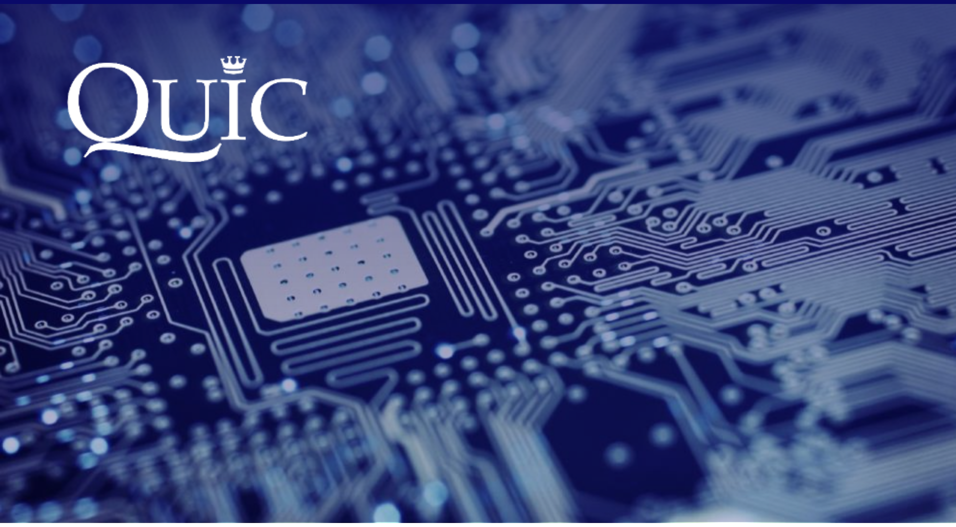


RESEARCH REPORT

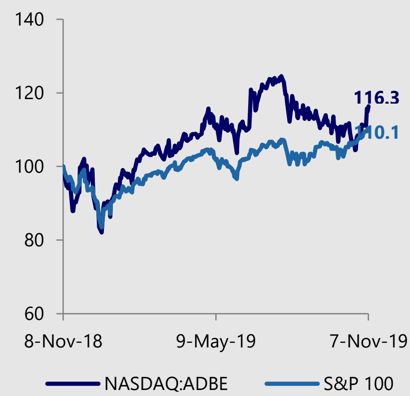
November 11, 2019

Stock Rating	PASS
Price Target	$250

Bear Case	Price Target	Bull Case
$200	$250	$350

Ticker:	ADBE
Market Capitalization	$141B
EV/UFCF	54x
EV/EBITDA	39x

52 Week Performance



Adobe Inc.

The Price of Growth

Adobe is one of the most prominent software companies in the world. The firm's creativity suite, Creative Cloud, is the industry standard for content creators globally and commands a significant pricing premium over competitors. The firm also owns an industry-leading digital experience platform, which enables marketers to efficiently target and reach customers.

The TMT team believes that Adobe is an extremely high-quality business with wide moats. The challenge, however, is justifying the firm's valuation. At a 50x+ EV/UFCF multiple, the firm needs to exhibit extraordinary growth to achieve above-average returns.

At Adobe's current price, we do not feel that we can achieve a sufficient hurdle rate to feel comfortable investing. While the firm has spent over $8B on acquisitions in the last four years, our projections suggest that the firm would need to sustain their current growth rate without any further acquisitions to justify the current valuation. The team will continue to monitor the equity to determine if a future investment opportunity will appear.

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Adobe Overview

History

Adobe is a California-based software company that was founded in 1982. The company started out by developing PostScript, a language that allowed for fonts to be printed out to paper. Over time, the firm built out a set of font-related products. In 1989, Adobe launched its flagship Photoshop product, which quickly became the industry standard in graphic editing. The company developed and acquired a set of complimentary products to launch Creative Suite in 2008, an integrated collection of creativity software. In 2012, the firm shifted towards a software-as-a-service model by offering their products as a subscription instead of for an up-front fee.

Today, Adobe is one of the largest and most successful software companies in the world. The firm generated over $9 billion of revenue and $2.5 billion in profit in 2018.

Company Structure

Adobe currently reports its financial results by product segments. The firm's largest segment is Digital Media, which is comprised primarily of Creative Cloud (e.g. Photoshop, Premiere Pro, etc) and related products. These tools are used for graphical design and creative arts. The Digital Experience segment contains advertising-related products that are used by enterprises. Products in this segment include Adobe Advertising Cloud, Adobe Analytics Cloud, and Adobe Marketing Cloud, and Magento Commerce Cloud. Lastly, the firm has a publishing segment which contains legacy products tailored towards printing and technical document publishing.

Adobe offers consulting and account management services to compliment their product offerings, which are reported separately from subscription revenue.

EXHIBIT I

Corporate Structure and Selected Products

Source(s): Company Filings

Digital Media Segment Analysis

Segment Overview

Digital Media is split into two sub-offerings: Creative Cloud and Adobe Document Cloud. Creative Cloud, the company's flagship product, is a cloud-based subscription that provides services such as Photoshop, Illustrator, InDesign, and Premiere Pro, which enable professional and hobbyist users alike to develop and publish image, animation, and video content. Adobe Document Cloud focuses on providing solutions for document management.

Segment Performance

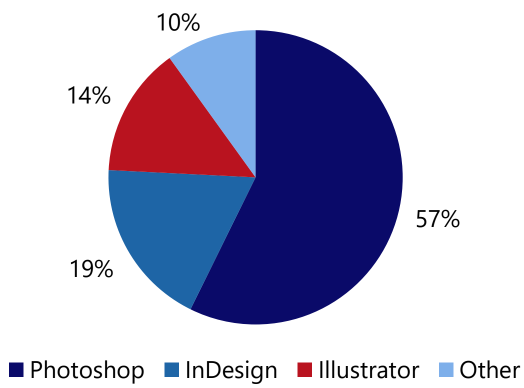
The Digital Media segment is the largest, most profitable, and fastest-growing segment for Adobe. It represents 70.0% of Adobe's total revenue with a 24.9% CAGR in past four years, which can be attributed to its superior product offerings in content creation solutions and its strategic shift to the SaaS model in 2013. The drop in revenue between 2012 to 2014 can be largely attributed to the rapid transition to the subscription-based model.

By offering Creative Cloud products exclusively through a subscription-based model instead of its old product-based model, the company lowered the initial barriers to entry and increased the stickiness of its customers. The product-based model priced its packages at a one-time fee $1,500 to $2,500. The subscription-based model pricing starts at $19.99 per month, greatly enhancing the accessibility of the Digital Media offerings. Subscription revenue accounted for 92.6% of the company's Digital Media revenues in 2018, compared to 18.0% in 2013 (Exhibit II). The Digital Media arm generated an Annualized Recurring Revenue (ARR) of $6.03 billion in 2018, up from $4.77 billion in 2017.

Adobe Document Cloud is in the process of transferring to a subscription-based model, with over 30% of its revenue still stemming from OEM and perpetual sources. Similar to the transition Creative Cloud experienced, Adobe aims to shift the remainder of these one-time revenues to subscription-based payments. Companies are also shifting from paper documents to digital documents, with a 3% to 4% long term decline in office paper usage, and Adobe's Document Cloud is well-positioned to take advantage of this trend.

EXHIBIT II

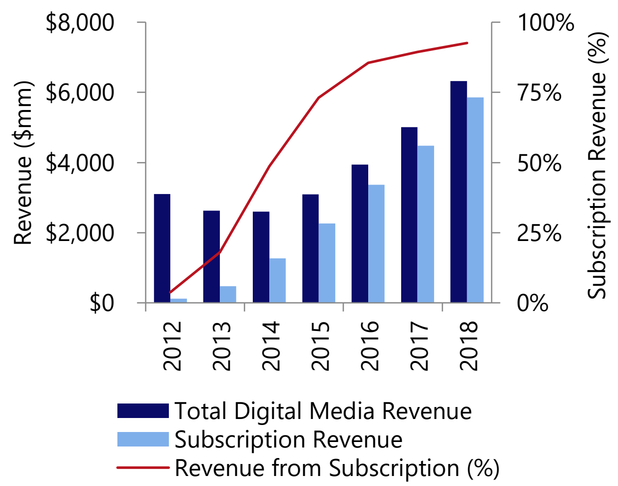
Professional Websites That Use Adobe Software



Source(s): Datanyze

EXHIBIT III

Change in Digital Media Subscription Revenue



Source(s): Company Filings

Digital Media Segment Analysis Cont.

Strong Customer Captivity

Adobe enjoys an extremely captive customer base due to its products wielding a strong network effect, high switching costs, and low barriers to entry. Adobe's Digital Media offerings are widely regarded as the "gold standard" within their respective industries (e.g., Photoshop for graphics editing). New content creators are typically introduced to and taught how to use Adobe's products in school – and as a result, they are most familiar with Adobe's products once they enter the workforce. This positive feedback loop is amplified through the complexity of the products and the learning curve: if the users switch to an alternative, they will be sacrificing a great deal of functionality and knowledge that can only be applied to Adobe's software. Adobe's products also have proprietary file formats (e.g. Photoshop can save in .psd), where certain features and properties of the file may get lost or become inaccessible if transferred over to another software. The subscription model complements these notions due to its lower barrier of entry.

Market Outlook

The estimated increase in digital ad spend (Exhibit IV) is leading to the growing demand for digital content creators, with a market size of $10.69 billion in 2017 that is expected to grow at a CAGR of 16.8% from 2018 to 2025. Management's objective is to penetrate further into developed markets and increase pricing while rapidly entering into emerging markets. Although there are competitors for all offerings in the Digital Media arm, none of them come close to providing the breadth and depth of functionality. Adobe's market position allows it to spend proportionally more to its competitors to innovate and actively improve its offerings and remain ahead of the rest of the incumbents.

While content creation is becoming more lean and streamlined, Adobe faces competition from direct-to-post services such as social media platforms that offer users an option to edit their content without having to use a dedicated content editor. The company has reacted by introducing Photography, Spark, and Premiere Rush, all of which are content creation tools solutions targeted at non-professionals.

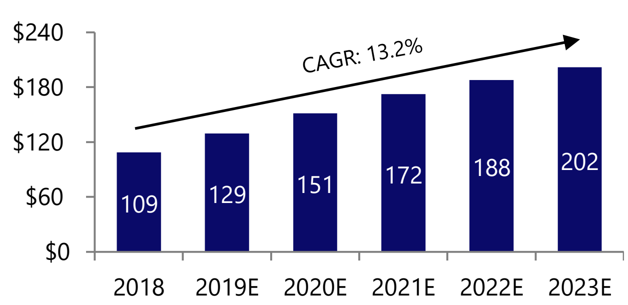
Its Document Cloud offering is similar in positioning: highly regarded as the industry standard, the free Adobe Acrobat Reader used for reading and editing PDFs has over 500 million downloads. While there are other document readers, Adobe is the clear leader and will remain to be due to the network effect and searching costs for its consumers. The Document Cloud's transition to an entirely subscription-based model will most likely fuel its customer captivity by increasing switching and searching costs.

Conclusion

The Digital Media arm of Adobe is the core of its business and holds a very wide moat and defensible product offering. Not only does it offer the best products on the market, but it also holds the greatest market share by far and is well-aligned with the digital content creation and document trends. The TMT team believes in management's ability to remain at the forefront of innovation within this segment and is confident that the strong growth this segment has experienced is likely to continue into the foreseeable future.

EXHIBIT IV

Digital Advertising Spend in the U.S. ($B)



Source(s): Statista

Digital Experiences Segment Analysis

Overview

Ten years ago, Adobe ventured beyond the creativity software space with the acquisition of Omniture, an online marketing and analytics platform. Since then, the firm has spent billions of dollar building and acquiring capabilities to create Adobe Experience Cloud. The platform now offers users an integrated, end-to-end solution for marketing, advertising and commerce.

Adobe Experience Cloud has several key components embedded into it. The Advertising Cloud simplifies the delivery of video, display, and search advertising through features such as optimized advertisement bidding. This helps firms ensure that the right advertisements are displayed to the right customers in the most effective context. The Analytics Cloud offers tools for businesses to collect data on and understand their audience. The platform is able to blend internal and external data so that users with a high ROI or propensity to spend can be targeted. The Marketing Cloud allows for marketers to deliver creative assets and messages to customers. The feature-rich suite of services can help companies understand the customer journey and conduct targeted outreach to increase conversions. Furthermore, the company recently acquired the e-commerce platform Magneto, which will integrate with the rest of the Experience Cloud platform.

Adobe faces intense competition in the enterprise marketing management space. Incumbents in the space such as Sitecore, IBM, and Salesforce all offer compelling, well-rounded offerings that compete directly with Adobe. Technology giants such as SAP and Microsoft have also introduced products in the space which could gain traction over time. Furthermore, there are numerous alternatives to Adobe's Digital Experience Platform that replicate parts of the platform at a fraction of the price, such as Kentico and Crownpeak.

Where Adobe sets itself apart from competitors is in breadth and integration. Adobe's suite features a broad set of tools that standardize customer data, allowing for seamless transitions between platforms. According to Gartner, Adobe has the most complete digital experience platform in the industry as well as one of the most feature-rich offerings. Forrester's research also places Adobe as the leading player in experience management and delivery as well as in platform services and praises their long-term strategy as one of the strongest.

Adobe and the DXP Market

The Digital Experience Platform market is estimated to be $7.9 billion today. Market research firm MarketsandMarkets expects this industry to grow to $13.9 billion by 2024, which implies a CAGR of 12%. Major catalysts for this growth include rising demand for big data analytics and an increasing trend towards cloud-based enterprise solutions.

In FY 2018, Adobe captured approximately one quarter of the DXP market. A shift in the market towards vendor consolidation could help the firm grow its market share. In the past, firms chose to diversify their software preferences due to budget and platform limitations as well as fear of business disruption. According to Forrester, the push towards automation, rationalization, and the unification of data has reshaped how CIOs think about their technology investments. Businesses are now more likely to choose one provider to reduce integration pains and ensure continuity across different groups. At the same time, heavy competition in the space could threaten Adobe's market share.

When evaluated holistically, these two counteracting forces have led the TMT team to believe that market share will remain relatively stable over the next five years. Revenue growth will be obtained primarily through the segment's expansion and through acquisitions.

Acquisition Overview

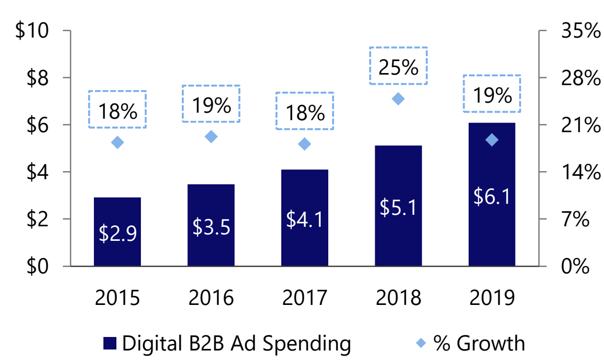
The company's long-term growth strategy emphasizes focus on both organic growth initiatives and strategic M&A of market leaders. Adobe has demonstrated its ability to effectively grow both organically and inorganically. Through in-house innovation, Adobe has shown aptitude in the publishing software segment by replacing the industry leader at the time. QuarkXPress, who commanded a 95% market share in 2000, was replaced by Adobe's InDesign, which now commands a 75% market share in the TAM. Adobe displayed similar performance in M&A through the acquisition of EchoSign in 2011. By 2017, EchoSign displaced the pioneer DocuSign as the native signature tool for Microsoft Office products. To sustain their elevated margins and levels of growth, Adobe continues to build upon its Digital Experience segment to become the industry leader for markets contained within the marketing process. Adobe has made 12 acquisitions in the past decade that contributed to its product ecosystem and towards building a digital marketing hub. Its success in selecting value-add acquisitions has propelled it towards a leading position in numerous industries.

On October 31, 2018, Adobe closed its largest acquisition to date by purchasing Marketo for $4.75B. The company operates a B2B software for marketers to create, monitor, and optimize their advertising campaigns. The acquisition came with roughly 5000 clients in the SMB and enterprise business segments, driving large subscription revenues per customer of ~$60-75k per year. Adobe's motive behind the acquisition was to strengthen its position in the B2B Digital Experience segment. Adobe currently does not have a dedicated CRM or customer service solution to offer, but with Marketo, the company may be able to capitalize on this and act as a catalyst for new partnerships. In terms of acquisition valuation, 2017 revenue amounted to $321mm. Adobe disclosed little information about the transaction, so taking historical growth rates ranging between 20%-40%, a back of the envelope calculation for FY 2018 revenue brings us to an EV/Revenue range between 10.6x-12.3x.

In addition to Marketo, Adobe also purchased Magento, an e-commerce platform and services company for $1.7B on June 19, 2018. The company's digital commerce, order management, and predictive intelligence offerings will be integrated into Adobe's Digital Experience segment to provide a more encompassing offering to firms looking for marketing tools and solutions. Magento's platform powers the ecommerce operations of many large companies such as Canon, Helly Hansen, Rosetta Stone, and Nestle. This move is a simple extension of capabilities, as Adobe already boasts solutions for creating, managing, and optimizing products, now offering users the ability to apply all of that directly to their e-commerce website on Magento. This acquisition acquired 250,000 online stores and presented another opportunity for Adobe to upsell to customers who are willing to pay $20,000 per year for commerce enablement. Taking the purchase price of $1.7B, this equates to an EV/Revenue multiple of ~11.3x. This represents a fair value multiple especially considering Magento operates a licensing revenue model and compared to Shopify that currently trades at an EV/LTM Rev multiple of 25x.

EXHIBIT IV

U.S. B2B Digital Ad Spend (LHS) and Growth (RHS)



Source(s): eMarketer, Company Filings, Wallstreet Journal

Management Alignment

Adobe's management compensation structure contains three elements: base salary, short-term cash incentives (bonus), and short/long-term equity awards.

Short-Term Cash Incentives

Management's short-term cash bonus is determined by multiplying corporate and individual performance KPI attainment levels with a target bonus (as a % of base salary). These attainment levels and KPIs feature quantitative, qualitative and discretionary items.

The corporate performance result is based on the achievement of the net new Digital Media ARR target and net new Digital Experience target, plus or minus a 25% percentage points discretionary adjustment.

The individual performance result is a qualitative measure of an individual's qualitative objectives. For example, John Murphy's individual performance goal is to "[successfully] implement new revenue recognition and leasing standards; develop long-term tax strategy; position finance organization for success and scale." This factor is bounded between 0-200%. Four of five NEOs scored 95%, and one scored 75%. While this metric is highly subjective, it does not appear as if it is being abused to inflate compensation. The target bonus level is determined by an individual's position.

Equity Awards

Equity awards are comprised of equal parts PSUs and RSUs. PSUs are subject to time and performance-based vesting, while RSUs are subject only to time-based vesting (3-year under 2003 Plan and 4-years under 2019 Plan). The performance metric for PSU vesting is 3-year total shareholder return (TSR) benchmarked to the NASDAQ 100. The vesting percentage increases in relation to ADBE's percentile ranking. If the TSR is below the 25th percentile, no awards are vested. The 2019 plan introduces stock options and appreciation rights.

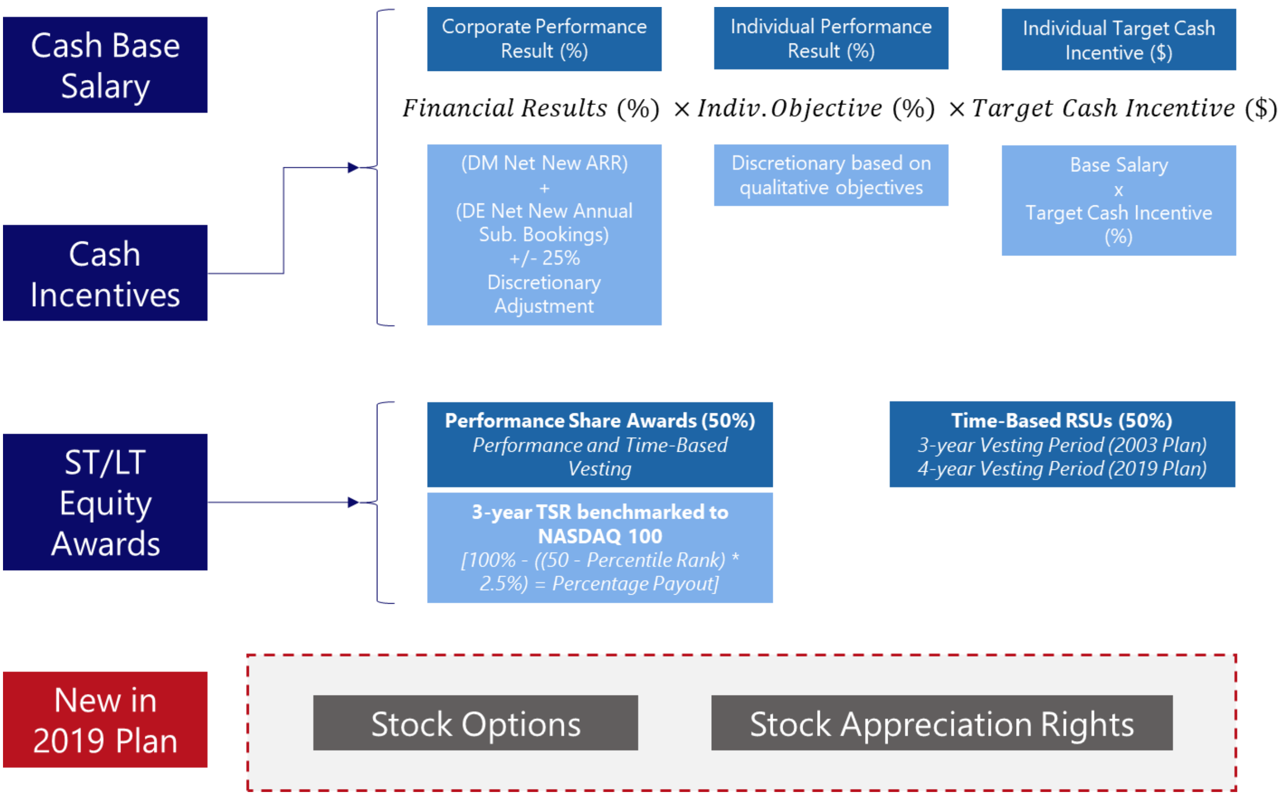
Conclusion: Management Alignment

While the TMT team values compensation plans that focus managements on creating shareholder value, it has some concerns with Adobe's focus on revenue growth. Generally, a focus on revenue growth alone is insufficient to create value as it ignores how that revenue growth is achieved and at what cost. While it is true that Adobe has never had an issue with margins, this may not always be the case. Furthermore, some of the benefits of focusing on TSR may be diluted by the focus on revenue growth alone. The team believes that the prevailing market focus is on Adobe's revenue growth. This may be justified by the fact that profitability has always been high for the company, and increased revenue nearly always translates to increased profits and cash flows. However, if competition were to intensify, or if the market's primary focus were to shift to other metrics, the relationship between TSR and revenue growth would change. Such a change might negatively influence the effectiveness of the plan in maintaining management's alignments with shareholders. As of the Company's latest proxy, Adobe's directors and executive officers as a group (23 persons) own less than 1% of total outstanding stock.

The team's concerns are only operative if competition were to intensify significantly or if market sentiment shifts dramatically. The concerns are also mitigated by the continued involvement of the co-founders and large stock holdings of the management team. For the time being, we find the compensation structure acceptable.

EXHIBIT V

Management Compensation Structure



Source(s): ADBE 2018 10-K

Valuation

Adobe currently trades at an EV / adjusted ULFCF multiple of ~54x, representing the market's willingness to underwrite significant and sustained growth. To assess whether this valuation was likely to provide an adequate margin of safety, the team projected ULFCF to 2023 and calculated the perpetual growth rate required thereafter to justify today's market value at a 12% hurdle rate. A summary of the projections can be found on the following page. A summary of the results of this analysis can be found below.

The team was unwilling to project the impact of future acquisitions on Adobe's revenue growth, as this would be highly speculative and baseless. As a result of this decision, raw historical growth rates lost much of their meaning as measures of organic growth rates, as Adobe has made 11 significant acquisitions since 2009. Adobe's disclosures are insufficient to calculate true organic revenue growth. To estimate organic growth using available information, the revenue contributions of the Marketo and Magneto acquisitions were deducted from reported revenue in 2017 and 2018 (recorded under Digital Experience). The revenue CAGRs from 2013 using reported and "organic" revenue were compared and the difference was subtracted from the reported revenue CAGR of the Publishing and Digital Media and Experience segments. These constituted the team's best estimate of organic revenue CAGRs and were used as the basis of its projections. The sensitivities displayed below allow for reductions to these for conservatism. Product revenue was tapered at 12% per annum, consistent with recent results and the SaaS transition. Service and support revenue was held constant. Adjustments to these rates are also included in the sensitivity tables.

Capex and D&A were assumed to be consistent with historical results. These metrics have remained largely consistent over the years. Because Adobe's acquisitions are at least partly a way to capitalize R&D expenses, R&D intensity was increased with a factor of 1.10.

EXHBIT VI

2023E Forward EV/ULFCF Multiple (Top) and Required Perpetual Growth Rate (Bottom) Sensitivity Analysis

		Adjustment to Subscription CAGR				
		(10.0%)	**(7.5%)**	**(5.0%)**	**(2.5%)**	**0.0%**
	0.0%	31.99 x	25.22 x	19.98 x	15.92 x	12.74 x
Adjustment	**2.0%**	31.84 x	25.11 x	19.90 x	15.86 x	12.70 x
to Product &	**4.0%**	31.69 x	24.99 x	19.82 x	15.79 x	12.65 x
S&S CAGR	**6.0%**	31.53 x	24.87 x	19.73 x	15.73 x	12.60 x
	8.0%	31.36 x	24.75 x	19.64 x	15.66 x	12.55 x

		Adjustment to Subscription CAGR				
		(10.0%)	**(7.5%)**	**(5.0%)**	**(2.5%)**	**0.0%**
	0.0%	8.87%	8.03%	7.00%	5.72%	4.15%
Adjustment	**2.0%**	8.86%	8.02%	6.98%	5.69%	4.12%
to Product &	**4.0%**	8.84%	8.00%	6.95%	5.67%	4.09%
S&S CAGR	**6.0%**	8.83%	7.98%	6.93%	5.64%	4.06%
	8.0%	8.81%	7.96%	6.91%	5.61%	4.03%

Sources(s): QUIC TMT

EXHIBIT VII

Short-Term ULFCF Projections

Sens.	CAGR:	FY	2019E	2020E	2021E	2022E	2023E
0.0%	14.4%	*Digital Media*	*$ 7,362,188*	*$ 8,423,341*	*$ 9,637,444*	*$ 11,026,541*	*$ 12,615,858*
0.0%	5.1%	*Digital Experience*	*2,714,788*	*$ 2,853,777*	*$ 2,999,881*	*$ 3,153,465*	*$ 3,314,913*
0.0%	0.6%	*Publishing*	*109,308*	*$ 109,971*	*$ 110,637*	*$ 111,308*	*$ 111,983*
		Subscription	**10,186,284**	**11,387,088**	**12,747,962**	**14,291,315**	**16,042,754**
		YoY Growth	*28.6%*	*11.8%*	*12.0%*	*12.1%*	*12.3%*
0.0%	(12.0%)	**Product**	**640,921**	**564,011**	**496,329**	**436,770**	**384,358**
		YoY Growth	*3.0%*	*(12.0%)*	*(12.0%)*	*(12.0%)*	*(12.0%)*
0.0%	0.0%	**Services and support**	**521,368**	**521,368**	**521,368**	**521,368**	**521,368**
		YoY Growth	*7.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		Total Revenue	**11,348,573**	**12,472,467**	**13,765,659**	**15,249,453**	**16,948,479**
		YoY Growth	*25.7%*	*9.9%*	*10.4%*	*10.8%*	*11.1%*
	% Revenue						
1.00	12.2%	Sub. COGS		(1,385,438)	(1,551,012)	(1,738,788)	(1,951,881)
1.00	6.0%	Prod. COGS		(33,841)	(29,780)	(26,206)	(23,061)
1.00	75.5%	S&S. COGS		(393,585)	(393,585)	(393,585)	(393,585)
		Total COGS		**(1,812,863)**	**(1,974,377)**	**(2,158,579)**	**(2,368,527)**
		Gross Profit		**10,659,603**	**11,791,283**	**13,090,874**	**14,579,952**
		% Margin		*85.5%*	*85.7%*	*85.8%*	*86.0%*
1.10	17.3%	Research and development		(2,371,202)	(2,617,058)	(2,899,149)	(3,222,159)
1.00	28.7%	Sales and marketing		(3,574,844)	(3,945,498)	(4,370,781)	(4,857,754)
1.00	7.7%	General and administrative		(964,905)	(1,064,950)	(1,179,741)	(1,311,182)
1.00	1.5%	Amortization of intangibles		(189,033)	(208,632)	(231,121)	(256,871)
		Total Opex		**(7,099,985)**	**(7,836,138)**	**(8,680,791)**	**(9,647,966)**
		Operating Income		**3,559,619**	**3,955,145**	**4,410,083**	**4,931,986**
		% Margin		*28.5%*	*28.7%*	*28.9%*	*29.1%*
1.00	5.3%	D&A		(656,172)	(724,207)	(802,268)	(891,654)
		Pre-Tax Earnings		2,903,447	3,230,938	3,607,814	4,040,332
	% Tax. Income						
1.00	28.0%	(-) Income Tax		(812,965)	(904,663)	(1,010,188)	(1,131,293)
	% Revenue						
1.00	(3.2%)	Capex		(396,915)	(438,069)	(485,288)	(539,357)
1.00	7.4%	ΔNWC		917,924	1,013,098	1,122,300	1,247,341
		ULFCF	**2,671,591**	**3,267,663**	**3,625,512**	**4,036,907**	**4,508,677**
		YoY Growth	*(10.4%)*	*22.3%*	*11.0%*	*11.3%*	*11.7%*

Base	1.00	1.22	1.36	1.51	1.69
Forward Multiple	53.9 x	44.1 x	32.5 x	21.5 x	12.7 x
Required Perp. Growth Rate	10.15%	9.73%	8.92%	7.35%	4.15%

Source(s): QUIC TMT

Conclusion

While the TMT team was impressed by the quality of Adobe's business model, significant earning power and management's track record with acquisitions, its valuation offers an insufficient margin of safety to warrant a buy decision. The team will continue to monitor Adobe's share price and await a more attractive valuation to consider buying a position.

References

1. Bloomberg
2. Capital IQ
3. Company Filings
4. Datanyze
5. Forester
6. Gartner Research
7. Statista