from operations	<u>50,561</u>	<u>284</u>	<u>(73,233)</u>	<u>(30,079)</u>	<u>(35,658)</u>	<u>(39,620)</u>	<u>(35,790)</u>	<u>(9,458)</u>
Other income, net	135,806	4,084	13,109	11,539	11,212	10,942	11,639	7,944
Income (loss) before income taxes	\$ 186,367	\$ 4,368	\$ (60,124)	\$ (18,540)	\$ (24,446)	\$ (28,678)	\$ (24,151)	\$ (1,514)
Recovery of (provision for) income taxes	\$ 4,701	\$ 31,630	\$ 28,695	\$ 19,311	\$ (48,338)	\$ —	\$ —	\$ —
Net income (loss)	<u>\$ 191,068</u>	<u>\$ 35,998</u>	<u>\$ (31,429)</u>	<u>\$ 771</u>	<u>\$ (72,784)</u>	<u>\$ (28,678)</u>	<u>\$ (24,151)</u>	<u>\$ (1,514)</u>
Net income (loss) per share attributable to shareholders:								
Basic	\$ 1.59	\$ 0.30	\$ (0.27)	\$ 0.01	\$ (0.64)	\$ (0.26)	\$ (0.22)	\$ (0.01)
Diluted	\$ 1.54	\$ 0.29	\$ (0.27)	\$ 0.01	\$ (0.64)	\$ (0.26)	\$ (0.22)	\$ (0.01)

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

	Three months ended							
	Sep 30, 2020	June 30, 2020	Mar 31, 2020	Dec 31, 2019	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	Dec 31, 2018
	(in thousands)							
Cost of revenues	\$ 2,914	\$ 1,529	\$ 1,324	\$ 1,209	\$ 1,041	\$ 1,026	\$ 814	\$ 660
Sales and marketing	11,481	12,431	12,434	11,319	9,692	9,511	7,645	6,641
Research and development	47,741	49,825	36,421	32,361	25,913	26,448	19,923	16,769
General and administrative	13,266	12,682	9,767	8,533	7,853	7,444	6,031	5,356
	<u>\$ 75,402</u>	<u>\$ 76,467</u>	<u>\$ 59,946</u>	<u>\$ 53,422</u>	<u>\$ 44,499</u>	<u>\$ 44,429</u>	<u>\$ 34,413</u>	<u>\$ 29,426</u>

(2) Includes amortization of acquired intangibles as follows:

	Three months ended							
	Sep 30, 2020	June 30, 2020	Mar 31, 2020	Dec 31, 2019	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	Dec 31, 2018
	(in thousands)							
Cost of revenues	\$ 4,531	\$ 4,856	\$ 5,569	\$ 4,820	\$ 1,649	\$ 1,530	\$ 1,625	\$ 1,447
Sales and marketing	388	388	388	283	—	—	—	—
Research and development	58	58	58	58	58	58	58	—
	<u>\$ 4,977</u>	<u>\$ 5,302</u>	<u>\$ 6,015</u>	<u>\$ 5,161</u>	<u>\$ 1,707</u>	<u>\$ 1,588</u>	<u>\$ 1,683</u>	<u>\$ 1,447</u>

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 September 30, 2020.

	Three months ended							
	Sep 30, 2020	June 30, 2020	Mar 31, 2020	Dec 31, 2019	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	Dec 31, 2018
Revenues								
Subscription solutions	32.0%	27.5%	39.9%	36.3%	42.4%	42.3%	43.8%	38.8%
Merchant solutions	68.0%	72.5%	60.1%	63.7%	57.6%	57.7%	56.2%	61.2%
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
Cost of revenues								
Subscription solutions	6.8%	6.2%	8.0%	7.4%	8.5%	8.2%	8.7%	7.8%
Merchant solutions	40.4%	41.3%	37.3%	40.4%	36.0%	35.3%	35.0%	38.2%
	<u>47.2%</u>	<u>47.5%</u>	<u>45.3%</u>	<u>47.8%</u>	<u>44.5%</u>	<u>43.5%</u>	<u>43.7%</u>	<u>46.0%</u>
Gross profit	<u>52.8%</u>	<u>52.5%</u>	<u>54.7%</u>	<u>52.2%</u>	<u>55.5%</u>	<u>56.6%</u>	<u>56.3%</u>	<u>54.0%</u>
Operating expenses:								
Sales and marketing	19.2%	20.3%	32.9%	26.1%	29.8%	32.9%	32.8%	27.7%
Research and development	18.7%	18.7%	24.8%	20.3%	23.1%	23.6%	23.8%	19.5%
General and administrative	6.7%	11.7%	9.5%	10.0%	9.7%	9.7%	9.4%	8.7%
Transaction and loan losses	1.5%	1.9%	3.0%	1.7%	1.9%	1.3%	1.4%	0.9%
Total operating expenses	<u>46.2%</u>	<u>52.5%</u>	<u>70.2%</u>	<u>58.1%</u>	<u>64.5%</u>	<u>67.5%</u>	<u>67.4%</u>	<u>56.8%</u>
Income (loss) from operations	<u>6.6%</u>	<u>0.0%</u>	<u>(15.6)%</u>	<u>(5.9)%</u>	<u>(9.1)%</u>	<u>(10.9)%</u>	<u>(11.2)%</u>	<u>(2.8)%</u>
Other income	<u>17.7%</u>	<u>0.6%</u>	<u>2.8%</u>	<u>2.3%</u>	<u>2.9%</u>	<u>3.0%</u>	<u>3.6%</u>	<u>2.3%</u>
Income (loss) before income taxes	<u>24.3%</u>	<u>0.6%</u>	<u>(12.8)%</u>	<u>(3.6)%</u>	<u>(6.3)%</u>	<u>(7.9)%</u>	<u>(7.5)%</u>	<u>(0.4)%</u>
Recovery of (provision for) income taxes	<u>0.6%</u>	<u>4.4%</u>	<u>6.1%</u>	<u>3.8%</u>	<u>(12.4)%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Net income (loss)	<u>24.9%</u>	<u>5.0%</u>	<u>(6.7)%</u>	<u>0.2%</u>	<u>(18.6)%</u>	<u>(7.9)%</u>	<u>(7.5)%</u>	<u>(0.4)%</u>

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. However, due to the ongoing effect of the COVID-19 pandemic which has accelerated the shift of purchasing habits to ecommerce, we have observed a rapid increase in merchant solutions revenue in our most recent quarters that do not replicate historical patterns. 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.

Quarterly Revenue and Gross Margin Trends

Revenues experienced a seasonal decrease in our first quarters as buyers 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. However, due to the ongoing effect of the COVID-19 pandemic which has accelerated the shift of purchasing habits to ecommerce, we have observed a rapid increase in merchant solutions revenue in our most recent quarters that do not replicate historical patterns. As a result of 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.

Quarterly Operating Expenses Trends

Total operating expenses have increased sequentially for each period presented primarily due to the addition of personnel in connection with the expansion of our business, additional operating expenses associated with the acquisition of 6RS as well as additional marketing initiatives to attract potential merchants.

Quarterly Other Income Trends

Historically, there have been no consistent trends associated with other income as changes are impacted by foreign exchange rates, interest rates, and observable changes in price or impairments associated with our equity investments in private companies. 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

	<u>September 30, 2020</u>	<u>December 31, 2019</u>
	(in thousands)	
Cash, cash equivalents and marketable securities	\$ 6,121,161	\$ 2,455,194
Total assets	7,462,031	3,489,479
Total liabilities	1,285,202	473,745
Total non-current liabilities	915,071	157,363

Total assets increased \$3,972.6 million as at September 30, 2020 compared to December 31, 2019, principally due to a \$3,666.0 million increase in cash, cash equivalents and marketable securities driven largely by our May 2020 and September 2020 public equity offerings, and our issuance of the Notes, a \$168.0 million increase in equity and other investments due mainly to an investment in a private company received in conjunction with a strategic partnership, a \$97.8 million increase in merchant cash advances, loans and related receivables largely due to an expansion of our Capital offerings and programs, a \$71.3 million increase in income taxes receivable due to a recovery in the period, a \$19.2 million increase in trade and other receivables and a \$16.7 million increase in other current assets. These increases were partially offset by: a \$23.4 million decrease in intangibles assets due to amortization in the period; \$16.7 million and \$12.1 million decreases in property and equipment and right-of-use assets, respectively, largely related to the impairment of leaseholds and right-of-use assets at certain offices locations we have ceased using, and have been or will be terminated or sublet; and a \$14.3 million decrease in deferred tax assets. Total liabilities increased by \$811.5 million, principally as a result of the issuance of the Notes in the period of \$750.5 million, a \$80.4 million increase in accounts payable and accrued liabilities, which was largely due to an increase in our payroll liabilities, trade accounts payable and accrued liabilities and a \$57.2 million increase in deferred revenue

mainly due to the growth in sales of our subscription solutions and a new strategic partnership. These increases were offset by a reduction in income taxes payable of \$68.6 million, and a decrease of \$8.8 million in deferred tax liabilities.

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 \$6.2 billion, net of issuance costs, from investors.

In September 2020, the Company completed a public offering in which it issued and sold 1,265,000 Class A subordinate voting shares at a public offering price of \$900.00 per share, including 165,000 Class A subordinate voting shares purchased by the underwriters pursuant to the exercise of the over-allotment option. The Company received total net proceeds of \$1,117.6 million after deducting offering fees and expenses of \$20.9 million.

In September 2020, the Company also issued \$920.0 million aggregate principal amount of 0.125% convertible senior notes due 2025. The net proceeds from the issuance of the Notes were \$908.0 million after deducting underwriting discounts and offering costs. The Notes have an initial conversion rate of 0.6944 Class A subordinate voting shares per one thousand dollars of principal amount of Notes, which is equivalent to an initial conversion price of approximately \$1,440.09 per share. The Notes bear cash interest at 0.125% per year and, if we undergo a “fundamental change” (which includes a change of control of more than 50% of our common equity or our liquidation or dissolution) prior to the maturity date of the Notes, we will, subject to limited exceptions, be required to purchase for cash all outstanding Notes at a purchase price equal to 100% of the principal amount of the Notes, plus accrued and unpaid interest to, but excluding, the fundamental change purchase date.

In July 2020, due to the expiry of our previous short-term 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 up to \$7.5 billion 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.

In May 2020, the Company completed a public offering in which it issued and sold 2,127,500 Class A subordinate voting shares at a public offering price of \$700.00 per share, including 277,500 Class A subordinate voting shares purchased by the underwriters pursuant to the exercise of the over-allotment option. The Company received total net proceeds of \$1,460.9 million after deducting offering fees and expenses of \$28.3 million.

In September 2019, the Company completed a public offering, in which it issued and sold 2,185,000 Class A subordinate voting shares at a public offering price of \$317.50 per share, including 285,000 Class A subordinate voting shares purchased by the underwriters pursuant to the exercise of the over-allotment option. The Company received total net proceeds of \$688.0 million after deducting offering fees and expenses of \$5.7 million, net of tax of \$1.5 million.

Our principal cash requirements are for working capital and capital expenditures. Excluding current deferred revenue, working capital at September 30, 2020 was \$6,339.9 million. 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, including any potential negative impacts to cash that may occur as a result of the potential impact from COVID-19. Our future financing requirements will depend on many factors including 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, and potential mergers 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 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 increased by \$3,666.0 million to \$6,121.2 million as at September 30, 2020 from \$2,455.2 million as at December 31, 2019, primarily as a result of proceeds from the public equity offerings in May 2020 and September 2020, proceeds from the issuance of the Notes in September 2020, cash provided by our operating activities, and proceeds from the exercise of stock options.

Cash equivalents and marketable securities include money market funds, repurchase agreements, term deposits, U.S. and Canadian federal bonds, corporate bonds and commercial paper, all maturing within the 12 months from September 30, 2020.

The following table summarizes our total cash, cash equivalents and marketable securities as at September 30, 2020 and 2019 as well as our operating, investing and financing activities for the nine months ended September 30, 2020 and 2019:

	Nine months ended September 30,	
	2020	2019
	(in thousands)	
Cash, cash equivalents and marketable securities (end of period)	\$ 6,121,161	\$ 2,667,182
Net cash provided by (used in):		
Operating activities	\$ 179,592	\$ 17,727
Investing activities	(1,270,566)	(29,486)
Financing activities	3,536,617	725,315
Effect of foreign exchange on cash and cash equivalents	(5,675)	290
Net increase in cash and cash equivalents	2,439,968	713,846
Change in marketable securities	1,225,999	(16,334)
Net increase in cash, cash equivalents and marketable securities	\$ 3,665,967	\$ 697,512

Cash Flows From Operating Activities

Our largest source of operating cash for the three and nine months ended September 30, 2020 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. 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, advancing funds to merchants through Shopify Capital, marketing programs, third-party shipping and fulfillment partners, third-party application and theme partners, outsourced hosting costs, and leased facilities.

For the nine months ended September 30, 2020, cash provided by operating activities was \$179.6 million. This was primarily as a result of our net income of \$195.6 million, which once adjusted for \$179.9 million of stock-based compensation expense, an unrealized gain on equity and other investments of \$133.2 million, \$52.2 million of amortization and depreciation, \$31.6 million of impairment of right-of-use assets and leasehold improvements, a \$20.0 million increase of our provision for transaction and loan losses, a \$5.6 million decrease in net deferred income taxes, a \$1.2 million increase of amortization of debt discount and offering costs related to the Notes offering, and an unrealized foreign exchange gain of \$1.2 million, contributed \$351.6 million of positive cash flows. Additional cash flows of \$143.5 million were provided by the following changes in operating liabilities: a \$86.1 million increase in accounts payable and accrued liabilities due mainly to payroll liabilities, trade accounts payable and accrued liabilities; a \$57.2 million increase in deferred revenue due to the growth in sales of our subscription solutions and a new strategic partnership; and a \$0.3 million increase in net lease liabilities. Cash used of \$315.6

million resulted from the following increases in operating assets: a \$139.9 million net change in income tax assets and liabilities, largely driven by an increase in corporate taxes receivable from the Government of Canada of \$71.3 million, and a \$68.6 million decrease in corporate taxes payable relating to a payment made to the Government of Canada; \$112.4 million in merchant cash advances and loans as we continued to grow Shopify Capital; \$24.7 million in equity and other investments for an investment in a private company received in conjunction with a strategic partnership, \$21.1 million in trade and other receivables, and \$17.4 million in other current assets driven primarily by an increase in prepaid expenses.

For the nine months ended September 30, 2019, cash provided by operating activities was \$17.7 million. This was primarily as a result of our net loss of \$125.6 million, which once adjusted for \$110.5 million of stock-based compensation expense, \$23.0 million of amortization and depreciation, a \$15.3 million increase in deferred income taxes, a \$11.2 million increase of our provision for transaction and loan losses, and an unrealized foreign exchange loss of \$2.4 million, contributed \$6.1 million of positive cash flows. Additional cash of \$124.8 million resulted from the following increases in operating liabilities: \$61.5 million in income tax assets and liabilities; \$53.7 million in accounts payable and accrued liabilities; \$9.0 million in deferred revenue; and \$0.6 million in lease assets and liabilities. These were offset by \$113.2 million of cash used resulting from the following increases in operating assets: \$84.9 million in merchant cash advances and loans; \$25.2 million in trade and other receivables; and \$3.1 million in other current assets.

Cash Flows From Investing Activities

Cash flows used in investing activities are primarily related to the purchase and sale of marketable securities, equity and other investments, business acquisitions, purchases of leasehold improvements and furniture and fixtures to support our expanding infrastructure and workforce, and purchases of computer equipment.

Net cash used by investing activities in the nine months ended September 30, 2020 was \$1,270.6 million, which was driven by net purchases of \$1,224.9 million in marketable securities, \$35.4 million used to purchase property and equipment, which primarily consisted of expenditures on leasehold improvements made prior to our decision to shift to being a digital-by-design company, \$10.1 million used to enter into equity and other investments, and \$0.3 million used for purchasing and developing software to add functionality to our platform and support our expanding merchant base.

Net cash used in investing activities in the nine months ended September 30, 2019 was \$29.5 million, which was driven by \$43.4 million used to purchase property and equipment, which primarily consisted of expenditures on leasehold improvements, \$12.5 million used to make business acquisitions, and \$5.5 million used for purchasing and developing software, offset by net maturities of \$31.8 million in marketable securities.

Cash Flows From Financing Activities

To date, cash flows from financing activities have related to proceeds from private placements, public offerings, the issuance of convertible senior notes, and exercises of stock options.

Net cash provided by financing activities in the nine months ended September 30, 2020 was \$3,536.6 million driven by \$1,460.9 million raised in our May 2020 public equity offering, \$1,117.6 million raised in our September 2020 public equity offering, \$908.0 million in proceeds from the issuance of the Notes in September 2020, and \$50.1 million in proceeds from the issuance of Class A subordinate voting shares and Class B multiple voting shares as a result of stock option exercises. This compares to \$725.3 million for the same period in 2019, driven mainly by the \$688.0 million raised in our September 2019 public equity offering and \$37.3 million which related to stock option exercises.

Contractual Obligations and Contingencies

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 September 30, 2020:

	Payments Due by Period				Total
	Less Than 1 Year	1 to 3 Years	3 to 5 Years	More Than 5 Years	
	(in thousands)				
Convertible senior notes ⁽¹⁾	\$ 712	\$ 2,300	\$ 2,300	\$ 920,575	\$ 925,887
Bank indebtedness	—	—	—	—	—
Operating lease and unconditional purchase obligations ⁽²⁾	114,872	247,701	90,287	361,397	814,257
Total contractual obligations	<u>\$ 115,584</u>	<u>\$ 250,001</u>	<u>\$ 92,587</u>	<u>\$1,281,972</u>	<u>\$1,740,144</u>

(1) \$920,000 of the payments due in more than five years may be settled in Class A subordinate voting shares instead of cash, at our option.

(2) Consists of payment obligations under our office leases as well as other unconditional purchase obligations.

Off-Balance Sheet Arrangements

We have no material off-balance sheet arrangements, other than operating leases and other unconditional purchase obligations (which have been disclosed above under "Contractual Obligations and Contingencies").

Risks and Uncertainties

We are exposed to a variety of risks, including foreign currency exchange fluctuations, changes in interest rates, concentration of credit and inflation. We regularly assess currency, interest rate and inflation risks to minimize any adverse effects on our business as a result of those factors. We are also exposed to other uncertainties as the COVID-19 pandemic continues to evolve and as we transition to "digital-by-design".

Foreign Currency Exchange Risk

While the majority of our revenues are denominated in USD, a significant portion of operating expenses are incurred in CAD. As a result, our earnings are adversely affected by an increase in the value of the CAD relative to the USD. Foreign currency forward contracts are used to hedge against the earning effects of such fluctuations.

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:

	Nine months ended September 30,			
	2020		2019	
	GAAP Amounts As Reported	Exchange Rate Effect ⁽¹⁾	At Prior Year Effective Rates ⁽²⁾	GAAP Amounts As Reported
	(in thousands)			
Revenues	\$ 1,951,747	\$ 1,377	\$ 1,953,124	\$ 1,073,013
Cost of revenues	(914,615)	(2,363)	(916,978)	(471,261)
Operating expenses	(1,059,520)	(7,645)	(1,067,165)	(712,820)
Loss from operations	<u>\$ (22,388)</u>	<u>\$ (8,631)</u>	<u>\$ (31,019)</u>	<u>\$ (111,068)</u>

(1) Represents the increase or decrease in GAAP amounts reported resulting from using the comparative period's effective CAD-USD foreign exchange rates.

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

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 period to period operating results by removing the impact of fluctuations in the CAD to USD exchange rate 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.

Interest Rate Sensitivity

We had cash, cash equivalents and marketable securities totaling \$6,121.2 million as of September 30, 2020. The cash and cash equivalents are held for operations and working capital purposes. Our investments are made for capital preservation purposes. We do not enter into 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 \$920.0 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. On our balance sheet, we carry the Notes at face value less unamortized discount and debt offering costs, and we present the fair value for required disclosure purposes only.

Concentration of Credit Risk

The Company's cash and cash equivalents, marketable securities, trade and other receivables, merchant cash advances, loans and related receivables, and foreign exchange derivative products 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. 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 and merchant cash advances and loans receivable. Trade and other receivables and merchant cash advances and loans receivable 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 entering into an agreement with a third party that insures a portion of the merchant cash advances and loans offered by Shopify Capital. The receivable related to insurance recoveries is included in the merchant cash advances, loans and related receivables balance. There are no receivables from individual merchants accounting for 10% or more of revenues or receivables. Potential ongoing effects from the novel coronavirus "COVID-19" pandemic on the Company's credit risk have been considered and have resulted in adjustments to the Company's allowances for expected credit losses on contract balances and merchant cash advances and loans, as discussed in notes 6 and 7, respectively. The Company continues its assessment given the fluidity of COVID-19's global impact.

Inflation Risk

We do not believe that inflation has had 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.

The COVID-19 pandemic could materially adversely affect our business, financial position and results of operations.

The COVID-19 pandemic, the measures attempting to contain and mitigate the effects of the virus, including travel bans and restrictions, quarantines, shelter-in-place orders, shutdowns and restrictions on trade, and the resulting changes in merchant and consumer behaviours continue to disrupt our normal operations and impact our employees, suppliers, partners, and our merchants and their customers. We have modified our business practices in response to the COVID-19 pandemic and we may take further actions as required by government authorities or that we determine are warranted. However, there is no certainty that such measures will be sufficient to mitigate the direct and indirect effects of the virus and our business, financial condition and results of operations could be affected. Additionally, the impact of new products and initiatives launched in response to COVID-19 and other future initiatives on our operations and results is uncertain and we may be subject to additional risks in connection with such products and initiatives, including increased regulatory risks related to Shopify Capital.

The degree to which COVID-19 will affect our results and operations will depend on future developments that are highly uncertain and cannot currently be predicted, including, but not limited to, the duration, extent and severity of the COVID-19 pandemic, actions taken to contain the virus, the impact of the COVID-19 pandemic and related restrictions on economic activity and domestic and international trade, and the extent of the impact of these and other factors on our employees, partners and suppliers and our merchants and their customers. The COVID-19 pandemic and related restrictions could limit our merchants' ability to continue to operate (limiting their abilities to obtain inventory, generate sales, or make timely payments to Shopify), lead to disruption in our supply chain (including in the supply chain for the collaborative warehouse fulfillment solutions provided by 6RS and the supply chain for technology and products used by our employees), disrupt or delay the ability of employees to work because they become sick or are required to care for those who become sick, cause delays or disruptions in services provided by key suppliers and vendors, cause increased demand for Shopify Fulfillment Network which we may not be able to satisfy, increase vulnerability of Shopify and our partners and service providers to security breaches, denial of service attacks or other hacking or phishing attacks, or cause other unpredictable events. Since the onset of COVID-19, we have seen an increase in merchants engaging in illegal or prohibited activities in violation of the terms of our Acceptable Use Policy and our results of operations may be negatively impacted if a large number of stores are terminated from the platform or these activities may subject us to liability or damage our brand.

COVID-19 has also caused heightened uncertainty in the global economy. If economic growth slows further or if a recession develops, consumers may not have the financial means to make purchases from our merchants and may delay or reduce discretionary purchases, negatively impacting our merchants (many of which are SMBs that may be more susceptible than larger businesses to general economic conditions) and our results of operations. Uncertain and adverse economic conditions may also lead to increased refunds and chargebacks or increased losses for Shopify Capital, which could adversely affect our business and may require us to recognize an impairment related to our assets in our financial statements. Since the impact of COVID-19 is ongoing, the effect of the COVID-19 pandemic and the related impact on the global economy may not be fully reflected in our results of operations until future periods. Further, volatility in the capital markets has been heightened during recent months and such volatility may continue, which may cause declines in the price of our Class A subordinate voting shares, increasing the risk that securities class action litigation could be instituted against us, and may also impact our investment portfolio of marketable securities, which is subject to general credit, liquidity, market, foreign exchange, and interest rate risks.

Shifting our operations to be “digital-by-design” may adversely affect our business, including our culture, and may adversely affect our financial position and operating results.

In the second quarter of 2020, we announced that employees will continue to work remotely for the remainder of 2020 and, beyond 2020, Shopify will embrace a digital-first way of thinking, working, and operating with the intention that the majority of employees will work remotely permanently. While most of our operations can be performed remotely, there is no guarantee that we will be as effective while working remotely over the long term or that we will be able to fully scale our operations to support effective global remote work. Shifting to remote work may negatively impact our ability to attract, train, and retain talent. In addition, as new remote employees join our company, the risk of fraud and security breaches may also increase. To the extent our current or future measures result in decreased employee satisfaction or team productivity, impact our product development and research & development functions, impact our company culture or otherwise negatively affect our business, our financial position and operating results could be adversely affected. In connection with this shift, in the second quarter of 2020, Shopify recorded an impairment of right-of-use assets and leasehold improvements, due to the impact of future plans on leased office space. However, our plans may continue to change as we adapt to the evolving circumstances driven by the COVID-19 pandemic.

Data Incident

In September 2020, we became aware of an incident where two rogue members of our support team were engaged in a scheme to obtain customer transactional records from fewer than 200 merchants. We immediately terminated these individuals’ access to our network, notified the affected merchants, referred the matter to law enforcement and began working with two major cybersecurity firms to conduct a thorough investigation. We are continuing to investigate and work with law enforcement, as well as reviewing and improving our policies and procedures. At this time we do not believe that this incident will have a material adverse effect on our business, operations or financial results.

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.

Management of the Company, under the supervision of the Company's CEO and CFO, is responsible for establishing and maintaining adequate internal control over the Company's financial reporting, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with U.S. GAAP.

During the period covered by this quarterly report, 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 condensed consolidated financial statements in accordance with U.S. GAAP. In the preparation of these condensed 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.

Other than the adoption of the accounting policy for the new convertible senior notes and the adoption of the credit losses standard described below, there have been no significant changes in our critical accounting policies during the

nine months ended September 30, 2020 as compared to the critical accounting policies described in our most recent annual consolidated financial statements.

Convertible Senior Notes

The Company accounts for the Notes as separate liability and equity components. The Company determined the carrying amount of the liability component as the fair value of a similar debt instrument that does not have an associated conversion feature. The carrying amount of the equity component representing the conversion option was calculated by deducting the fair value of the liability component from the principal amount of the Notes. This difference represents a debt discount that is amortized to interest expense over the term of the Notes using the effective interest rate method. The equity component is not remeasured as long as it continues to meet the conditions for equity classification.

The offering costs incurred related to the issuance of the Notes were allocated to the liability and equity components based on their relative initial carrying values. Offering costs attributable to the liability component are being amortized to interest expense over the respective terms of the Notes, and offering costs attributable to the equity component are netted against the equity component of the Notes in shareholders' equity.

Measurement of Credit Losses on Financial Instruments

In June 2016, the Financial Accounting Standards Board issued ASU No. 2016-13, Measurement of Credit Losses on Financial Instruments (Topic 326), which replaces the incurred loss impairment methodology with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates on loans, trade and other receivables, held-to-maturity debt securities, and other instruments. In May 2019, the Financial Accounting Standards Board issued ASU No. 2019-05, Financial Instruments - Credit Losses, which provides transition relief that is optional for, and available to, all reporting entities within the scope of Topic 326. The updates are effective for annual periods beginning after December 15, 2019 including interim periods within those periods. The Company adopted the standard effective January 1, 2020 using a modified retrospective approach. Upon adoption, the Company changed its approach to estimating its expected credit losses, which did not have a material impact on any of its existing allowances at that time.

Estimates

During the nine months ended September 30, 2020, new significant estimates were presented in our condensed consolidated financial statements. These include estimates involved in evaluating the recoverability of our right-of-use assets and leasehold improvements, including, but not limited to, the determination of the fair value of asset groups and the estimated useful lives of right-of-use assets and leasehold improvements; inputs used to fair value equity and other investments; and the valuation of the debt component of the Notes. Aside from these additional estimates, there have been no other significant changes in our estimates as compared to the estimates described in our most recent annual consolidated financial statements. We have considered the potential impact from COVID-19 within all of our estimates and provisions for the period.

Recently Issued Accounting Pronouncements Not Yet Adopted

See "Recent Accounting Pronouncements Not Yet Adopted" described in Note 3 of the Notes to the Condensed Consolidated Financial Statements.

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 October 23, 2020 there were 110,043,999 Class A subordinate voting shares issued and outstanding, and 11,868,020 Class B multiple voting shares issued and outstanding.

As of October 23, 2020 there were 1,108,967 options outstanding under the Company's Fourth Amended and Restated Incentive Stock Option Plan, of which 1,103,962 were vested as of such date. Each such option is or will become exercisable for one Class B multiple voting share. As of October 23, 2020 there were 1,640,734 options outstanding under the Company's Amended and Restated Stock Option Plan, of which 933,660 were vested as of such date. Each such option is or will become exercisable for one Class A subordinate voting share. As of October 23, 2020 there were 62,696 options outstanding under the 6 River Systems 2016 Amended and Restated Stock Option and Grant Plan, which the Company assumed on closing of its acquisition of 6 River Systems, Inc. on October 17, 2019. Of these options, 16,907 were vested as of such date. Each option is or will become exercisable for one Class A subordinate voting share.

As of October 23, 2020 there were 1,319,682 RSUs and 856 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.