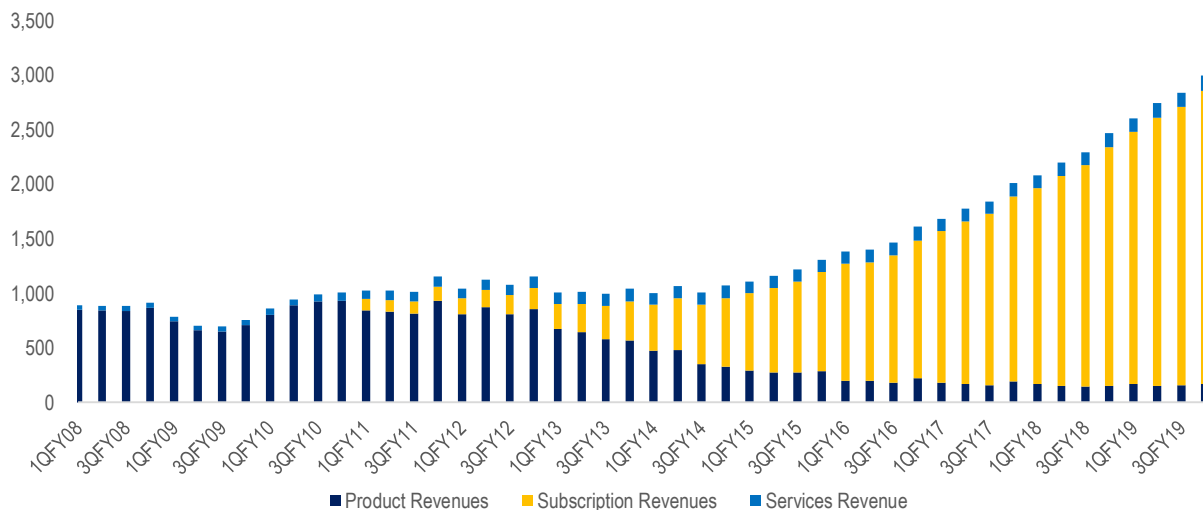## Adobe – Strong Q4 results

Figure 1: Adobe revenue breakdown and trends (mn US$)

Source: Company data, AMTD Research

AMTD views: Adobe reported strong Q4 results on 13 Dec. Total revenue grew by 21.4% YoY to a record US$2.99bn, beating market expectation. Subscription (recurring) revenue continued to drive the Adobe's overall revenue growth. In terms of segment: 1) Digital Media remained the main contributor and its revenue reached US$2.08bn, up 21.6% YoY, driven by Document Cloud growth of 31.1% YoY; 2) Digital Experience reported revenue of US$858.5mn, up 24.5%, helped by Marketo acquisition last year. On the other hand, opex declined after lapping the Marketo/Magento acquisition. Operating margin expanded 400bps from 38.6% in 4QFY18 to 42.6% this quarter, which helped boost TTM FCF margin to 36.6% in Q4. Adobe's non-GAAP net income and EPS came in at US$1.12bn and US$2.29 this quarter, respectively.

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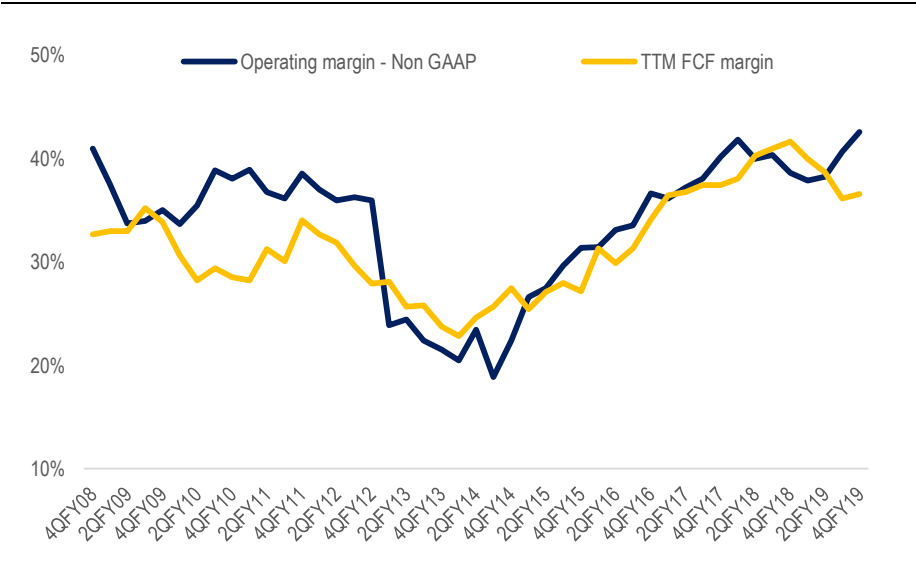Michelle Li**
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Cloud

SaaS

Adobe

Figure 2: Adobe's operating margin (Non-GAAP) and TTM free cash flow (FCF) margin

Source: Company data, AMTD Research

Looking ahead, we see strong growth potential of Adobe: 1) Digital Media has accelerated with the help of innovative products. Its net new ARR was US$539mn in 4Q, far ahead of market expectation; 2) Digital Experience will benefit from its new offerings which are extended to target mid-market and SMB business. However, despite the upbeat Q4 results, Adobe maintained FY20 target unchanged. Total revenue was guided to US$13.15bn in FY20, among which Digital Media and Digital Experience revenues were expected to grow by 16% and 18% YoY, respectively. New Digital Media ARR was guided to US$1.55bn and Digital Experience subscription bookings would grow by more than 20% YoY.
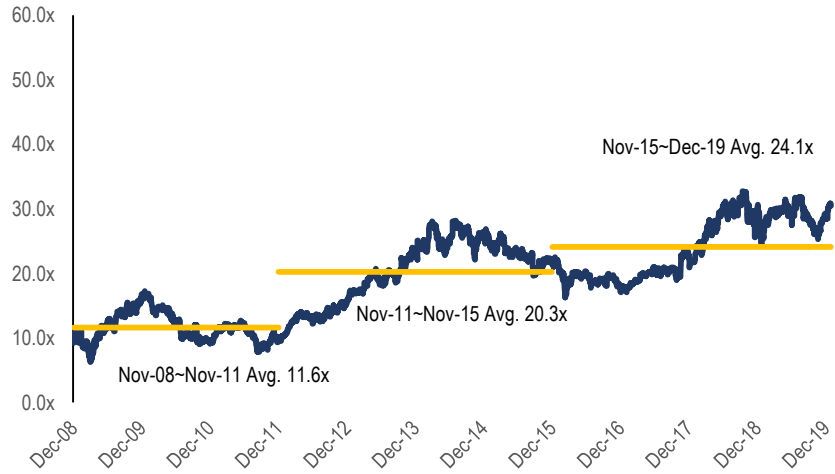
Figure 3: Adobe's total ARR and revenue growth, YoY
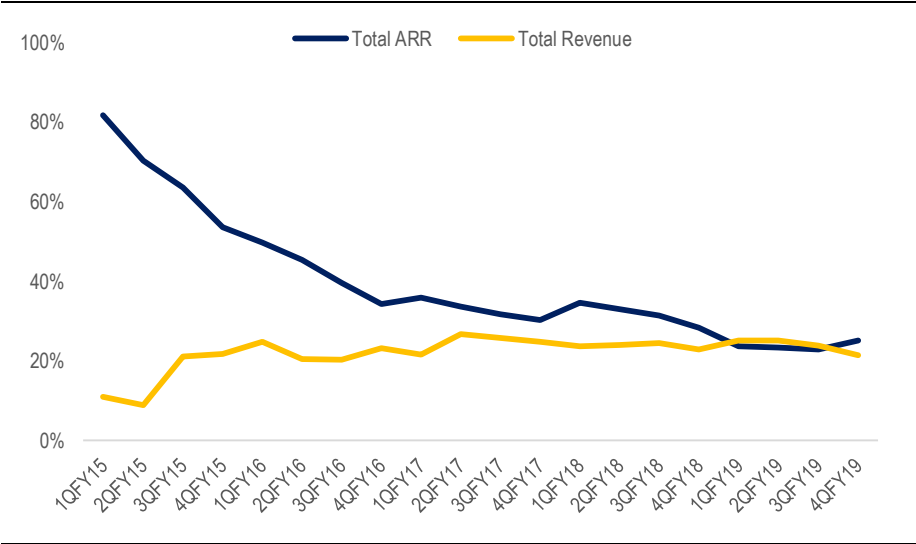
Source: Company data, AMTD Research

For the valuation, Adobe was trading at 30.9x FY20E (consensus) FCF, implying 1.2x EV/FCF/FY20 YoY growth, and 33.7x FY20E (consensus) P/E, implying 1.4x PEG on FY20E YoY growth.

Figure 4: Adobe's one year forward EV/FCF over the past decade

Source: Company data, Bloomberg, price as of 30/12/2019, AMTD Research

Figure 5: Adobe's one year forward P/E over the past decade
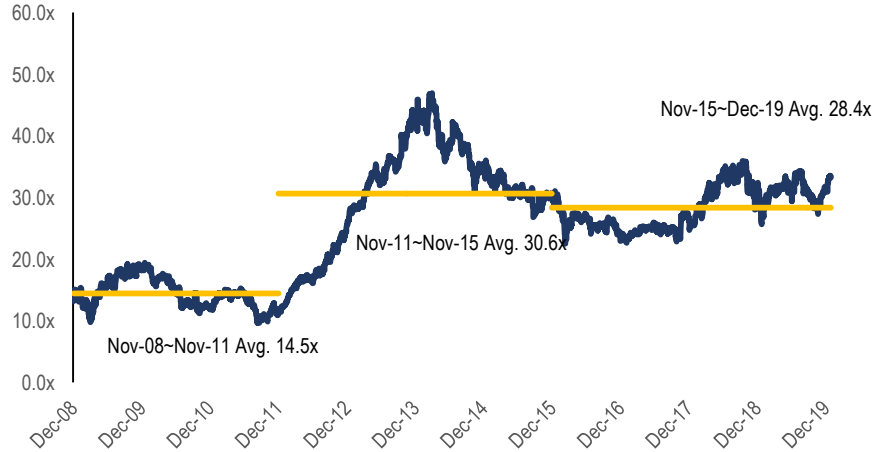
Source: Company data, Bloomberg, price as of 30/12/2019, AMTD Research

News updates

30 Dec 2019	**Apple's A14 processors will all be manufactured by TSMC**
Semiconductor	It's reported that Apple's new A14 Bionic processor will all be made by TSMC. Mass production will start at the end of 2Q20. The A14 processor will feature 5nm process, and will take up 2/3 of TSMC's 5nm capacity. Apple will launch four models of iPhone 12 series in 2H20. The phones, in addition to the A14 processor, will also be equipped with Qualcomm's 7nm Snapdragon X55 baseband. (Source: Sina)
Apple/TSMC	

26 Dec 2019	**China expected to have 200 million 5G users by 2020**
5G/Services	The number of 5G users in China is expected to reach 200 million in 2020. Domestic shipments of 5G mobile phones reached 5.1 million in November 2019, up 103.5% MoM, according to China Academy of Information and Communications Technology. The industry expects flagship devices of all the smartphone brands to go 5G in 2020, and the price will gradually go down following the RMB1,999 Redmi K30 5G's launch. (Source: People)

25 Dec 2019	**Kingsoft plans for US IPO**
Cloud	Kingsoft announced that its cloud services subsidiary Kingsoft Cloud has filed for IPO to the U.S. SEC secretly. The HKEX has approved the spin-off previously. Kingsoft now holds 47.8% of Kingsoft Cloud. Kingsoft Cloud aims to raise up to US$500mn in the IPO. According to IDC, Kingsoft Cloud ranked 6th in 1H19 Chinese cloud market with a market share of 5.2%. (Source: Sina)
Kingsoft	

19 Dec 2019	**Baidu has announced Baidu Kunlun Chip**
Semiconductor	Baidu announced that Baidu's first cloud-to-edge AI accelerator, Baidu Kunlun has completed its development and will be mass-produced in early 2020. Baidu Kunlun chip is built on the company's advanced XPU and Samsung's 14nm process technology with its I-Cube™ (Interposer-Cube) package solution. Also, this chip provides 512GBps of memory bandwidth and achieves 260 TOPS processing power at 150 watts of power. In addition, this new chip supports the pre-trained model Ernie for natural language processing. The inference speed is 3 times faster than traditional GPU/FPGA accelerated models. (Source: Gizchina)
Baidu	

19 Dec 2019	**Broadcom to sell a wireless chip unit at around US$10bn**
Semiconductor	Broadcom plans to sell its radio frequency segment - one of its wireless chip unit, as well as one of the original business of predecessor company Avago. The company is now working at an early stage with Credit Suisse to sell the segment. The unit had a revenue of US$2.2bn in FY2019, and could be worth US$10bn. It is a further step of Broadcom to move away from its forte as a chipmaker. (Source: WSJ)
Broadcom	

19 Dec 2019

Smartphone

OPPO

OPPO unveiled three initiatives to co-build a new intelligent service ecosystem

OPPO announced three initiatives to co-build a new intelligent service ecosystem with developers: 1) the enhanced developer support program "Gravity Plan 2.0", on which OPPO will spend RMB1bn in 2020 to connect developers and users; 2) the "Five System-level Capability Exposure Engines", which include Hyper Boost, Link Boost, CameraUnit, MediaUnit, and ARUnit capabilities to enable multi-scenario convergent experiences; 3) the "IoT Enablement Plan", a capacity opening program aiming at opening OPPO's HeyThings IoT protocol, HeyThings IoT service platform and audio connectivity protocol for IoT partners, starting from 1Q20. (Source: OPPO)

17 Dec 2019

Cloud

Tencent/NVIDIA

Tencent and NVIDIA to launch START cloud gaming service

Tencent Games and NVIDIA announced a collaboration to launch cloud gaming service START. START began testing earlier this year, and will be powered by NVIDIA's GPU. It is a service that helps bring PC gaming in the cloud to China, giving millions of gamers access to AAA games even on underpowered devices. NVIDIA and Tencent Games also unveiled a joint innovation lab for gaming to explore new applications for AI in games, game engine optimizations and new lighting techniques including ray tracing and light baking. (Source: NVIDIA)

17 Dec 2019

Semiconductor

ADAS

NVIDIA

NVIDIA introduced new platform for autonomous machines DRIVE AGX Orin

NVIDIA introduced DRIVE AGX Orin, a software-defined platform for autonomous vehicles and robots. The platform is powered by Orin, a new SoC that could deliver 7 times the performance of NVIDIA's previous gen Xavier. Orin is designed to handle the large number of applications and deep neural networks. DRIVE AGX Orin is developed to enable architecturally compatible platforms that scale from a Level 2 to full self-driving Level 5 vehicle. It targets automakers' 2022 production timelines. (Source: NVIDIA)

16 Dec 2019

AI

Intel

Intel acquired AI chipmaker Habana Labs at US$2bn

Intel acquired Habana Labs, a developer of programmable deep learning accelerators for the data center, at around US$2bn. Habana Labs will remain an independent business unit and continue to be led by its current management team. The acquisition will strengthen Intel's AI portfolio and help it stand out in the AI silicon market. Intel expects to generate over US$3.5bn of AI-driven revenue in 2019, up more than 20% YoY. (Source: Intel)

15 Dec 2019

Smartphone

Xiaomi

Xiaomi Mi 10 confirmed to Launch in 1Q20

Xiaomi announced that Mi 10 will be launched in 1Q20. The Xiaomi Mi 10 smartphone will be powered by the Qualcomm Snapdragon 865 chipset which can provide up to 7.5 Gbps of peak speed. Moreover, the processor comes with the fifth-generation Qualcomm artificial intelligence engine to provide a more personalized experience. The processor also has 5G baked-in. The chipset comes with a new image processor dubbed Spectra 480 which can take the photography standards all the way up to a whopping 200MP. (Source: Digit)

13 Dec 2019

Samsung

Samsung selected as 5G network solution provider by Videotron in Canada

Samsung will provide 4G LTE-Advanced (LTE-A) and 5G radio access networks solutions to Videotron, a Canadian telecommunications operator. This is Samsung's first time to deliver network solutions in Canada. From early 2020, Samsung will deliver 4G LTE-A solutions including Massive MIMO and Dual-band base stations, and 5G solutions for both 3.5GHz and 28GHz spectrum. Videotron plans to launch commercial LTE-A and 5G services in late 2020. (Source: Samsung)

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13 Dec 2019

Wearables

Global wearable band market up 65% YoY in 3Q19

The global wearable band market shipment reached 45.5mn in 3Q19, up 65% YoY, according to Canalys. The Greater China remains the largest region with a market share of 40% and a YoY growth of 60%, while Americas and EMEA jointly accounted for 44% of total volume worldwide. Asia Pacific excluding Greater China expanded strongly by 130% YoY. In terms of vendors, Xiaomi ranked first in all the brands with a market share of 27%, followed by Apple (15%) and Huawei (13%). The top five vendors' shares totaled up to 69% in 3Q19. (Source: Canalys)

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13 Dec 2019

Operating System

UOS

Chinese in-house developed operating system UOS was officially launched

Unity Operating System (UOS), a Chinese in-house developed operating system, has been officially launched. It is co-designed by Chinese software developers including CEC, ZTE New Fulcrum, Wuhan Deepin Technology and Nanjing Chengmai Technology. This first version of UOS is compatible to Loongson's CPU. In the past six months, the UOS development team and Loongson's system software R&D team have jointly solved dozens of problems on the Linux kernel, BIOS firmware, compiler, browser, graphics driver and other basic software to improve UOS performance. (Source: Sina)

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13 Dec 2019

Cloud

Google

Google's new transfer service makes moving data to its cloud much easier

Google Cloud announced its new transfer service, a service for enterprises that want to move their data from on-premise systems to the cloud. The goal is to help take the complexity out of data transfers and move data faster than existing online tools. According to Google Cloud it is also designed to be reliable and secure, so that if agent failures occur, in-progress transfers will not be impacted. And with performance optimizations included from the application to the transport layer, the service can use an organization's available bandwidth to minimize transfer times, and service requires no code or maintenance. Google Cloud's Transfer Service for on-premises data is now available. (Source: Techcrunch)

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12 Dec 2019

AI

Apple

Apple acquired AI startup Spectral Edge to beef up the iPhone camera

Apple acquired a UK-based startup Spectral Edge recently. Spectral Edge has developed computational photography tech that could blend data from a standard lens and an infrared lens to enhance photo quality. Photos taken by this technology will be much richer than photos taken by a standard camera. The technology of Spectral Edge could also be used to improve photos taken by iPhones. However, it's not clear if Apple will be putting this infrared tech to work in an upcoming iPhone, as sometimes, Apple acquires companies just for the talent. The price of this acquisition in unclear, but according to research, the company raised $5.3 million in a funding round last year. (Source: Fortune)

12 Dec 2019	**Samsung Galaxy A51 officially announced in Vietnam**
Smartphone	Samsung Galaxy A51 was announced in Vietnam on 12 Dec. The Galaxy A51 is powered by the Exynos 9611 SoC. It runs Android 10-based One UI 2.0. The Galaxy A51 is built around a 6.5" Infinity-O Super AMOLED display. The smartphone is equipped with an L-shaped quad camera setup comprising a 48MP main, 12MP ultrawide (123-degree FOV), 5MP depth, and 5MP macro units. These cameras come with features like Live Focus, and Super Steady Video. The Galaxy A51 packs a 4,000 mAh battery with 15W fast charging. The A51 is priced starting at US$350 and can be pre-booked in Vietnam from 16 Dec. (Source: Androidauthority)
Samsung	

12 Dec 2019	**Baidu Maps set up joint intelligent transportation laboratory**
AI	Baidu Maps established a joint laboratory for intelligent transportation with nine research institutes and universities. The aim of this laboratory is to drive joint innovation and upgrade the level of smart transportation through sharing the data. According to the Baidu Maps, it has had 1.8 million registered developers and served more than 500,000 mobile applications up to now. The average daily requests for location services have exceeded 120 billion with an average daily track up to 2 billion kilometers. Meanwhile, Baidu Maps also released the ecological panorama of the new-generation artificial intelligence (AI) map. Based on Baidu's AI technologies and data capacity in the map field, Baidu Maps will supply global developers with eight application capabilities of intelligent positioning, route planning, navigation, road condition services, map image services, track services, location search services and mini programs. (Source: Jkqnews)
Baidu	

11 Dec 2019	**Intel announced the world's smallest RealSense lidar camera**
Module	Intel announced the Intel RealSense lidar camera L515, the world's smallest and most power-efficient, high-resolution lidar. It could capture millions of depth points per second, presenting millimeter accuracy. It could be used in depth cameras to perceive the world in 3D, benefiting logistics, 3D scanning, healthcare, retail, robotics and other industries. L515 is priced at US$349. (Source: Intel)
Intel	

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