

# SHOPIFY, INC (SHOP)

April 21, 2022

## Information Technology – Application Software

Stock Rating

**SELL**

### Investment Thesis

We recommend a SELL rating for Shopify, Inc with a target price range of \$105-115 representing a -79.0% downside. The company is trading at a lofty valuation due to high growth expectations. We believe that the rapid transition to the digital marketplace in 2020 and 2021 pulled forward demand and growth will slow in the coming years. Also, with inflation remaining high, consumers are limiting their purchases which is expected to negatively impact Shopify's overall revenues.

### Drivers of Thesis

- Application software demand was pulled forward during the Covid-19 pandemic and growth is expected to slow by 14.5%
- Increased privacy concerns surrounding website cookies will have a negative impact on marketing and analytic services
- Even with an average growth rate of 21.7% over the next ten years, Shopify currently trades at a high valuation that is expecting exponential growth

### Risks to Thesis

- Demand was not pulled forward and businesses continue adopting cloud-based services and digital payment systems.
- Privacy regulations regarding website cookie collection are relaxed allowing Shopify to collect large amounts of targeted data
- Interest rates remain low allowing small businesses to expand their operations with cheap debt and consumers are more willing to spend

### Earnings Estimates

Year	2019	2020	2021	2022E	2023E	2024E
EPS	-\$1.10	\$2.59	\$22.90	-\$3.06	-\$1.96	\$2.58
HF est.				\$1.79	\$3.15	\$3.79
growth	-80.3%	335.5%	784.2%	-113.3%	35.8%	231.3%

### 12 Month Performance



### Target Price

\$105-115

Henry Fund DCF	\$108
Henry Fund DDM	\$5
Relative Multiple	\$63

### Price Data

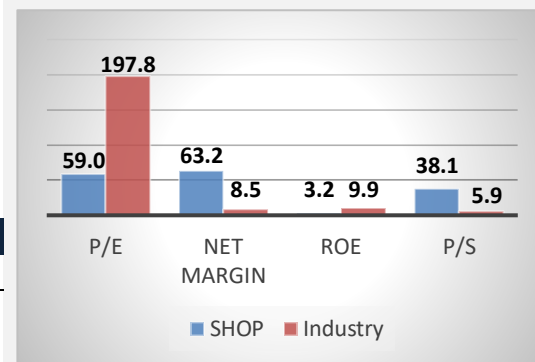
Current Price	\$525
52wk Range	\$510 – 1763
Consensus 1yr Target	\$949

### Key Statistics

Market Cap (B)	\$77.76
Shares Outstanding (M)	\$124.70
Institutional Ownership	70.36%
Beta	2.25
Dividend Yield	0.00%
Est. 5yr Growth	37.98%
Price/Earnings (TTM)	58.6
Price/Earnings (FY1)	59.0
Price/Sales (TTM)	37.6
Price/Book (mrq)	15.6

### Profitability

Operating Margin	7.1%
Profit Margin	63.2%
Return on Assets (TTM)	27.6%
Return on Equity (TTM)	33.2%

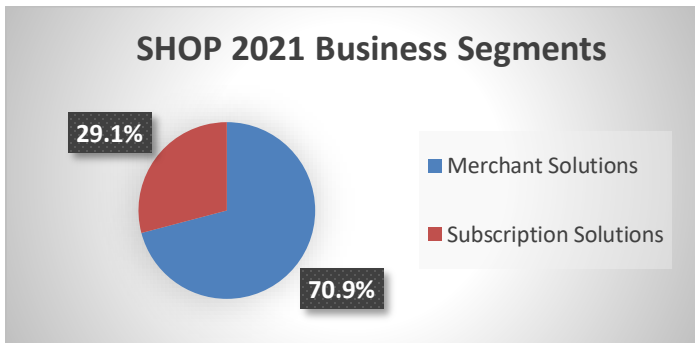


### Company Description

Shopify, Inc is a cloud-based commerce platform that is indented for small to medium-sized businesses. Its software helps companies manage inventory, facilitate transactions, manage customer relationships, and provide detailed analytics and reporting. These applications can be utilized by web-based businesses, brick-and-mortar stores, and pop-up shops. It operates through two business segments, merchant solutions, and subscription solutions. The company was founded in 2004 and is headquartered in Ottawa, Canada.

## COMPANY DESCRIPTION

Shopify provides internet infrastructure designed to make commerce simpler and more reliable. It primarily targets small and medium-sized businesses. The tools it offers help businesses manage inventory, facilitate transactions, manage customer relationships, and provide detailed analytics. It offers merchants a multi-channel front end that displays, manages, markets, and sells products. The multichannel front end can operate across web and mobile storefronts, physical retail locations, pop-up shops, social media, and mobile apps. Shopify software provides a single integrated back end that allows merchants to manage products, process orders, complete payments, and fulfill shipments. The software applications collect data from each interaction between buyers and merchants which is then consolidated so merchants can make informed business decisions. Shopify allows merchants to promote their own brand in each transaction and encourages buyer loyalty. It also offers a quick and secure transaction process that is available on several platforms such as Shop Pay, Apple Pay, Facebook Pay, and Google Pay. These payment platforms also allow merchants to conduct business globally. With the addition of Shopify Markets in 2021, merchants can easily manage storefronts in different countries through one global store. Shopify Markets allows buyers to use their local currencies, languages, and payment systems. These tailored experiences are designed to increase buyer loyalty and trust and open the door to new markets.<sup>7</sup>

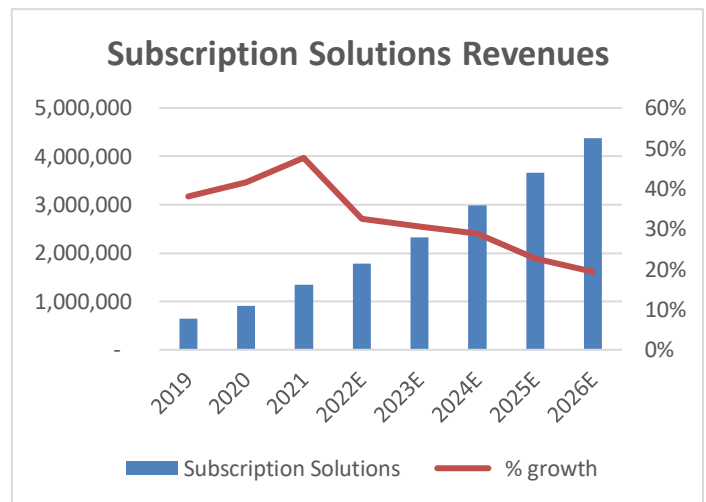


Source: FactSet

### Subscription Solutions

Shopify generates revenues through two main business segments, Subscription Solutions, and Merchant Solutions. Subscription Solutions generates revenue through the sale of subscriptions to the Shopify platform.

This revenue may include various platform fees, sale of themes, sales of apps, the registration of domain names, and subscriptions to POS Pro. The POS Pro subscription enables brick-and-mortar merchants to bridge online and offline commerce operations. This system also allows buyers to select pickup and return methods. Most subscriptions are typically one-month terms although some merchants elect to make a single annual payment. Merchants who select Shopify Plus often have annual or multi-year subscriptions. The Subscription Solutions business segment accounted for nearly 30% of total revenues in 2021 but we project this percentage will decline over the next few years to around 21%. It has seen an average year-over-year (YoY) growth of 48.3% over the last five years. We expect this growth to slow in the coming years as demand was likely pulled forward during the Covid-19 pandemic. We are forecasting average YoY growth of 26.8% over the next five years.<sup>1,7</sup>

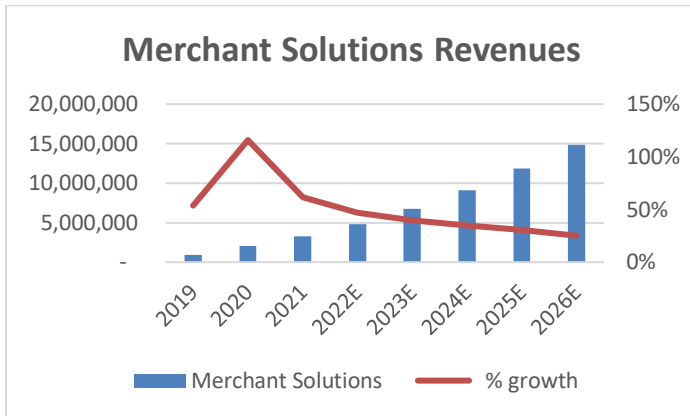


Source: FactSet

### Merchant Solutions

The largest business segment is Merchant Solutions which accounted for over 70% of revenues in 2021 and we expect this percentage to increase to 78% in the coming years. Merchant Solutions generates revenues from payment processing fees and currency conversion fees through Shopify Payments. Shopify Payments is a payment processing service that allows merchants to accept and process payment cards online and offline. More than two-thirds of merchants have enabled Shopify Payments. It improves the speed of checkout and the 'buy now, pay later' option has increased repeat purchases. Transaction fees are typically charged on a percentage of Gross

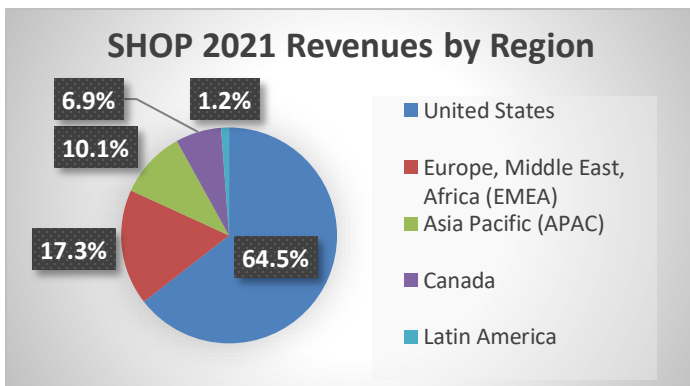
Merchandise Volume (GMV) for customers who have not signed up for Shopify Payments. Other Merchant Solutions revenues include referral fees, advertising from Shopify App Store, Shopify Capital, Shop Pay Installments, Shopify Balance, and several more. Shopify Capital gives secure financing to eligible merchants to help them accelerate the growth of their business.<sup>1,7</sup>



Source: FactSet

### Geographic Operations

Shopify is based in Canada but operates globally with the majority of revenues coming from the United States. In 2021 the US accounted for 64.5% of Shopify’s revenues. This percentage has trended down over the last three years as markets such as South Korea, Japan, and India expand. In these markets, consumers are accustomed to shopping on their mobile phones and will likely welcome digital payment options. We expect the US to continue to generate at least 55% of revenues going forward as Covid-19, supply chain issues, and the war in Ukraine have impacted other regions more severely which will limit their growth.



Source: FactSet

### Debt Maturity Analysis

Shopify only has \$15.7M in short-term debt and \$911M in long-term debt. This long-term debt is from a \$920M convertible debt issuance from September of 2020. Total debt only accounts for 1.48% of Shopify’s market value. This low amount of debt is unique for this industry which indicates Shopify has the potential to issue more debt to fund new growth opportunities.<sup>1,7</sup>

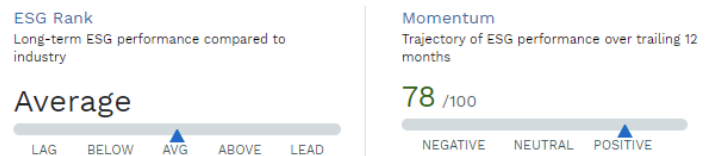
#### Five-Year Debt Maturity Schedule

Fiscal Year	Coupon (%)	Payment (\$mil)
2022	-	0
2023	-	0
2024	-	0
2025	0.125%	920
2026	-	0
Thereafter	-	0
<b>Total</b>		<b>\$920</b>

Source: FactSet

### ESG Analysis

Shopify has an average Environmental, Social, and Governance (ESG) rank of Average and a momentum ESG score of 78. The ESG score can be broken into five subcategories. Shopify scored poorly in the subcategories Social Capital and Leadership & Governance with scores of 46/100 and 43/100, respectively.<sup>1</sup>



Source: FactSet

### COVID-19 Impact

The Covid-19 pandemic had a dramatic effect on Shopify’s business and in turn its net income. Small merchants were forced to close their stores but still needed to sell products and the only other option was to sell online. Merchants rapidly adopted Shopify’s software products which enable online sales. This trend toward e-commerce had been in motion for some time but Covid forced businesses that were considering making the shift to act immediately. While Shopify’s revenues and net income have spiked post Covid, we are concerned that demand was pulled forward







and future growth projections will be unattainable since many merchants have already made the shift.

## INDUSTRY TRENDS

### New Entrants

The Application Software industry has high barriers for new entrants into the marketplace. There are low regulatory obstacles and relatively low initial operating expenses. This industry has a high level of competition and is dominated by a few large players. New entrants must develop relationships with online retailers as processing platforms are only as useful as the number of merchants that partner with them. The application software industry also has a high technology turnover which makes it difficult for new companies to keep up with industry trends. Current industry players have no incentive to assist new start-ups and there are no government-backed programs. The best way for new entrants to establish themselves is to target smaller businesses or develop new and innovative software. Another possible way to gain market share is to target niche industries and develop customized applications for businesses in a unique field.

#### Barriers to Entry Checklist

Competition	High 
Concentration	High 
Life Cycle Stage	Growth 
Technology Change	High 
Regulation & Policy	Medium 
Industry Assistance	None 

Source: IBIS World

### Pricing

Industry players typically charge merchants a set percentage of the total transaction cost plus a set fee. Some players charge recurring monthly fees and an initial account setup fee. While pricing is an important factor in attracting new merchant partners, it is not enough to differentiate one company from another. Payment processors must also compete to attract large consumer user bases. Players must prove their value to consumers by offering their services across a wide range of commerce channels, such as e-commerce, mobile, and point-of-sale. Merchants prefer name-brand payment processing platforms that consumers are more familiar with. A well-known platform instills consumer confidence in the merchant and makes the transaction process much smoother.<sup>4</sup>

### Security

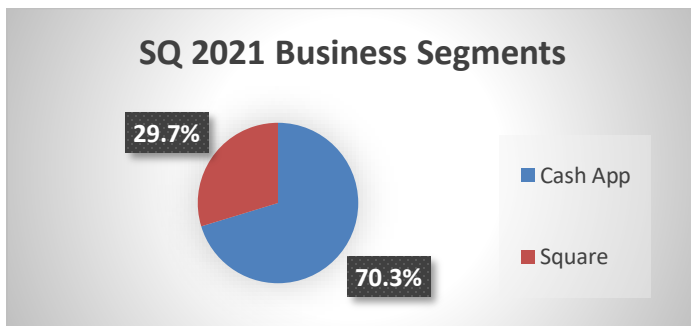
Security and value-added features are also key points of competition among industry players. Security is paramount as consumers will not entrust their financial information to a service that has a weak cybersecurity infrastructure. Fraud prevention tools are key services competitive operators offer to allay the security concerns of merchants and consumers alike. Value-added services, such as recurring billing, eCheck processing, and customizable platform integration with a merchant's website may give certain operators a competitive edge among businesses. Similarly, offering insights tools to businesses through data analytics on sales constitutes a significant value-added service. As online payment platforms have become a more prominent and increasing point of differentiation among industry players and a key competitive issue is reliability. Platforms that take too long to process a transaction or experience technical difficulties may lead to a loss in sales for a merchant and negatively affect a company's reputation.<sup>4</sup>

## MARKETS AND COMPETITION

### Block (SQ)

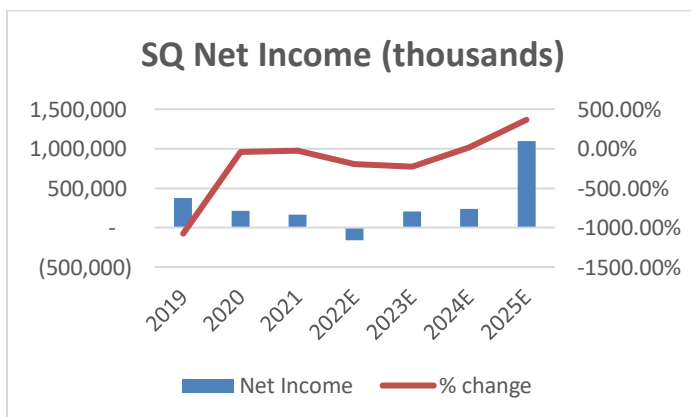
Block, formerly Square, is a digital transactions company that operates through the following business segments: Square, Cash App, TIDAL, and Spiral. Square is like Shopify's business model, it offers an ecosystem of commerce solutions, business software, and banking services to help sellers run their businesses. Cash App allows users to send, spend, or invest money. TIDAL helps artists grow as entrepreneurs by connecting them with

fans. Spiral funds and builds projects that advance the use of Bitcoin as an economic tool.<sup>1</sup>



Source: FactSet

Block is currently going through some fundamental changes as they are becoming more Blockchain oriented hence their name change. Due to these changes Block is projected to have slow growth over the next three years but in 2025 they are forecasted to turn a profit of \$1.1B. If Block can achieve a first-mover advantage in the blockchain technology space and apply these technologies to the digital transaction space, then we see a potential upside in Block.<sup>1</sup>

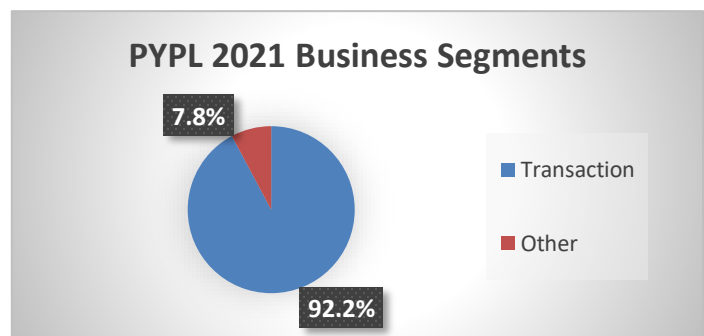


Source: FactSet

Block has seen gross margins decline in recent years down to 24.4% in 2021. Its Debt/Equity ratio has risen to 153% and has seen negative growth in net income in the last two years. Total revenues have had solid average YoY growth over the last three years of 77%. Block is a high-risk stock with a 1-year beta of 2.76. As Block continues to reinvent itself, we expect to see high volatility in growth rates and its stock price.

## PayPal (PYPL)

PayPal designs and manages technology platforms used for digital transactions. It operates through the following revenues streams: PayPal, PayPal Credit, Braintree, Venmo, Xoom, and Paydiant. Its main business consists of facilitating transactions between merchants and consumers. PayPal lists two business segments: Transaction and Other. It also saw stellar growth in 2020 due to businesses being forced to implement digital payment methods. PayPal saw a small decline in net income in 2021 which is attributed to higher costs because total revenues increased. We anticipate a marginal slowdown for PayPal as demand was pulled forward but still see long-term growth driven by their peer-to-peer payment system Venmo.<sup>1</sup>



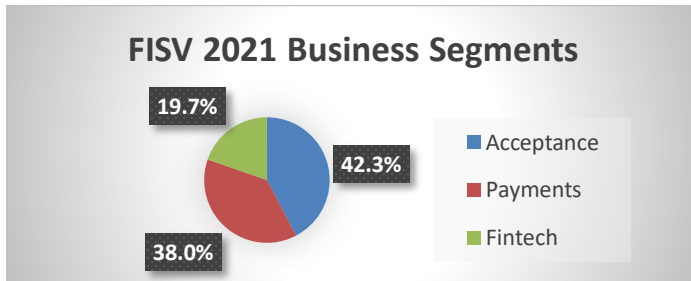
Source: FactSet

PayPal has seen consistent increases in EPS, revenues, and net income over the last four years, and this growth is expected to continue over the next four years. PayPal has maintained a constant gross margin of around 50% for seven years and has slowly increased its operating margin. It has been able to achieve this success through limited amounts of debt as it has a Debt/Equity ratio of 40%. PayPal is a trusted and recognized name for merchant transactions. It also has growth potential with its popular peer-to-peer payment transfer application Venmo. We like PayPal going forward and believe that it has room to grow.

## Fiserv (FISV)

Fiserv is a financial services company that operates through the following segments: Merchant Acceptance, Financial Technology, and Payments & Network. The merchant Acceptance segment provides solutions like Shopify's that serve merchants and enable transactions. The Financial Technology segment enables financial institutions to process customer deposits and loan

accounts. The Payments & Network segment contains products that are required to facilitate digital payment transactions. Fiserv has seen high growth in total revenues but has been unable to capitalize in terms of net income. It also has high levels of debt and high COGS. These factors indicate that the company may have poor management and has the potential for higher growth if it can cut costs.

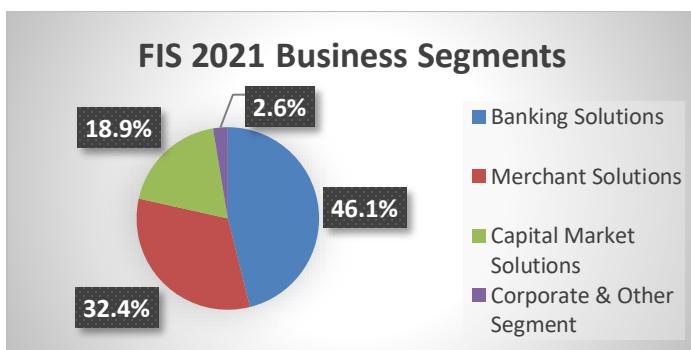


Source: FactSet

Fiserv is forecasted to have high growth rates with average YoY net income growth of 42% over the next three years. These high net income growth rates can partially be attributed to its high gross margins which have been above 45% for the last six years. Even with this huge growth, Fiserv has maintained a low beta of only 1.05 and has a P/E of 51x.

### Fidelity National Information Services (FIS)

Fidelity National provides solutions for merchants, banks, and capital markets businesses. It operates through four business segments: Merchant, Banking, Capital Markets, and Corporate & Other. Its largest segment is Banking which accounted for nearly half of total revenues in 2021. The Banking segment provides financial institutions applications that manage fraud, risk, electronic funds transfer, and wealth & retirement.



Source: FactSet

Fidelity National has had average YoY revenue growth over the last three years of 18% and is projected to have YoY growth of only 7% over the next three years. These relatively small growth rates for revenues have translated to huge increases in net income. Fidelity National saw 164% growth in net income in 2021 and is projected to have 249% growth in 2022. FIS has a Debt/Equity ratio of .44 which indicates that it has been able to achieve high growth with little to no new debt financing. FIS also has a considerably lower beta of only 1.04 and has a dividend yield of 1.8% compared to Shopify's beta of 2.25 and dividend yield of 0%.

## ECONOMIC OUTLOOK

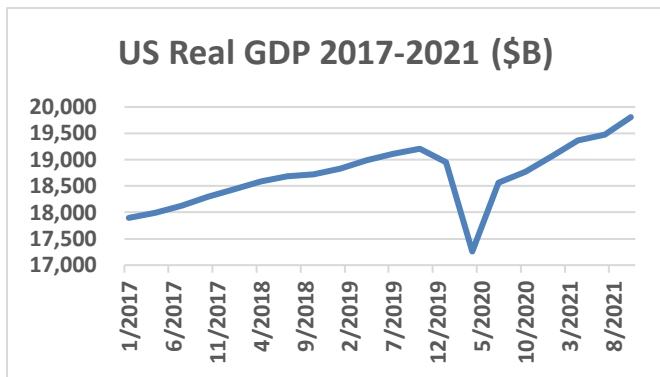
### Russia/Ukraine

Russia's invasion of Ukraine has thrown geopolitics into chaos as countries choose which side to support. Commodity prices have skyrocketed as the world oil supply becomes uncertain if Russia is going to limit production. The United States has announced that it will no longer import Russian oil which accounts for 7% of total US oil imports. The European Union, United States, Canada, United Kingdom, and other nations have imposed sanctions on Russia and have halted most business transactions. Many businesses have announced that they will be shutting down stores and factories in Russia. This includes Shopify which has suspended operations in Russia and has stopped collecting fees from Ukrainian merchants. There is no timetable as to when these operations may return to normal if ever. Thankfully, Russia accounted for less than 1% of Shopify's total revenues in 2021.<sup>1,8</sup>

### Real GDP

The global economy is in a weaker position than previously expected due to high infection rates of the Covid-19 Omicron variant. Many countries are reimposing border restrictions and rising energy costs are disrupting supply chains. Global growth is expected to slow to 4.4% in 2022, down from 5.9% in 2021.<sup>12</sup> The US saw Real GDP increase from -3.4% in 2020 to 5.7% in 2021. Like the global economic outlook, the US Real GDP is expected to slow to a growth rate of 3.9% in 2022 followed by 2.3% and 2.0% in 2023 and 2024, respectively. 2020 was an exceptionally back year in terms of Real GDP which led to an abnormally high growth rate in 2021. So, even though GDP is slowing,

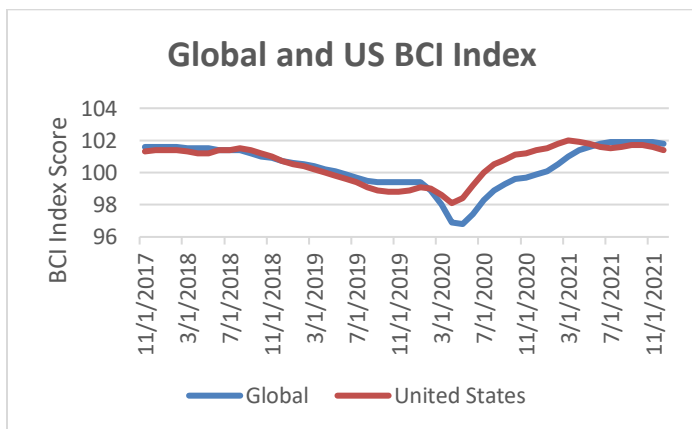
it is still above average, and the economy is expected to remain relatively strong compared to pre-pandemic levels throughout 2022.



Source: FRED

### Business Confidence Index

The Business Confidence Index (BCI) measures future developments, production numbers, and stocks of finished goods. It is used as a gauge to predict turning points in the economy. Numbers above 100 suggest increased confidence in near future business performance, and numbers below 100 indicate pessimism towards future performance. Currently, both the US and Global BCI Indexes are above 100 suggesting confidence in the economy.



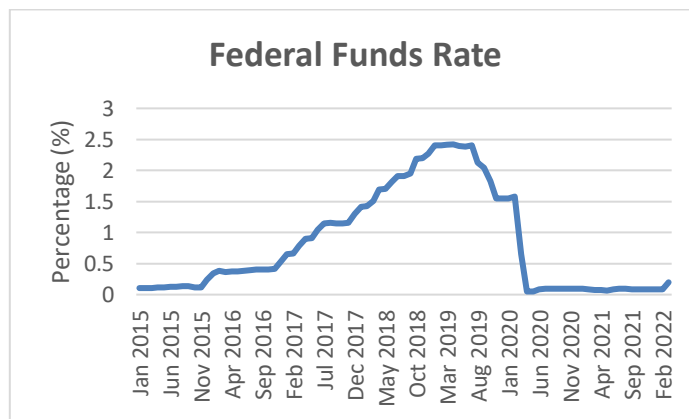
Source: OECD

### Interest Rates

Interest rates have a major impact on the global economy as they impact the costs of borrowing and lending. During the height of the Covid-19 pandemic, the United States Federal Reserve brought the Federal Funds Rate (FFR)

down to a range of 0.0% to 0.25%. The federal funds rate is the rate at which banks can borrow from each other. It sets the benchmark for all fixed income instruments, mortgage rates, and currencies. These factors make it the most important interest rate in the world. Currently, the FFR is 0.25-0.50% but the Federal Reserve is expected to increase rates five times this year to around 1.75%. The reason for raising rates is to combat inflation and slow down our booming economy which has exploded in growth thanks in part to an increased money supply. Even though the Federal Reserve has good intentions when raising rates, higher rates can lead to short-term declines in growth. This decline in growth could lead to companies hoarding cash and limiting capital expenditure. This would lead to fewer new customers for the Application Software industry.

Raising rates can often scare the market but if the Federal Reserve must raise rates this indicates that the economy was booming in the first place. This strong economy is not going to grind to a halt due to a few small rate hikes. These rate increases are intended to slow, not stop the economy. The Federal Reserve targets an inflation rate of 2% and at the end of 2021, it was at 7.0%. This means the economy is well above expected inflation levels and needs to be reined in.

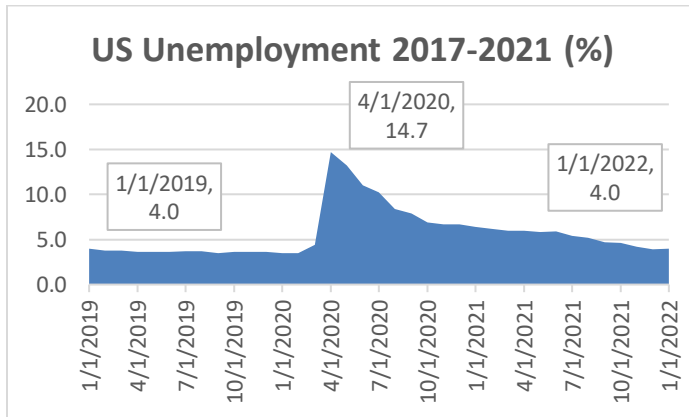


Source: Statista

### Unemployment

Before the pandemic unemployment numbers had been slowly declining. In April of 2020, unemployment peaked at 14.7%. Since then, it has declined steadily and is now right around pre-pandemic levels. There is some controversy as to if this number is accurate as many people have left the labor market due to early retirement or working gig jobs. Since these people are no longer counted

as participants in the labor market this skews the unemployment rate. Low unemployment creates a tight labor market which is forcing employers to pay higher wages to attract new workers. Employers are also forced to raise wages for existing employees to keep up with the high inflation levels.



Source: Bureau of Labor Statistics (BLS)

## VALUATION

### WACC

To calculate the weighted average cost of capital (WACC) we first found the cost of equity using a risk-free rate of 2.49% which is the current 10-year treasury bond yield. We used a beta of 2.25 which is an average from Bloomberg and an equity risk premium of 5.15% which is the Henry Fund estimate. The beta multiplied by the equity risk premium plus the risk-free rate results in a cost of equity of 14.09%. Next, we found the after-tax cost of debt, the market value of equity, and the market value of debt. Using all these metrics we then found a WACC value of 13.90%. The average WACC for Shopify's peers is 6.9%, which means that there is a significantly higher level of risk associated with Shopify as investors require a higher level of return.

### Discounted Cash Flows (DCF)

Our discounted cash flow (DCF) model generates an implied share price today of \$107.99. This represents an 84% downside in the share price for Shopify. To compute this estimate we first found earnings before interest, taxes, and amortization (EBITA). We then subtracted adjusted taxes and added back the change in deferred taxes to arrive at net operating profit less adjusted taxes

(NOPLAT). Next, we calculated the invested capital by subtracting the long-term operating liabilities from long-term operating assets. Subtracting the change in invested capital from NOPLAT gives us free cash flow (FCF). We then used the formula  $CV = NOPLAT * (1 - (g/ROIC)) / (WACC - g)$  to find the continuing value. After discounting each FCF and the CV, we arrived at the present value of operating assets. After making the proper non-operating adjustments, we found the value of equity. Dividing the value of equity by the total number of shares outstanding results in the intrinsic value as of last fiscal year-end. To get today's implied share price we then grow the intrinsic value by how much time has elapsed in the current fiscal year. All these steps resulted in an implied share price of \$107.99.

### Economic Profit (EP)

The economic profit model is like the discounted cash flows model but instead of using FCF, we use economic profit. To find economic profit we first found the return on invested capital by dividing NOPLAT by the beginning invested capital. We then subtracted WACC from ROIC and multiplied this by beginning invested capital to arrive at the economic profit. Using our EP values, we followed the same process as the DCF. To find the continuing value we used the formula  $CV = (EP/WACC) + (NOPLAT * (g/ROIC) * (ROIC - WACC)) / (WACC * (WACC - g))$ . After discounting the EP values and the CV, we added back invested capital and made the necessary non-operating adjustments to arrive at the value of equity. Dividing the equity value by the total number of shares outstanding equals the intrinsic share price as of the last fiscal year-end. To find today's implied share price we grow forward the price by how much time has passed in the current fiscal year. All these steps resulted in an implied share price of \$107.99, the same as the DCF except we used EP instead of FCF.

### Dividend Discount Model (DDM)

Shopify does not pay dividends which makes the dividend discount model less relevant. However, we still the model and we arrived at an implied share price as of today of \$4.69. This represents a 99% downside in the current actual stock price. To find the intrinsic stock price using the DDM we used the formula  $P/E = (1 - (g/ROE)) / (Re - g)$  to find the P/E of the continuing value year. Multiplying the CV P/E ratio by the CV earnings per share results in the future stock price. We then discounted the future stock price to



arrive at the intrinsic value as of last fiscal year. We then grow this forward by the amount of time that has passed this fiscal year. These steps resulted in an implied share price today of \$4.69. As mentioned earlier, since Shopify does not pay dividends, this model is less relevant, so we assigned a lower weight to this model when determining the target price range.<sup>1</sup>

## Relative Valuation

The relative valuation using the average P/E across comparable companies results in an implied relative value of \$63.47. This represents an 89% downside from where Shopify is currently trading. To calculate this value, we first found the average expected P/E ratio in 2022 for six comparable companies in the application software industry. The comparable companies have an average 2022 P/E multiple of 35.42x. We then multiplied this multiple by the expected earnings per share for 2022 to arrive at the relative value of \$63.47. We did the same calculations with 2024 P/E multiple and ended with a relative valuation of \$86.84. From the relative valuation metric, we can conclude that Shopify is trading at a much higher price compared to its peers due to high expected growth rates.

## Sensitivity Analysis

In our sensitivity testing, we compared 12 variables across six sensitivity tables that charted the price change in our DCF model. One table compared the beta to the risk-free rate and found that a 0.3% change in the risk-free rate results in a \$30 price change. The beta however had little effect on the share price change. Another table compared the WACC to the CV Growth rate of NOPLAT. A 1% move in CV rate resulted in a \$60 change in price and a 0.6% increase in WACC resulted in a \$42 increase.

## KEYS TO MONITOR

We recommend a SELL rating on Shopify with a target price range of \$105-115. We believe that the high growth projections that the market is pricing in are unfeasible and demand was pulled forward during 2020 and 2021. We anticipate demand will taper off in 2022 resulting in lower growth estimates and ultimately a lower stock price.

However, if sales continue to remain strong this indicates that demand may not have been pulled forward and high growth estimates are then warranted. If this is the case,

we would expect the market to price in even higher growth rates driving the price higher.

## REFERENCES

1. [FactSet](#)
2. Bloomberg
3. Yahoo Finance
4. [IBISWorld](#)
5. Net Advantage
6. Mergent
7. Shopify 40-F
8. [Reuters](#)
9. [U.S. Energy Information Administration](#)
10. FRED
11. Bureau of Labor Statistics
12. OECD
13. Statista

## DISCLAIMER

Henry Fund reports are created by graduate students in the Applied Securities Management program at the University of Iowa's Tippie College of Business. These reports provide potential employers and other interested parties an example of the analytical skills, investment knowledge, and communication abilities of our students. Henry Fund analysts are not registered investment advisors, brokers or licensed financial professionals. The investment opinion contained in this report does not represent an offer or solicitation to buy or sell any of the aforementioned securities. Unless otherwise noted, facts and figures included in this report are from publicly available sources. This report is not a complete compilation of data, and its accuracy is not guaranteed. From time to time, the University of Iowa, its faculty, staff, students, or the Henry Fund may hold an investment position in the companies mentioned in this report.

Shopify, Inc  
Revenue Decomposition

<b>Fiscal Years Ending Dec. 31</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>
<b>Sales</b>													
Subscription Solutions	642,000	909,000	1,342,000	1,777,202	2,320,154	2,990,022	3,666,286	4,375,590	5,058,703	5,624,871	6,040,184	6,366,100	6,556,473
% growth	38.1%	41.6%	47.6%	32.4%	30.6%	28.9%	22.6%	19.3%	15.6%	11.2%	7.4%	5.4%	3.0%
Merchant Solutions	936,000	2,021,000	3,270,000	4,814,173	6,738,917	9,075,171	11,854,329	14,828,684	17,813,339	20,535,348	22,623,053	23,797,545	24,514,542
% growth	53.9%	115.9%	61.8%	47.2%	40.0%	34.7%	30.6%	25.1%	20.1%	15.3%	10.2%	5.2%	3.0%
<b>Total</b>	<b>1,578,000</b>	<b>2,930,000</b>	<b>4,612,000</b>	<b>6,591,375</b>	<b>9,059,071</b>	<b>12,065,193</b>	<b>15,520,615</b>	<b>19,204,274</b>	<b>22,872,041</b>	<b>26,160,219</b>	<b>28,663,237</b>	<b>30,163,645</b>	<b>31,071,015</b>
% growth	47.1%	85.7%	57.4%	42.9%	37.4%	33.2%	28.6%	23.7%	19.1%	14.4%	9.6%	5.2%	3.0%
<b>Percentage of Total (%)</b>													
Subscription Solutions	40.70%	31.00%	29.10%	26.96%	25.61%	24.78%	23.62%	22.78%	22.12%	21.50%	21.07%	21.11%	21.10%
Merchant Solutions	59.30%	69.00%	70.90%	73.04%	74.39%	75.22%	76.38%	77.22%	77.88%	78.50%	78.93%	78.89%	78.90%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
<b>Geographic Segments</b>													
United States	1,080,000	1,954,000	2,974,000	4,250,379	5,841,647	7,780,113	10,008,306	12,383,675	14,748,797	16,869,144	18,483,189	19,450,711	20,035,819
% growth	43.0%	80.9%	52.2%	42.9%	37.4%	33.2%	28.6%	23.7%	19.1%	14.4%	9.6%	5.2%	3.0%
Europe, Middle East, Africa (EMEA)	333,000	455,000	800,000	1,143,343	1,571,391	2,092,835	2,692,214	3,331,184	3,967,397	4,537,766	4,971,941	5,232,202	5,389,595
% growth	67.3%	36.6%	75.8%	42.9%	37.4%	33.2%	28.6%	23.7%	19.1%	14.4%	9.6%	5.2%	3.0%
Asia Pacific (APAC)	69,000	292,000	467,000	667,427	917,300	1,221,692	1,571,580	1,944,578	2,315,968	2,648,921	2,902,370	3,054,298	3,146,176
% growth	43.8%	323.2%	59.9%	42.9%	37.4%	33.2%	28.6%	23.7%	19.1%	14.4%	9.6%	5.2%	3.0%
Canada	96,000	193,000	316,000	451,621	620,700	826,670	1,063,425	1,315,818	1,567,122	1,792,417	1,963,917	2,066,720	2,128,890
% growth	35.2%	101.0%	63.7%	42.9%	37.4%	33.2%	28.6%	23.7%	19.1%	14.4%	9.6%	5.2%	3.0%
Latin America	-	36,000	55,000	78,605	108,033	143,882	185,090	229,019	272,759	311,971	341,821	359,714	370,535
% growth	-	-	52.8%	42.9%	37.4%	33.2%	28.6%	23.7%	19.1%	14.4%	9.6%	5.2%	3.0%
<b>Total</b>	<b>1,578,000</b>	<b>2,930,000</b>	<b>4,612,000</b>	<b>6,591,375</b>	<b>9,059,071</b>	<b>12,065,193</b>	<b>15,520,615</b>	<b>19,204,274</b>	<b>22,872,041</b>	<b>26,160,219</b>	<b>28,663,237</b>	<b>30,163,645</b>	<b>31,071,015</b>



Shopify, Inc  
Balance Sheet

Fiscal Years Ending Dec. 31	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Cash and cash equivalents	649,916	2,703,597	2,502,992	2,244,558	2,076,443	1,940,803	1,731,438	1,572,711	1,401,552	1,178,057	940,150	685,333	388,344
Marketable securities	1,805,278	3,684,370	5,265,101	5,394,623	5,527,330	5,663,303	5,802,620	5,945,364	6,091,620	6,241,474	6,395,014	6,552,332	6,713,519
Trade and other receivables	90,529	120,752	192,209	274,710	377,556	502,843	646,855	800,379	953,241	1,090,283	1,194,602	1,257,135	1,294,951
Merchant cash advances receivable, net	150,172	244,723	470,722	672,767	924,639	1,231,468	1,584,155	1,960,138	2,334,499	2,670,116	2,925,594	3,078,737	3,171,350
Income taxes receivable	-	56,067	5,023	5,023	5,023	5,023	5,023	5,023	5,023	5,023	5,023	5,023	5,023
Other current assets	48,833	68,247	103,273	147,600	202,859	270,175	347,552	430,040	512,172	585,804	641,854	675,453	695,771
<b>Total Current assets</b>	<b>2,744,728</b>	<b>6,877,756</b>	<b>8,539,320</b>	<b>8,739,281</b>	<b>9,113,852</b>	<b>9,613,614</b>	<b>10,117,643</b>	<b>10,713,656</b>	<b>11,298,108</b>	<b>11,770,757</b>	<b>12,102,237</b>	<b>12,254,012</b>	<b>12,268,959</b>
Property and equipment	111,398	92,104	105,526	158,844	213,473	269,446	326,796	385,556	445,763	507,450	570,655	635,414	701,767
Right-of-use assets	134,774	119,373	196,388	187,108	180,759	176,706	174,455	173,627	173,923	175,117	177,031	179,528	182,502
Intangible assets	167,282	135,676	138,496	114,016	94,084	77,636	64,064	52,864	43,623	35,997	29,704	24,511	20,226
Deferred tax assets	19,432	52,677	48,369	48,369	48,369	48,369	48,369	48,369	48,369	48,369	48,369	48,369	48,369
Equity and other investments	-	173,454	3,955,545	4,311,961	4,700,492	5,124,032	5,585,735	6,089,040	6,637,696	7,235,788	7,887,772	8,598,503	9,373,275
Goodwill	311,865	311,865	356,528	356,528	356,528	356,528	356,528	356,528	356,528	356,528	356,528	356,528	356,528
<b>Long term assets</b>	<b>744,751</b>	<b>885,149</b>	<b>4,800,852</b>	<b>5,176,826</b>	<b>5,593,705</b>	<b>6,052,717</b>	<b>6,555,947</b>	<b>7,105,984</b>	<b>7,705,901</b>	<b>8,359,249</b>	<b>9,070,058</b>	<b>9,842,853</b>	<b>10,682,667</b>
<b>Total assets</b>	<b>3,489,479</b>	<b>7,762,905</b>	<b>13,340,172</b>	<b>13,916,107</b>	<b>14,707,557</b>	<b>15,666,331</b>	<b>16,673,590</b>	<b>17,819,640</b>	<b>19,004,010</b>	<b>20,130,006</b>	<b>21,172,295</b>	<b>22,096,866</b>	<b>22,951,626</b>
Accounts payable and accrued liabilities	181,193	300,795	456,688	700,423	962,650	1,282,091	1,649,277	2,040,716	2,430,466	2,779,880	3,045,860	3,205,299	3,301,719
Income taxes payable	69,432	19,677	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505
Current portion of deferred revenue	56,691	107,809	216,792	216,792	216,792	216,792	216,791	216,791	216,791	216,791	216,791	216,791	216,791
Current portion of lease incentives	9,066	10,051	15,748	14,448	13,958	13,645	13,471	13,407	13,430	13,522	13,670	13,863	14,092
<b>Total Current Liabilities</b>	<b>316,382</b>	<b>438,332</b>	<b>702,733</b>	<b>945,169</b>	<b>1,206,904</b>	<b>1,526,033</b>	<b>1,893,044</b>	<b>2,284,419</b>	<b>2,674,192</b>	<b>3,023,698</b>	<b>3,289,826</b>	<b>3,449,457</b>	<b>3,546,107</b>
Deferred revenue	5,969	21,006	162,932	101,687	139,756	186,133	239,440	296,269	352,852	403,580	442,194	465,342	479,340
Lease liabilities	142,641	144,836	246,776	246,776	246,776	246,776	246,776	246,776	246,776	246,776	246,776	246,776	246,776
Convertible senior notes	-	758,008	910,963	1,079,776	1,170,000	1,275,639	1,394,244	1,519,722	1,645,346	1,761,083	1,855,746	1,923,344	1,975,205
Deferred tax liability	8,753	-	183,427	183,427	183,426	183,426	183,425	183,425	183,425	183,424	183,424	183,423	183,423
<b>Total Long term Liabilities</b>	<b>157,363</b>	<b>923,850</b>	<b>1,504,098</b>	<b>1,611,666</b>	<b>1,739,959</b>	<b>1,891,973</b>	<b>2,063,885</b>	<b>2,246,192</b>	<b>2,428,399</b>	<b>2,594,863</b>	<b>2,728,140</b>	<b>2,818,885</b>	<b>2,884,743</b>
<b>Total Liabilities</b>	<b>473,745</b>	<b>1,362,182</b>	<b>2,206,831</b>	<b>2,556,834</b>	<b>2,946,863</b>	<b>3,418,006</b>	<b>3,956,930</b>	<b>4,530,611</b>	<b>5,102,591</b>	<b>5,618,561</b>	<b>6,017,966</b>	<b>6,268,342</b>	<b>6,430,850</b>
Common stock, additional paid-in capital	3,318,912	6,376,668	8,201,173	8,201,321	8,201,469	8,201,618	8,201,766	8,201,914	8,202,038	8,202,038	8,202,038	8,202,038	8,202,038
Accumulated other comprehensive income / loss	1,046	8,770	(5,974)	(5,974)	(5,974)	(5,974)	(5,974)	(5,974)	(5,974)	(5,974)	(5,974)	(5,974)	(5,974)
Retained earnings / accumulated deficit	(304,224)	15,285	2,938,142	3,163,926	3,565,198	4,052,682	4,520,869	5,093,089	5,705,354	6,315,381	6,958,265	7,632,460	8,324,711
<b>Total shareholders' equity</b>	<b>3,015,734</b>	<b>6,400,723</b>	<b>11,133,341</b>	<b>11,359,273</b>	<b>11,760,694</b>	<b>12,248,325</b>	<b>12,716,661</b>	<b>13,289,029</b>	<b>13,901,418</b>	<b>14,511,445</b>	<b>15,154,330</b>	<b>15,828,524</b>	<b>16,520,776</b>
<b>Total liabilities and shareholders' equity</b>	<b>3,489,479</b>	<b>7,762,905</b>	<b>13,340,172</b>	<b>13,916,107</b>	<b>14,707,557</b>	<b>15,666,331</b>	<b>16,673,591</b>	<b>17,819,640</b>	<b>19,004,010</b>	<b>20,130,007</b>	<b>21,172,296</b>	<b>22,096,866</b>	<b>22,951,626</b>

**Shopify, Inc**
*Historical Cash Flow Statement*

<b>Fiscal Years Ending Dec. 31</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Net loss / income for the period	(22,311)	(18,790)	(35,355)	(39,995)	(64,553)	(124,842)	319,509	2,914,659
Amortization and depreciation	4,672	7,236	13,967	23,382	27,052	35,651	70,060	66,308
Stock-based compensation	3,792	7,805	22,896	49,163	95,720	158,456	246,940	330,763
Amortization of debt discount and offering costs	-	-	-	-	-	-	8,756	2,343
Impairment of right-of-use assets and leasehold improvements	-	-	-	-	-	-	31,623	30,145
Provision for uncollectible receivables related to merchant cash advances	-	-	-	2,606	5,922	15,912	27,282	43,781
Vesting of restricted shares	651	353	202	-	-	-	-	-
Loss on asset disposal	100	-	-	-	-	-	-	-
Deferred income taxes	-	-	-	-	-	(37,918)	(41,998)	190,963
Revenue related to non-cash consideration	-	-	-	-	-	-	-	(58,380)
Unrealized gain on equity and other investments	-	-	-	-	-	-	(135,193)	(2,859,800)
Unrealized foreign exchange gain / loss	524	1,828	(969)	(1,604)	1,272	3,181	(1,689)	4,570
Trade and other receivables	1,666	1,176	(2,356)	(13,037)	(32,649)	(56,181)	(29,146)	(72,300)
Merchant cash advances receivable, net	-	-	(11,896)	(37,811)	(50,694)	(74,211)	(112,721)	(266,077)
Other current assets	-	(4,708)	(2,604)	(3,706)	(10,816)	(12,401)	(11,404)	(50,151)
Non-cash consideration received in exchange for services	-	-	-	-	-	-	(24,710)	(268,058)
Accounts payable and accrued liabilities	-	11,097	19,813	15,428	20,641	84,563	118,588	138,175
Income tax assets and liabilities	-	-	-	-	-	64,648	(105,890)	45,263
Change in deferred revenue	2,813	6,218	7,699	10,960	9,015	12,305	66,155	309,289
Change in lease incentives	7,292	3,541	2,620	2,515	8,414	1,452	(1,204)	2,935
<b>Net cash provided by / used in operating activities</b>	<b>(801)</b>	<b>15,756</b>	<b>14,017</b>	<b>7,901</b>	<b>9,324</b>	<b>70,615</b>	<b>424,958</b>	<b>504,428</b>
Purchase of marketable securities	(20,131)	(111,154)	(369,208)	(1,129,263)	(2,447,955)	(2,718,604)	(5,600,207)	(7,337,366)
Maturity of marketable securities	2,375	48,350	139,872	642,073	1,698,264	2,477,038	3,721,405	5,750,224
Purchase of equity and other investments	-	-	-	-	-	-	(11,051)	(650,233)
Acquisitions of property and equipment	(20,573)	(16,525)	(23,773)	(20,043)	(27,950)	(56,759)	(41,733)	(50,788)
Proceeds from disposal of property and equipment	90	-	-	-	-	-	-	-
Acquisition of businesses, net of cash acquired	-	-	(14,114)	(15,718)	(19,397)	(265,512)	-	(59,627)
Acquisitions of intangible assets	(2,127)	(4,511)	(2,463)	(4,219)	(13,595)	(5,638)	(262)	-
<b>Net cash used in / provided by investing activities</b>	<b>(40,366)</b>	<b>(83,840)</b>	<b>(269,686)</b>	<b>(527,170)</b>	<b>(810,633)</b>	<b>(569,475)</b>	<b>(1,931,848)</b>	<b>(2,347,790)</b>
Proceeds from public offering, net of issuance costs	-	136,251	224,423	560,057	1,041,688	688,014	2,578,591	1,541,168
Proceeds from the exercise of stock options	140	1,604	4,162	14,774	30,494	48,337	70,809	108,594
Proceeds from convertible senior notes, net of underwriting fees and offering costs	-	-	-	-	-	-	907,950	-
<b>Net cash provided by financing activities</b>	<b>140</b>	<b>137,855</b>	<b>228,585</b>	<b>574,831</b>	<b>1,072,182</b>	<b>736,351</b>	<b>3,557,350</b>	<b>1,649,762</b>
Effect of foreign exchange on cash and cash equivalents	(549)	(1,654)	1,027	2,102	(1,867)	1,742	3,221	(7,005)
Net increase / decrease in cash and cash equivalents	(41,576)	68,117	(26,057)	57,664	269,006	239,233	2,053,681	(200,605)
Cash and cash equivalents - beginning of period	83,529	41,953	110,070	84,013	141,677	410,683	649,916	2,703,597
<b>Cash and cash equivalents - end of period</b>	<b>41,953</b>	<b>110,070</b>	<b>84,013</b>	<b>141,677</b>	<b>410,683</b>	<b>649,916</b>	<b>2,703,597</b>	<b>2,502,992</b>

<i>Fiscal Years Ending Dec. 31</i>	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
<b>Operating activities:</b>										
Net Income	225,784	401,273	487,483	468,188	572,220	612,265	610,027	642,884	674,194	692,252
Depreciation	67,583	64,389	62,204	60,809	60,035	59,750	59,852	60,263	60,921	61,781
Amortization	19,932	16,448	13,572	11,200	9,242	7,626	6,293	5,193	4,285	3,536
Changes in operating assets and liabilities:										
Trade and other receivables	(82,501)	(102,847)	(125,287)	(144,012)	(153,524)	(152,862)	(137,042)	(104,319)	(62,533)	(37,817)
Merchant cash advances receivable, net	(202,045)	(251,872)	(306,828)	(352,687)	(375,983)	(374,361)	(335,617)	(255,478)	(153,143)	(92,613)
Income taxes receivable	-	-	-	-	-	-	-	-	-	-
Other current assets	(44,327)	(55,259)	(67,316)	(77,377)	(82,488)	(82,132)	(73,632)	(56,050)	(33,599)	(20,319)
Accounts payable and accrued liabilities	243,735	262,226	319,441	367,186	391,439	389,750	349,414	265,980	159,439	96,420
Income taxes payable	-	-	-	-	-	-	-	-	-	-
Current portion of deferred revenue	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Current portion of lease incentives	(1,300)	(490)	(313)	(174)	(64)	23	92	148	193	230
<b>Net cash provided by / used in operating activities</b>	<b>139,346</b>	<b>253,031</b>	<b>307,181</b>	<b>261,123</b>	<b>351,599</b>	<b>392,683</b>	<b>413,242</b>	<b>493,166</b>	<b>584,551</b>	<b>638,153</b>
<b>Investing activities:</b>										
Marketable securities	(129,521)	(132,708)	(135,972)	(139,317)	(142,744)	(146,256)	(149,854)	(153,540)	(157,317)	(161,187)
Equity and other investments	(356,416)	(388,531)	(423,540)	(461,703)	(503,305)	(548,656)	(598,092)	(651,984)	(710,731)	(774,772)
Right-of-use assets	9,280	6,349	4,054	2,250	829	(297)	(1,194)	(1,914)	(2,497)	(2,974)
Goodwill	-	-	-	-	-	-	-	-	-	-
Property and equipment	(53,318)	(54,629)	(55,973)	(57,350)	(58,761)	(60,206)	(61,687)	(63,205)	(64,760)	(66,353)
Intangible assets	24,480	19,932	16,448	13,572	11,200	9,242	7,626	6,293	5,193	4,285
Deferred tax assets	(0)	(0)	(0)	-	-	-	-	-	-	-
<b>Net Cash from investing activities</b>	<b>(505,496)</b>	<b>(549,587)</b>	<b>(594,984)</b>	<b>(642,548)</b>	<b>(692,782)</b>	<b>(746,173)</b>	<b>(803,201)</b>	<b>(864,350)</b>	<b>(930,112)</b>	<b>(1,001,001)</b>
<b>Financing activities:</b>										
Deferred revenue	(61,245)	38,070	46,376	53,308	56,829	56,584	50,727	38,615	23,147	13,998
Lease liabilities	-	-	-	-	-	-	-	-	-	-
Convertible senior notes	168,813	90,224	105,639	118,605	125,479	125,624	115,737	94,663	67,598	51,861
Deferred tax liability	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
<b>Net Cash from financing activities</b>	<b>107,568</b>	<b>128,293</b>	<b>152,014</b>	<b>171,912</b>	<b>182,307</b>	<b>182,207</b>	<b>166,464</b>	<b>133,277</b>	<b>90,744</b>	<b>65,859</b>
Net Increase in Cash	(258,582)	(168,263)	(135,789)	(209,513)	(158,876)	(171,283)	(223,496)	(237,907)	(254,817)	(296,990)
Increase in common stock	148	148	148	148	148	124	-	-	-	-
Beginning Cash	2,502,992	2,244,558	2,076,443	1,940,803	1,731,438	1,572,711	1,401,552	1,178,057	940,150	685,333
<b>Ending Cash</b>	<b>2,244,558</b>	<b>2,076,443</b>	<b>1,940,803</b>	<b>1,731,438</b>	<b>1,572,711</b>	<b>1,401,552</b>	<b>1,178,057</b>	<b>940,150</b>	<b>685,333</b>	<b>388,344</b>

Shopify, Inc

Common Size Income Statement

Fiscal Years Ending Dec. 31	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
<b>Revenues:</b>													
Subscription solutions	40.70%	31.02%	29.11%	26.96%	25.61%	24.78%	23.62%	22.78%	22.12%	21.50%	21.07%	21.11%	21.10%
Merchant solutions	59.30%	68.98%	70.89%	73.04%	74.39%	75.22%	76.38%	77.22%	77.88%	78.50%	78.93%	78.89%	78.90%
<b>Total Revenues</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
Subscription solutions	-8.12%	-6.61%	-5.73%	-5.48%	-5.23%	-4.99%	-4.80%	-4.62%	-4.48%	-4.36%	-4.27%	-4.28%	-4.28%
Merchant solutions	-37.03%	-40.77%	-40.47%	-43.49%	-43.58%	-43.93%	-44.94%	-45.25%	-45.65%	-46.07%	-46.28%	-46.27%	-46.28%
<b>Cost of revenues</b>	<b>-45.15%</b>	<b>-47.38%</b>	<b>-46.20%</b>	<b>-48.97%</b>	<b>-48.81%</b>	<b>-48.92%</b>	<b>-49.74%</b>	<b>-49.88%</b>	<b>-50.13%</b>	<b>-50.43%</b>	<b>-50.55%</b>	<b>-50.55%</b>	<b>-50.56%</b>
<b>Gross profit</b>	<b>54.85%</b>	<b>52.62%</b>	<b>53.80%</b>	<b>51.03%</b>	<b>51.19%</b>	<b>51.08%</b>	<b>50.26%</b>	<b>50.12%</b>	<b>49.87%</b>	<b>49.57%</b>	<b>49.45%</b>	<b>49.45%</b>	<b>49.44%</b>
Sales and marketing	-29.96%	-20.55%	-19.55%	-20.05%	-19.80%	-19.92%	-19.86%	-19.89%	-19.88%	-19.89%	-19.88%	-19.88%	-19.88%
Research and development	-22.50%	-18.85%	-18.53%	-19.96%	-19.11%	-19.20%	-19.42%	-19.24%	-19.29%	-19.32%	-19.28%	-19.30%	-19.30%
General and administrative	0.00%	-8.37%	-8.13%	-8.25%	-8.19%	-8.22%	-8.21%	-8.21%	-8.21%	-8.21%	-8.21%	-8.21%	-8.21%
Transaction and loan losses	0.00%	-1.77%	-1.77%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Total Operating Expenses</b>	<b>-52.46%</b>	<b>-49.54%</b>	<b>-47.97%</b>	<b>-48.26%</b>	<b>-47.10%</b>	<b>-47.34%</b>	<b>-47.49%</b>	<b>-47.35%</b>	<b>-47.37%</b>	<b>-47.41%</b>	<b>-47.37%</b>	<b>-47.39%</b>	<b>-47.39%</b>
<b>Income/Loss from operations</b>	<b>2.39%</b>	<b>3.08%</b>	<b>5.83%</b>	<b>2.78%</b>	<b>4.09%</b>	<b>3.74%</b>	<b>2.78%</b>	<b>2.77%</b>	<b>2.50%</b>	<b>2.16%</b>	<b>2.07%</b>	<b>2.06%</b>	<b>2.05%</b>
Interest income, net	3.05%	0.80%	0.33%	0.57%	0.31%	0.30%	0.22%	0.20%	0.17%	0.16%	0.16%	0.16%	0.16%
Interest expense	0.00%	-0.31%	-0.08%	0.18%	0.15%	0.12%	0.11%	0.09%	0.09%	0.08%	0.08%	0.08%	0.08%
Unrealized gain on equity and other investments	0.00%	4.61%	62.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Foreign exchange loss / gain	-0.18%	0.02%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Other income / expense</b>	<b>2.87%</b>	<b>5.13%</b>	<b>62.27%</b>	<b>0.75%</b>	<b>0.47%</b>	<b>0.42%</b>	<b>0.33%</b>	<b>0.29%</b>	<b>0.26%</b>	<b>0.24%</b>	<b>0.23%</b>	<b>0.24%</b>	<b>0.24%</b>
<b>Income / loss before income taxes</b>	<b>5.27%</b>	<b>8.20%</b>	<b>68.10%</b>	<b>3.52%</b>	<b>4.56%</b>	<b>4.16%</b>	<b>3.10%</b>	<b>3.07%</b>	<b>2.75%</b>	<b>2.40%</b>	<b>2.31%</b>	<b>2.30%</b>	<b>2.29%</b>
Provision for/ recovery of income taxes	-1.84%	2.70%	-4.90%	0.10%	0.13%	0.12%	0.09%	0.09%	0.08%	0.07%	0.06%	0.06%	0.06%
<b>Net income / loss</b>	<b>-7.91%</b>	<b>10.91%</b>	<b>63.20%</b>	<b>3.43%</b>	<b>4.43%</b>	<b>4.04%</b>	<b>3.02%</b>	<b>2.98%</b>	<b>2.68%</b>	<b>2.33%</b>	<b>2.24%</b>	<b>2.24%</b>	<b>2.23%</b>

Shopify, Inc

Common Size Balance Sheet

<b>Fiscal Years Ending Dec. 31</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>
Cash and cash equivalents	41.18%	92.29%	54.27%	34.05%	22.92%	16.09%	11.16%	8.19%	6.13%	4.50%	3.28%	2.27%	1.25%
Marketable securities	114.39%	125.77%	114.16%	81.84%	61.01%	46.94%	37.39%	30.96%	26.63%	23.86%	22.31%	21.72%	21.61%
Trade and other receivables	5.74%	4.12%	4.17%	4.17%	4.17%	4.17%	4.17%	4.17%	4.17%	4.17%	4.17%	4.17%	4.17%
Merchant cash advances receivable, net	9.52%	8.35%	10.21%	10.21%	10.21%	10.21%	10.21%	10.21%	10.21%	10.21%	10.21%	10.21%	10.21%
Income taxes receivable	0.00%	1.91%	0.11%	0.08%	0.06%	0.04%	0.03%	0.03%	0.02%	0.02%	0.02%	0.02%	0.02%
Other current assets	3.09%	2.33%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%	2.24%
<b>Total Current assets</b>	<b>173.92%</b>	<b>234.78%</b>	<b>185.16%</b>	<b>132.59%</b>	<b>100.60%</b>	<b>79.68%</b>	<b>65.19%</b>	<b>55.79%</b>	<b>49.40%</b>	<b>44.99%</b>	<b>42.22%</b>	<b>40.63%</b>	<b>39.49%</b>
Property and equipment	7.06%	3.14%	2.29%	2.41%	2.36%	2.23%	2.11%	2.01%	1.95%	1.94%	1.99%	2.11%	2.26%
Right-of-use assets	8.54%	4.07%	4.26%	2.84%	2.00%	1.46%	1.12%	0.90%	0.76%	0.67%	0.62%	0.60%	0.59%
Intangible assets	10.60%	4.63%	3.00%	1.73%	1.04%	0.64%	0.41%	0.28%	0.19%	0.14%	0.10%	0.08%	0.07%
Deferred tax assets	1.23%	1.80%	1.05%	0.73%	0.53%	0.40%	0.31%	0.25%	0.21%	0.18%	0.17%	0.16%	0.16%
Equity and other investments	0.00%	5.92%	85.77%	65.42%	51.89%	42.47%	35.99%	31.71%	29.02%	27.66%	27.52%	28.51%	30.17%
Goodwill	19.76%	10.65%	7.73%	5.41%	3.94%	2.96%	2.30%	1.86%	1.56%	1.36%	1.24%	1.18%	1.15%
<b>Long term assets</b>	<b>47.19%</b>	<b>30.22%</b>	<b>104.10%</b>	<b>78.54%</b>	<b>61.75%</b>	<b>50.17%</b>	<b>42.24%</b>	<b>37.00%</b>	<b>33.69%</b>	<b>31.95%</b>	<b>31.64%</b>	<b>32.63%</b>	<b>34.38%</b>
<b>Total assets</b>	<b>221.11%</b>	<b>264.99%</b>	<b>289.26%</b>	<b>211.13%</b>	<b>162.35%</b>	<b>129.85%</b>	<b>107.43%</b>	<b>92.79%</b>	<b>83.09%</b>	<b>76.95%</b>	<b>73.87%</b>	<b>73.26%</b>	<b>73.87%</b>
Accounts payable and accrued liabilities	11.48%	10.27%	9.90%	10.63%	10.63%	10.63%	10.63%	10.63%	10.63%	10.63%	10.63%	10.63%	10.63%
Income taxes payable	4.40%	0.67%	0.29%	0.20%	0.15%	0.11%	0.09%	0.07%	0.06%	0.05%	0.05%	0.04%	0.04%
Current portion of deferred revenue	3.59%	3.68%	4.70%	3.29%	2.39%	1.80%	1.40%	1.13%	0.95%	0.83%	0.76%	0.72%	0.70%
Current portion of lease incentives	0.57%	0.34%	0.34%	0.22%	0.15%	0.11%	0.09%	0.07%	0.06%	0.05%	0.05%	0.05%	0.05%
<b>Total Current Liabilities</b>	<b>20.05%</b>	<b>14.96%</b>	<b>15.24%</b>	<b>14.34%</b>	<b>13.32%</b>	<b>12.65%</b>	<b>12.20%</b>	<b>11.90%</b>	<b>11.69%</b>	<b>11.56%</b>	<b>11.48%</b>	<b>11.44%</b>	<b>11.41%</b>
Deferred revenue	0.38%	0.72%	3.53%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%
Lease liabilities	9.04%	4.94%	5.35%	3.74%	2.72%	2.05%	1.59%	1.29%	1.08%	0.94%	0.86%	0.82%	0.79%
Convertible senior notes	0.00%	25.88%	19.75%	16.38%	12.92%	10.57%	8.98%	7.91%	7.19%	6.73%	6.47%	6.38%	6.36%
Deferred tax liability	0.55%	0.00%	3.98%	2.78%	2.02%	1.52%	1.18%	0.96%	0.80%	0.70%	0.64%	0.61%	0.59%
<b>Total Long term Liabilities</b>	<b>9.97%</b>	<b>31.54%</b>	<b>32.61%</b>	<b>24.45%</b>	<b>19.21%</b>	<b>15.68%</b>	<b>13.30%</b>	<b>11.70%</b>	<b>10.62%</b>	<b>9.92%</b>	<b>9.52%</b>	<b>9.35%</b>	<b>9.28%</b>
<b>Total Liabilities</b>	<b>30.02%</b>	<b>46.50%</b>	<b>47.85%</b>	<b>38.79%</b>	<b>32.53%</b>	<b>28.33%</b>	<b>25.49%</b>	<b>23.59%</b>	<b>22.31%</b>	<b>21.48%</b>	<b>21.00%</b>	<b>20.78%</b>	<b>20.70%</b>
Common stock, unlimited	210.30%	217.67%	177.83%	124.43%	90.53%	67.98%	52.84%	42.71%	35.86%	31.35%	28.62%	27.19%	26.40%
Accumulated other comprehensive income / loss	0.07%	0.30%	-0.13%	-0.09%	-0.07%	-0.05%	-0.04%	-0.03%	-0.03%	-0.02%	-0.02%	-0.02%	-0.02%
Retained earnings / accumulated deficit	-19.28%	0.52%	63.71%	48.00%	39.36%	33.59%	29.13%	26.52%	24.94%	24.14%	24.28%	25.30%	26.79%
<b>Total shareholders' equity</b>	<b>191.09%</b>	<b>218.49%</b>	<b>241.41%</b>	<b>172.34%</b>	<b>129.82%</b>	<b>101.52%</b>	<b>81.93%</b>	<b>69.20%</b>	<b>60.78%</b>	<b>55.47%</b>	<b>52.87%</b>	<b>52.48%</b>	<b>53.17%</b>
<b>Total liabilities and shareholders' equity</b>	<b>221.11%</b>	<b>264.99%</b>	<b>289.26%</b>	<b>211.13%</b>	<b>162.35%</b>	<b>129.85%</b>	<b>107.43%</b>	<b>92.79%</b>	<b>83.09%</b>	<b>76.95%</b>	<b>73.87%</b>	<b>73.26%</b>	<b>73.87%</b>



Shopify, Inc  
Value Driver Estimation

Fiscal Years Ending Dec. 31	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
<b>NOPLAT:</b>													
<b>EBITA:</b>													
Revenue	1,578,173	2,929,491	4,611,856	6,591,375	9,059,071	12,065,193	15,520,615	19,204,274	22,872,041	26,160,219	28,663,237	30,163,645	31,071,015
Cost of revenues	(712,530)	(1,387,971)	(2,130,712)	(3,227,561)	(4,421,693)	(5,902,496)	(7,719,475)	(9,578,677)	(11,465,856)	(13,192,620)	(14,490,177)	(15,246,914)	(15,708,950)
Sales and marketing	(472,841)	(602,048)	(901,557)	(1,321,570)	(1,793,635)	(2,403,948)	(3,082,704)	(3,820,369)	(4,546,427)	(5,202,088)	(5,698,703)	(5,997,599)	(6,177,712)
Research and development	(355,015)	(552,127)	(854,383)	(1,315,382)	(1,731,161)	(2,316,179)	(3,014,259)	(3,695,408)	(4,411,318)	(5,053,333)	(5,526,887)	(5,820,171)	(5,996,118)
General and administrative	-	(245,343)	(374,844)	(543,880)	(741,903)	(991,819)	(1,273,475)	(1,577,204)	(1,877,546)	(2,147,975)	(2,353,217)	(2,476,545)	(2,550,968)
Transaction and loan losses	-	(51,849)	(81,717)	-	-	-	-	-	-	-	-	-	-
Right-of-use assets	7,120	6,306	10,375	9,884	9,549	9,335	9,216	9,172	9,188	9,251	9,352	9,484	9,641
<b>EBITA</b>	<b>44,907</b>	<b>96,459</b>	<b>279,018</b>	<b>192,868</b>	<b>380,228</b>	<b>460,086</b>	<b>439,919</b>	<b>541,788</b>	<b>580,082</b>	<b>573,454</b>	<b>603,604</b>	<b>631,901</b>	<b>646,909</b>
<b>Adjusted Taxes:</b>													
Marginal Tax Rate:	34.92%	-21.89%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%
Provision for/ recovery of income taxes	(29,027)	79,145	(225,933)	6,533	11,610	14,104	13,546	16,556	17,715	17,650	18,601	19,506	20,029
Interest income, net	(16,826)	5,129	(432)	(1,056)	(796)	(1,007)	(975)	(1,076)	(1,114)	(1,192)	(1,257)	(1,337)	(1,417)
Interest expense	-	1,988	(98)	331	391	423	460	503	548	592	634	668	692
Unrealized gain on equity and other investments	-	29,588	(80,416)	-	-	-	-	-	-	-	-	-	-
Foreign exchange loss / gain	(995)	(146)	8	-	-	-	-	-	-	-	-	-	-
<b>Less: Adjusted Taxes</b>	<b>(46,849)</b>	<b>115,704</b>	<b>(306,871)</b>	<b>5,807</b>	<b>11,205</b>	<b>13,520</b>	<b>13,032</b>	<b>15,982</b>	<b>17,148</b>	<b>17,050</b>	<b>17,977</b>	<b>18,837</b>	<b>19,303</b>
<b>Plus: Change in deferred taxes</b>	<b>(11,811)</b>	<b>(41,998)</b>	<b>187,735</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>
<b>NOPLAT</b>	<b>79,944</b>	<b>(61,243)</b>	<b>773,623</b>	<b>187,060</b>	<b>369,023</b>	<b>446,565</b>	<b>426,886</b>	<b>525,806</b>	<b>562,933</b>	<b>556,404</b>	<b>585,626</b>	<b>613,063</b>	<b>627,605</b>
<b>Invested Capital (IC):</b>													
<b>Operating Assets:</b>													
Normal cash	332,080	616,425	970,429	1,386,961	1,906,215	2,538,765	3,265,856	4,040,974	4,812,748	5,504,648	6,031,334	6,347,051	6,537,980
Trade and other receivables	90,529	120,752	192,209	274,710	377,556	502,843	646,855	800,379	953,241	1,090,283	1,194,602	1,257,135	1,294,951
Merchant cash advances receivable, net	150,172	244,723	470,722	672,767	924,639	1,231,468	1,584,155	1,960,138	2,334,499	2,670,116	2,925,594	3,078,737	3,171,350
Income taxes receivable	-	56,067	5,023	5,023	5,023	5,023	5,023	5,023	5,023	5,023	5,023	5,023	5,023
Other current assets	48,833	68,247	103,273	147,600	202,859	270,175	347,552	430,040	512,172	585,804	641,854	675,453	695,771
<b>Total Operating Assets:</b>	<b>621,614</b>	<b>1,106,214</b>	<b>1,741,656</b>	<b>2,487,061</b>	<b>3,416,293</b>	<b>4,548,273</b>	<b>5,849,441</b>	<b>7,236,554</b>	<b>8,617,683</b>	<b>9,855,874</b>	<b>10,798,407</b>	<b>11,363,398</b>	<b>11,705,076</b>
<b>Operating Liabilities:</b>													
Accounts payable and accrued liabilities	181,193	300,795	456,688	700,423	962,650	1,282,091	1,649,277	2,040,716	2,430,466	2,779,880	3,045,860	3,205,299	3,301,719
Income taxes payable	69,432	19,677	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505
Current portion of deferred revenue	56,691	107,809	216,792	216,792	216,792	216,792	216,791	216,791	216,791	216,791	216,791	216,791	216,791
Current portion of lease incentives	9,066	10,051	15,748	14,448	13,958	13,645	13,471	13,407	13,430	13,522	13,670	13,863	14,092
<b>Total Operating Liabilities:</b>	<b>316,382</b>	<b>438,332</b>	<b>702,733</b>	<b>945,169</b>	<b>1,206,904</b>	<b>1,526,033</b>	<b>1,893,044</b>	<b>2,284,419</b>	<b>2,674,192</b>	<b>3,023,698</b>	<b>3,289,826</b>	<b>3,449,457</b>	<b>3,546,107</b>
<b>Net Operating Working Capital</b>	<b>305,232</b>	<b>667,882</b>	<b>1,038,923</b>	<b>1,541,892</b>	<b>2,209,388</b>	<b>3,022,240</b>	<b>3,956,397</b>	<b>4,952,135</b>	<b>5,943,491</b>	<b>6,832,176</b>	<b>7,508,581</b>	<b>7,913,941</b>	<b>8,158,969</b>
<b>LT Operating Assets:</b>													
Property and equipment	111,398	92,104	105,526	158,844	213,473	269,446	326,796	385,556	445,763	507,450	570,655	635,414	701,767
Intangible assets	167,282	135,676	138,496	114,016	94,084	77,636	64,064	52,864	43,623	35,997	29,704	24,511	20,226
Right-of-use assets	134,774	119,373	196,388	187,108	180,759	176,706	174,455	173,627	173,923	175,117	177,031	179,528	182,502
<b>LT Operating Liabilities:</b>													
Deferred revenue	5,969	21,006	162,932	101,687	139,756	186,133	239,440	296,269	352,852	403,580	442,194	465,342	479,340
Income taxes payable	69,432	19,677	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505
<b>Invested Capital (IC):</b>	<b>338,053</b>	<b>306,470</b>	<b>263,973</b>	<b>344,776</b>	<b>335,054</b>	<b>324,150</b>	<b>312,370</b>	<b>302,273</b>	<b>296,951</b>	<b>301,479</b>	<b>321,690</b>	<b>360,607</b>	<b>411,651</b>
<b>Free Cash Flow (FCF):</b>													
NOPLAT	79,944	(61,243)	773,623	187,060	369,023	446,565	426,886	525,806	562,933	556,404	585,626	613,063	627,605
Change in IC	252,250	(31,583)	(42,497)	80,803	(9,722)	(10,904)	(11,780)	(10,096)	(5,322)	4,528	20,211	38,917	51,044
<b>FCF</b>	<b>(172,306)</b>	<b>(29,660)</b>	<b>816,120</b>	<b>106,257</b>	<b>378,745</b>	<b>457,469</b>	<b>438,667</b>	<b>535,902</b>	<b>568,255</b>	<b>551,876</b>	<b>565,415</b>	<b>574,146</b>	<b>576,562</b>
<b>Return on Invested Capital (ROIC):</b>													
NOPLAT	79,944	(61,243)	773,623	187,060	369,023	446,565	426,886	525,806	562,933	556,404	585,626	613,063	627,605
Beginning IC	85,803	338,053	306,470	263,973	344,776	335,054	324,150	312,370	302,273	296,951	301,479	321,690	360,607
<b>ROIC</b>	<b>93.17%</b>	<b>-18.12%</b>	<b>252.43%</b>	<b>70.86%</b>	<b>107.03%</b>	<b>133.28%</b>	<b>131.69%</b>	<b>168.33%</b>	<b>186.23%</b>	<b>187.37%</b>	<b>194.25%</b>	<b>190.58%</b>	<b>174.04%</b>
<b>Economic Profit (EP):</b>													
Beginning IC	85,803	338,053	306,470	263,973	344,776	335,054	324,150	312,370	302,273	296,951	301,479	321,690	360,607
x (ROIC - WACC)	79.27%	-32.02%	238.53%	56.96%	93.13%	119.38%	117.79%	154.43%	172.33%	173.47%	180.35%	176.67%	160.14%
<b>EP</b>	<b>68,016</b>	<b>(108,237)</b>	<b>731,020</b>	<b>150,364</b>	<b>321,094</b>	<b>399,988</b>	<b>381,825</b>	<b>482,382</b>	<b>520,913</b>	<b>515,124</b>	<b>543,717</b>	<b>568,344</b>	<b>577,476</b>

## Shopify, Inc

### Weighted Average Cost of Capital (WACC) Estimation

#### Cost of Equity:

Risk-Free Rate	2.49%
Beta	2.25
Equity Risk Premium	5.15%
<b>Cost of Equity</b>	<b>14.09%</b>

#### ASSUMPTIONS:

10-year Treasury bond  
Average of 1, 2, and 5-year weekly/monthly betas  
Henry Fund Estimate

#### Cost of Debt:

Risk-Free Rate	2.49%
Implied Default Premium	-1.22%
Pre-Tax Cost of Debt	1.27%
Marginal Tax Rate	3%
<b>After-Tax Cost of Debt</b>	<b>1.23%</b>

10-year Treasury bond

YTM on company's 5-year corporate bond

#### Market Value of Common Equity:

Total Shares Outstanding	124,700
Current Stock Price	\$593.11
<b>MV of Equity</b>	<b>73,960,817.00</b>

#### MV Weights

98.52%

#### Market Value of Debt:

Short-Term Debt	0
Current Portion of LTD	0
Long-Term Debt	911,000
PV of Operating Leases	196,388
<b>MV of Total Debt</b>	<b>1,107,388.00</b>

FactSet

FactSet

FactSet

1.48%

#### Market Value of the Firm

75,068,205.00

100.00%

Estimated WACC

13.90%

## Shopify, Inc

### Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

#### Key Inputs:

CV Growth of NOPLAT	3.00%
CV Year ROIC	174.04%
WACC	13.90%
Cost of Equity	14.09%

Fiscal Years Ending Dec. 31	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
-----------------------------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

#### DCF Model:

Free Cash Flow (FCF)	106,257	378,745	457,469	438,667	535,902	568,255	551,876	565,415	574,146	576,562
Continuing Value (CV)										5,657,927
PV of FCF	93,288	291,937	309,582	260,627	279,539	260,239	221,892	199,590	177,936	1,753,475

Value of Operating Assets:	3,848,105
Non-Operating Adjustments:	
Excess cash	857,597
Marketable securities	5,394,623
Right-of-use assets	(187,108)
Equity and other investments	4,311,961
Convertible senior notes	(1,079,776)
Value of Equity	13,145,401
Shares Outstanding	125,977.2
Intrinsic Value of Last FYE	\$ 104.35
<b>Implied Price as of Today</b>	<b>\$ 107.99</b>

#### EP Model:

Economic Profit (EP)	150,364	321,094	399,988	381,825	482,382	520,913	515,124	543,717	568,344	577,476
Continuing Value (CV)										5,297,320
PV of EP	132,013	247,500	270,683	226,856	251,622	238,558	207,115	191,930	176,138	1,641,717

Total PV of EP	3,584,132
Invested Capital (last FYE)	263,973
Value of Operating Assets:	3,848,105
Non-Operating Adjustments:	
Excess cash	857,597
Marketable securities	5,394,623
Right-of-use assets	(187,108)
Equity and other investments	4,311,961
Convertible senior notes	(1,079,776)
Value of Equity	13,145,401
Shares Outstanding	125,977
Intrinsic Value of Last FYE	\$ 104.35
<b>Implied Price as of Today</b>	<b>\$ 107.99</b>

## Shopify, Inc

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

<b>Fiscal Years Ending Dec. 31</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>
------------------------------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------

EPS	\$ 1.79	\$ 3.15	\$ 3.79	\$ 3.61	\$ 4.37	\$ 4.63	\$ 4.62	\$ 4.86	\$ 5.10	\$ 5.24
-----	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------

### Key Assumptions

CV growth of EPS	3.00%
CV Year ROE	4.37%
Cost of Equity	14.09%

### Future Cash Flows

P/E Multiple (CV Year)											2.83
EPS (CV Year)											\$ 5.24
Future Stock Price											\$ 14.83
Dividends Per Share	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Discounted Cash Flows	0	0	0	0	0	0	0	0	0	0	\$ 4.53

Intrinsic Value as of Last FYE \$ 4.53

**Implied Price as of Today \$ 4.69**

**Shopify, Inc***Relative Valuation Models*

Ticker	Company	Price	EPS 2022E	EPS 2023E	P/E 22	P/E 23	Est. 5yr EPS gr.	PEG 22	PEG 23
SQ	Block	\$145.19	(\$0.29)	\$0.44	(500.66)	329.98	39.91	(12.54)	8.27
FISV	Fiserv	\$103.18	\$3.88	\$4.84	26.59	21.32	15.56	1.71	1.37
FIS	Fidelity National Inform	\$103.26	\$2.41	\$3.33	42.85	31.01	13.67	3.13	2.27
PYPL	PayPal	\$121.86	\$3.07	\$4.15	39.69	29.36	17.26	2.30	1.70
MA	Mastercard	\$366.91	\$10.23	\$12.67	35.87	28.96	24.69	1.45	1.17
V	Visa	\$227.74	\$7.10	\$8.42	32.08	27.05	18.36	1.75	1.47
Average					<b>35.42</b>	<b>27.54</b>		<b>2.07</b>	<b>1.60</b>
SHOP	Shopify, Inc	\$593.11	\$1.79	\$3.15	330.9	188.1	(28.51)	(11.6)	(6.6)

**Implied Relative Value:**

P/E (EPS22)	\$	<b>63.47</b>
P/E (EPS23)	\$	<b>86.84</b>
PEG (EPS22)	\$	<b>(105.69)</b>
PEG (EPS23)	\$	<b>(143.58)</b>



**Shopify, Inc***Present Value of Operating Lease Obligations*

<b>Fiscal Years Ending Dec. 31</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Year 1	5,804	10,444	15,271	43,972	25,665	23,446	37,980
Year 2	7,809	12,537	24,802	58,555	40,424	43,257	49,005
Year 3	7,907	16,601	28,768	47,443	48,839	43,183	53,588
Year 4	7,958	16,723	29,497	34,378	41,111	53,957	56,860
Year 5	8,070	16,356	29,016	38,788	48,175	53,535	57,534
Thereafter	42,594	91,794	235,667	346,367	366,675	385,392	366,330
Total Minimum Payments	80142.0	164455.0	363021.0	569503.0	570889.0	602770.0	621297.0
Less: Cumulative Interest	5720.4	12001.9	31801.8	48608.6	48619.5	50600.5	47943.4
<b>PV of Minimum Payments</b>	<b>74421.6</b>	<b>152453.1</b>	<b>331219.2</b>	<b>520894.4</b>	<b>522269.5</b>	<b>552169.5</b>	<b>573353.6</b>
<b>Implied Interest in Year 1 Payment</b>	<b>#REF!</b>	<b>945.2</b>	<b>1936.2</b>	<b>4206.5</b>	<b>6615.4</b>	<b>6632.8</b>	<b>7012.6</b>
Pre-Tax Cost of Debt	1.27%	1.27%	1.27%	1.27%	1.27%	1.27%	1.27%
Years Implied by Year 6 Payment	5.4	5.6	8.1	8.9	7.6	7.2	6.4
Expected Obligation in Year 6 & Beyond	7958	16356	29016	38788	48175	53535	57534
<b>Present Value of Lease Payments</b>							
PV of Year 1	5731.2	10313.0	15079.5	43420.6	25343.1	23152.0	37503.7
PV of Year 2	7614.4	12224.5	24183.8	57095.6	39416.5	42178.9	47783.6
PV of Year 3	7613.2	15984.2	27699.2	45680.4	47024.5	41578.6	51597.1
PV of Year 4	7566.3	15899.8	28044.9	32685.7	39087.2	51300.8	54060.9
PV of Year 5	7471.4	15355.8	27241.7	36416.1	45229.1	50261.3	54015.8
PV of 6 & beyond	38425.2	82675.7	208970.1	305596.1	326169.1	343697.9	328392.6
Capitalized PV of Payments	74421.6	152453.1	331219.2	520894.4	522269.5	552169.5	573353.6

**Shopify, Inc**

*Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding*

Number of Options Outstanding (shares):	7,455
Average Time to Maturity (years):	5.84
Expected Annual Number of Options Exercised:	1,277

Current Average Strike Price:	\$ 116.00
Cost of Equity:	14.09%
Current Stock Price:	\$593.11

<b>Fiscal Years Ending Dec. 31</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>
Increase in Shares Outstanding:	1,277	1,277	1,277	1,277	1,277	1,073	0	0	0	0
Average Strike Price:	\$ 116.00	\$ 116.00	\$ 116.00	\$ 116.00	\$ 116.00	\$ 116.00	\$ 116.00	\$ 116.00	\$ 116.00	\$ 116.00
<b>Increase in Common Stock Account:</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>124</b>	-	-	-	-
Share Repurchases (\$)	0	0	0	0	0	0	0	0	0	0
Expected Price of Repurchased Shares:	\$ 593.11	\$ 676.68	\$ 772.04	\$ 880.82	\$ 1,004.94	\$ 1,146.55	\$ 1,308.10	\$ 1,492.43	\$ 1,702.73	\$ 1,942.66
<b>Number of Shares Repurchased:</b>	-	-	-	-	-	-	-	-	-	-
Shares Outstanding (beginning of the year)	124,700	125,977	127,254	128,532	129,809	131,086	132,159	132,159	132,159	132,159
Plus: Shares Issued Through ESOP	1,277	1,277	1,277	1,277	1,277	1,073	0	0	0	0
Less: Shares Repurchased in Treasury	-	-	-	-	-	-	-	-	-	-
<b>Shares Outstanding (end of the year)</b>	<b>125,977</b>	<b>127,254</b>	<b>128,532</b>	<b>129,809</b>	<b>131,086</b>	<b>132,159</b>	<b>132,159</b>	<b>132,159</b>	<b>132,159</b>	<b>132,159</b>



**Shopify, Inc***Valuation of Options Granted under ESOP*

Current Stock Price	\$593.11
Risk Free Rate	2.49%
Current Dividend Yield	0.00%
Annualized St. Dev. of Stock Returns	40.00%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	3,812	54.59	6.14	\$ 546.50	\$ 2,083,260
Range 2	2,489	103.76	5.45	\$ 504.14	\$ 1,254,806
Range 3	1,154	345.23	5.67	\$ 345.65	\$ 398,885
Total	7,455	\$ 116.00	5.84	\$ 495.58	<b>\$ 3,736,951</b>