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Global smartphone – recovery could be delayed to late 3Q



Source: IDC, AMTD Research estimates

AMTD views: according to IDC, global smartphone shipments were 278.4mn units in 2Q, down 16.4% YoY, lower than 11.7% decline in 1Q, reflecting weak demand due to the widespread lockdowns worldwide. We expect the recovery of smartphone market could be delayed to late 3Q or early 4Q, headwinds including: 1) some regions are undergoing the second wave of pandemic; 2) new product launch delayed, such as the new iPhone 12 will be delayed to Dec quarter. On the flip side, there are tailwinds as well: 1) the recovery of some markets, China market narrowed the shipment decline to -10.3% YoY in 2Q from -20.4% last quarter; 2) driving force of 5G, chip makers are upbeat on outlook for 5G devices shipment of 2020 and biased now toward the upper end of their forecast in 1Q (Qualcomm: 175mn to 225mn units, MediaTek: 170mn to 200mn units). Overall, we project the global smartphone shipment around 1.2bn units (down 12.5% YoY) in 2020.

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Shipment

Huawei (incl. Honor) - topped the list in 2Q by refocusing on China market

According to IDC, Huawei smartphone shipment was 55.8mn units in 2Q20, down 5.1% YoY, surpassing Samsung as No.1 smartphone vendor for the first time with a 20.0% market share globally. Thanks to the quick recovery of China market, the sales growth in China (up 9.5% YoY) partially offset the losses caused by chipset and GMS restriction in overseas market. In addition, we tracked Huawei's newly launched products in the first half of 2020, among which, 16 out of 24 products were 5G models. Huawei led 5G smartphone shipments in Q2 in China, capturing 60% share of the total market, according to Counterpoint. We expect 5G smartphone pipeline will be the key driver to fuel Huawei's growth.

Samsung - underperformed due to the widespread lockdowns globally

According to IDC, Samsung slid to second place with a 54.2mn units smartphone shipments in 2Q20, down 28.9% YoY. The underperformance was mainly due to: 1) widespread lockdowns in India, US and Europe, where are the core markets of Samsung smartphone; 2) slow shift to online channels and heavy reliance on its offline stores; 3) weak sales of its highend devices such as the Galaxy S20 and the Galaxy Z Flip (both launched in 1Q) as recession fears dampened high-end demand. On Aug 5, Samsung launched new Galaxy Note 20 series and Galaxy Z Fold 2, powered by Snapdragon 865 Plus and Exynos 990. However, due to the delayed launch of the main competitor – iPhone 12, Samsung could be well-positioned in 3Q, in our view.

Apple – returned to growth, thanks to the successful iPhone SE launch amid pandemic According to IDC, iPhone smartphone shipment was 37.6mn units in 2Q20, up 11.2% YoY. Proper product strategy including discounts on iPhone 11 series and launch of budget-friendly iPhone SE helped boost sales amid the pandemic. In particular, Apple achieved 11.6% YoY growth in 2Q in China market. However, headwinds are still ahead. The new iPhone 12 launch will be delayed for a few weeks at late September, as a result, we see weaker iPhone sales with a lower ASP in Sept quarter YoY but expect a strong Dec quarter.

Xiaomi – gained in Europe market

According to IDC, Xiaomi smartphone shipment was 28.5mn units in 2Q20, down 11.8% YoY, primarily due to:1) the national lockdowns in India, Xiaomi's shipment was 5.4mn unit, down 48.7%, however, Xiaomi still led the Indian smartphone market with a 29.4% market share; 2) fierce competition in China market, escalated by Huawei's refocusing on China market and Apple's entering mid-end segment with iPhone SE. Nevertheless, Xiaomi overtook Huawei to become the third-largest smartphone vendor in Europe with a 17% market share in 2Q. Xiaomi's strength lies in its online sale channels and high performance to price ratio. With expanding affordable 5G products portfolio such as Mi 10 5G series, Redmi K30 5G, Redmi 10X 5G, Xiaomi would benefit from 5G cycle, in our view.

5G chip marker – upbeat outlook on 5G devices shipment of 2020

According to IDC, in China market, 5G smartphones shipment reached more than 43mn in 2Q20, accounting for nearly 49.0% of total smartphone shipment (87.8 mn), thanks to large-scale adoption of the 5G chips. As we all know, Qualcomm, Huawei, Samsung and MediaTek had all established their integrated 5G SoCs portfolio. In terms of 5G processor vendor, Huawei led the 5G processors competition in China, with a 54.8% market share in 2Q20 in China, followed by Qualcomm, with a 29.4% share, according to IDC. MediaTek has gained share with its cheaper processors, while Samsung has become a key supplier in the local market benefiting from partnership with vivo.

On the latest earnings calls, chip makers Qualcomm and MediaTek are upbeat on outlook for 5G devices shipment of 2020 and biased now toward the upper end of their forecast in 1Q. Qualcomm and MediaTek forecasted 175mn to 225mn units and 170mn to 200mn units of 5G devices shipment for full year of 2020, respectively.

				Shipment (mn units)		Growth, YoY	
Company	2Q19	3Q19	4Q19	1Q20	2Q20	2Q19	2Q20
Apple	33.8	46.6	73.8	36.7	37.6	-18.2%	11.2%
Samsung	76.2	78.2	69.4	58.3	54.2	5.6%	-28.2%
Huawei	58.7	66.6	56.2	49.0	55.8	8.3%	-4.9%
Xiaomi	32.3	32.7	32.8	29.5	28.5	-0.3%	-11.8%
OPPO	29.5	31.2	30.6	n.a.	24.0	0.3%	-18.6%
Vivo	n.a.	n.a.	n.a.	24.8	n.a.	-1.9%	n.a.
Total	331.5	358.3	368.8	275.8	278.4	-2.3%	-16.4%



Source: IDC, AMTD Research

News update

31 July 2020

Smartphone

Apple

Strong 3Q results driven by product sales and announced stock split

Apple delivered strong 3QFY20 results despite the headwind from pandemic. Total revenue reached US\$59.7bn, up 11% YoY, significantly above the consensus of US\$52.3bn. The strength primarily came from iPhone SE launch, double-digit growth from iPad, Mac and wearables. However, Services revenue was US\$13.2bn and the growth softened to 15% YoY, mainly due to weaker advertising and AppleCare impacted by reduced level of economic activity. Products gross margin was 29.7%, down 60bps sequentially due to FX and a different mix, and Services gross margin was 67.2%, up 180bps sequentially driven by favorable mix. Net income was US\$11.3bn and EPS came in at US\$2.58/shr, beating consensus. No detailed 4Q guidance was provided but Apple announced a 4 for 1 stock split. (Source: <u>Apple</u>)

AMTD views: 1) iPhone revenue returned to growth this quarter, thanks to the successful iPhone SE launch. Management expected recent performance continue for its current product lineup (iPhone 11/11 Pro/11 Pro Max, SE). In addition, the new iPhone 12 launch will be delayed for a few weeks at late September. We see weaker iPhone sales with a lower ASP in Sept quarter YoY but expect a strong Dec quarter. 2) iPad and Mac revenue was US\$6.6bn and US\$7.1bn, up strongly 31% YoY and 22% YoY, respectively, driven by new product launches. Around half of the customers purchasing Mac and iPad during the quarter were new to that product, and the active installed base for both products reached a new all-time high. 3) On Services, Apple now has over 550mn paid subscriptions, up 130mn from a year ago, and management remained confident to reach target of 600mn paid subscriptions before the end of CY2020.





29 July 2020

SaaS/eCommerce

Shopify

Strong 2Q results driven by impressive GMV growth

Shopify reported strong 2Q results, driven by an accelerated shift from offline to online amidst the pandemic. Total revenue doubled in 2Q and up 97% YoY to US\$714mn. The strength primarily came from Merchant solutions, which was boosted by the spike in GMV. GMV jumped by 119% YoY to US\$30.1bn, among which US\$13.4bn of GMV was processed on Shopify Payments (Payments penetration of 44.5% vs 42.0% in 1Q). Merchant solutions revenue reached US\$518mn, up 148% YoY/84% QoQ, and take rate increased sequentially by 10bps to 1.72%. Subscription solutions revenue was US\$196mn, up 28.3% YoY, and MRR was US\$57mn and growth deaccelerated to 21.0% YoY, due to some impact from 90-day free trial. Shopify Plus continued to increase its contribution to MRR, accounting for US\$16.6mn or 29% compared with 28% of MRR in 1Q. Adjusted gross profit grew by 84% YoY, helped by favorable revenue mix, and Adjusted operating income came in at US\$113.7mn. No 3Q guidance provided due to the uncertainty from COVID-19. (Source: Shopify)

AMTD views: impressive GMV growth in 2Q was driven by the sudden shift to consumer spend from offline to online caused by COVID-19. Although Shopify indicated on earnings call that GMV growth decelerated in June and July from a high in May, we see Shopify is well positioned in a secular growth trends in ecommerce and enterprise digital transformation. Shopify continues to invest and build Shopify Plus, and merchant solutions, like Shopify Payments, Shopify Capital, Shopify Shipping, and newly released Shopify Plus Admin. In addition, although announced last year and still early in planned five-year build, Shopify Fulfillment Network in 2Q enrolled more merchants and increased fulfillment volumes by 2.5x over 1Q. Shopify is on the track to deliver growth over the medium and into the long term, in our view.





30 Jul 2020

E-commerce/Cloud



Strong 2Q results back on eComm strength and AWS margin expanding

Amazon reported strong 2Q revenue of US\$88.9bn, up 40.2% YoY and ahead of consensus of US\$85bn. Total retail business revenue was US\$78.1bn, up 42% YoY, driven by strong online grocery sales (tripled YoY) and accelerated Prime member growth rate both in US and worldwide. On cloud side, AWS's revenue reached US\$10.8bn, up 29% YoY vs. 30% YoY in 1Q. AWS growth varies across industries as a result of the COVID-19 crisis as some companies within the more challenged businesses are working really hard to cut expenses, like hospitality and travel companies. AWS operating margin (GAAP) continued to expand to 31.1% from 26.1% in 1Q. For next quarter, net sales was guided to US\$87.0bn-US\$93.0bn, implying an 24%-33% YoY growth, and operating income was expected to be between US\$2.0bn and US\$5.0bn, assuming more than US\$2.0bn of COVID-19 related costs. (Source: Amazon)

AMTD views: although company's cloud spending softened amidst COVID-19 pandemic, AWS's long-term growth story intact. Management disclosed on earnings call that AWS's backlog grew strongly by 65% YoY/21% QoQ and the average contract length is over three years. On the other hand, AWS capex was US\$3.2bn in 2Q, up 9% YoY on TTM basis vs 21% YoY in 1Q. Increasing operating leverage helped by decelerated capex growth boosted operating margin. On the business side, AWS announced Amazon Interactive Video Service (Amazon IVS), a fully managed service that makes high-quality, live-streaming video available to viewers around the world with low latency.





Source: Company data, AMTD Research

Figure 8: AWS revenue vs capex

30 July 2020

Semiconductor

Qualcomm

Good 3Q results and well positioned in 5G cycle

Qualcomm reported good 3QFY20 results. Non-GAAP EPS was US\$0.86/shr, above the high end of the guidance. Total Non-GAAP revenue came in at US\$4.89bn. QCT revenue was US\$3.8bn back on 130mn MSM shipments with EBT margin of 16%, which was at the high end of its guidance range. QCT revenues and EBT were up 7% and 20% YoY, respectively, due to the strength of 5G design traction and RF front-end growth despite a fewer MSM shipment caused by the pandemic. QTL revenue was US\$1.0bn and down 8.6% YoY by excl. the last US\$150mn payment from Huawei in 3QFY19, reflecting the weakness of global smartphone shipment. QTL EBT margin was 62%. For 4Q, QCT revenue was guided to US\$4.3bn to US\$4.9bn with MSM shipments of 145mn to 165mn, factoring in the delay of a flagship 5G smartphone launch. QLT revenue was guided to US\$1.2bn to US\$1.4bn and royalty revenue from Huawei will begin in Q4. Non-GAAP EPS guidance of 4Q was US\$1.05 - US\$1.25. (Source: Qualcomm)

AMTD views: on QCT side, the bundle sale with the RF content has been well accepted by the customers. The management disclosed that 4Q QCT revenue guidance included US\$750mn revenue of RF front-end content. In addition, Qualcomm now has 660 designs on 5G devices, among which over 165 designs were premium-tier products. On QTL side, Qualcomm just settled a US\$1.8bn royalty agreement with Huawei and now entering a period in which the company has multi-year license agreements with every major handset OEM. Meanwhile, the company expected a longer-term sustainable margin of 70% for QTL. Overall, Qualcomm expected the global smartphone shipment to be down 15% YoY in Sept quarter and kept its full year forecast for 5G smartphone shipment of 175mn to 225mn units unchanged with its bias now toward the upper end of that range.

Good 2Q results with LT upside from 5G cycle

MediaTek reported solid 2Q results. Total revenue was NT\$67.6bn, up 11.1% QoQ/9.8% YoY, and 5% ahead of consensus. Gross margin was 43.5%, up 0.4ppt QoQ/1.6ppt YoY. Operating income came in at NT\$7.4bn, up 27.8% QoQ/20.7% YoY. Operating margin was 11.0%, compared with 9.5% in the previous quarter and 10.0% in the same period last year. For 3Q, the revenue was guided to be in the range of NT\$82.5bn to NT\$87.9bn, up 22%-30% QoQ /23%-31% YoY. Gross margin could be at 43% (+/-1.5%) and operating expense ratio was expected to be 29% (+/-1.5%). (Source: MediaTek)

AMTD views: on earnings call, management kept unchanged the forecast of total global 5G smartphone shipment of 170mn to 200mn units in 2020, but expected it more likely towards the high end and will be likely to be more than double in 2021. Among them, management forecasted 100mn to 120mn shipment in China in 2020. The company has a solid 5G roadmap with three SoCs to serve three different segments and a new high-end product scheduled toward year-end. On technology side, MediaTek is using TSMC's 7nm for the Dimensity 1000, and will move into 6nm/5nm ASAP; on the other hand, its millimeter wave product development is on track and expected to ship samples to customers in 2021. In addition, the company will start 5G smartphone shipment to regions beyond Mainland China in third quarter and expected to claim 40% of 5G market share in terms of shipment by the end of 2020. In first half of 2020, 5G's revenue contribution for the whole company was close to 10%.

31 July 2020

Semiconductor

MediaTek



AMD

Strong 2Q results with market share gains

AMD delivered solid 2Q results. Revenue grew by 26.2% YoY/8.2% QoQ to US\$1.93bn, close to the top end of its guidance in 1Q, mainly driven by strong demand for client and server processors. CGS's revenue was US\$1.37bn, up 45.4% YoY/down 4.9% QoQ. Strong growth in Ryzen processor sales more than offset lower graphic sales, which contributed a sequential decline of the sector. EECS's revenue was US\$565mn, down 4.4% YoY/up 62.4% QoQ, driven by record server processor sales. Non-GAAP gross margin was 44.0%, up 3.3ppts from last year, but the sequential decline of 1.9ppts was due to sales mix. Non-GAAP EPS came in at US\$0.18/shr compared to US\$0.08/shr a year ago. (Source: AMD)

AMTD views: AMD achieved strong growth in 2Q despite macro headwinds, and finally reached its major goal of capturing a double-digit share of the server processor market. Given its major rival Intel delay in 7nm process, we expect AMD will continue to gain market share both in client/server processor market. On the client side, AMD is expected to ship Zen 3 desktop CPUs and RDNA 2 GPUs in late 2020. On the server side, as some of the key customers have launched, AMD are on track to start shipping Zen 3-based "Milan" EPYC processors late in 2020 as well. In addition, AMD has started ramping console hardware for the PS5 and Xbox Series X, which will drive some of the sequential growth in 3Q/4Q despite its lower margin. Given the backdrop above, AMD raised 2020 full year outlook. Revenue growth was guided to 32% YoY (prev. 25%) with the gross margin around 45%.

6 Aug 2020 Semiconductor	Xiaomi invests RISC-V core IP startup Nuclei Xiaomi's Yangtze Industrial Fund led a strategic investment in a RISC-V core IP company Nuclei System Technology. Previous investors of Nuclei, BlueRun Ventures and SIMIC capital				
Xiaomi	followed up in this round. Founded in 2018, the company focuses on developing RISC-V core IP, growing RISC-V market and ecosystem in China. It has released the N200 series ultra- low-power RISC-V core IP for IoT applications. (Source: <u>EqualOcean</u>)				
6 Aug 2020	Samsung is reported to have lost Qualcomm's 5nm chip orders to TSMC				
Semiconductor	In its 2Q20 earnings announcement, Samsung confirmed that it has started mass-production of 5nm chips, and the company is also working on 4nm chipsets. However, Samsung is repetted to loss Qualemm's 5nm chips orders to TSMC, mainly due to its problems in the				
Samsung	reported to lose Qualcomm's 5nm chips orders to TSMC, mainly due to its problems in the development process. (Source: <u>Gizmochina</u>)				
5 Aug 2020	Global tablet shipment reached 43.3 mn units, up 17% YoY in 2Q20				
Tablet	According to Strategy Analysis, the global tablet shipment totally reached 43.3mn units, up 17% YoY. Apple ranked No.1 position with a shipment of 14.3nm units, up 34% YoY, followed by Samaura (60mn units abiamente 40% YoY).				
Apple/Huawei	by Samsung (6.9mn units shipments, 40% YoY), Huawei (4.9mn units shipments, 45% YoY) and others. Back-to-school demand could further boost the tablet market in the fall and looking long-term, tablet sales could see an extended resurgence due to lower price points if remote work and school options remain post-pandemic. (Source: <u>Strategy Analysis</u>)				

4 Aug 2020	Samsung acquired chip orders from Google and Cisco				
Semiconductor	Samsung is reported to receive a Cisco contract earlier this year to design and manufacture chips. These chips will be used in Cisco's next generation telecommunications network. Similarly, Samsung has also managed to secure orders from Google. The company will design and manufacture semiconductor chips that will be used for sensors that can monitor and track body movements. (Source: <u>Gizmochina</u>)				
Samsung					
30 Jul 2020	MediaTek launched 800 GbE MT3729 for data centers and 5G Infrastructure				
5G	MediaTek has announced the commercial availability of its MT3729 product family of 800GbE (Dual 400GbE) MACsec retimer PHYs designed for the high-speed and ultra-low power data				
MediaTek	transmissions needs of data centers and 5G infrastructure applications, in addition to the stringent security requirements of these applications. The MT3729 family uses MediaTek's 56G PAM4 SerDes technology available as a standalone application-specific standard par (ASSP) and will equip Tier-1 network equipment and service providers to enable secure reliable and high-speed data transfer for modem networking infrastructure. (Source <u>MediaTek</u>)				
30 July 2020	China Telecom's ctyun ranked No.2 in China's laaS market in 2019				
Cloud	According to CAICT, China Telecom's ctyun ranked second in 2019 in China's cloud server laaS market share, up 1.2% YoY. Ctyun has more than 700 data centers, 315 cloud resource the second sec				
China Telecom	pools, and more than 3,000 edge nodes. With the acceleration of the 5G commercial processing of the second				
30 July 2020	Google claimed its fourth-generation Tensor Processing Unit chip - TPU v4				
Semiconductor	Google announced its fourth-generation TPU ASIC, which offers more than double the matri- multiplication TFLOPs of TPU v3. It also offers a significant boost in memory bandwidth while				
Google	 benefiting from unspecified advances in interconnect technology. The fourth-generation demonstrates an average improvement of 2.7 times over TPU v3 performance in last ye MLPerf benchmark. (Source: <u>Google</u>) 				
30 July 2020	NAND Flash, DRAM Forecast to remain largest IC markets in 2020				
Semiconductor	According to IC insights, DRAM and NAND flash are expected to repeat as the two large segments again in 2020. IC Insights forecasts DRAM will account for 17.5% of the US\$368.3 billion IC market in 2020. NAND flash is forecast to be the second-largest IC m in 2020 with sales of US\$56.0 billion, an increase of 27%-the strongest projected percer growth rate among all 33 IC product categories this year. (Source: <u>ICinsights</u>)				
29 July 2020	Google Cloud and Orange team up on Al and cloud computing				
Cloud/Al	Orange and Google Cloud have announced a strategic partnership that will cover data, artificial intelligence (AI), and cloud computing services. Orange and Google Cloud are also				
Google/Orange	planning to jointly create an Innovation Lab, which will enable new industry solution development based on data and AI, as well as a Centre of Excellence that will provide training in data, AI and cloud services for several thousand Orange employees. (Source: <u>Cloudpro</u>)				

29 Jul 2020	AWS launched AI tool that helped businesses tackle online fraud				
Cloud	Amazon Web Services (AWS) has announced the general availability of Fraud Detector, a machine learning-powered service that helps organizations to tackle fraudulent activity. The				
Amazon	tool requires no machine learning expertise, according to AWS, with Fraud Detector providing a selection of ready-made fraud detection AI templates that cover different use cases. AWS charges no up-front payments, long-term commitments, or infrastructure to manage with Amazon Fraud Detector, and customers pay only for their actual usage of the service. (Source: <u>Amazon</u>)				
28 July 2020	Worldwide 5G network infrastructure spending to almost double in 2020				
5G	Worldwide 5G network infrastructure market revenue will almost double in 2020 to reach US\$8.1 billion, according to Gartner. Total wireless infrastructure revenue is expected to				
	decline 4.4% to US\$38.1 billion in 2020. Investment by communications service providers (CSPs) in 5G network infrastructure accounted for 10.4% of total wireless infrastructure revenue in 2019, which will reach 21.3% in 2020. (Source: <u>Gartner</u>)				
28 July 2020	Apple applied for a patent - iPad can be turned into a laptop computer				
Tablet	In a patent granted by the US Patent and Trademark Office titled "Modular multiple display electronic devices", Apple may offer a future accessory that allows an iPhone and iPad or two				
Apple	iPads to connect together, with one iPad as the display for the joined unit, and the other as a dynamic keyboard. (Source: <u>Appleinsider</u>)				
28 Jul 2020	Google is building its 4 th private subsea cable to promote 5G edge computing				
5G	Google announced its fourth private subsea cable, connecting the US, the UK, and Spain. Named for the computer science pioneer Grace Hopper, the new subsea cable will be the world's first to incorporate novel optical fiber switching that allows for increased reliability in global communications. The new cable will be Google's first investment in a subsea cable route directly to Spain. Last month, Google announced it will be opening up a new Google Cloud region in Madrid and partnering with the telecommunications giant Telefonica to advance 5G mobile edge computing. (Source: <u>Google</u>)				
Google					
27 Jul 2020	Xiaomi TV ranked first in China in 1H20				
Smart TV	Xiaomi has announced the Mi TV models ranked first in China in terms of shipments for the first half of the year 2020 and six straight quarters. Xiaomi's TV shipments and sales volume				
Xiaomi	both ranked first in China for the entire 2019. The company recorded an annual shipment of 10.46 million units, becoming the first TV brand in the history of the Chinese market with an annual shipment of over 10 million. (Source: <u>Gizmochina</u>)				
27 Jul 2020	Intel to outsource 180K 6nm chips from TSMC; AMD to double 7nm orders				
Semiconductor	Intel has already reached an agreement with TSMC, and Intel had placed a 180K unit order with TSMC for 6nm chips for 2021. Meanwhile, rival AMD has further expanded its 7nm stake,				
TSMC/Intel/AMD	becoming TSMC's largest client by doubling 7nm/7nm+ orders to 200k unit for 2021. Thus, TSMC's manufacturing capacity will remain fully loaded in the first half of 2021. (Source: Hardwaretimes)				

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We, Brian Li, Halsey Wu and Alyssa Han, hereby certify that (i) all of the views expressed in this research report reflect accurately our personal views about the subject companies and their securities; and (ii) no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed by us in this research report, nor is it tied to any specific investment banking transactions performed by AMTD Global Markets Limited.

As of the date the report is published, Brian Li holds financial interest in the securities of Amazon mentioned in the report.

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AMTD Global Markets Limited has an investment banking relationship with Xiaomi Corporation and/or its affiliate(s) within the past 12 months.

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