Technology · US



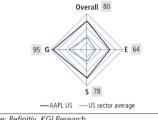
Price as of Sep 7: US156.0

Apple event – Favorable iPhone & Apple Watch pricing

Apple (AAPL.O/AAPL US)

| Trading data | | | | | | |
|----------------------|------------|-------|----------|--|--|--|
| Mkt cap (US\$bn) | | | 2,506.4 | | | |
| Outstanding shares | (mn) | | 16,071 | | | |
| Institutional owners | ship (%) | | 61.8 | | | |
| 3M avg. daily tradir | ng (mn) | | 73.4 | | | |
| 52-week trading ra | nge (US\$) | 129 | .0-182.9 | | | |
| Performance | 3M | 6M | 12M | | | |
| Absolute (%) | 4.9 | (2.1) | (0.5) | | | |
| Relative (%) | 3.2 | 11.5 | | | | |
| | | | | | | |

ESG score card



Source: Refinitiv, KGI Research

Event

Apple (US) showcased its new iPhone 14-series (iPhone 14, iPhone 14 Plus, iPhone 14 Pro, and iPhone 14 Pro Max), three Apple Watch models (Apple Watch 8, Ultra, and SE2), and AirPods Pro 2 as expected last night. However, the company did not reveal the HomePod 2 or new Apple TV. The major surprise was that i Phone 14 Pro and Pro Max maintain the same prices as the iPhone 13 Pro-series (from US\$999 and US\$1,099, respectively), and keep the same storage unchanged (from 128GB). We believe this is largely due to the strong US dollar this year (US Dollar Index has appreciated around 20% since iPhone 13-series was launched). In addition, Apple Watch Ultra and SE2 are priced US\$100 and US\$30 cheaper than expected, but with upgraded specs, including a larger screen (49mm vs. 47mm expected) and faster chip, respectively. Other hardware specifications are largely in line with market expectations.

Impact

Further market share gains in China for iPhone. We think the unchanged pricing of the iPhone 14-series is positive for its future sell-through. In addition, retail prices in its most important overseas market, including China (20% of global iPhone shipments) and Japan (6%), are roughly the same as for the iPhone 13-series (only 1-3% increase based on local currencies (Figure 6). The iPhone currently accounts for around 50% of the high-end smartphone market in China, and we expect the iPhone to gain market share to around 60% in 4Q22 on favorable pricing and better specs. We note that Apple adjusted the iPhone 13 pricing this July reflecting Japanese yen weakness.

Awaiting US telecoms' plans, but positive on future iPhone sell-through. We are awaiting news of US telecoms' plans and preorders over the coming weekend. We expect around 20% HoH shipment growth for the iPhone, compared to Gartner's forecast of 13% HoH growth for smartphones..

| Key financials and valuation | ons | | | | |
|------------------------------|----------|----------|----------|----------|----------|
| | Sep-19A | Sep-20A | Sep-21A | Sep-22F | Sep-23F |
| Revenue (US\$mn) | 260,174 | 274,515 | 365,817 | 393,817 | 415,008 |
| Gross profit (US\$mn) | 98,392 | 104,956 | 152,836 | 170,468 | 179,234 |
| Operating profit (US\$mn) | 63,930 | 66,288 | 108,949 | 119,507 | 123,092 |
| EBITDA (US\$mn) | 76,477 | 77,344 | 120,233 | 131,439 | 134,539 |
| Net profit (US\$mn) | 55,256 | 57,411 | 94,680 | 100,253 | 103,578 |
| EPS (US\$) | 2.97 | 3.28 | 5.61 | 6.16 | 6.37 |
| Revenue growth (%) | (2.0) | 5.5 | 33.3 | 7.7 | 5.4 |
| EPS growth (%) | (0.2) | 10.2 | 71.4 | 9.8 | 3.3 |
| Gross margin (%) | 37.8 | 38.2 | 41.8 | 43.3 | 43.2 |
| Operating margin (%) | 24.6 | 24.1 | 29.8 | 30.3 | 29.7 |
| EBITDA margin (%) | 29.4 | 28.2 | 32.9 | 33.4 | 32.4 |
| Net debt to equity (%) | Net Cash |
| Return on average equity (%) | 55.9 | 73.7 | 147.4 | 155.9 | 159.4 |

Source: Company data, KGI Research estimates

Note: Fiscal year ends September

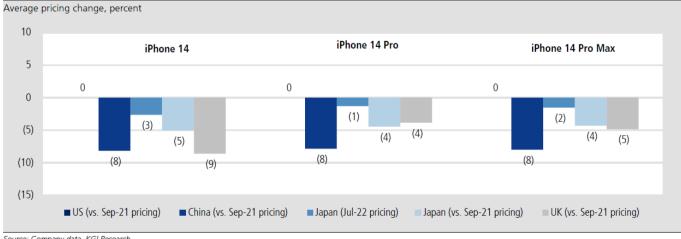


Figure 1: iPhone 14-series vs. iPhone 13-series

| | iPhone 14 | iPhone 14 Plus | iPhone 14 Pro | iPhone 14 Pro Max | iPhone 13 mini | iPhone 13 | iPhone 13 Pro | iPhone 13 Pro Max |
|-------------------|---|---|--|--|--|--|---|---|
| Starting price | Started US\$799 | Started US\$899 | Started US\$999 | Started US\$1,099 | Started US\$699 | Started US\$799 | Started US\$999 | Started US\$1,099 |
| Release date | September 16, 2022 | October 7, 2022 | September 16, 2022 | September 16, 2022 | September 24, 2021 | September 24, 2021 | September 24, 2021 | September 24, 2021 |
| Display | 6.1-inch Super Retina XDR display | 6.7-inch Super Retina XDR display | 6.1-inch Super Retina XDR display | 6.7-inch Super Retina XDR display | 5.4-inch Super Retina XDR OLED | 6.1-inch Super Retina XDR OLED | 6.1-inch Super Super Retina XDR OLED | 6.7-inch Super Retina XDR OLED |
| Display type | Flexible AMOLED | Flexible AMOLED | Flexible AMOLED, High refresh rate | Flexible AMOLED, High refresh rate | Flexible AMOLED | Flexible AMOLED | Flexible AMOLED, High refresh rate | Flexible AMOLED, High refresh rate |
| Resolution | 2532 x 1170 pixels | 2778 x 1284 pixels | 2556 x 1179 pixels | 2796 x 1290 pixels | 2340 x 1080 pixels | 2532 x 1170 pixels | 2532 x 1170 pixels | 2788 x 1284 pixels |
| Processor | A15 (TSMC 5nm) | A15 (TSMC 5nm) | A16 (TSMC 4nm) | A16 (TSMC 4nm) | A15 (TSMC 5nm) 6-core CPU, 4-core GPU, 16-core Neural Engine | A15 (TSMC 5nm) 6-core CPU, 4-core GPU, 16-core Neural Engine | A15 (TSMC 5nm) 6-core CPU, 5-core GPU, 16-core Neural Engine | A15 (TSMC 5nm) 6-core CPU, 5-core GPU, 16-core Neural Engine |
| RAM | 4GB | 4GB | 6GB | 6GB | 4GB (LPDDR4X) | 4GB (LPDDR4X) | 6GB (LPDDR4X) | 6GB (LPDDR4X) |
| Storage | 128GB, 256GB, 512GB | 128GB, 256GB, 512GB | 128GB, 256GB, 512GB,1TB | 128GB, 256GB, 512GB,1TB | 128GB, 256GB, 512GB | 128GB, 256GB, 512GB | 128GB, 256GB, 512GB, 1TB | 128GB, 256GB, 512GB,1TB |
| Rear Camera | Dua-12MP(7P/5P); Single OIS (sensor shift) + VCM | Dua-12MP(7P/5P); Single OIS (sensor shift) + VCM | 48MP/12MP/12MP (7P/6P/6P); Dual OIS (one with sensor shift)+VCM | 48MP/12MP/12MP (7P/6P/6P); Dual OIS (one with sensor shift)+VCM | Dua-12MP(7P/5P); Single OIS (sensor shift) + VCM | Dua-12MP(7P/5P); Single OIS (sensor shift) + VCM | Tri-12MP(7P/6P/6P) + LiDAR; Dual OIS (one sensor shift) + VCM | Tri-12MP(7P/6P/6P) + LiDAR; Dual OIS (one sensor shift) + VCM |
| Lidar | х | х | v | v | х | х | v | v |
| Front Camera | 12MP(6P)+ VCM | 12MP(6P)+ VCM | 12MP(6P)+ VCM | 12MP(6P)+ VCM | 12MP(5P) | 12MP(5P) | 12MP(5P) | 12MP(5P) |
| Face ID | v | v | V, Dynamic Island | V, Dynamic Island | v | v | v | v |
| Force Touch | Haptic Touch (upgrade) | Haptic Touch (upgrade) | Haptic Touch (upgrade) | Haptic Touch (upgrade) | Haptic Touch (upgrade) | Haptic Touch (upgrade) | Haptic Touch (upgrade) | Haptic Touch (upgrade) |
| 5G | mmWave (US, Puerto Ricol), Sub- 6GHz | mmWave (US, Puerto Ricol), Sub- 6GHz | mmWave (US, Puerto Ricol), Sub- 6GHz | mmWave (US, Puerto Ricol), Sub- 6GHz | mmWave (US), Sub-6GHz | mmWave (US), Sub-6GHz | mmWave (US), Sub-6GHz | mmWave (US), Sub-6GHz |
| WiFi | WiFi 6 | WiFi 6 | WiFi 6 | WiFi 6 | WiFi 6 | WiFi 6 | WiFi 6 | WiFi 6 |
| Satellite | Emergency SOS (SMS sending/receiving) | Emergency SOS (SMS sending/receiving) | Emergency SOS (SMS sending/receiving) | Emergency SOS (SMS sending/receiving) | | | | |
| Wireless charging | v | v | v | v | v | v | v | v |
| Battery | | | | | 2,406 mAh | 3,095 mAh | 3,095 mAh | 4,352 mAh |
| Weight | 172g | 203 g | 206g | 240g | 141g | 174g | 204g | 240g |
| Dimension (in.) | 5.78 x 2.82 x 0.31 inches | 6.33 x 3.07 x 0.31 inches | 5.81 x 2.81 x 0.31 inches | 6.33 x 3.05 x 0.31 inches | 5.18 x 2.53 x 0.30 inches | 5.78 x 2.82 x 0.30 inches | 5.78 x 2.82 x 0.30 inches | 6.33 x 3.07 x 0.30 inches |
| Connector | Lightning | Lightning | Lightning | Lightning | Lightning | Lightning | Lightning | Lightning |
| Color | Midnight, Purple, Starlight, (PRODUCT)REDand Blue | Midnight, Purple, Starlight, (PRODUCT)REDand Blue | Deep Purple, Silver, Gold, and Space Black | Deep Purple, Silver, Gold, and Space Black | Red, Starlight, Midnight, Blue, Pink | Red, Starlight, Midnight, Blue, Pink | Graphite, Gold, Silver, Sierra Blue | Graphite, Gold, Silver, Sierra Blue |
| Misc. | Ceramic Shield front Glass back and aluminum design; eSIM (US only) | Ceramic Shield front Glass back and aluminum design; eSIM (US only) | Ceramic Shield front Textured matte glass back and stainless steel design; eSIM (US only) | Ceramic Shield front Textured matte glass back and stainless steel design; Esim (US only) | Ceramic Shield , Aluminum, No Earphone and Adapter | Ceramic Shield , Aluminum, No Earphone and Adapter | Ceramic Shield, Stainless steel, No Earphone and Adapter | Ceramic Shield, Stainless steel, No Earphone and Adapter |

Source: Company data, KGI Research

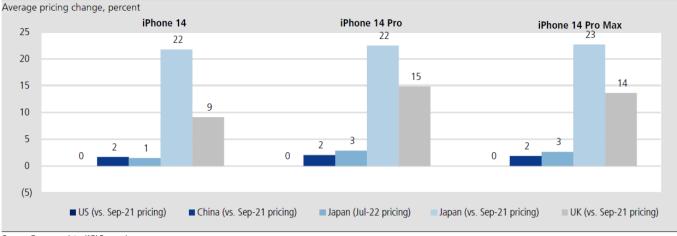




Source: Company data, KGI Research



Figure 3: Retail price comparison in local currency by region - iPhone 14 vs. iPhone 13



Source: Company data, KGI Research

Figure 4: Apple Watch 8-series details Model Apple Watch Ultra Series 8 SE 2 Series 7 SE 41 mm : \$399 (GPS) & \$499 (GPS + Cellular) 45 mm : \$429 (GPS) & \$529 (GPS + Cellular) 40 mm : \$249 (GPS) & \$299 (GPS + Cellular) 44 mm : \$279 (GPS) & \$329 (GPS + Cellular) 41 mm : \$399 (GPS) & \$499 (GPS + Cellular) 45 mm : \$429 (GPS) & \$529 (GPS + Cellular) 40 mm : \$279 (GPS) & \$329 (GPS + Cellular) 44 mm : \$309 (GPS) & \$359 (GPS + Cellular) 49 mm : \$799 (GPS + Cellular) Price Release date September 23, 2022 September 16 2022 September 16, 2022 October 15, 2021 September 18, 2020 Always-On Retina LTPO OLED display, up to Always-On Retina LTPO OLED display, up to 1000 Retina LTPO OLED display, up to 1000 nits Always-On Retina OLED display Display Retina display 2000 nits nits on-X glass display on aluminum cases; sapphin crystal display on stainless steel and titanium Ion-X glass display on aluminum cases; sapphire Flat sapphire crystal display Ion-X glass display Ion-X glass display crystal display on stainless steel cases cases Chip S8 (TSMC 5nm), SiP, W3, U1 chip S8 (TSMC 5nm), SiP, W3, U1 chip S8 (TSMC 5nm), SiP, W3 S7 (TSMC 5nm), SiP, W3, U1 chip S5 SiP W3 Case Titanium Aluminum/Stainless steel Aluminum Aluminum/Stainless steel/Ceramic/Titanium Aluminum Aluminum: 32.0g/38.8g Aluminum: 32.0g/38.8g GPS: 26.4g/32.9G GPS: 30.49g/36.20G 61 3a Case weight Stainless Steel: 42.3g/51.5g Stainless Steel: 42.3g/51.5g GPS + Cellular: 27.8g/33.0g GPS + Cellular: 30.68g/36.36g Titanium: 37.0g/45.1g Dimensions 49 mm 41 mm / 45 mm 40mm / 44mm 41 mm / 45 mm 40mm / 44mm LTE and UMTS; Wi-Fi: 802.11b/g/n 2.4GHz; LTE and UMTS; Wi-Fi 802.11b/g/n 2.4GHz and LTE and UMTS; Wi-Fi 802.11b/g/n 2.4GHz and LTE and UMTS; Wi-Fi 802.11b/g/n 2.4GHz; LTE and UMTS; Wi-Fi: 802.11b/g/n 2.4GHz and Connectivity 5GHz: Bluetooth 5.3 5GHz; Bluetooth 5.0 Bluetooth 5.0 5GHz; Bluetooth 5.0 Bluetooth 5.0 Capacity 32 GB 32 GB 32 GB 32 GB 32 GB RAM 2 GB 1 GB 1 GB 1 GB 1 GB Duration 36hrs 18hrs 18hrs 18hrs 18hrs 41 mm: 303.8 mAh 40 mm: 245 mAh Power 45 mm: 308.8 mAh 44 mm: 296 mAh Temperature sensor, accelerometer, gyro, heart Temperature sensor, accelerometer, gyro, heart Accelerometer, gyro, heart rate (3rd gen). Accelerometer, gyro, heart rate (2nd gen), barometer, always-on altimeter, compass rate (3rd gen), barometer, perpetual altimeter, compass, SpO2, VO2max rate (3rd gen), barometer, perpetual altimeter, compass, SpO2, VO2max ometer, always-on altimeter, compass, SpO2 VO2max Sensor Second-generation optical heart sensor Action buttor Femperature sensing, sleep stage, cycle tracking Temperature sensing, sleep stage, cycle tracking with retrospective ovulation estimates, crash and low heart rate notifications Not to replace Series 3 similar desing with Series with retrospective ovulation estimates, crash detection, high and low heart rate notifications; 100m water resistant, IP6X dust resistance, New cycling tracking, thinner bezels, flat edges faster charging Features Family Setup, New material band, Fall recreational dive to 40m, tested to MIL-STD 810H7, L5 GPS detection, High and low heart rate notifications US FDA IRNF App ECG App 、 IRNF App Clearence History Feature Feature

Source: Company data, KGI Research



Figure 5: AirPods details

| Model | AirPods Pro 2 | AirPods 3 | AirPods Max | AirPods Pro | AirPods 2 |
|------------------------------------|--|--|---|--|---|
| Price | US\$249 | US\$179 | US\$549 | US\$249 | US\$159 |
| Release date | September 23, 2022 | October 26, 2021 | December 15, 2020 | October 30, 2019 | March 20, 2019 |
| Connection | Blutooth | Blutooth | Blutooth | Blutooth | Blutooth |
| BT chip | H2 | H1 | H1 | H1 | H1 |
| BT spec | 5.3 | 5.0 | 5.0 | 5.0 | 5.0 |
| Charging case | Wired/Wireless | Wired/Wireless | Wired | Wired/Wireless | Wired/Wireless |
| U1 Chip | U1 chip; MagSafe Charging Case with speaker and lanyard loop | | | | |
| Battery | | 133mWh | 664mWh | 160mWh | 93mWh |
| Battery Life | Single Charge: 6 hours listening time/4.5 hours talk time 5 minutes charge = 1 hour listening time/1 hour talk time | Single Charge: 6 hours listening time/4 hours talk time 5 minutes charge = 1 hours listening time/1 hours talk time | Single Charge: 20 hours listening time with ANC/Transparency mode 5 minutes charge =1.5 hour listening time | Single Charge: 5 hours listening time/3 hours talk time 5 minutes charge = 1 hour listening time/1 hour talk time | Single Charge: 5 hours listening time/3 hours talk time 15 minutes charge = 3 hours listening time/2 hours talk time |
| Weight | AirPods (each): 5.3 g Charging Case: 50.8 g | AirPods (each): 4 g Charging Case: 40 g | Headphone: 384.8 g Charging Case: 134.5 g | AirPods (each): 5.4 g Charging Case: 45.6 g | AirPods (each): 4 g Charging Case: 40 g |
| Dimensions (Width*Depth*Height) | AirPods (each): 21.8 x 24.0 x 30.9 mm Charging Case: 60.6 x 21.7 x 45.2 mm | AirPods (each): 18.25 x 19.2 x 30.8 mm Charging Case: 54.4 x 21.4 x 46.4 mm | 6.64 inches (168.6 mm) | AirPods (each): 21.8 x 24.0 x 30.9 mm Charging Case: 60.6 x 21.7 x 45.2 mm | AirPods (each): 16.5 x 18.0 x 40.5 mn Charging Case: 44.3 x 21.3 x 53.5 mr |
| Feature | Up to 2x ANC improment, four pairs of silicone tips, touch control, personalized spatial audio | New desigh, spatial audio, force sensor, IPX4 water resistant, MagSafe charging case | 5 colors, Digital Crown , Noise control button, Apple-designed dynamic driver, On-head detection, stainless steel frame, aluminum cups, mesh textile | ANC, Transparency mode, customizable fit with silicone ear tips, IPX4 water- resistance, MagSafe charging case | Voice-activated Siri, 2x faster switchin between devices, 30% lower vs Gen |

Source: Company data; KGI Research

Figure 6: Breakdown of consensus Apple hardware shipments & ASP

| Shipment: mn, units | Quarterly consensus | | | | | | Annual consensus | | Difference from August 22th consensus (%) | | | |
|---------------------|---------------------|---------|---------|----------|----------|----------|------------------|----------|---|-------|-------|-------|
| | 1Q FY22 | 2Q FY22 | 3Q FY22 | 4Q FY22F | 1Q FY23F | 2Q FY23F | 3Q FY23F | 4Q FY23F | FY22F | FY23F | FY22F | FY23F |
| iPhone shipments | 83.0 | 61.1 | 50.2 | 51.8 | 83.2 | 58.9 | 50.0 | 54.7 | 246.0 | 246.9 | 0.0 | 0.0 |
| YoY (%) | 3.8 | 4.3 | 1.8 | 7.0 | 0.3 | (3.5) | (0.3) | 5.6 | 4.1 | 0.3 | | |
| iPad shipments | 17.1 | 16.6 | 15.0 | 16.2 | 18.0 | 14.7 | 14.9 | 16.2 | 64.9 | 63.7 | 0.0 | 0.0 |
| YoY (%) | (12.1) | (3.4) | (13.8) | (18.7) | 5.3 | (11.7) | (1.1) | (0.5) | (12.3) | (2.0) | | |
| Mac shipments | 7.8 | 7.3 | 5.2 | 6.4 | 7.2 | 6.5 | 5.9 | 6.9 | 26.7 | 26.4 | (0.1) | 0.0 |
| YoY (%) | 21.1 | 13.6 | (10.5) | (6.8) | (7.7) | (11.4) | 12.8 | 7.2 | 4.5 | (1.1) | | |
| iPhone ASP | 863.3 | 828.3 | 810.8 | 818.7 | 869.1 | 851.5 | 839.3 | 837.7 | 834 | 852 | 0.1 | 0.5 |
| YoY (%) | 5.2 | 1.2 | 0.9 | 2.1 | 0.7 | 2.8 | 3.5 | 2.3 | 2.7 | 2.1 | | |
| iPad ASP | 424.1 | 460.2 | 481.2 | 486.9 | 455.2 | 510.0 | 491.1 | 488.6 | 462 | 485 | 0.2 | 1.6 |
| YoY (%) | (2.2) | 1.4 | 13.8 | 17.7 | 7.3 | 10.8 | 2.1 | 0.4 | 7.4 | 4.9 | | |
| Mac ASP | 1390.0 | 1424.7 | 1416.7 | 1432.4 | 1469.5 | 1494.4 | 1424.0 | 1426.3 | 1415 | 1454 | 0.0 | 0.2 |
| YoY (%) | 3.3 | 0.9 | 0.2 | 7.2 | 5.7 | 4.9 | 0.5 | (0.4) | 2.9 | 2.8 | | |

Note: Fiscal year ends September; As of 2022.09.07

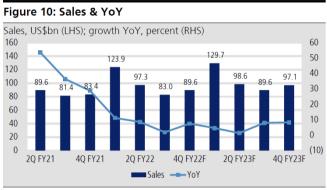
Source: Company data; Bloomberg



Figure 8: Company profile

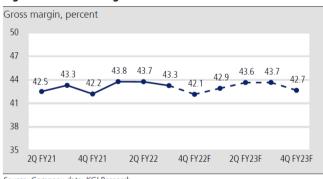
Established in 1977, Apple is a global technology company that designs, manufactures, and markets personal electronics, as well as a variety of related services. As one of the most valuable brands in the world, most of Apple's products have a leading market position globally, such as the iPhone (#3), Mac (#4), iPad (#1), Apple Watch (#1), and AirPods (#1). Over the past few years, Apple has been diversifying its growth drivers, with Services and other products accounting for 31% of total revenue in FY20, up from only 13% in FY15.

Source: Company data; KGI Research



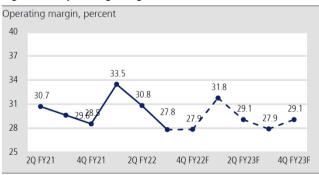
Source: Company data; KGI Research

Figure 12: Gross margin



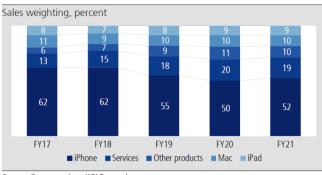
Source: Company data; KGI Research

Figure 14: Operating margin



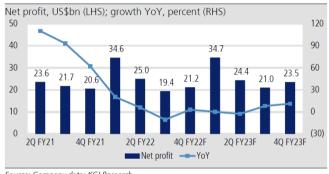
Source: Company data; KGI Research

Figure 9: Revenue by end market



Source: Company data; KGI Research

Figure 11: Net profit & YoY



Source: Company data; KGI Research

Figure 13: 12M forward PE band Share price, US\$ (LHS); PE ratio, x (RHS) 200 28x 160 22x 120 16x 80 10x 40 0 Jul-20 May-19 Oct-22 Dec-23 Jan-16 Feb-17 Apr-18 Aug-21

Source: Bloomberg; KGI Research

Figure 15: Inventory & DOI

Inventory, US\$mn (LHS); Days of inventory, days (RHS)



Source: Company data; KGI Research



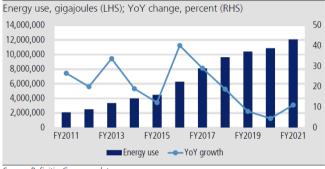
Apple (AAPL US)

Figure 16: Apple – Overall ESG score



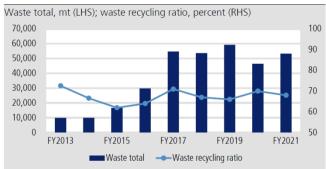
Source: Refinitiv; Company data

Figure 18: Apple – Energy use



Source: Refinitiv; Company data

Figure 20: Apple – Waste total

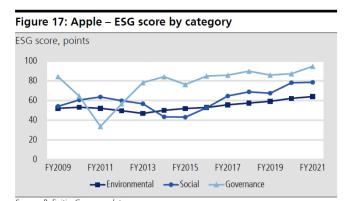


Source: Refinitiv; Company data

Figure 22: Apple – Gender diversification



Source: Refinitiv; Company data



Source: Refinitiv; Company data

Figure 19: Apple – CO2 equivalent emissions

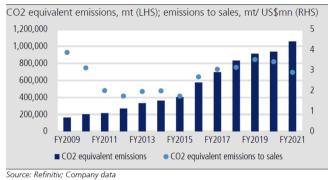


Figure 21: Apple - Water use to revenue



Source: Refinitiv; Company data

Figure 23: Apple – Hazardous waste



Source: Refinitiv; Company data



US

| Itom | Definition |
|------------------------------|---|
| Item | Definition |
| | Total direct and indirect energy consumption in gigajoules. - the total amount of energy that has been consumed within the boundaries of the company's operations |
| | total energy use = total direct energy consumption + indirect energy consumption |
| Energy use | - purchased energy and produced energy are included in total energy use |
| energy use | - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced |
| | to answer energy use (utility company produces to sell) |
| | - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use' |
| | Total primary renewable energy purchased in gigajoules. |
| Renewable energy purchased | - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, |
| nenerable energy parenasea | biomass, geothermal) are in scope |
| | - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased |
| Renewable energy use ratio | Renewable energy to total energy used |
| | Direct CO2 and CO2 equivalent emissions in metric tons. |
| CO2 equivalent emissions | - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) following passes are relevant: cathea digitia (CO1), methans (CM1) introve gride (ND0), hydroflyggereraters (NECC), particulated company (RECC) |
| | - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCS), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3) |
| | Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$mn) |
| CO2 equivalent emissions to | |
| sales | - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCS), perfluorinated compound (PFCS), |
| suics | sulfur hexafluoride (SF6), nitrogen trifluoride (NF3) |
| | Total amount of waste produced in metric tons. |
| | total waste = non-hazardous waste + hazardous waste |
| Waste total | - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including |
| | liquid waste |
| | - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered |
| | The waste recycling ratio as reported by the company. - waste recycling ratio = waste recycled/total waste*100 |
| Waste recycling ratio | - waste recycling ratio = waste recycled total waste room - waste to energy or waste incinerated with energy recovery are considered as waste recycled |
| | - waste recovered via composting is considered as recycled waste |
| | Total water withdrawal in cubic meters. |
| | - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries |
| Water withdrawal total | such as water utilities |
| | - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered |
| | Total amount of environmental expenditures. |
| Environmental expenditures | - all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It |
| | also includes disposal, treatment, sanitation, and clean-up expenditures |
| | Percentage of employee turnover. |
| | - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract |
| Turnover of employees | - employees turnover rate = (employees leaving/average number of employees)*100 |
| | - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2 |
| | - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving |
| | Percentage of women managers. |
| | percentage of women managers among total managers of the company |
| Women managers | - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, then we consider the percentage of middle |
| | women managers |
| | - percentage of women managers = number of women managers/total number of managers*100 |
| | Percentage of women employees. - percentage of women employees to the total number of employees of the company |
| Women employees | percentage of women employees to the total number of employees of the company percentage of women employees = number of women/total number of employees*100 |
| | Total training hours performed by all employees. |
| | - consider only employee training hours |
| Training hours total | - includes all types of training given to general employees (such as health & safety, environmental, emergency response, skills & career development |
| indining nours total | training) |
| | - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked |
| Training hours per employee | Training hours per employee per year |
| Shareholders score | Shareholders category score measures a company's effectiveness towards equal treatment of shareholders and the use of anti-takeover devices. |
| Management score | Management category score measures a company's commitment and effectiveness towards following best practice corporate governance principles. |
| - | Product responsibility category score reflects a company's capacity to produce quality goods and services integrating the customer's health and safety, |
| Product responsibility score | integrity and data privacy. |
| Community score | Community category score measures the company's commitment towards being a good citizen, protecting public health and respecting business ethics. |
| Workforce score | Workforce category score measures a company's effectiveness towards job satisfaction, healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce. |
| Resource use score | Resource use category score reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient |
| | solutions by improving supply chain management. |

All the above named KGI analyst(s) is SFC licensed person accredited to KGI Asia Ltd to carry on the relevant regulated activities. Each of them and/or his/her associate(s) does not have any financial interest in the respectively covered stock, issuer and/or new listing applicant.

Disclaimer Some of KGI Asia Ltd. equity research and earnings estimates are a vailable electronically on www.kgi.com.hk. Please contact your KGI representative for information. The information and opinions in this report are those of KGI Asia Ltd. internal research activity. KGI Asia Ltd. does not make any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained in this report. The information and opinions contained in this report are subject to change without any notice. No person accepts any liability whatsoever for any loss however arising from any use of this report or its contents. This report is not to be construed as an invitation or offer to buy or sell securities and/or to participate in any investment activity. This report is being supplied solely for informational pupposes and may not be reproduced or published (in whole or in part)for any purpose without the prior written consent of KGI Asia Ltd.. Members of the KGI group and their affiliates may provide services to any companies and affiliates of such companies mentioned herein.