



INDEPENDENT EQUITY RESEARCH

Shopify Inc.
(NYSE:SHOP)

FEBRUARY 4, 2020

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Shopify's revenue has grown from \$205M in 2015 to an estimated \$1,556M in 2019, representing a CAGR of 66%, and its market cap of \$55B represents a compound annual growth rate of 112% from its May 2015 IPO. According to Shopify, retail eCommerce sales worldwide were \$1.3T in 2014 and are projected to reach \$4.9T in 2021, representing a CAGR of 21%. To put this in perspective relative to global eCommerce growth, Shopify's revenue has grown more than 3x and its valuation has grown more than 5x. Since the Black Friday/Cyber Monday weekend alone, SHOP has surged 41% in price. Is Shopify an outstanding, high-growth eCommerce platform company? Yes. Is the recent stock price of \$469 justified? No. The consensus price target of \$396, composed of the mean of 29 institutional analysts, seems excessive. While our long-term revenue forecasts are higher than consensus, representing a 10-year CAGR of 31%, we think in a Base Case scenario its long-term GAAP EBIT margins should expand somewhere between Amazon.com's and Etsy's, or to 10% by 2027. As a result, our Base Case target is \$193. Our Best Case target of \$499 assumes revenue growth at a 45% CAGR and GAAP EBIT margin expansion to 17.5%. Given Shopify's strong execution to date, we assign a 30% probability to the Best Case, and a 10% probability to a Worst Case projection. As a result, our blended DCF one-year target for SHOP is \$268.

NYSE:SHOP	LTM	FY+1	FY+2	LTM		
Stock Price	\$469.25	EPS: \$ (1.15)	EPS: \$0.20	EPS: \$0.93	ROE: -5.7%	Insiders Own 10.3%
Market Cap	\$54.8b	P/E: -409.5	P/E: 2399.3	P/E: 505.0	EBITDA/Capital 38.8%	Number of Analysts 27
Enterprise Val	\$52.2b	P/CF (573.1)	P/CF 817.0	P/CF 519.3	EBIT Margin -8.5%	Debt to Capital 3.8%
Beta	1.20	P/S: 38.7	P/S: 35.2	P/S: 25.7	NI Margin -9.0%	Dividend Yield 0.0%

Source: S&P Capital IQ financial data and consensus estimates.

Description

Shopify is a cloud-based, multi-channel commerce platform that lets merchants easily set up online storefronts with a wide range of functionality. At the end of 3Q19, the company was hosting on its platform more than 1M merchants from 175 countries, with more than half in the United States. The majority of its merchants are on plans that cost less than \$50 per month. The company employs 4,000 people and is headquartered in Ottawa, Canada.

Please refer to important disclosures on page 23

Shopify Inc. is a \$54.8B market cap eCommerce platform company based in Ottawa, Canada, supporting more than 1M merchants from 175 countries. Gross Merchandise Volume (GMV), representing the total dollar value of orders processed by Shopify, was more than \$1B in 3Q19. The company actively supports more than 3,200 third-party apps in its app store, having added 300 in 3Q19.

Shopify should be considered a “Growth” stock company, with revenue and market cap growing faster than the eCommerce industry. However, it remains to be seen if the company can grow into its current valuation, given its negative GAAP EBIT margin, negative free cash flow, and equity offerings to maintain its cash balance and make acquisitions. The company does not pay a dividend.

Background

The company was founded in 2004 by programmer Tobias Lütke and Scott Lake to support their snowboard equipment eCommerce business. In 2004 Lütke and Lake could not find an eCommerce platform to support their online snowboard equipment business, so they built their own. In 2006 they shifted their focus to developing and marketing their eCommerce platform, brought in programmer Daniel Weinland as a cofounder, and raised \$200,000 from friends and family for further development. Lake left the company in 2008 to pursue other entrepreneurial challenges and Lütke took over as CEO, a position he has held ever since. The Globe and Mail’s interesting story about Shopify’s founding, initially posted in 2014 and updated in 2018, is worth a read.

John Phillips, a current board member of Shopify, was an early angel investor, investing \$250,000 at a \$3M valuation in 2008. The company raised \$7M of Series A funding in December 2010 organized by Bessemer Venture Partners, followed by Series B funding of \$15M in October 2011, and Series C funding of \$100M in 2013 via OMERS Ventures, Insight Venture Partners, and others. Shopify held its IPO in May 2015 and raised \$131M from 7.7M shares priced at \$17, giving the company a market cap of \$1.27B.

Largest shareholders

Shopify currently has 116.75 common shares outstanding, composed of 104.52 Class A shares and 12.23 Class B shares. Class B shares are entitled to 10 votes per share, and Class A shares are entitled to 1 vote per share. Class B shares may be converted at any time at the option of the holder at a rate of 1-to-1.

CEO Tobias Lütke and board member John Phillips are the largest Class B shareholders, and together with an insignificant amount of Class A shares, own 6.7% and 3.4% of the total shares outstanding. Class B shares represent 54% of the voting power, with Lütke controlling 33.8% of the voting power.

FMR LLC, Baillie Gifford & Co., and WCM Investment Management are the largest Class A shareholders in Shopify as of September 30, 2019, with 7.9%, 5.2%, and 4% ownership of the 116.75 total shares outstanding. A total of 700 institutions own 68.9M shares of the company.

Shopify is special in six key ways

ANET currently trades at 41.7x the consensus 2018 EPS estimate of \$6.19, and at a 1.61x PEG multiple to the consensus long-term earnings growth estimate of 26%. In contrast, the 800 pound gorilla Cisco Systems (CSCO) trades at only 15.9x 2018 consensus EPS of \$2.52 at a PEG multiple of 3.05x to the consensus long-term growth estimate of 5.5%. Adjusting for its growth prospects, ANET is relatively attractive on a PE-to-Growth basis.

1 | Accessibility

Shopify offers a platform that makes selling online easy and accessible. According to one experienced eCommerce blogger, it took her 19 minutes to create a Shopify online store, add products, and bring the store online. Personally, it took myself about three hours to create and configure the Ascendere Associates consulting services store on Shopify, complete with a catalog of digital downloads and a working shopping cart. When I last tried doing this with WordPress eCommerce add-ins about ten years ago it took me weeks of research and trial and error, and I was only able to get it to work with the help of a friend that routinely charged others \$10,000 to develop online stores. Shopify, among others of course, has helped lower the barriers to entry in creating online businesses.

2 | Shopify Partner Platform

Enter the search term “Shopify” on YouTube and it returns a seemingly endless list of young marketers and entrepreneurs describing how to take advantage of the platform, which is a testament to Shopify’s accessibility. Google trends indicate that the keyword “Shopify” is significantly more popular than competitors “WooCommerce” or “Magento”. It is likely that a great many of these people are part of the Shopify Partner Program, which provides access to third-party marketing, customization, web design, and development services, an attractive resource to its merchants. I found several third-party consultants offering to set-up Shopify storefronts for a flat fee of \$100, quite a low price relative to my experience many years ago.

3 | Enables the direct-to-consumer shopping experience

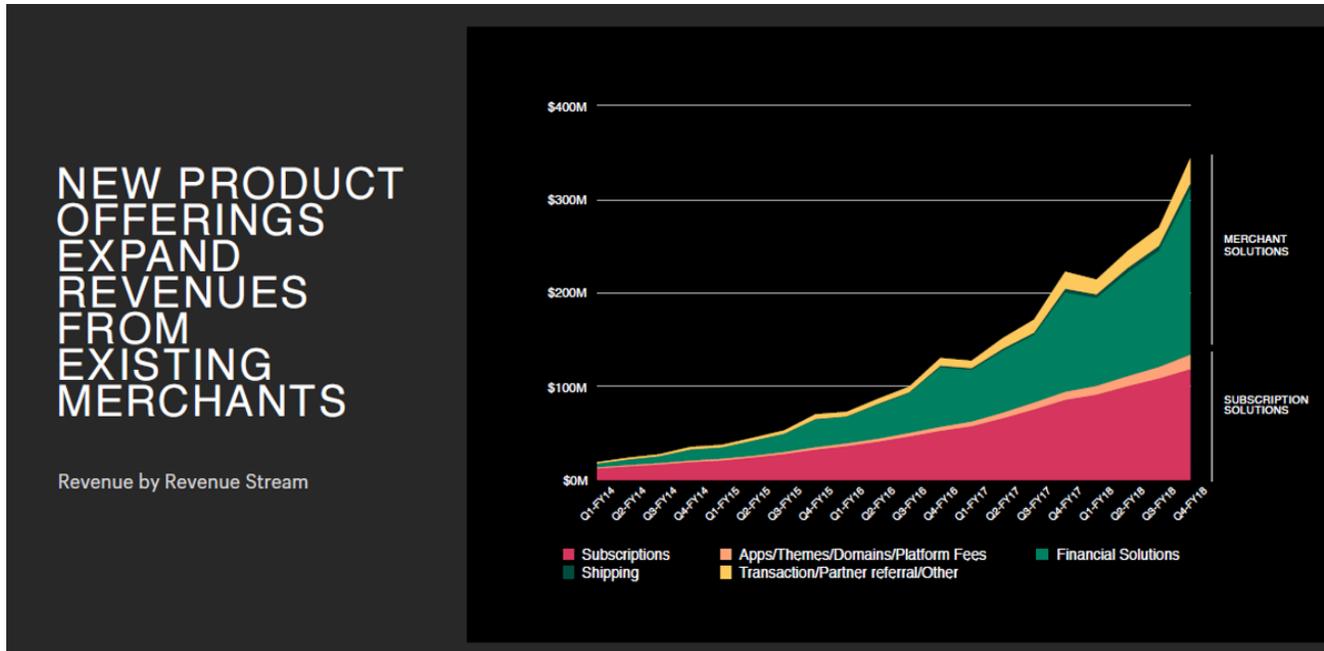
According to CEO Tobias Lütke, Shopify enables the “direct-to-consumer” shopping experience that was severed by traditional department stores and disintermediation. “The products on Shopify are often the things that people really want rather than the ones they need. It’s boutique-y kind of products.” Shopify helps merchants differentiate from competitors that focus their selling exclusively on Amazon.com and Walmart.

4 | Scalability and innovative new products

According to Shopify, its eCommerce platform is designed to grow with merchants as they scale over time. In addition to providing an online selling platform, Shopify has been growing its payments business, increasingly lending to merchants, and recently announced it would expand into fulfillment services. The

company is increasingly providing capital to its merchants. Over time, these new revenue streams could become significant. In 3Q19 it provided more than \$140M in advances, up 85% from \$76M in 3Q18.

Most of Shopify's clients are small- and medium-sized businesses paying on average \$50/month, with three plans priced at \$29, \$79, and \$299 per month. The company also provides large-scale enterprises with custom pricing. According to a web designer, Penguin Books, Budweiser and Tesla are some of Shopify's largest clients. Some notable launches in 3Q19 on Shopify Plus, its enterprise eCommerce platform, included SpaceX, the BBC, and brands from **LVMH (LVMUY)**, Heineken (**HEINY**), and **The Unilever Group (UN)**.



Source: Shopify 2019 Investor Day

5 | The largest or second largest eCommerce platform by market share

Depending on the methodology used, Shopify is estimated by a variety of sources to be the largest or second largest eCommerce platform by market share. For example, after web hosting provider Pagely, Shopify is the second largest with a 20% share while eCommerce dropship manager Oberlo indicates that Shopify is the largest at 31% share. It seems that most sources tend to indicate WooCommerce as the market share leader, followed by Shopify, and then others such as Magento, BigCommerce, Wix, and Weebly.

6 | Leveraging significant long-term global eCommerce industry growth

According to Shopify, retail eCommerce sales worldwide were \$1.3T in 2014 and are projected to reach \$4.9T in 2021, representing a CAGR of 21%. Shopify's revenue has grown from \$205M in 2015 to an estimated \$1,556M in 2019, representing a CAGR of 66%, and its market cap of \$55B represents a compound annual growth rate of 112% from its May 2015 IPO. Looked another way, Shopify's revenue has grown 3x the market and its valuation has grown more than 5x.

Shopify is clearly an accessible, popular, and inexpensive eCommerce platform that is growing faster than global eCommerce market. The key question for investors is, will its rapid revenue growth continue and help the company generate meaningful margins and cash flow that would support its growth beyond its current valuation?

Shop stock trading at an excessive 500X 2020E EBITDA

The majority eCommerce platform companies seem to be privately held or operate as subsidiaries of larger companies. **Magento** and **Weebly** are subsidiaries of **Adobe Inc. (NasdaqGS:ADBE)** and **Square, Inc. (NYSE:SQ)**, respectively. **Wix.com Ltd (WIX)** is the only other multibillion-dollar market cap stand-alone eCommerce platform we are aware of. Below is a list of eCommerce and SaaS companies we think are interesting peers.

With the peer group average EV/EBITDA multiple at 59.2x 2020E EBITDA, it is obvious very few of these SaaS companies are trading on near-term expectations, implying that investors must be anticipating high long-term growth. SHOP itself is trading at 500x the 2020E consensus EBITDA estimate of \$105M. Shopify's trailing free cash flow margin of 4% on its own does not support this multiple.

In looking for some justification as to why SHOP may be trading at such a high multiple, we note that investors often fail to appreciate that multiples should only be used as rules of thumb in valuing companies. For example, **Amazon.com (AMZN)** at 19x 2020 EBITDA could seem overvalued. However, as we noted in 2011 and again in 2018, **AMZN** deserves to trade at high near-term multiples because it has a long history of proving its ability to realize significant incremental revenue growth from investments in capital spending and R&D. Can the same be said of Shopify? In our opinion, the answer is "no," as we explain in more detail later in this report.

Shopify Inc. -- Selected Peers											
1/29/2020											
Company Name	US Ticker	Price	Enterprise Value	EBITDA CY+2	EV / EBITDA CY+2	EPS CY+2	CY+2 PE	Sales LTM	LTM ROE	LTM Margin	FCF LTM/Revenue
Shopify Inc.	SHOP	\$ 471.67	\$ 52,512	105	500.0	0.93	507.6	\$ 1,417	-1.7%	-9%	4%
Amazon.com, Inc.	AMZN	\$ 1,858.00	\$ 952,381	49,726	19.2	27.04	68.7	\$ 265,469	14.7%	5%	9%
Adobe Inc.	ADBE	\$ 351.66	\$ 169,508	7,079	23.9	11.62	30.3	\$ 11,171	18.7%	29%	29%
ServiceNow, Inc.	NOW	\$ 312.93	\$ 58,446	1,275	45.8	4.20	74.5	\$ 3,460	2.0%	1%	34%
Workday, Inc.	WDAY	\$ 183.61	\$ 41,678	930	44.8	2.19	83.8	\$ 3,440	-12.2%	-13%	24%
eBay Inc.	EBAY	\$ 34.58	\$ 33,559	3,979	8.4	3.33	10.4	\$ 10,800	48.1%	21%	24%
Square, Inc.	SQ	\$ 76.16	\$ 32,620	530	61.5	0.95	79.8	\$ 4,333	0.1%	0%	7%
Paycom Software, Inc.	PAYC	\$ 322.05	\$ 18,520	386	48.0	4.27	75.4	\$ 695	27.3%	30%	19%
Open Text Corporation	OTEX	\$ 46.60	\$ 14,413	1,256	11.5	3.14	14.8	\$ 2,898	7.8%	21%	29%
GoDaddy Inc.	GDDY	\$ 71.22	\$ 13,866	831	16.7	3.61	19.7	\$ 2,904	11.5%	6%	16%
Ceridian HCM Holding Inc.	CDAY	\$ 72.69	\$ 10,906	216	50.4	0.67	109.3	\$ 803	1.8%	11%	3%
Zendesk, Inc.	ZEN	\$ 86.00	\$ 9,799	104	93.8	0.57	151.3	\$ 759	-23.3%	-21%	18%
HubSpot, Inc.	HUBS	\$ 182.52	\$ 7,444	103	72.2	1.61	113.2	\$ 633	-5.2%	-7%	13%
Wix.com Ltd.	WIX	\$ 143.40	\$ 6,970	162	43.1	1.24	115.2	\$ 721	-21.4%	-9%	16%
Etsy, Inc.	ETSY	\$ 50.15	\$ 5,958	229	26.0	1.17	42.7	\$ 748	14.6%	14%	24%
Farfetch Limited	FTCH	\$ 11.33	\$ 3,242	(63)	(51.3)	(0.50)	(22.8)	\$ 834	-12.9%	-33%	-4%
Mohawk Group Holdings, Inc.	MWK	\$ 5.29	\$ 71	(8)	(8.5)	(0.73)	(7.3)	\$ 109	-114.8%	-29%	0%
									0.0%		
Shopify Inc.	SHOP		\$ 52,512	105	500.0	0.93	507.6	\$ 1,417	-1.7%	-9%	4%
Group Average			\$ 84,229	3,932	59.2	3.84	86.3	\$ 18,305	-2.6%	1%	15%
Group Low			\$ 71	(63)	(51.3)	(0.73)	(22.8)	\$ 109	-114.8%	-33%	-4%
Group High			\$ 952,381	49,726	500.0	27.04	507.6	\$ 265,469	48.1%	30%	34%

Source: Company data, Ascendere Associates data and estimates, S&P Capital IQ data, consensus estimates.

Is Amazon.com a partner or competitor?

According to some experts it may be only a matter of time before Shopify builds an online marketplace like Amazon.com, Walmart, or perhaps more relevantly, Etsy. According to Yaniv Sarig, CEO of Mohawk Group Holdings, a microcap CPG eCommerce platform that leverages proprietary real-time data and machine learning technology, “There is a tremendous amount of value to be had from acquiring a customer, because once acquired that customer is likely to make repeat purchases. In order to maximize the lifetime value from any given customer, I think it would make sense for Shopify to eventually build a search and recommendation engine that would provide a single point of access to all its distributed online storefronts. This is in a way already what the Amazon Marketplace is doing.”

At the moment, Shopify considers Amazon.com more of a partner than competitor. CEO Lütke pointed out on Shopify’s 3Q19 conference call that the company offers Amazon Pay to customers and merchants, and when something is bought on Amazon.com it is often a Shopify store that handles the fulfillment of the order. In 2015, Amazon.com shut down its Webstore platform and took steps to make it easy for its Webstore merchants to migrate to the Shopify platform.

Generating cash from the sale of stock

At the end of 3Q19 ended September 30, Shopify held \$2,667M of cash and short-term investments and \$111M of capital leases. Cash and short-term investments were up from \$2013M in 2Q19 and \$1,578M in 3Q18.

Last-12-month capital spending was \$50.9M in 3Q19, up from \$43.3M in 2Q19 and \$31M in 3Q18. The company closed on three small acquisitions in the first 9 months of 2019. In October 2019 it closed its \$450M (approximately 60% cash and 40% stock) acquisition of 6 River Systems, its largest acquisition to date.

LTM equity free cash flow, as defined as CFO less capex, was negative \$(23.9)M in 3Q19, down from \$16.2M in 2Q19 and negative \$(12.1)M in 3Q18. LTM free cash flow to the entity, as defined in the table below, was negative \$(149)M in 3Q19, down from \$(117)M in 3Q18, with an improvement to negative \$(115M) projected for 3Q20.

The increase in cash on its balance sheet was primarily due to the issuance of stock. Over the last 12 months, the company generated \$1,128M from the sale of stock, including \$1,083M in proceeds from the issuance of Class A shares and \$45M from the exercise of stock options. Weighted average basic shares outstanding increased to 113.1M in 3Q19, up 6% from 106.6M in 3Q18. The negative free cash flow and increase in shares outstanding, while not excessive, is certainly is not a favorable trait. No matter how it is explained, issuing shares tends to be a sure sign that management thinks the company is overvalued.

FREE CASH FLOW MODEL -- LTM										
	Estimate	Estimate	Estimate	Estimate	Estimate					
Last 12 Months	12/31/2020	9/30/2020	6/29/2020	3/30/2020	12/31/19	9/30/19	6/30/19	3/31/19	12/31/18	9/30/18
EBIT	(70)	(95)	(111)	(125)	(131)	(121)	(116)	(107)	(92)	(89)
Tax rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cash income taxes	-	-	-	-	-	-	-	-	-	-
EBIAT	(70)	(95)	(111)	(125)	(131)	(121)	(116)	(107)	(92)	(89)
Depreciation	37	34	32	30	27	25	22	22	23	26
Capital Spending, recurring	(57)	(54)	(53)	(58)	(55)	(51)	(43)	(32)	(28)	(31)
Adjstd Working Capital Investment	-	-	6	2	0	(3)	(24)	(22)	(24)	(23)
Free cash flow to the entity	(90)	(115)	(126)	(152)	(158)	(149)	(161)	(139)	(120)	(117)
Dividend	-	-	-	-	-	-	-	-	-	-
Buyback of stock	-	-	-	-	-	-	-	-	-	-
Other financing cash flows	-	-	-	698	713	1,128	437	431	1,072	674
Other investing cash flows	-	-	-	(198)	42	(223)	(5)	(220)	(783)	(536)
Adjusted "Free" Cash Flow	(90)	(115)	(126)	348	597	756	271	72	169	20

Source: Capital IQ data and consensus estimates, and Ascendere Associates estimates.

Impressive revenue growth continued in 3Q19, but positive margins and free cash flow seem years away

3Q19 revenue grew 45% year-over-year to \$390.6M, with Subscriptions Solutions revenue growing 37% to \$1655.6M and Merchant Solutions revenue growing 50% to \$225M. According to Shopify, growth was driven by GMV expansion to \$14.8B, up 48% y/y with international being the fastest growing component. Shopify Payments penetration of GMV grew 42% in 3Q19 from 41%, primarily due to Shopify Plus penetration and international growth and new products such as multicurrency payments. 3Q18EBITDA was negative \$(26.9)M versus negative \$(25.2)M in 3Q18.

LTM revenue was \$1,416.9M, up 48.8% from \$952.2M in 3Q18. The LTM gross margin was 55.6%, in line with the 55.8% posted in 3Q18 and 55.6% in 2Q19. Capital efficiency ratios such as ROA, ROC, and ROE have always been negative.

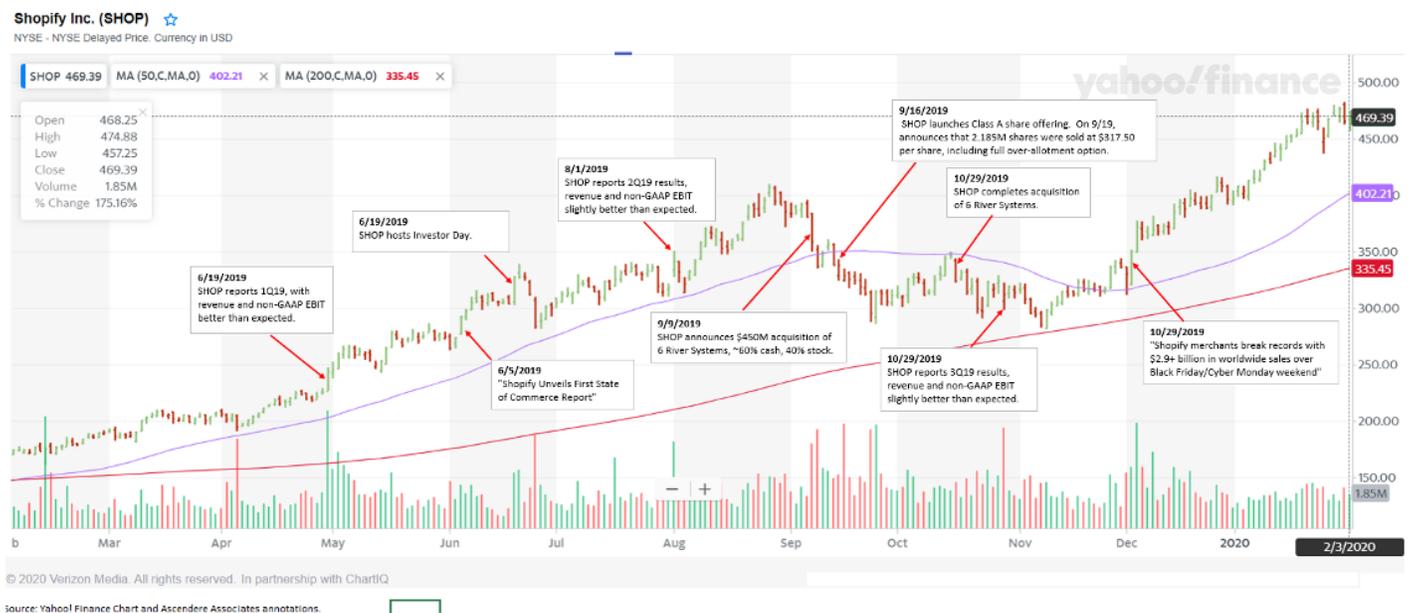
Shopify's October 2019 \$450M acquisition of eCommerce fulfillment provider 6 River Systems is intended to help merchants provide fast and affordable shipping. The acquisition is not expected to materially impact near-term revenue because "...most of its revenue is recognized over the multiyear lifetime of each contract and also reflects the reduction of acquired deferred revenue under purchase accounting." The company expects 6 River Systems to add \$25M of incremental expense in 4Q19, including \$10M of cash operating expense, \$7M in stock-based compensation and \$8M of amortization of acquired intangibles.

Guidance for 4Q19 results on February 12, 2020 are likely to be beat

For 4Q19 the company expects revenue of \$472-482M, a GAAP operating loss of \$(47)-(57)M, and adjusted operating income of \$10-20M. Full year 2019 revenue is expected at \$1.545-\$1.555B, a GAAP operating loss of \$(158)-\$(168)M, and adjusted operating income of \$27M-37M. The company intends to report 4Q19 results the morning of February 12, 2020.

A news driven story that may have peaked in the short term

The annotated chart below indicates SHOP has surged in price following positive financial results and favorable events, such as the release of its “State of Commerce Report” on June 5, 2019 and its Investor Day on June 19, 2019. The stock declined following the announcement of its acquisition of 6 River Systems on September 9, 2019 and an equity offering announced on September 16, 2019. Following its December 3, 2019 announcement that “Shopify merchants break records with \$2.9+ billion in worldwide sales over Black Friday/Cyber Monday weekend,” the stock surged 41% from \$330.84 to \$469.39 by the February 3, 2019 close. It seems that investors are anticipating a big 4Q19 earnings beat and guidance that will drive 2020 consensus estimates significantly higher in 2020. It is difficult to imagine any meaningful margin expansion in 2020, or an accelerating of already high revenue growth in 2020, so I would be a seller either before or immediately following the release of 4Q19 news and updated 2020 guidance.



Our blended DCF price target for Shopify stock is \$268, 49% below the recent stock price of \$469

SHOP Valuation Scenario	Probability	Target
Best case	30%	\$ 499
Base case	60%	\$ 193
Worst case	10%	\$ 26
Weighted Average 1yr Target	100%	\$ 268

Shopify has for years proven it can innovate and create new products that retain and attract new customers. We think there is a good chance for this innovation and success to continue, which is why we assume our Best Case scenario with a target of \$499 has at least a 30% chance of occurring.

Our Base Case scenario assumes continued solid revenue growth and a long-term EBIT margin that falls somewhere between Amazon.com's and Etsy. We think this scenario is the most likely and assign a probability of it occurring at 60% with a target of \$193.

Our Worst Case scenario assumes that competition in the saturated eCommerce platform market will intensify and Shopify's entry into fulfillment will depress margins, though we think this outcome is much less likely and assign it a 10% probability.

The consensus price target of \$396, composed of the mean of 29 institutional analysts, seems way too high to us. Our revenue forecasts are higher than consensus, but we think consensus is overly optimistic on the company's ability to expand margins over time. It is also possible some analysts are incorrectly applying non-GAAP EBIT forecasts in their DCF valuations.

The table below, "Actuals, Guidance, Consensus, and our Base Case forecasts," shows how our Base Case forecast differs from consensus.

Shopify										
Actuals, Guidance, Consensus, and our Base Case forecasts										
	1Q19	2Q19	3Q19	4Q19	2019	2020	2021	2022	2023	2024
Revenue, Actual	321	362	391	490	1,563	2,188	3,064	4,289	5,790	7,817
Revenue, Guidance	305 to 310	345 to 350	377 to 382	472 to 482	1,545 to 1,555					
Revenue, Consensus	310	351	384	482	1,556	2,127	2,856	4,031	5,455	7,529
GAAP EBIT, Actual	(36)	(40)	(36)	(38)	(149)	(108)	(18)	86	290	547
GAAP EBIT, Guidance	(47) to (49)	(46) to (48)	(44) to (47)	(47) to (57)	(158) to (168)					
Non GAAP EBIT	(1)	5	9	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
Non GAAP EBIT	13 to 15	6 to 8	0 to 3	10 to 20	27 to 35					
Non GAAP EBIT, Consensus	(13)	(5)	3	18	35	71	176	464	800	1,274
Difference between our projections and consensus										
Revenue				8	7	61	208	258	335	288
EBIT (Our GAAP estimate less Consensus Non GAAP estimate)				(56)	(184)	(179)	(194)	(379)	(511)	(727)
Revenue Growth, Our Estimate					46%	40%	40%	40%	35%	35%
Revenue Growth, Consensus					45%	37%	34%	41%	35%	38%
EBIT Margin, Our Estimate					-9.5%	-4.9%	-0.6%	2.0%	5.0%	7.0%
EBIT Margin, Implied by Consensus					2.2%	3.2%	5.7%	10.8%	13.8%	16.3%

*Consensus figures from S&P Capital IQ. Our 4Q19 and 2019 estimates are in the "actuals" rows.

Base Case Price Target is \$193, 60% probability

Our Base Case forecast assumes revenue grows at a 31% compound annual growth rate to \$23.8B in 2029 from an estimated \$1.56B in 2019. We think this is a reasonable Base Case growth rate assumption given that company revenue has been growing more than 2x projected global eCommerce industry growth of 20% and is likely to taper over time.

This forecast assumes the company attains positive GAAP EBIT in 2022, growing to \$2.4B in 2029 as the EBIT margin eventually expands from a projected -9.5% in 2019 to 10% by 2027 and stays at the level. This 10% EBIT margin target is below Ebay's and Etsy's EBIT margins of approximately 21% and 14%, respectively, and above Amazon.com's EBIT margin of 5.1%.

We think a long-term Base Case target margin that falls somewhere between that of Etsy and Amazon.com makes sense given that Shopify may be considered a disaggregated version of both the “boutique-y” Etsy and of the fulfillment-intensive Amazon.com. In this Base Case scenario, we assume free cash flow turns positive in 2022, and grows to \$1.6B in 2029.

Worst Case Price Target is \$26, 10% probability

Our Worst Case assumes annual revenue growth slows to 15% by 2029 either due to slowing industry growth, increased competition, or both, representing a 10-year CAGR of 26%. In addition, we assume that GAAP EBIT margins never meaningfully expand, first turning positive in 2025 and peaking at 2.5% in 2027. In this scenario, we assume free cash flow first turns positive in 2027 and reach \$157M by 2029.

This surely is a Worst Case forecast in that it is hard to imagine global eCommerce slowing, or Shopify not being able to generate operating leverage from revenue growth that would still be the envy of companies in any other industry.

However, a pessimist would note that barriers to developing eCommerce platforms is low, and Shopify’s entry into the lower-margin fulfillment industry likely indicates that eCommerce is already fully saturated by a wide range of marketing and selling platforms. In addition, the company has little experience in managing capex-heavy and lower-margin fulfillment centers, and the presumed cross-selling opportunities and customer stickiness by entering the fulfillment market may not materialize. There is no reason why FedEx, UPS, or Amazon.com, and some other more experienced freight shipping and fulfillment center company can create a seamless service for small- to medium-sized businesses.

Best Case Price Target is \$499, 30% probability

Our Best Case forecast assumes revenue grows at 45% each year through 2022, eventually slowing to 25% in 2029 for a 10-year CAGR of 36%. It also assumes the GAAP EBIT margin expands to 17.5% in 2027 from a projected-9.5% in 2019 – well above Etsy’s and Amazon.com’s current EBIT margins and approaching eBay’s of 21%. In this scenario we assume free cash flow turns positive in 2020 and grows at a 68% CAGR to \$4.4B in 2029.

This scenario assumes the company finds ways to extend its current revenue growth through continual development of new products and emerging cross selling opportunities, as well as finding new ways to capture revenue from the expanding Gross Merchandise Volume of its merchants. Ten years from now, it is possible that the key revenue generators of this company come from its payment and lending products, with continued innovations in its eCommerce platform and fulfillment network continuing to grow its customer base and capture share of the overall eCommerce market.

So far, the company has proven it is adept at finding new opportunities, attracting new customers - especially enterprise customers. In addition, it is possible any future recession will only benefit the company in the long-term since part of its success has been due to the emergence of a new class of people which were forced into the entrepreneurship in the last recession. If the company can find ways to expand its margins while continuing to innovate, cross sell, and move downstream into lower margin, more capex-intensive eCommerce fulfillment we think achieving this Best Case scenario is reasonable.

Base Case													
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	
Shopify Inc.	12/31/18	12/31/19	12/30/20	12/31/21	12/31/22	12/31/23	12/30/24	12/31/25	12/31/26	12/31/27	12/30/28	12/31/29	
Income Statement													
Acquired sales	-	-	-	-	-	-	-	-	-	-	-	-	-
Disposed Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
Total sales	1,073	1,563	2,188	3,064	4,289	5,790	7,817	10,162	13,211	16,513	19,816	23,779	
Total sales growth	0.00%	45.64%	40.00%	40.00%	40.00%	35.00%	35.00%	30.00%	30.00%	25.00%	20.00%	20.00%	
Gross margin	55.6%	54.6%	59.2%	63.5%	66.0%	66.0%	65.0%	63.0%	63.0%	63.0%	62.0%	61.0%	
SG&A margin	64.1%	64.1%	64.1%	64.1%	64.0%	61.0%	58.0%	55.0%	54.0%	53.0%	52.0%	51.0%	
EBITDA	(69)	(116)	(64)	43	163	382	657	945	1,361	1,866	2,239	2,687	
EBITDA margin	-6.4%	-7.4%	-2.9%	1.4%	3.8%	6.6%	8.4%	9.3%	10.3%	11.3%	11.3%	11.3%	
EBIT	(92)	(149)	(108)	(18)	86	290	547	813	1,189	1,651	1,982	2,378	
EBIT margin	-8.6%	-9.5%	-4.9%	-0.6%	2.0%	5.0%	7.0%	8.0%	9.0%	10.0%	10.0%	10.0%	
Other recurring income	-	-	-	-	-	-	-	-	-	-	-	-	
Nonrecurring income	-	-	-	-	-	-	-	-	-	-	-	-	
Net interest expense	29	8	7	7	7	8	9	11	13	18	23	30	
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	
Earnings from Continuing O	(62)	(141)	(101)	(11)	93	282	439	651	950	1,318	1,584	1,902	
Shares outstanding	106	113	113	113	113	113	113	113	113	113	113	113	
EPS from Continuing Opera	(0.59)	(1.25)	(0.89)	(0.10)	0.82	2.50	3.88	5.75	8.40	11.66	14.00	16.82	
Dividend per share	-	-	-	-	-	-	-	-	-	-	-	-	
Dividends	-	-	-	-	-	-	-	-	-	-	-	-	
Cash Flow Statement													
Cash from Operations	(16)	(87)	(57)	44	166	389	580	846	1,158	1,572	1,921	2,315	
Cash from Investing	(28)	(53)	(60)	(92)	(128)	(168)	(219)	(274)	(343)	(413)	(476)	(547)	
Cash from Financing	-	-	-	-	-	-	-	-	-	-	-	-	
Change in Cash	(44)	(140)	(117)	(48)	38	221	361	572	815	1,159	1,446	1,768	
Free Cash Flow to the Firm													
EBIAT	(92)	(149)	(108)	(18)	86	275	432	642	939	1,305	1,565	1,879	
Depreciation	23	33	44	61	77	93	109	132	172	215	258	309	
Capital investment	(28)	(53)	(60)	(92)	(128)	(168)	(219)	(274)	(343)	(413)	(476)	(547)	
Adj working capital investme	23	(198)	-	-	-	-	-	-	-	-	0	-	
Free cash flow	(73)	(367)	(124)	(49)	35	200	323	500	768	1,106	1,347	1,641	
Economic Profit													
Operating Capital	637	635	651	688	743	804	881	960	1,096	1,255	1,393	1,526	
WACC (rough estimate)	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	
Capital Charge	49	49	51	53	58	62	68	74	85	97	108	118	
NOPAT (adjusted for leases)	(92)	(149)	(108)	(18)	86	275	432	642	939	1,305	1,565	1,879	
Economic Profit	(141)	(198)	(159)	(71)	28	213	364	568	854	1,207	1,457	1,760	
EP as % of Operating Capit	-22.2%	-31.2%	-24.3%	-10.4%	3.8%	26.5%	41.3%	59.1%	78.0%	96.2%	104.6%	115.3%	
Adjusted Present Value													
Unlevered equity discount rate	7.3%	7.3%	7.3%	7.8%	7.8%	7.8%	8.3%	8.3%	8.3%				
Tax shield discount rate	0.8%	0.8%	0.8%	1.0%	1.0%	1.0%	1.3%	1.3%	1.3%				
Terminal growth rate	2.0%	2.5%	3.0%	2.0%	2.5%	3.0%	2.0%	2.5%	3.0%				
Current Value	\$ 193	\$ 208	\$ 228	\$ 174	\$ 186	\$ 201	\$ 158	\$ 168	\$ 180				
+12 Months Value	\$ 200	\$ 217	\$ 237	\$ 180	\$ 193	\$ 209	\$ 164	\$ 174	\$ 187				

Source: Ascendere Associates LLC

Base Case												
Discount unlevered free cash flows at the unlevered cost of equity to determine value of the unlevered firm												
Stub Period		-	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
Adjusted Present Value	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Total Sales	1,073	1,563	2,188	3,064	4,289	5,790	7,817	10,162	13,211	16,513	19,816	23,779
EBIT	(92)	(149)	(108)	(18)	86	290	547	813	1,189	1,651	1,982	2,378
Tax rate	0%	0%	0%	0%	0%	5%	21%	21%	21%	21%	21%	21%
Cash income taxes	-	-	-	-	-	14	115	171	250	347	416	499
EBIAT	(92)	(149)	(108)	(18)	86	275	432	642	939	1,305	1,565	1,879
Depreciation	23	33	44	61	77	93	109	132	172	215	258	309
Capital Spending	(28)	(53)	(60)	(92)	(128)	(168)	(219)	(274)	(343)	(413)	(476)	(547)
Adj Working Capital Investment	23	(198)	-	-	-	-	-	-	-	-	0	-
Free cash flow to the entity	(73)	(367)	(124)	(49)	35	200	323	500	768	1,106	1,347	1,641
Residual value of free cash flows												31,906
Free cash flow plus residual value		(367)	(124)	(49)	35	200	323	500	768	1,106	1,347	33,547
Present value of future cash flows		-	(115)	(42)	28	148	222	319	455	608	687	15,872
Value of unlevered firm	18,182											
Discount interest tax shields at cost of debt to determine value of interest tax shields												
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Total Debt	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1
Cash interest expense as % of Debt	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Cash interest expense	0	0	0	0	0	0	0	0	0	0	0	0
Interest tax shield	-	-	-	-	-	0	0	0	0	0	0	0
Residual value of interest tax shields						0	0	0	0	0	0	0
Interest tax shields plus residual value		-	-	-	-	0	0	0	0	0	0	0
Cost of debt		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Present value of future cash flows		-	-	-	-	0	0	0	0	0	0	0
Value of interest tax shields	0											
Cost of Potential Bankruptcy												
Probability of bankruptcy	0.5%											
Negative impact to PV	100.0%											
Unlevered firm value	18,182											
Expected bankruptcy costs	(96)											
Valuation												
Value of unlevered firm	18,182											
Value of interest tax shields	0											
Expected bankruptcy costs	(96)											
Enterprise value	18,086											
Cash	2,667											
Other non-operating assets	-											
Debt	(111)											
Preferred	-											
Minority Interest	-											
Other non operating liabilities	-											
Value of equity	20,642											
Shares outstanding	111.0											
Value per share	186.05											
Source: Ascendere Associates LLC estimates.												

Current Value				
	2.0%	2.5%	3.0%	Tax shield
Equity	7.3%	7.8%	8.3%	0.8%
	\$ 192.88	\$ 208.43	\$ 227.62	
	\$ 173.72	\$ 186.05	\$ 200.96	1.0%
	\$ 157.75	\$ 167.69	\$ 179.52	1.3%

Value 12+ months				
	2.0%	2.5%	3.0%	Tax shield
Equity	7.3%	7.8%	8.3%	0.8%
	\$ 199.88	\$ 216.56	\$ 237.14	
	\$ 180.07	\$ 193.36	\$ 209.43	1.0%
	\$ 163.54	\$ 174.30	\$ 187.11	1.3%

Scenario -5												
Worst Case												
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
	43,465	12/31/2019	12/30/2020	12/31/2021	12/31/2022	12/31/2023	12/30/2024	12/31/2025	12/31/2026	12/31/2027	12/30/2028	12/31/2029
Income Statement												
Acquired sales	-	-	-	-	-	-	-	-	-	-	-	-
Disposed Sales	-	-	-	-	-	-	-	-	-	-	-	-
Total sales	1,073	1,563	2,110	2,849	3,846	5,000	6,499	8,124	10,155	12,186	14,014	16,117
Total sales growth	0.0%	45.6%	35.0%	35.0%	35.0%	30.0%	30.0%	25.0%	25.0%	20.0%	15.0%	15.0%
Gross margin	55.6%	54.6%	56.7%	61.0%	63.5%	63.5%	62.5%	60.5%	60.5%	60.5%	59.5%	58.5%
SG&A margin	64.1%	64.1%	69.1%	69.1%	69.0%	66.0%	63.0%	60.0%	59.0%	58.0%	57.0%	56.0%
EBITDA	(69)	(116)	(220)	(174)	(142)	(45)	58	146	284	463	533	612
EBITDA margin	-6.4%	-7.4%	-10.4%	-6.1%	-3.7%	-0.9%	0.9%	1.8%	2.8%	3.8%	3.8%	3.8%
EBIT	(92)	(149)	(262)	(230)	(212)	(125)	(32)	41	152	305	350	403
EBIT margin	-8.6%	-9.5%	-12.4%	-8.1%	-5.5%	-2.5%	-0.5%	0.5%	1.5%	2.5%	2.5%	2.5%
Other recurring income	-	-	-	-	-	-	-	-	-	-	-	-
Nonrecurring income	-	-	-	-	-	-	-	-	-	-	-	-
Net interest expense	29	8	7	6	5	4	4	3	3	4	4	5
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
Earnings from Continuing O	(62)	(141)	(255)	(225)	(207)	(115)	(23)	35	123	244	280	322
Shares outstanding	106	113	113	113	113	113	113	113	113	113	113	113
EPS from Continuing Opera	(0.59)	(1.25)	(2.26)	(1.99)	(1.83)	(1.02)	(0.20)	0.31	1.09	2.15	2.48	2.85
Dividend per share	-	-	-	-	-	-	-	-	-	-	-	-
Dividends	-	-	-	-	-	-	-	-	-	-	-	-
Cash Flow Statement												
Cash from Operations	(16)	(87)	(199)	(171)	(136)	(17)	101	198	290	437	523	606
Cash from Investing	(28)	(53)	(58)	(85)	(115)	(145)	(182)	(219)	(264)	(305)	(336)	(371)
Cash from Financing	-	-	-	-	-	-	-	-	-	-	-	-
Change in Cash	(44)	(140)	(256)	(257)	(251)	(162)	(81)	(22)	26	132	187	235
Free Cash Flow to the Firm												
EBIAT	(92)	(149)	(262)	(230)	(212)	(119)	(26)	32	120	241	277	318
Depreciation	23	33	42	57	69	80	91	106	132	158	182	210
Capital investment	(28)	(53)	(58)	(85)	(115)	(145)	(182)	(219)	(264)	(305)	(336)	(371)
Adj working capital investme	23	(198)	-	-	-	-	-	-	-	-	-	-
Free cash flow	(73)	(367)	(278)	(259)	(257)	(184)	(117)	(82)	(12)	94	123	157
Economic Profit												
Operating Capital	637	635	636	668	713	760	818	874	971	1,082	1,176	1,263
WACC (rough estimate)	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%
Capital Charge	49	49	49	52	55	59	63	68	75	84	91	98
NOPAT (adjusted for leases	(92)	(149)	(262)	(230)	(212)	(119)	(26)	32	120	241	277	318
Economic Profit	(141)	(198)	(312)	(282)	(267)	(178)	(89)	(36)	45	157	186	220
EP as % of Operating Capit	-22.2%	-31.2%	-49.0%	-42.2%	-37.4%	-23.4%	-10.9%	-4.1%	4.6%	14.5%	15.8%	17.4%
Adjusted Present Value												
Unlevered equity discount rate	7.3%	7.3%	7.3%	7.8%	7.8%	7.8%	8.3%	8.3%	8.3%			
Tax shield discount rate	0.8%	0.8%	0.8%	1.0%	1.0%	1.0%	1.3%	1.3%	1.3%			
Terminal growth rate	2.0%	2.5%	3.0%	2.0%	2.5%	3.0%	2.0%	2.5%	3.0%			
Current Value	30	31	33	28	29	31	27	27	29			
+12 Months Value	26	28	30	24	26	27	23	24	25			
Source: Ascendere Associates LLC												

Scenario -5													
Worst Case													
Discount unlevered free cash flows at the unlevered cost of equity to determine value of the unlevered firm													
Period		-	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	
Adjusted Present Value		FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Total Sales		1,073	1,563	2,110	2,849	3,846	5,000	6,499	8,124	10,155	12,186	14,014	16,117
EBIT		(92)	(149)	(262)	(230)	(212)	(125)	(32)	41	152	305	350	403
Tax rate		0%	0%	0%	0%	0%	5%	21%	21%	21%	21%	21%	21%
Cash income taxes		-	-	-	-	-	(6)	(7)	9	32	64	74	85
EBIAT		(92)	(149)	(262)	(230)	(212)	(119)	(26)	32	120	241	277	318
Depreciation		23	33	42	57	69	80	91	106	132	158	182	210
Capital Spending		(28)	(53)	(58)	(85)	(115)	(145)	(182)	(219)	(264)	(305)	(336)	(371)
Adj Working Capital Investment		23	(198)	-	-	-	-	-	-	-	-	-	-
Free cash flow to the entity		(73)	(367)	(278)	(259)	(257)	(184)	(117)	(82)	(12)	94	123	157
Residual value of free cash flows													3,056
Free cash flow plus residual value			(367)	(278)	(259)	(257)	(184)	(117)	(82)	(12)	94	123	3,213
Present value of future cash flows			-	(258)	(223)	(205)	(136)	(80)	(52)	(7)	52	63	1,520
Value of unlevered firm	673												
Discount interest tax shields at cost of debt to determine value of interest tax shields													
		-	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	
		FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Total Debt		\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1
Cash interest expense as % of Debt		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Cash interest expense		0	0	0	0	0	0	0	0	0	0	0	0
Interest tax shield		-	-	-	-	-	0	0	0	0	0	0	0
Residual value of interest tax shields													0
Interest tax shields plus residual value			-	-	-	-	0	0	0	0	0	0	0
Cost of debt			1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Present value of future cash flows			-	-	-	-	0	0	0	0	0	0	0
Value of interest tax shields	0												
Cost of Potential Bankruptcy													
Probability of bankruptcy	0.5%												
Negative impact to PV	100.0%												
Unlevered firm value	673												
Expected bankruptcy costs	(4)												
Valuation													
Value of unlevered firm	673												
Value of interest tax shields	0												
Expected bankruptcy costs	(4)												
Enterprise value	670												
Cash	2,667												
Other non-operating assets	-												
Debt	(111)												
Preferred	-												
Minority Interest	-												
Other non operating liabilities	-												
Value of equity	3,226												
Shares outstanding	111.0												
Value per share	29.07												
Source: Ascendere Associates LLC													

Current Value				
	Terminal Growth			
Equity	2.0%	2.5%	3.0%	Tax shield
7.3%	\$ 29.59	\$ 31.08	\$ 32.92	0.8%
7.8%	\$ 27.89	\$ 29.07	\$ 30.50	1.0%
8.3%	\$ 26.50	\$ 27.45	\$ 28.59	1.3%

Value 12+ months				
	Terminal Growth			
Equity	2.0%	2.5%	3.0%	Tax shield
7.3%	\$ 26.09	\$ 27.69	\$ 29.66	0.8%
7.8%	\$ 24.29	\$ 25.57	\$ 27.11	1.0%
8.3%	\$ 22.81	\$ 23.84	\$ 25.07	1.3%

Scenario +5													
Best Case													
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	
	12/31/18	12/31/19	12/30/20	12/31/21	12/31/22	12/31/23	12/30/24	12/31/25	12/31/26	12/31/27	12/30/28	12/31/29	
Income Statement													
Acquired sales	-	-	-	-	-	-	-	-	-	-	-	-	-
Disposed Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
Total sales	1,073	1,563	2,266	3,286	4,765	6,671	9,340	12,609	17,022	22,129	27,661	34,576	
Total sales growth		45.6%	45.0%	45.0%	45.0%	40.0%	40.0%	35.0%	35.0%	30.0%	25.0%	25.0%	
Gross margin	55.6%	54.6%	61.7%	66.0%	68.5%	68.5%	67.5%	65.5%	65.5%	65.5%	64.5%	63.5%	
SG&A margin	64.1%	64.1%	59.1%	59.1%	59.0%	56.0%	53.0%	50.0%	49.0%	48.0%	47.0%	46.0%	
EBITDA	(69)	(116)	103	293	538	941	1,485	2,118	3,030	4,160	5,200	6,500	
EBITDA margin	-6.4%	-7.4%	4.6%	8.9%	11.3%	14.1%	15.9%	16.8%	17.8%	18.8%	18.8%	18.8%	
EBIT	(92)	(149)	58	227	453	834	1,354	1,954	2,809	3,873	4,841	6,051	
EBIT margin	-8.6%	-9.5%	2.6%	6.9%	9.5%	12.5%	14.5%	15.5%	16.5%	17.5%	17.5%	17.5%	
Other recurring income	-	-	-	-	-	-	-	-	-	-	-	-	
Nonrecurring income	-	-	-	-	-	-	-	-	-	-	-	-	
Net interest expense	29	8	8	8	9	12	15	20	27	37	51	68	
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	
Earnings from Continuing O	(62)	(141)	66	235	462	803	1,082	1,560	2,240	3,089	3,864	4,834	
Shares outstanding	106	113	113	113	113	113	113	113	113	113	113	113	
EPS from Continuing Opera	(0.59)	(1.25)	0.58	2.08	4.09	7.10	9.57	13.79	19.81	27.31	34.17	42.74	
Dividend per share	-	-	-	-	-	-	-	-	-	-	-	-	
Dividends	-	-	-	-	-	-	-	-	-	-	-	-	
Cash Flow Statement													
Cash from Operations	(16)	(87)	95	290	537	917	1,237	1,788	2,491	3,409	4,317	5,414	
Cash from Investing	(28)	(53)	(62)	(99)	(142)	(193)	(262)	(340)	(443)	(553)	(664)	(795)	
Cash from Financing	-	-	-	-	-	-	-	-	-	-	-	-	
Change in Cash	(44)	(140)	33	191	395	724	976	1,447	2,048	2,856	3,653	4,618	
Free Cash Flow to the Firm													
EBIAT	(92)	(149)	58	227	453	792	1,070	1,544	2,219	3,059	3,824	4,780	
Depreciation	23	33	45	66	86	107	131	164	221	288	360	449	
Capital investment	(28)	(53)	(62)	(99)	(142)	(193)	(262)	(340)	(443)	(553)	(664)	(795)	
Adj working capital investme	23	(198)	0	-	-	-	-	-	-	-	-	(0)	
Free cash flow	(73)	(367)	42	194	396	706	939	1,367	1,998	2,794	3,520	4,434	
Economic Profit													
Operating Capital	637	635	668	711	778	858	964	1,077	1,269	1,502	1,713	1,928	
WACC (rough estimate)	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	
Capital Charge	49	49	52	55	60	67	75	84	98	116	133	150	
NOPAT (adjusted for leases	(92)	(149)	58	227	453	792	1,070	1,544	2,219	3,059	3,824	4,780	
Economic Profit	(141)	(198)	6	172	392	726	995	1,460	2,120	2,943	3,691	4,631	
EP as % of Operating Capit	-22.2%	-31.2%	0.9%	24.2%	50.4%	84.6%	103.2%	135.6%	167.1%	196.0%	215.5%	240.2%	
Adjusted Present Value													
Unlevered equity discount rate	7.3%	7.3%	7.3%	7.8%	7.8%	7.8%	8.3%	8.3%	8.3%				
Tax shield discount rate	0.8%	0.8%	0.8%	1.0%	1.0%	1.0%	1.3%	1.3%	1.3%				
Terminal growth rate	2.0%	2.5%	3.0%	2.0%	2.5%	3.0%	2.0%	2.5%	3.0%				
Current Value	490	532	583	438	471	511	395	421	453				
+12 Months Value	517	562	617	463	499	542	418	448	482				
Source: Ascendere Associates LLC													

Scenario +5												
Best Case												
Discount unlevered free cash flows at the unlevered cost of equity to determine value of the unlevered firm												
Period		-	1	2	3	4	5	6	7	8	9	10
Adjusted Present Value	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Total Sales	1,073	1,563	2,266	3,286	4,765	6,671	9,340	12,609	17,022	22,129	27,661	34,576
EBIT	(92)	(149)	58	227	453	834	1,354	1,954	2,809	3,873	4,841	6,051
Tax rate	0%	0%	0%	0%	0%	5%	21%	21%	21%	21%	21%	21%
Cash income taxes	-	-	-	-	-	42	284	410	590	813	1,017	1,271
EBIAT	(92)	(149)	58	227	453	792	1,070	1,544	2,219	3,059	3,824	4,780
Depreciation	23	33	45	66	86	107	131	164	221	288	360	449
Capital Spending	(28)	(53)	(62)	(99)	(142)	(193)	(262)	(340)	(443)	(553)	(664)	(795)
Adj Working Capital Investment	23	(198)	0	-	-	-	-	-	-	-	-	(0)
Free cash flow to the entity	(73)	(367)	42	194	396	706	939	1,367	1,998	2,794	3,520	4,434
Residual value of free cash flows												86,232
Free cash flow plus residual value		(367)	42	194	396	706	939	1,367	1,998	2,794	3,520	90,666
Present value of future cash flows		-	39	167	317	523	646	873	1,183	1,535	1,795	42,897
Value of unlevered firm	49,974											
Discount interest tax shields at cost of debt to determine value of interest tax shields												
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Total Debt	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1
Cash interest expense as % of Debt	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Cash interest expense	0	0	0	0	0	0	0	0	0	0	0	0
Interest tax shield		-	-	-	-	0	0	0	0	0	0	0
Residual value of interest tax shields												0
Interest tax shields plus residual value		-	-	-	-	0	0	0	0	0	0	0
Cost of debt		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Present value of future cash flows		-	-	-	-	0	0	0	0	0	0	0
Value of interest tax shields	0											
Cost of Potential Bankruptcy												
Probability of bankruptcy	0.5%											
Negative impact to PV	100.0%											
Unlevered firm value	49,974											
Expected bankruptcy costs	(265)											
Valuation												
Value of unlevered firm	49,974											
Value of interest tax shields	0											
Expected bankruptcy costs	(265)											
Enterprise value	49,709											
Cash	2,667											
Other non-operating assets	-											
Debt	(111)											
Preferred	-											
Minority Interest	-											
Other non operating liabilities	-											
Value of equity	52,266											
Shares outstanding	111.0											
Value per share	471.07											
Source: Ascendere Associates LLC												

Current Value				
	Terminal Growth			
Equity	2.0%	2.5%	3.0%	Tax shield
7.3%	\$ 489.57	\$ 531.60	\$ 583.46	0.8%
7.8%	\$ 437.75	\$ 471.07	\$ 511.37	1.0%
8.3%	\$ 394.57	\$ 421.44	\$ 453.40	1.3%

Value 12+ months				
	Terminal Growth			
Equity	2.0%	2.5%	3.0%	Tax shield
7.3%	\$ 516.65	\$ 561.73	\$ 617.37	0.8%
7.8%	\$ 463.14	\$ 499.05	\$ 542.48	1.0%
8.3%	\$ 418.46	\$ 447.55	\$ 482.15	1.3%

Risks

Ascendere Associates LLC makes no guarantee on the accuracy of the data, estimates, assumptions or forecasts in this report. This report is for informational purposes only, and is not a recommendation to buy or sell any security. Investing in any stock entails a high degree of risk, including the risk of total loss.

Valuation Sensitivity Analysis									
Shopify Inc.									
Information Technology									
Internet Services and Infrastructure									
NYSE:SHOP									
							Best	Base	Worst
	Low	Average	Median	High	YTD		Scenario +5	Base Case	Scenario -5
Adjusted Present Value current							\$ 471	\$ 186	\$ 29
Adjusted Present Value +12 months							\$ 499	\$ 193	\$ 26
Unlevered equity discount rate							7.8%	7.8%	7.8%
Tax shield discount rate							1.0%	1.0%	1.0%
Risk free rate							1.8%	1.8%	1.8%
Market risk premium							6.0%	6.0%	6.0%
Terminal growth rate							2.5%	2.5%	2.5%
Next 5yr Sales CAGR							43.0%	38.0%	33.0%
Next 5yr Free Cash Flow CAGR							106.2%	-223.4%	-10.8%
ROIC FY2019E							-23.5%	-23.5%	-23.5%
ROIC FY2020E							8.7%	-16.6%	-41.3%
ROIC FY2024E							111.0%	49.0%	-3.1%
Y/Y Sales Growth FY2019E					47.1%		45.6%	45.6%	45.6%
Y/Y Sales Growth FY2024E							40.0%	35.0%	30.0%
Gross Margin FY2019E	0.0%	40.7%	55.4%	79.9%	56.1%		54.6%	54.6%	54.6%
Gross Margin FY2024E							67.5%	65.0%	62.5%
Gross Margin Expansion							12.9%	10.4%	7.9%
SG&A + R&D Margin FY2019E					65.3%		64.1%	64.1%	64.1%
SG&A + R&D Margin FY2024E							53.0%	58.0%	63.0%
SG&A Margin Expansion							-11.1%	-6.1%	-1.1%
EBITDA Margin FY2019E	-16.8%	-4.7%	-4.9%	0.0%	-8.2%		-7.4%	-7.4%	-7.4%
EBITDA Margin FY2024E							15.9%	8.4%	0.9%
EBITDA Margin Expansion							23.3%	15.8%	8.3%
EBIT Margin FY2019E	-20.6%	-6.7%	-7.9%	0.0%	-10.4%		-9.5%	-9.5%	-9.5%
EBIT Margin FY2024E							14.5%	7.0%	-0.5%
EBIT Margin Expansion							24.0%	16.5%	9.0%
Source: Ascendere Associates estimates.									

Source: Ascendere Associates LLC forecasts, assumptions, consensus forecasts and S&P Capital IQ data.

Peer Group Cost of Capital													
	Shopify Inc.	ServiceNow, Inc.	Workday, Inc.	Paycom Software, Inc.	Open Text Corporation	GoDaddy Inc.	Ceridian HCM Holding Inc.	Zendesk, Inc.	HubSpot, Inc.	Wix.com Ltd.	Teradata Corporation	Mohawk Group Holdings, Inc.	Average
	NYSE:SHOP	NYSE:NOW	NasdaqGS:	NYSE:PAYC	NasdaqGS:	NYSE:GDDY	NYSE:CDAY	NYSE:ZEN	NYSE:HUBS	NasdaqGS:WIX	NYSE:TDC	laqCM:MWK	
Cost of Equity													
Beta S&P (5-yr monthly)	1.20	1.34	1.49	1.25	0.57	0.66	0.00	1.21	1.58	1.41	1.12	0.00	0.99
Beta, relevered with industry average	0.94	0.95	0.96	0.94	1.10	1.10	0.98	0.98	0.99	0.98	1.10	1.18	1.02
Current Risk Free Rate (US 10yr bond)	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
Equity Risk Premium	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Cost of Equity	6.9%	7.0%	7.1%	6.9%	7.8%	7.8%	7.2%	7.2%	7.2%	7.1%	7.8%	8.3%	7.4%
Cost of Debt													
Estimated Pretax Cost of Debt	0.0%	3.5%	4.0%	7.7%	5.0%	3.6%	4.9%	5.1%	5.0%	2.7%	4.3%	31.7%	6.5%
Normalized Tax Rate	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
After Tax Cost of Debt	0.0%	2.7%	3.1%	6.1%	4.0%	2.9%	3.9%	4.0%	4.0%	2.1%	3.4%	25.0%	5.1%
Capital Structure													
Debt to Equity Ratio	0.2%	1.9%	3.7%	0.3%	22.8%	21.9%	6.8%	6.1%	7.3%	5.7%	22.5%	33.2%	11.0%
Unlevered Beta	1.20	1.32	1.45	1.25	0.48	0.57	0.00	1.15	1.49	1.35	0.95	0.00	0.93
Cost of Capital													
Equity	54,766	58,729	42,407	18,153	12,502	12,265	10,450	9,644	7,940	7,182	2,996	82	19,760
Debt	111	1,124	1,552	60	2,852	2,683	711	586	576	409	675	27	947
Market Value of Total Capitalization	54,877	59,853	43,960	18,213	15,354	14,948	11,161	10,230	8,516	7,591	3,671	109	20,707
Weighting													
Equity	99.8%	98.1%	96.5%	99.7%	81.4%	82.0%	93.6%	94.3%	93.2%	94.6%	81.6%	75.1%	90.8%
Debt	0.2%	1.9%	3.5%	0.3%	18.6%	18.0%	6.4%	5.7%	6.8%	5.4%	18.4%	24.9%	9.2%
Cost													
Equity	6.9%	7.0%	7.1%	6.9%	7.8%	7.8%	7.2%	7.2%	7.2%	7.1%	7.8%	8.3%	7.4%
Debt	0.0%	2.7%	3.1%	6.1%	4.0%	2.9%	3.9%	4.0%	4.0%	2.1%	3.4%	25.0%	5.1%
Weighted Average Cost of Capital (WACC)	6.9%	6.9%	6.9%	6.9%	7.1%	6.9%	7.0%	7.0%	7.0%	6.9%	7.0%	12.4%	7.4%

Source: Ascendere Associates model, assumptions and estimates, S&P Capital IQ data.

Notes on Valuation

For our DCF forecast for Shopify, Inc, we assume a 6.9% cost of unlevered equity an asset beta of 1.20, and a market risk premium of 5.5%.

While we use the Adjusted Present Value method for valuing a stock: $APV = \text{Enterprise Value as if Company is all-equity financed} + \text{Present Value of tax shields}$, the value of tax shields to Shopify is zero because it does not hold any debt. The APV method discounts firm's free cash flows at the unlevered cost of equity, and discounts tax shields at the pretax cost of debt. We do not directly apply a WACC in our fair value calculations.

Shopify Inc.																	
NYSE:SHOP																	
	-----Estimated-----																
	9/30/2020	6/29/2020	3/30/2020	12/31/2019	9/30/2019	6/30/2019	3/31/2019	12/31/2018	9/30/2018	6/30/2018	3/31/2018	12/31/2017	9/30/2017	6/30/2017	3/31/2017	12/31/2016	
Adjusted Working Capital	LTM+4Q	LTM+3Q	LTM+2Q	LTM+1Q	Last LTM	LTM-1	LTM-2	LTM-3	LTM-4	LTM-5	LTM-6	LTM-7	LTM-8	LTM-9	LTM-10	LTM-11	
Current Assets	2,887	2,888	2,899	2,912	2,911	2,211	2,174	2,129	1,737	1,707	1,689	1,026	1,015	994	434	423	
- Cash and Short-term Equivalents	(2,552)	(2,577)	(2,610)	(2,645)	(2,667)	(2,013)	(1,997)	(1,979)	(1,578)	(1,574)	(1,580)	(943)	(927)	(932)	(396)	(395)	
+ Estimated Cash Required for Working Ca	61	57	52	49	55	41	37	34	30	27	28	33	25	38	52	51	
Adjusted Current Assets	395	368	341	316	299	238	214	183	189	159	137	116	114	100	91	79	
Total Current Liabilities	260	260	260	260	260	193	173	139	147	132	114	95	95	84	77	67	
less Current Portion of Cap. Leases	5	5	5	5	5	6	5	-	-	-	-	-	-	-	-	-	
less Current Portion of LT Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Short-term Borrowings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Finance Div. Debt Current	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Short-term Finance Div. Loans and Leases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Adjusted Current Liabilities	254	254	254	254	254	188	168	139	147	132	114	95	95	84	77	67	
Adjusted Net Working Capital	141	113	87	62	44	51	46	45	42	27	24	21	18	16	14	12	
Shopify Inc.																	
NYSE:SHOP																	
Operating Leases	LTM+4Q	LTM+3Q	LTM+2Q	LTM+1Q	Last LTM	LTM-1	LTM-2	LTM-3	LTM-4	LTM-5	LTM-6	LTM-7	LTM-8	LTM-9	LTM-10	LTM-11	
Due in 1 Year	40	41	42	43	44	44	44	44	15	15	15	15	10	10	10	10	
Due in 2 Years	54	55	56	57	59	59	59	59	25	25	25	25	13	13	13	13	
Due in 3 Years	44	45	45	46	47	47	47	47	29	29	29	29	17	17	17	17	
Due in 4 Years	32	32	33	34	34	34	34	34	29	29	29	29	17	17	17	17	
Due in 5 Years	36	36	37	38	39	39	39	39	29	29	29	29	16	16	16	16	
Due After 5 Years	318	325	332	339	346	346	346	346	236	236	236	236	92	92	92	92	
Operating Leases	523	534	546	558	570	570	570	570	363	363	363	363	164	164	164	164	
WACC	8.9%	8.9%	8.9%	8.9%	8.9%	9.2%	9.6%	9.9%	10.3%	10.0%	9.9%	9.6%	9.5%	9.5%	9.6%	9.6%	
PV Due in 1 Year	37	38	39	40	40	40	40	40	14	14	14	14	10	10	10	10	
PV Due in 2 Years	45	46	47	48	49	49	49	48	20	20	21	21	10	10	10	10	
PV Due in 3 Years	34	35	35	36	37	36	36	36	21	22	22	22	13	13	13	13	
PV Due in 4 Years	22	23	23	24	24	24	24	24	20	20	20	20	12	12	12	12	
PV Due in 5 Years	23	24	24	25	25	25	25	24	18	18	18	18	10	10	10	10	
PV Due After 5 Years	98	100	102	104	106	102	97	93	65	67	68	71	35	35	35	35	
Present Value Operating Leases	260	265	271	277	283	277	270	265	159	161	162	166	90	90	89	89	
Research & Development	LTM+4Q	LTM+3Q	LTM+2Q	LTM+1Q	Last LTM	LTM-1	LTM-2	LTM-3	LTM-4	LTM-5	LTM-6	LTM-7	LTM-8	LTM-9	LTM-10	LTM-11	
Capitalized R&D, Beginning Balance	910	800	703	618	544	478	418	364	314	270	232	199	169	142	120	100	
R&D Expenditure (estimated)	436	406	377	352	310	283	254	226	199	174	153	133	118	101	86	74	
Annual Amortization (10yr life assumptior	(105)	(92)	(81)	(70)	(62)	(54)	(47)	(40)	(35)	(30)	(25)	(21)	(18)	(15)	(13)	(11)	
Capitalized R&D, Ending Balance	1,241	1,114	1,000	900	793	708	625	550	478	415	360	311	269	229	194	163	
Annual R&D spending as % of sales	22.4%	22.4%	22.5%	22.7%	21.9%	21.9%	21.5%	21.1%	20.9%	20.4%	20.2%	19.7%	20.3%	19.9%	19.4%	18.9%	
Other Fixed Assets	LTM+4Q	LTM+3Q	LTM+2Q	LTM+1Q	Last LTM	LTM-1	LTM-2	LTM-3	LTM-4	LTM-5	LTM-6	LTM-7	LTM-8	LTM-9	LTM-10	LTM-11	
Present value of operating leases	260	265	271	277	283	277	270	265	159	161	162	166	90	90	89	89	
Accumulated R&D	1,241	1,114	1,000	900	793	708	625	550	478	415	360	311	269	229	194	163	
LIFO Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Long-term Investments	-	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	
Goodwill	48	48	48	48	48	48	44	38	23	23	20	20	20	20	16	16	
Other Intangibles	25	25	25	25	25	25	24	26	26	25	21	17	18	18	7	6	
Deferred Tax Assets, LT	16	16	16	16	16	-	-	-	-	-	-	-	-	-	-	-	
Other Long-term Assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Other Fixed Assets	1,590	1,468	1,360	1,266	1,164	1,063	968	884	732	669	609	560	421	382	330	298	

Source: Ascendere Associates assumptions and estimates, and S&P Capital IQ data and consensus estimates.

■ Disclosures

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