

Shopify (TSE: SHOP)

Time to Checkout

Shopify Inc. (TSE: SHOP) is a cloud-based, multichannel e-Commerce platform based in Ottawa, Ontario. As the largest technology company in Canada by market capitalization, Shopify has experienced a meteoric rise in 2020 as COVID-19 accelerates the already-rapid adoption of digital retail.

This report performs a deep dive on Shopify's business model, management, industry, and growth prospects. A first-hand customer POV is also provided, along with a discussion on Shopify's Total Addressable Market and valuation.

The TMT team believes that Shopify is an exceptional company because:

- 1) It has a strong and defensible business model with high recurring revenues
- 2) It is well-positioned as a market leader by a wide and growing margin
- 3) It is playing in an extremely large market, bustling with opportunities for growth

The TMT team believes that while Shopify's business fundamentals are sound, the current price is overvalued even for a fast-growing company. The TMT team will place Shopify on its watchlist and aims to enter a long position at roughly \$1000.

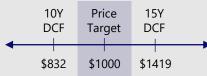
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RESEARCH REPORT

November 16, 2020

Stock Rating HOLD Price Target CAD 1000.00



Ticker	SHOP
Market Cap (\$B)	147.23
EV/Revenue	43.4x
P/E	584.97x

52 Week Performance



 S&P/TSX Capped Information Technology Index

Tech., Media & Telecom

Will Cao wcao@quiconline.com

Allen Chen achen@quiconline.com

Nikola Cugalj ncugalj@quiconline.com

Esha James ejames@quiconline.com

Alton Loveys aloveys@quiconline.com



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Customer POV by Allen Chen

Introduction

I have been involved in developing e-commerce businesses, on and off, since 2013. Google search and reviews from trusted sources was/is my best friend in making decisions, including which e-commerce platform to use as the foundation of my stores. The following text describes my journey as a seller, my personal thoughts on Shopify, and overall takeaways from my experience.

Initially Picking WooCommerce

I started my first e-commerce store in 2013. As a new and inexperienced seller, the decision was between Shopify (hosted e-Commerce platform) and WooCommerce (self-hosted e-Commerce platform). To my knowledge, other website-building platforms such as Squarespace, Wix, and Weebly, did not offer comprehensive e-commerce solutions at the time. After testing both Shopify and WooCommerce platforms, Shopify seemed simple-to-use but limited in flexibility and power. The WooCommerce plugin for WordPress seemed far more powerful, versatile, and customizable.

WooCommerce and WordPress were (and still are) the leaders in e-commerce and website building, with WordPress hosting 39% of the web. Operating with a limited budget, the WooCommerce and WordPress combination was a far superior cost option. They are both free-to-setup and free-to-use platforms, meaning that a seller only pays for hosting, which can start for less than \$15 per year. Shopify's services started from \$29 per month or \$348 per year, costing 23 times more relative to competitors.

Switching Over to Shopify

My most recent business began its journey on WordPress in 2018 and moved to Shopify in late 2019. I decided to make the switch for several reasons:

 User Experience (UX): The UX was far superior on Shopify. WordPress was powerful but hard to look

- at, cluttered, and slow at times. Shopify was cleaner, intuitive, and very easy to use. It made it so that someone with no technical knowledge could setup a store in an hour.
- 2) Design and Aesthetic: Shopify stores looked better than WooCommerce stores, primarily due to the well-designed and more modern theme options that were available for the former. Although WordPress is open source, those without strong technical knowledge (including myself and my cofounder) cannot design a better theme themselves.
- 3) Stronger e-Commerce and Multi-channel Integration: Shopify felt more deeply integrated with business-critical features, such as shipping and fulfillment, multi-channel selling, and multi-channel advertising. The company is rapidly introducing more integrations to increase stickiness of merchants, such as Shopify Email and Shopify Capital.
- 4) Support: Shopify had a dedicated support team, while WooCommerce felt more DIY.
- Shopify was cooler, more "hip", which was a material factor for us given that we thought of ourselves as a cool and hip business.

Setting Up Shopify

Someone with no technical or e-Commerce experience can set up a Shopify e-Commerce website in under an hour. After signing up, Shopify guides you through a step-by-step tutorial to create your first product, populate the website, and set up the backend (e.g. payment processors). It requires no knowledge in code or design.



Customer POV by Allen Chen

What Would Make Me Leave Shopify?

As a merchant on Shopify, very few things would drive me to leave. If Shopify slowly doubled its prices, I would probably stay. If Shopify launched a few features that were not useful, I would probably stay. The more I use Shopify's platform and its plugins, the more compelled I am to stay given the time and content investment our company has on the platform. Our products, customer contacts, order history, email lists, payment information, analytics, and more, are all linked to our Shopify account.

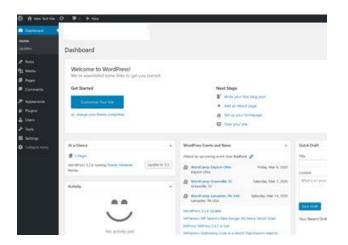
Ultimately, a series of material issues would have to arise for me to even consider switching to another platform. Even then, I would hesitate given how much of a hassle it is for us to switch stores. We only sell a few products so I imagine it would be even harder for larger stores with more orders and products.

Thoughts on Shopify After One Year of Use

After switching to Shopify as a long-time user of WooCommerce, I have no regrets. While on paper, the features and functionality are very similar, Shopify provided a superior selling experience for me. It eliminated the need for me to touch anything technical or try to fix any bugs, (which was a semiconstant annoyance on WooCommerce/WordPress) and focus on more important parts of the business: selling to customers.

EXHIBIT I

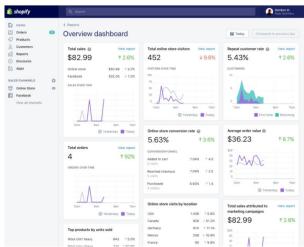
WordPress Dashboard



Source(s): WPBeginner

EXHIBIT II

Shopify Dashboard



Source(s): Shopify



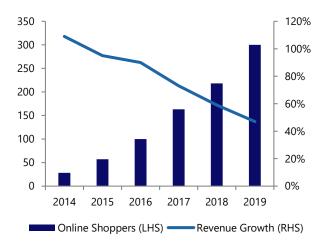
Company Overview

Overview

Ottawa-based Shopify is a leading cloud-based e-Commerce platform designed for small-to-mediumsized businesses (SMBs), currently hosting +1M merchants across 175 countries. Merchants use Shopify to set up online storefronts rich with retail functionality in conjunction with managing major social media channels and brick & mortar shops. Shopify aims to optimize the omni-channel retail operating system for SMBs by providing merchants with a single aggregated view of all their businesses and customers across all sales channels. This enables them to manage shipments, products and inventory, process orders and payments, leverage analytics, report financials and more, all from one deeply integrated, well-oiled back office. Shopify's fundamental strategy to simplify business processes and eliminate merchant pain points serves as the firm's backbone and has driven strong organic growth over the past decade.

EXHIBIT III

Online Shoppers (M) vs. Revenue Growth



Source(s): Company Filings

A Win-Win-Win Solution

As a company at the forefront of e-commerce, Shopify is striving to revolutionize the retail industry by moving toward a proposed Simplex Retail model. This involves retailers curating the showrooms and suppliers carrying and directly shipping the inventory from warehouse to end consumer- a linear supply chain all hosted on the ubiquitous, streamlined Shopify platform that minimizes costs for every entity.

Under a Simplex Retail model, merchants will generate up to \$50,000 in annual cost savings from smaller inventories, less storage space required, fewer employees in addition to time savings from bypassing maintaining a complex supply chain. The attractive economics of this model will continue to attract new merchants to the Shopify platform, as has already been occurring considering the firm crossed the 1 million merchant mark in Q2 2019- up 22% from a year earlier. The speed of merchant adoption has undoubtedly accelerated amid COVID-19, as retailers are forced to move to a virtual platform.

Shopify is well aligned with the idea of the consumer journey, leveraging their deep understanding of consumer purchase decisions being influenced over time and across various online and offline sales channels. The firm's commitment to merchant success is evident through its business model- one where revenues are derived from monthly recurring subscriptions and their clients' performance through fees and add-on solutions. Shopify's value proposition is bucketed into three key components that are all fortified by this merchant-centric business model.

Key Value Proposition

I. Multi-Channel Front End: Shopify's software allows merchants to seamlessly display, manage, and sell their products across multiple sales channels, including web and mobile storefronts, physical retail locations, pop-



Company Overview

up shops, social media storefronts, native mobile apps, buy buttons, and marketplaces. Over two-thirds of Shopify's merchants employ at least two or more channels, benefiting both merchants and Shopify, who derives revenues from merchant performance and gross merchant value (GMV).

II. Single Integrated Back End: Shopify has become a household name due to its single integrated, easy-to-use user interface that merchants use to manage their omni-channel platform and bypass technical, operational, and financial barriers. The dashboard is available in over 20 languages and has over 3,700 applications in its ecosystem, allowing for ample opportunities to increase revenues for both merchants and Shopify incrementally.

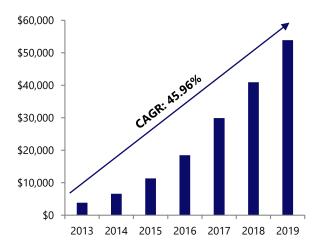
III. Data Advantage: As the number of merchants, transactions, and customers grows on Shopify's SaaS platform, it improves its data proficiency. The cloud-based infrastructure is a significant value add for

merchants as it relieves them from operating their own hardware and, more importantly, consolidates data across millions of merchant transactions on the Shopify platform, allowing the firm to provide specific insights and develop critical applications for its storefronts that will drive up take rates.

Additionally, Shopify can also use this data accumulation to generate and better their services, such as Shopify Capital and Payments, as they are aware of what merchants will be successful at and how much capital they will need. For the first time, merchants are receiving enterprise-level data intelligence at nearly no cost- an unassailable offering and one that snowballs into a cash-generating network effect.

EXHIBIT IV

Monthly Recurring Revenue At Period End (\$K)



Source(s): Company Filings

EXHIBIT V

Gross Merchant Value (\$B) vs. Number of Merchants (K)





Revenue Model Breakdown

How Does Shopify Make Money?

Shopify is supported by two main revenue drivers: subscription solutions and merchant solutions.

I. Subscription Solutions Revenue

Subscription revenue stems from the sale of monthly subscriptions to the Shopify platform. Subscription fees are generally on a one-month term. The monthly recurring revenue (MRR) averages Shopify's various pricing plans and billing periods into a single number that is used to track the recurring nature of the subscription revenue. It is calculated by multiplying the number of merchants by the cost of their plan.

Shopify also has several subscription pricing tiers that reflect the different needs and stages of merchants. Pricing ranges from the \$29/month Basic package to \$2000/month for enterprise-focused Shopify Plus.

II. Merchant Solutions Revenue

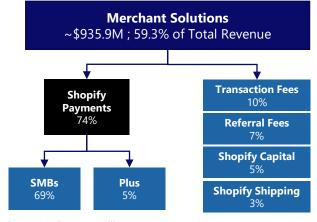
Simply put, merchant revenue is Shopify's "cut" for transactions flowing through its platform. This includes processing fees from Shopify Payments, referral fees from partners and sales of point-of-sale hardware. Fees are calculated as a percentage of the dollar amount processed, and the growth of this revenue stream is highly contingent on the success of the merchants Shopify's hosts.

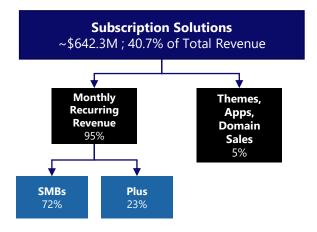
An important figure to track Merchant Solutions revenue is gross merchandise volume (GMV), which is the total dollar value of orders facilitated through Shopify. GMV growth is driven by up-selling with deeper integrations and gained traction of larger, higher-margin merchants through Shopify Plus, including Nestle, Red Bull, and Kylie Cosmetics (Exhibit V).

EXHIBIT VI

Shopify Revenue Segment Breakdown in FY2019

Shopify ~\$1,578.3M Revenue FY2019







Revenue Model Breakdown

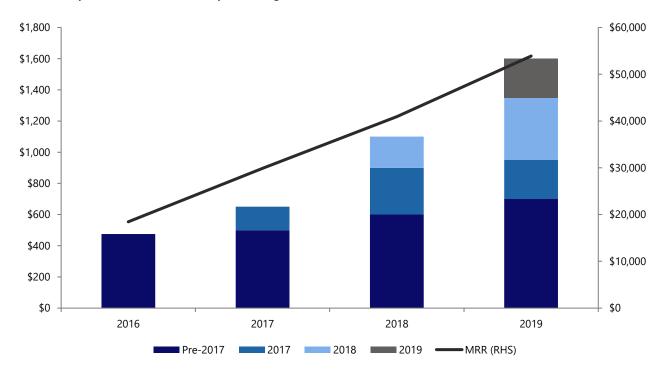
Trends Analysis

Historically, subscription solutions have been Shopify's core offering; however, merchant solutions, the supplementary part of the business, have quickly outpaced subscription growth, representing over 50% of total sales today. The growth of the merchant solutions business segment can be attributed to the increased roll-up of a growing number of merchant-related services- the most notable being Shopify Payments- and an addition of high-value Shopify Plus merchants that generate higher average revenue on a per unit basis (ARPU).

Despite the positive outlook, Shopify's merchant solutions segment lags behind its counterparts in terms of profitability due to its associated high operating costs (64% of revenue) versus subscription costs (19% of revenue). The lower margins the supplementary segment faces are due to the need for third-party partnerships, such as Stripe, which provide ancillary services that Shopify does not manufacture in-house. Shopify must aim to optimize merchant solutions to take better advantage of the segment's high growth and cross-selling opportunities.

EXHIBIT VII

Revenue by Cohort (\$M) vs. Monthly Recurring Revenue At Period End (\$K)





Cost Model Breakdown

Subscription Solutions

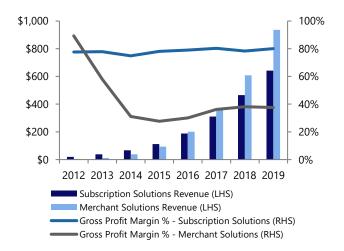
Shopify has consistently enjoyed relatively high gross profit margins in the subscription solutions segment of their business. Fluctuant cost drivers associated with this segment of their business are minimal; billing processing, merchant support, salaries and third-party deals generally only shift based on the choice of customer subscription plan. For example, the low-cost Basic Shopify plan may derive a slightly lower margin than the Advanced Shopify. Historical numbers indicate that the relative costs are unlikely to undergo drastic change in the near future.

Merchant Solutions

Cost drivers that fall under the merchant solutions of Shopify's business model primarily consist of interchange fees in the US associated with collecting payments; credit card companies and Stripe take a fee for each transaction. To improve margins, Shopify would have to eliminate costs of deals done with

EXHIBIT VIII

Gross Margin % and Segmented Revenue (\$M)



Source(s): Company Filings, S&P Capital IQ

third-party companies. This means the furthered development of in-house payment system "Shopify Pay" and the creation of an in-house logistics network would be needed. Payment systems and logistics networks are both mature markets and it would be difficult to construct comprehensive systems while simultaneously maintaining strong liquidity.

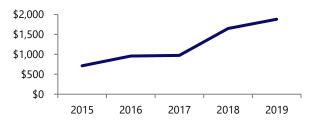
Shopify's Unit Economics

The growth of Shopify is highly contingent on strengthening their unit economics. Over the past 5 years, Shopify has seen a rough increase in CAC from \$713.13 to \$1,882.89. This can likely be attributed to two factors: the slowing of organic, word-of-mouth marketing among small businesses and the increasing necessity to replace SMB customers lost to business failure. At such a scale, it is inevitable that a sizeable percentage of Shopify customers fail each year; 20% of new small businesses in the U.S. close within a year.

Considering that Shopify typically reaps a small percentage of customer's revenues, the productivity and success of their clients is important; high-quality users lead to high-quality returns for Shopify. If Shopify can continue on their path of forging deals with larger corporations such as Hasbro, Heinz and The Economist, larger CAC can be justified as they will derive more value and revenues from their deals.

EXHIBIT IX

Customer Acquisition Cost



Source(s): Company Filings, US Small Business Administration



Management Analysis

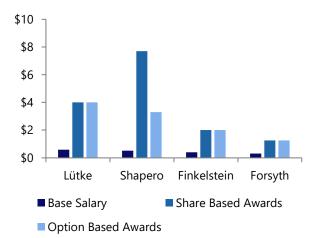
Overview

Shopify is led by co-founder, CEO & CPO Tobias Lütke, an eccentric German-born Canadian entrepreneur, computer programmer and high school dropout. Lütke originally co-founded Shopify in 2004 as an online snowboard shop before realizing the e-commerce system he built was much more valuable. Lütke is truly the beating heart behind Shopify's operations; he has steadfastly led the company from inception to a ~\$148 billion market capitalization.

Beyond Lütke, there are three other key executives. Chief Financial Officer Amy Shapero was hired in 2018 and has held many strategic management positions, including CFO of Betterment and Vice President of DigitalGlobe. President Harley Finkelstein is an entrepreneur who met Lütke in 2009 and joined full time in 2010. Brittany Forsyth joined Shopify in the HR department in 2010 and was instrumental in taking Shopify from 40 to 4,000 employees. She was promoted to Chief Talent Officer in 2010.

EXHIBIT X

2018 Compensation Breakdown (\$M)



Source(s): Company Filings

Management Compensation Structure

When Shopify's board of directors set out to determine how to compensate executives at the company, they prioritized incentivization and nurturance of the strong internal culture Lütke has built. Shopify works with compensation consulting firm Compensia to ensure their ability to attract and retain high-performing executives. Other notable Compensia clientele include Snap, Grubhub, Etsy, Square and Yelp.

Base salary is generally unimportant at Shopify – it is decided based upon internal fairness, general market data and breadth of responsibilities. None of Shopify's executives make over \$1 million in base salary.

Long-term incentives are earned through individual impact, CEO recommendations, current market competitiveness and risk-taking. In 2019, over \$26 million in share or option-based awards were distributed to Shopify executives, compared to a total of ~\$2.3 million in base salaries. Shopify's share awards consist of RSU's that are subject to a time-based vesting rate of 33.3% after the first year with the remainder being distributed via quarterly installments over the following 2 years. Stock options and RSU's are generally given on a 1:1 ratio to executives.

Shopify offers absolutely no kind of short-term management incentives; their board of directors insist on a long-term outlook and wish to harbour a culture that promotes perpetual growth. Currently, Lütke, Shapero, Finkelstein and Forsyth have more than \$300 million in unexercised in-the-money stock options combined, with expiration dates between 2024-2029.

As for attracting talent, many of Shopify's appointments have been internal, namely Forsyth and Lütke. However, as exemplified through their 2018 hire of Shapero, Shopify is willing to hire externally if Lütke approves. Shopify's impressive bullish market run over the past couple years has made their equity valuable, and they have utilized this by providing equity signing bonuses for new hires, including Shapero in 2018.



Management Analysis

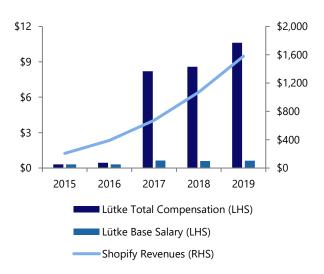
Recent Management Consolidation

Shopify has seen major executive management shakeups in the past few years, signifying a potential transition to a new phase of the company's life. In 2018, CFO Russ Jones was succeeded by a younger and more suited candidate; Amy Shapero. 2019 saw the termination of Shopify's then Chief Marketing Officer Jeff Weiser; CEO Lütke said the company was looking to reboot and go in another direction with marketing. Most recently, in 2020, Shopify's Chief Product Officer departed for unknown reasons and long-time COO Harley Finkelstein was moved into the position of President.

These changes push Lütke into a more hands-on with the company than he has been in years; he is currently manning the roles of CEO, CMO and CPO, while his hand-picked hire, Finkelstein, is in the President position. Major management adjustments indicate that Shopify may be undergoing a potential evolution.

EXHIBIT XI

Lütke's Compensation & Shopify's Revenue (\$M)



Source(s): Company Filings

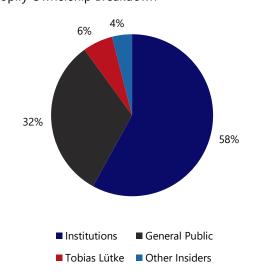
The Lütke Advantage

Tobias Lütke is a true visionary. In a 2015 letter to shareholders, he said "I want Shopify to be a company that sees the next century", and has upheld this standard, seeing Shopify not as means to an end but as a platform that empowers entrepreneurs and business owners like himself. A founder CEO that maintains their entrepreneurial spark is rare; Lütke still owns 6.2% of Shopify, with 34.95% of voting power and received 99.52% of all votes cast in the 2019 board of directors' election.

Shopify's reward-based-on-results philosophy is exemplified by Lütke, who values company growth and results above all else. The 2017 spike in his total compensation is due to the board finally voting to restructure compensation within the company. Lütke has exhibited through words and actions that above anything else he cares about Shopify, which is exactly what a shareholder looks for in a CEO.

EXHIBIT XII

Shopify Ownership Breakdown





Business Model Merits

I. Strength of the Monetization Strategy

A key feature of Shopify's business model is that growth comes from both the existing customer base and new customers. This hybrid model provides some diversity in Shopify's revenue stream as the firm is not exclusively dependent on new merchant additions for revenue inflows.

Despite the high levels of churn that Shopify experiences considering a substantial portion of their customer base consists of early-stage SMBs that are especially vulnerable to business failure (20-25% SMBs fail in their first year of operations), the monthly billing retention rate (MBRR) has remained at a level of ~101% over the past two years. MBRR compares the revenue earned from the cohort of merchants in one quarter to revenue attributable to the same group in the prior quarter. Shopify's ability to keep MBR consistent suggests that any churn from a prior quarter is more than offset by incremental revenue increases in the following quarter. Cohort analysis displays Shopify's monetization strength as merchants grow and generate more GMV, pushing them up the subscription tiers, adding services, and ultimately increasing ARPU year over year.

II. Unit Economics of Shopify Plus

Shopify Plus solutions target businesses that gross over \$1M in sales and offers a 1-year agreement that includes features such as wholesale/B2B, international functionality, unlimited staff accounts, enhanced automation tools, and priority customer support. The proportion of Shopify Plus users remains small; however, its contributed MRR has grown to 24% of total MRR since the inception of the program in 2015. When looking at 10Y lifetime value/customer acquisition cost (LTV/CAC) for both Average and Plus merchants on the platform, it is evident that Shopify should continue to keep Plus as a strategic priority.

Assuming a 1Y attrition rate of 50% and 2Y attrition rate of 25%, each declining by 2% thereafter, the

lifetime gross profit of the average merchant is roughly \$2,279.99 with a CAC of \$897.15, implying an LTV/CAC of ~ 2.5x. Using a similar calculation for Plus, the lifetime gross profit for merchants is 158.6K with a CAC of 38.56K, generating an LTV/CAC ratio of ~4.1x. The attrition rate assumptions are aggressive and imply high rates of failure for the SMBs.

If less aggressive attrition rates are used, which will likely be the case over time as Shopify leverages its network and data effect to offer better services, the unit economics has the potential to be even higher.

III. Strong Free Trial Conversation and Take Rate Growth

Recent MRR growth has accelerated to 47% in the third quarter of 2019, more than doubling from 21% in the second quarter of 2019 and up from 34% a year ago. This acceleration is primarily driven by the high conversion rates associated with the introduction of the 90-day free trial and the standard 14-day free trial, creating a double-cohort effect.

Take Rates for GMV will continue to be driven up with the launch of new and expanding merchant solutions, including Shopify Capital, shipping adoption, virtual reality and more. Given that Shopify currently has low TAM penetration in the e-commerce market, as its share grows, the take rate for GMV could reasonably increase to 2-3x due to strong unit economics. A growing network effect and deepened social media integration will contribute to this growth as well.



Industry Analysis

Competition

Shopify faces intense competition within the industry primarily from other fully integrated e-Commerce solution providers. By nature of a fully integrated solution model, Shopify also faces competition from third-party service providers within the e-Commerce ecosystem, such as payment processors, content management systems (website builders), POS software providers, fulfillment and shipping services, and marketplaces.

Other e-Commerce solutions

While Shopify believes that "no competitor offers an integrated, multi-channel, cloud-based commerce platform with comparable functionality to [Shopify]," there are several other incumbents that offer services for businesses to start and manage an e-Commerce business. WooCommerce, an open-source e-Commerce plugin on WordPress, leads the board with

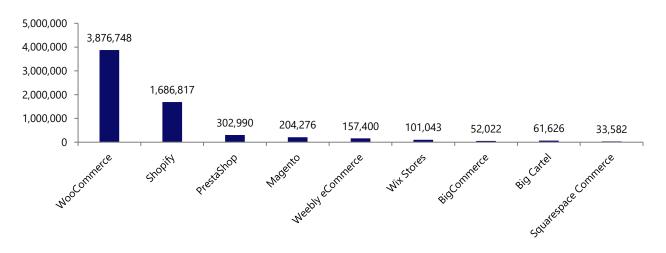
more than 3.8 million live stores – more than double that of Shopify's (Exhibit XIII). It should be noted that WooCommerce offers a free plan, whereas Shopify only offers paid plans.

Marketplaces

While an argument can be made that large marketplaces like Amazon, eBay, and Etsy are formidable opponents to Shopify, Shopify and other e-Commerce platform solutions provide a distinct value proposition to merchants that cannot be matched by a marketplace. E-Commerce platforms focuses on helping merchants establish their own brand and differentiate themselves. Marketplaces like Amazon offer very limited differentiation ability, forcing merchants of commoditized products to primarily compete on price.

EXHIBIT XIII

Live Websites Using an e-Commerce Platform



Source(s): BuiltWith



Industry Analysis

Merchant Considerations

COVID-19 has undoubtedly accelerated e-Commerce adoption. In the U.S., e-Commerce is expected to increase from 11.0% to 14.5% of total retail sales in 2020. Not only are more fully digital businesses being born online, but more traditional retailers are shifting to develop and focus on their online presence. Typically, a business looking to start an online store has a few options:

- Use a hosted e-Commerce solution like Shopify or Wix Stores
- 2) Use a self-hosted e-Commerce solution like WooCommerce
- 3) Use an enterprise-oriented solution like Magento
- 4) Develop a store from scratch

SMBs are more inclined to select options 1 or 2 given its ease of use and time to build. Larger companies require more bespoke solutions with extensive support to create an online store that is aligned with their brand and strategy. Most e-Commerce platforms with primarily smaller merchants like Shopify or WooCommerce also offer enterprise solutions.

Industry Dynamics

The fully integrated e-Commerce solutions industry enjoys very sticky customers given the mission critical nature of the services provided. Online merchants rely on e-Commerce solutions as a hub central to their business operations. In Shopify's words: "We want Shopify to be the first thing that merchants open in the morning and the last thing they close at night — a global commerce operating system that manages their total business."

Captive Customers

Merchants have a strong reliance on e-Commerce platforms. Not only is it critical to their product,

customer, inventory, and channel management, but it also provides a slew of data that enables better decision making. Without an e-Commerce platform, merchants are unable to sell online. Merchants also experience high switching costs. Once a storefront is setup, merchants have likely invested tens or hundreds of hours in the front-end design and customer experience. Similarly, they would have set up the products, inventory, payment processors, integrations required for their store. To switch e-Commerce platforms would mean having to manually move most things over, which would require a large time investment for an already-busy business owner. The UI/UX is also different between e-Commerce platforms, and merchants will want to remain with the one they are most familiar with unless they have a strong reason to switch.

Immense Pricing Power

For a mission critical service, e-Commerce platforms charge relatively little. High switching costs of customers provide e-Commerce providers with significant pricing power. However, most providers (including Shopify) are not expected to raise the cost of its entry-level plans. However, e-Commerce platforms have multiple opportunities to increase ARPU through value-add services such as marketing, fulfillment, and capital services. E-Commerce platforms such as WooCommerce and Shopify also have a developer community creating apps and plugins for merchants on the platform.

Very Low Barriers to Entry (End Users)

e-Commerce platforms have made starting a business easier than it has ever been. A Shopify or WooCommerce store can be created in under an hour. Million-dollar businesses can now be created with a computer and internet access with no technical skills required. While this is easier said than done, the sheer number of opportunities made available with e-Commerce is astonishing.



Widening Value Proposition Gap Between Shopify and Competitors

Industry Leader

Shopify enjoys the captive customer and pricing power benefits inherent to the e-Commerce solutions industry. Although WooCommerce has more live merchants, most of those merchants are using WooCommerce's free offering, while all of Shopify's merchants pay a monthly fee. Shopify leads by the number of paying merchants on its platform. The company's leading technology, beautiful design, strong support, and vast ecosystem has made it the best rated e-Commerce platform across a variety of metrics that are important for merchants, beating close competitors by a significant margin (Exhibit XIV). Merchants are moving away from other platforms (especially older, outdated ones) to Shopify.

Leveraging Data and Scale

Shopify has strong incentive to help its merchants succeed and grow, as it earns a variable fee per

transaction alongside its more expensive plans. Shopify can analyze order, customer, and experience data on over 1 million live e-Commerce websites to inform decisions and understand what's working and what's not. Shopify actively leverages this data to provide merchants with insights and recommendations on how they can improve their stores. Shopify also leverages data to identify needs in the market – when the company discovered that merchants experience working capital issues, it launched Shopify Capital.

Shopify's size also enables it to enjoy scale advantages. For example, the company offers shipping label services which helps merchants save up to 40% on shipping. Since all shipments are done under "Shopify", couriers offer Shopify size discounts.

EXHIBIT XIV

Leading e-Commerce Platforms Feature and Experience Comparison by Users

Criteria	Shopify	WooCommerce	Magento	PrestaShop
Meets Requirements	8.7	8.8	8.4	8.1
Ease of Use	8.8	8.4	7	7.6
Ease of Setup	8.8	8.2	6.1	7.9
Ease of Admin	8.8	8.4	7.3	7.8
Quality of Support	8.4	7.4	6.9	7.3
Ease of Doing Business	8.8	8.5	7.4	8.3
Product Direction	8.7	8.4	6.8	7.3

Source(s): G2



Widening Value Proposition Gap Between Shopify and Competitors

Differentiated Ecosystem

Shopify has the strongest and most active network of partners (developers, designers, and agencies), paying them \$180 million in 2019 (Exhibit XV). While other e-Commerce platforms such as WooCommerce also offer plugins and other integrations, Shopify's ecosystem is far stronger due to its relationship with partners. Shopify decided to enable third parties to develop a variety of applications on its app store, whereas WooCommerce and other e-Commerce platforms originally took a more "walled garden" approach.

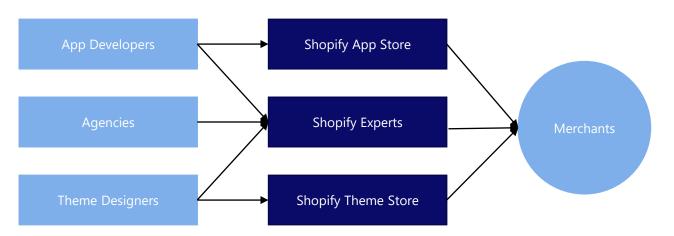
Shopify's app store holds over 3,700 apps, and merchants have hundreds of themes to select from. Shopify's differentiated ecosystems allows a perpetual loop: more apps lead to more merchants which leads to more developers creating apps.

Conclusion

Shopify's product, scale advantage, and its growing ecosystem is widening the value proposition gap between the company and its competitors. The TMT team is confident that this gap will continue to widen, given the industry dynamics and Shopify's strong human capital and leadership.

EXHIBIT XV

Shopify's Partner Ecosystem





Total Addressable Market (TAM)

Assessing the total addressable market (TAM) is a very important part of the analysis on Shopify, given its size and the nature of leverage used amongst technology companies. Shopify has a very large TAM; it provides basic e-commerce services to businesses globally, and its technology has allowed it to grow into the TAM quite rapidly. The question which the TMT team hopes to answer in our TAM analysis is whether the 50x LTM sales valuation accurately reflect the opportunity that is available for Shopify.

It's best to begin the TAM analysis by breaking down revenue into their two segments: subscriptions and merchant solutions. Doing so allows for a more granular analysis and gives us a better idea of where Shopify is in the lifecycle.

Subscription Segment

The subscription segment of Shopify generates \sim \$800m in LTM revenue and is driven through the

addition of new businesses to Shopify's customer base, where they are then charged a recurring fee. Shopify currently has ~1 million businesses or "merchants" signed up that are paying subscription fees. To illustrate how large this opportunity is, Shopify estimates that there are roughly 50 million SMBs globally that may one day become part of the Shopify ecosystem.

Given these figures, the first part of the analysis points to Shopify being in the early adoption cycle, as it currently has a ~2% market share from the SMBs perspective. The TMT team believes Shopify is the leading e-commerce platform and no other company currently offers such a durable and comprehensive platform as Shopify. In addition, the COVID-induced virtual environment has kicked off a secular e-commerce trend; regardless of how long it lasts, COVID-19 has left its mark in that business owners know how important it is to have an online presence.

EXHIBIT XVI

Source(s): RBC

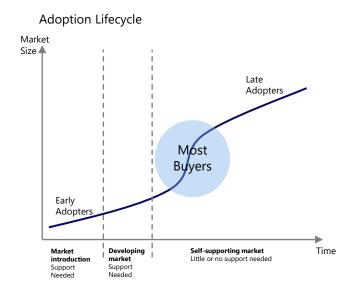
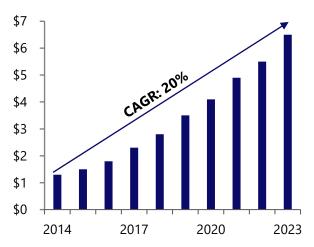


EXHIBIT XVII





Source(s): Statista



Total Addressable Market (TAM)

Merchant Solutions Segment

The merchant solutions segment currently generates roughly \$1.5B in LTM revenue. This segment generates revenue by taking a fee of the total payment volume processed through Shopify's merchants. This fee is a called a take rate; Shopify currently has a take rate of ~1.5% from the total gross merchandise value (GMV). To illustrate this, Shopify processes roughly \$100B in GMV annually, then Shopify takes a ~1.5% cut of the total, so Shopify makes roughly \$1.5B in revenue from merchant solutions. Consensus third party research estimates that the GMV for 2020 is ~\$4T. From the perspective of the merchant solutions, the global GMV is roughly \$4T while the amount processed by Shopify is still a mere \$100B, giving it a 2.5% market share in this context. The TMT team believes that the TAM of the merchant solutions is much larger and faster growing than the TAM for subscriptions. Exhibit X shows the global e-commerce GMV for the period 2018-2023. As demonstrated, the GMV or TAM in this situation has grown at a CAGR of 20%.

Assessing the Market Share Figures

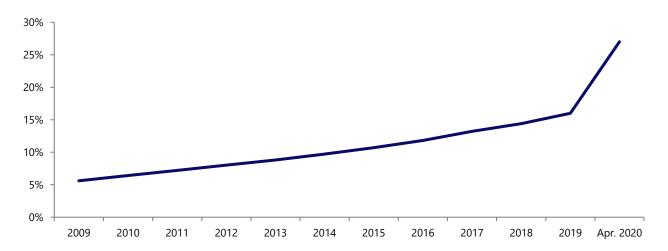
Now that we have the figures for market share for each business segment, we will attempt to clarify just a bit further in the context of an s-curve.

In a disruptive industry, the s-curve can help illustrate where in the lifecycle a business finds itself. Given the market share of 2% and 2.5% for the subscription and merchant solutions business respectively, it appears that Shopify is just now rolling out from the market introduction phase to the developing market phase.

To conclude, it seems that Shopify is yet to go through its largest adoption period. While the pandemic has accelerated the shift towards e-commerce platforms, the company is still early in its growth phase, and will continue to develop key products like Shopify Capital and Shipify which can potentially develop into large business units themselves.

EXHIBIT XVIII

U.S. E-Commerce as a % of Total Retail Sales



Source(s): Bank of America, US Department of Commerce, Shaw Spring Research



Growth Base Rate Analysis

Is Growth Sustainable?

The biggest question pertaining to Shopify's intrinsic value is developing an understanding on whether growth is sustainable. Historically, Shopify has benefitted off ~50% sales growth YoY and is still in the early stages of its business model where EBITDA is only marginally positive. Thus, before understanding our model the team assessed the historical growth rates of companies with high sales growth and their overall success rate.

The Credit Suisse Base Rate Analysis is an analysis of sales growth between 1950-2015, indexing companies listed on the US stock exchanges. The study only involves ~60% of global market capitalization within this time frame, and should also be caveated as it does not bake in the high-growth tech business models from 2015 onwards.

In assessing our assumptions in the model, we would

need to assume ~30-40% growth for a prolonged period of 5 years to 10 years. Thus, as per Exhibit XIX, the Credit Suisse Analysis we would need to believe Shopify is anywhere from a 99th to 99.7th percentile company since 2015.

We don't believe this is entirely unreasonable, given Shopify's value proposition with extraordinarily strong industry dynamics. However, it is difficult to gauge so far in the future if Shopify is a 99.7th percentile company and is part of the risk baked into the company for the model.

The models we have decided to value the company on are a 10-year and 15-year DCF model with a period of strong aggressive growth at 45% for five years, 30% for five years, and then 17.5% for five years. Understanding the nature of the aggressive assumptions inputted, we are looking for a payoff of at least 30% to account for all of the aforementioned assumptions.

Exhibit XIX

Credit Suisse Base Rate Analysis

Full Universe	Base rates										
Sales Growth %	1-Yr	3-Yr	5-Yr	10-Yr							
0 - 5	20.60%	25.20%	28.80%	34.20%							
5 - 10	17.80%	21.30%	24.20%	28.30%							
10 - 15	11.40%	12.30%	12.60%	11.60%							
15 - 20	6.80%	6.70%	6.00%	4.50%							
20 - 25	4.50%	3.90%	3.10%	2.00%							
25 - 30	2.90%	2.30%	1.90%	1.10%							
30 - 35	2.00%	1.50%	1.00%	0.60%							
35 40	1.30%	1.00%	0.70%	0.30%							
40 - 45	1.10%	0.70%	0.50%	0.20%							
>45	5.50%	2.50%	1.30%	0.30%							
Mean	14.80%	8.10%	6.90%	5.80%							
Median	5.80%	5.40%	5.20%	4.90%							

Source(s): Credit Suisse



Exhibit XX

10-Year DCF Returns

10-year DCF Assumptions 8	k Output
WACC	10.00%
Terminal EBITDA Multiple	30.0x
Terminal Growth Rate	2.0%
Multiples Method Weighting	100.0%
Terminal Growth Weighting	0.0%
Terminal Value	\$238,477
PV Terminal Value	\$98,756
Sum of PV of Cash Flow	\$7,119
Enterprise Value	\$105,875
Less: Cash	(6,121)
Plus: Total Debt	903
Implied Equity Value	\$100,657
FDSO (in millions)	121.0
Implied Share Price	\$831.88
Current Share Price	\$1,205.13
Discount to Intrinsic Value	-44.87%

Source(s): Company Filings

Exhibit XXI

15-year DCF Returns

15-year DCF Assumptions 8	ι Output
WACC	10.00%
Terminal EBITDA Multiple	25.0x
Terminal Growth Rate	2.0%
Multiples Method Weighting	80.0%
Terminal Growth Weighting	20.0%
Terminal Value	\$568,071
PV Terminal Value Sum of PV of Cash Flow	\$146,069 \$30,831
Enterprise Value	\$176,899
Less: Cash	(6,121)
Plus: Debt	903.0
Implied Equity Value	\$171,681
FDSO (in millions)	121.0
Implied Share Price	\$1,418.85
Current Share Price	\$1,205.13
Discount to Intrinsic Value	15.06%

Source(s): Company Filings

Valuation Commentary

The team conducted an intrinsic valuation based off of a 10-year and 15-year DCF. For the 10-year DCF, there were two stages of growth: Extremely high (~45%) and very high (~30%). For the 15-year DCF, we modelled the final 5 years to have high growth at around 17.5% per year.

There was segmentation done for each revenue stream: merchant and subscription. The subscriptions business was calculated off of incrementally raising prices every few years and estimating the costs per subscription, to then be multiplied by an average number of users in order to find revenue and gross profit on the given year. For the merchants business, it

was calculated off of a take rate (akin to royalties) that would be taken off of the GMV that goes through the Shopify Channel every year. We believed this was a more suitable metric as opposed to number of clients.

Using a 10% WACC, one can see the return profile on Shopify currently is not entirely favourable despite what the team believes to be less conservative assumptions. As such, the team's decision is to hold the company, and **enter in a position** if there are market movements that may cause the company to drop to around \$1,000.



EXHIBIT XXII

Revenue Model

Key Metrics	2013	2014	2015	2016	2017	2018	2019
Monthly Subscription Fee Per Avg Merchant, \$/merchant	51	49	48	51	51	54	53
Monthly Subscription COGS Per Avg Merchant, \$/merchant	11	12	11	11	10	12	11
Subscription GP	78%	75%	78%	79%	80%	78%	80%
Gross Merchandise Volume / Avg Merchant, \$/merchant	25,785	32,909	39,711	49,517	53,361	57,527	60,495
Merchant Revenue, as % of GMV, %	0.74%	1.02%	1.21%	1.31%	1.38%	1.48%	1.53%
Cost of Revenue - Merchant Solution, as % of GMV, %	0.31%	0.70%	0.90%	0.91%	0.88%	0.91%	0.96%
Merchant Margin (%)	57.95%	31.07%	25.33%	30.07%	36.20%	38.19%	37.56%
Monthly Recurring Revenue (at period end), 000s	3,819	6,573	11,335	18,461	29,877	40,932	53,900
Gross Merchandise Volume, mm	1,616	3,764	7,707	15,374	26,320	41,103	61,100
GMV Growth		133%	105%	99%	71%	56%	49%
Market Share Penetration							2%
TAM							3,055,000
TAM Growth Rate (%)							
Number of Merchants, 000s merchants	84	145	243	378	609	820	1,200
Number of Merchants Growth, %	104%	72%	68%	55%	61%	35%	46%
Average Number of Merchants, 000s merchants	63	114	194	310	493	715	1,010

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
53	55	57	60	62	65	67	70	73	76	79	82	85	88	92
11	10	10	10	10	10	10	10	10	10	9.6	9.5	9.4	9.3	9.2
79%	81%	82%	83%	84%	84%	85%	86%	87%	87%	88%	88%	89%	89%	90%
64,425	64.324	70,500	74,568	78.870	77,353	79.314	84,271	89,538	95,134	96.662	103.406	110.620	118.338	126,594
1.61%	1.54%		,	,	1.80%	1.87%	1.95%	,	2.11%	,	2.28%	2.37%	2.47%	2.56%
1.02%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%
36.73%	41.56%	43.81%	45.97%	48.05%	50.04%	51.97%	53.81%	55.59%	57.30%	58.94%	60.52%	62.04%	63.50%	64.90%
77,981	105,595	137,773	186,269	251,836	340,483	440,318	549,517	685,797	855,875	1,007,442	1,126,320	1,259,226	1,407,815	1,573,937
94,705	123,117	169,285	232,767	320,055	408,070	520,289	663,369	845,795	1,078,389	1,240,147	1,426,169	1,640,094	1,886,108	2,169,025
55%	30%	38%	38%	38%	28%	28%	28%	28%	28%	15%	15%	15%	15%	15%
3%	3%	3%	4%	5%	6%	7%	8%	10%	12%	13%	14%	16%	17%	19%
3 604 900	1 253 782	5 010 463	5 922 966	6 989 100	7 408 446	7 852 953	8 324 130	8 823 578	0 352 002	0 727 112	10,116,196	10 520 844	10,941,678	11 370 3/15
18.00%	18.00%				6.00%	, ,	6.00%		6.00%		4.00%	4.00%	4.00%	4.00%
1,740	,	,	,	,	5,964	,	8,587	,	12,366	-,	14,290	15,362	16,514	17,753
45%	20%				30%		20%		20%		8%	8%	8%	8%
1,470	1,914	2,401	3,122	4,058	5,275	6,560	7,872	9,446	11,335	12,830	13,792	14,826	15,938	17,134

Assu	ımptions			
Period 1 Growth (2020-2024)	Merchant #	30.00%	GMV Growth	37.50%
Period 2 Growth (2025-2029)	Merchant #	20.00%	GMV Growth	27.50%
Period 3 Growth (2030-2034)	Merchant #	7.50%	GMV Growth	15.00%



EXHIBIIT XXIII

15-year Shopify Operating Model

Shopify DCF Model [Base Case]																		
(Figures in \$US millions)	Hist	orical Period						Projection	Period									
(Iganto in the minimum)	FY2017	FY2018	FY2019	FY2020E	FY2021E	FY2022E	FY2023E	FY2024E	FY2025E	FY2026E	FY2027E	FY2028E	FY2029E	FY2030E	FY2031E	FY2032E	FY2033E	FY2034
Subscription Revenue	310	465	642	936	1,267	1,653	2,235	3,022	4,086	5,284	6,594	8,230	10,270	12,089	13,516	15,111	16,894	18,88
Merchant Solutions	363	608	936	1,527	1,896	2,711	3,877	5,544	7,352	9,748	12,926	17,140	22,728	27,183	32,511	38,883	46,504	55,61
Revenue	673	1,073	1,578	2,463	3,163	4,365	6,112	8,566	11,438	15,032	19,521	25,370	32,999	39,272	46,026	53,993	63,397	74,506
YoY Revenue Growth	72.9%	59.4%	47.0%	56.0%	28.4%	38.0%	40.0%	40.1%	33.5%	31.4%	29.9%	30.0%	30.1%	19.0%	17.2%	17.3%	17.4%	17.5%
YoY Sub Sales Growth	64.4%	50.0%	38.1%	45.7%	35.4%	30.5%	35.2%	35.2%	35.2%	29.3%	24.8%	24.8%	24.8%	17.7%	11.8%	11.8%	11.8%	11.8%
YoY Merchant Sales Growth	81.0%	67.4%	53.9%	63.1%	24.2%	43.0%	43.0%	43.0%	32.6%	32.6%	32.6%	32.6%	32.6%	19.6%	19.6%	19.6%	19.6%	19.6%
Subscription GP	249	364	514	742	1,029	1,356	1,849	2,525	3,446	4,497	5,659	7,119	8,951	10,611	11,944	13,438	15,115	16,996
Merchant Solutions GP	131	232	352	561	788	1,188	1,782	2,664	3,679	5,066	6,956	9,528	13,023	16,021	19,675	24,122	29,529	36,097
Gross Profit	380	596	866	1,303	1,817	2,544	3,632	5,189	7,125	9,562	12,615	16,647	21,974	26,633	31,619	37,560	44,644	53,093
Gross Margin	56.5%	55.6%	54.9%	52.9%	57.4%	58.3%	59.4%	60.6%	62.3%	63.6%	64.6%	65.6%	66.6%	67.8%	68.7%	69.6%	70.4%	71.3%
Subscription GP (%)	80.2%	78.3%	80.0%	79.3%	81.2%	82.0%	82.7%	83.6%	84.4%	85.1%	85.8%	86.5%	87.2%	87.8%	88.4%	88.9%	89.5%	90.0%
Merchant GP (%)	36.2%	38.2%	37.6%	36.7%	41.6%	43.8%	46.0%	48.0%	50.0%	52.0%	53.8%	55.6%	57.3%	58.9%	60.5%	62.0%	63.5%	64.9%
SG&A Expenses (net SBC)	(216)	(326)	(435)	(638)	(918)	(1,091)	(1,467)	(2,056)	(2,745)	(3,608)	(4,685)	(6,089)	(7,920)	(7,854)	(9,205)	(10,799)	(12,679)	(14,901)
R&D (net SBC)	(101)	(171)	(250)	(342)	(516)	(786)	(733)	(942)	(1,258)	(1,654)	(2,147)	(2,791)	(3,630)	(3,927)	(4,603)	(5,399)	(6,340)	(7,451)
G&A (net SBC)	(58)	(90)	(149)	(243)	(285)	(393)	(489)	(642)	(858)	(1,127)	(1,464)	(1,903)	(2,475)	(2,749)	(3,222)	(3,780)	(4,438)	(5,215)
Add back: D&A Adjustments	25	29	40															
Sales&Marketing (% of Sales)	32.1%	30.4%	27.5%	25.9%	29.0%	25.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	20.0%	20.0%	20.0%	20.0%	20.0%
R&D (%)	15.1%	15.9%	15.9%	13.9%	16.3%	18.0%	12.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	10.0%	10.0%	10.0%	10.0%	10.0%
G&A (% of Sales)	8.6%	8.4%	9.4%	9.9%	9.0%	9.0%	8.0%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.0%	7.0%	7.0%	7.0%	7.0%
EBITDA	29	39	71	81	98	275	942	1,548	2,265	3,174	4,319	5,865	7,949	12,102	14,589	17,583	21,187	25,526
EBITDA Margin	4%	4%	5%	3.3%	3.1%	6.3%	15.4%	18.1%	19.8%	21.1%	22.1%	23.1%	24.1%	30.8%	31.7%	32.6%	33.4%	34.3%
YoY EBITDA Growth		32%	83%	13%	22%	180%	243%	64%	46%	40%	36%	36%	36%	52%	21%	21%	20%	20%
D&A	(23)	(27)	(36)	(56)	(71)	(99)	(138)	(194)	(258)	(340)	(441)	(573)	(745)	(887)	(1,040)	(1,220)	(1,432)	(1,683
SBC	(31)	(74)	(137)	(165)	(212)	(293)	(410)	(575)	(572)	(752)	(976)	(1,268)	(1,650)	(1,964)	(2,301)	(2,700)	(3,170)	(3,725
EBIT	(24)	(62)	(101)	(140)	(186)	(117)	394	780	1,434	2,083	2,902	4,023	5,554	9,251	11,248	13,663	16,585	20,117
EBIT Margin	-3.6%	-5.8%	-6.4%	-5.7%	-5.9%	-2.7%	6.4%	9.1%	12.5%	13.9%	14.9%	15.9%	16.8%	23.6%	24.4%	25.3%	26.2%	27.0%
D&A (% of Sales)	3.47%	2.52%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%
SBC (% of Sales)	4.54%	6.92%	8.68%	6.71%	6.71%	6.71%	6.71%	6.71%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Taxes	0	0	(29)	0	0	0	(110)	(218)	(402)	(583)	(813)	(1,126)	(1,555)	(2,590)	(3,149)	(3,826)	(4,644)	(5,633
Tax Rate	0%	0%	29%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
NOPAT	(24)	(62)	(130)	(140)	(186)	(117)	504	998	1,836	2,666	3,714	5,150	7,109	11,842	14,397	17,489	21,228	25,750
Plus: D&A	23	27	36	56	71	99	138	194	258	340	441	573	745	887	1,040	1,220	1,432	1,683
Plus: SBC	31	74	137	165	212	293	410	575	572	752	976	1,268	1,650	1,964	2,301	2,700	3,170	3,725
Less: Changes to NWC	39	74	58	91	117	161	226	316	422	555	720	936	1,218	1,449	1,698	1,992	2,339	2,749
% of Sales	5.8%	6.9%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
Less: Capital Expenditures	(24)	(42)	(62)	(99)	(127)	(175)	(244)	(343)	(343)	(451)	(586)	(761)	(990)	(1,178)	(1,381)	(1,620)	(1,902)	(2,235
% of Sales	3.6%	3.9%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Unlevered Free Cash Flow	(16)	(67)	(91)	(274)	(357)	(354)	172	533	1,329	2,000	2,849	4,025	5,647	10,102	12,358	15,097	18,419	22,449
Discount Period				0.25	1.25	2.25	3.25	4.25	5.25	6.25	7.25	8.25	9.25	10.25	11.25	12.25	13.25	14.2
Present Value Factor				0.98	0.89	0.81	0.73	0.67	0.61	0.55	0.50	0.46	0.41	0.38	0.34	0.31	0.28	0.20
PV of UFCF				(268)	(317)	(286)	126	356	806	1,102	1,428	1,834	2,338	3,803	4,229	4,697	5,210	5,772



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