

IT Hardware

Game console demand recovery in 2025F

Key message

1. Global game console shipments will recover YoY in 2025F, with double digit YoY growth.
2. Nintendo (JP) will launch the Switch 2 in 1H25F, and this will boost shipments growth in 2025F, with new game title launches.
3. Taiwanese assemblers and component suppliers will benefit from a replacement cycle for the Nintendo Switch.

Event

Nintendo (JP) will launch the Switch 2 next year, and we expect it to drive YoY growth in global game console shipments in 2025F, after a double-digit decline in 2024F, on a dearth of new model launches.

Impact

Gaming console demand to rebound in 2025F. Global game console shipments hit a peak in 2020 with shipments of 48.7mn units, up 17% YoY, due to booming gaming demand during COVID-19 lockdowns. Global game console demand slowed down in 2021-2022, and there were limited new model launches during this period, with only the Microsoft (US) Xbox Series X and Sony (JP) Playstation (PS) 5 in 2H20. Sony's PS series dominates the market, with 48% market share in 2023, followed by the Nintendo Switch (36%) and Microsoft Xbox (16%). Most in-use models were released 4-5 years ago, and are entering end-of-life, resulting in global gaming console shipments dropping 27% YoY in January-October 2024, despite refreshed spec product launches of the Xbox Series and PS5 Pro in 2024. We think the Nintendo Switch 2 launch will drive a return to YoY global shipments growth for game consoles in 2025F. In addition, Microsoft may launch a new Xbox generation at end-2026F and Sony may launch the PS6 in 2027-28F, which would revitalize the console gaming market.

New Nintendo model launches in 2025F. Nintendo launched the Switch in March 2017, Switch Lite in 2019 and Switch OLED in 2021, with cumulative Switch hardware sales of 146mn units to date, and more than 100mn active users annually. Hot sales of popular games such as "The Legend of Zelda: Breath of the Wild" and "Super Mario Party" caused Switch hardware shipments to hit a peak of 28-29mn units in 2020 during COVID-19 lockdowns, then decline YoY in 2021-23 with a lack of new models launching. During a recent earnings call, Nintendo revised down Nintendo Switch shipments guidance from 13.5mn units to 12.5mn units in FY2025 (ends March 2025), reflecting lower-than-expected sales in the first half of the fiscal year. However, the firm may reveal the Nintendo Switch 2 in January, and start shipments by late 1Q25F or 2Q25F, which would grow shipments by 10-20% YoY in 2025F, after a 20-30% decline in 2024F. There will be several spec upgrades for the Switch 2, including: (1) an Nvidia (US) Tegra T239, based on Ampere architecture; (2) RAM upgraded from 4GB to 12GB; (3) storage of at least 256GB; (4) higher screen resolution and longer battery life; (5) magnetically-attached Joy-Cons and new buttons. Management also announced that the Switch 2 will be backwards-compatible with Switch games, most helpfully for current-gen game developers. New game launches, such as "Mario Kart 9" and "Pokemon Legends Z-A", both popular series, should also prompt for Switch shipments growth in 2025F.

Shipments growth to benefit supply chain. We forecast global game console market to grow by 5-10% YoY in 2025F, which most of the growth for Nintendo, thanks to the Switch 2 launch. Foxconn Technology (2354 TT, NT\$77.3, NR) will be the key assembler for Nintendo, and also supply chassis. Other beneficiaries include Macronix International (2337 TT, NT\$20.95, NR) for ROM (read-only-memory), Pixart Imaging (3227 TT, NT\$245, NR), for sensor IC, Weltrend Semiconductor (2436 TT, NT\$56.1, NR) for power IC, Genesys Logic (6104 TT, NT\$160, NR) for USB IC, Ziltek (6679 TT, NT\$341.5, OP) for MEMS, Realtek (2379 TT, NT\$548, N) for audio IC and Lite-On Technology (2301 TT, NT\$100.5, OP) for power supplies.

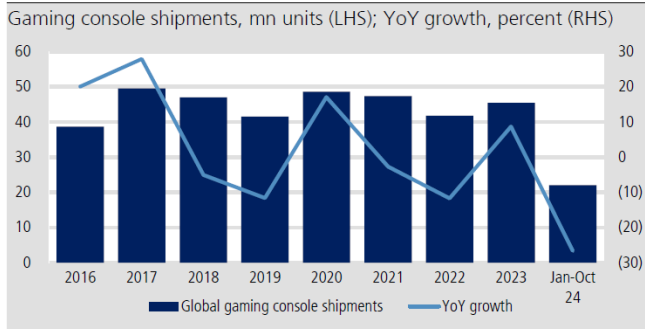
Stocks for Action

The Nintendo Switch 2 launch will cause global game console shipments to grow YoY in 2025F. The Nintendo supply chain will be the beneficiaries of a replacement cycle, especially Foxconn Technology, Macronix International, Pixart Imaging, and Genesys Logic, given their high game console sales weightings.

Risks

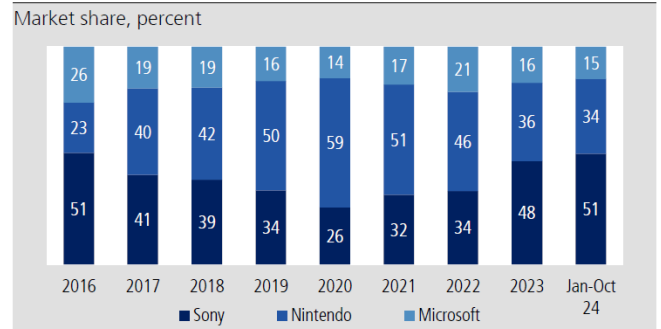
Weak consumer demand; rising component prices.

Figure 1: Global game console shipments to fall 20-30% YoY in 2024F



Source: VG chartz; KGI Research

Figure 2: Sony's market share surpassed peers in 2023-2024F



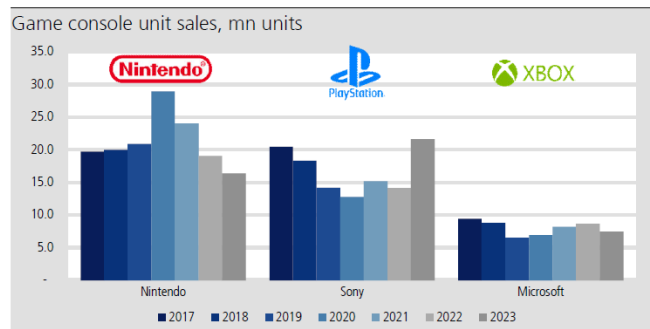
Source: VG chartz; KGI Research

Figure 3: The PS5 Pro has a better GPU & more storage than the Xbox series X

Model	Switch 2	PS5	PS5 Pro	Xbox series X
Launch time	2025F	2020	2024	2020
CPU	Custom Nvidia ARM SoC "DRAKE" (T239)	AMD Ryzen Zen 2, @3.5 GHz	AMD Ryzen Zen 2, @ 3.85 GHz	AMD Zen 2, @ 3.8 GHz
GPU	Nvidia Ampere architecture with 1280 CUDA cores	AMD Radeon RDNA 2 (10.28 TFLOPS)	AMD Radeon RDNA 2 with customized ray-tracing from RDNA 3 (16.7 TFLOPS)	AMD Radeon RDNA 2 (12 TFLOPS)
Process	5nm	7nm	4nm	7nm
RAM	Upgrade to 12GB LPDDR5	16GB GDDR6	16GB GDDR6 + 2GB DDR5	16GB GDDR6
Storage	256GB	825GB	2TB	1TB
TDP	15~20W	350 W	390 W	315 W
Type-C	2 type-C	1 type-C, and 3 type-A	2 type-C, and 2 type-A	1 type-C, and 3 type-A
4K support	-	Yes (60-120fps)	Yes (60-120fps)	Yes (from 60-120FPS)
8K support	-	No (recently removed)	Yes (up to 60fps)	Yes (up to 60fps)
Weight	TBC	4.5kg / 3.9kg (Digital)	3.1kg	4.45kg
Dimensions (mm)	290 x 135 x 45 mm	390 x 140 x 260 mm / 390 x 92 x 260 mm (Digital)	388 x 89 x 216 mm	301 x 151 x 151 mm
Note	-	Ethernet IEEE 802.11ax (WiFi 6) Bluetooth 5.1	Ethernet IEEE 802.11be (WiFi 7) Bluetooth 5.1	Ethernet IEEE 802.11ac (WiFi 5)
Starting price (USD)	TBC	USD\$399/ 499	USD\$699	USD\$499

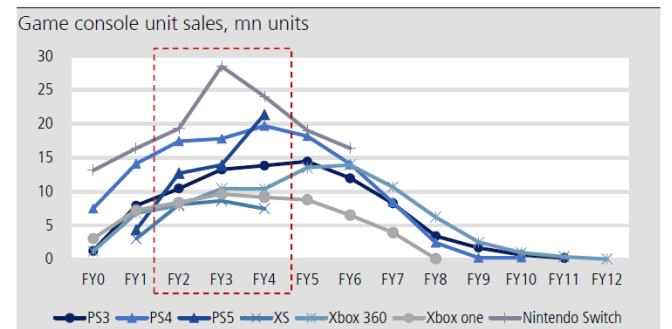
Source: Company data; KGI Research

Figure 4: PS5 shipments exceeded Switch shipments in 2023



Source: VG chartz; KGI Research

Figure 5: Game console shipments hit a peak 2-4 years after launch



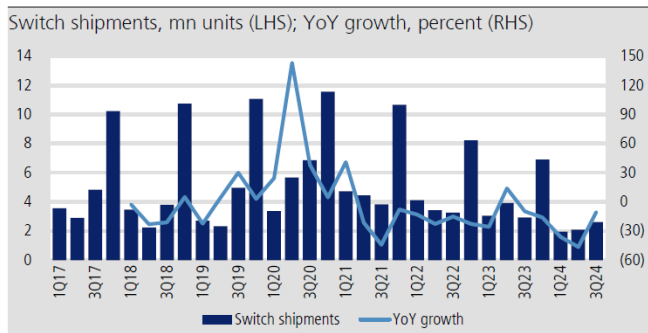
Note: FY0 means the first year of model released. For example, FY0 for PS5 means year 2020
Source: VG Chartz; KGI Research

Figure 6: The Switch 2 will launch in 2025F, with significant spec upgrades

Model	Switch	Switch Lite	Switch OLED	Switch 2
CPU	Custom Nvidia ARM Soc Tegra X1	Custom Nvidia ARM Soc Tegra X1	Custom Nvidia ARM Soc Tegra X1	Custom Nvidia ARM Soc "DRAKE" (T239)
GPU	Nvidia Maxwell architecture with 256 CUDA cores	Nvidia Maxwell architecture with 256 CUDA cores	Nvidia Maxwell architecture with 256 CUDA cores	Nvidia Ampere architecture with 1280 CUDA cores
RAM	4GB LPDDR4	4GB LPDDR4x	4GB LPDDR4X	Upgrade to 12GB LPDDR5
Storage	32GB	32GB	64GB	256GB
TDP	18W	18W	18W	15~20W
Type-C	1 joint	1 joint	1 joint	Upgrade to 2 joints
Joy-Cons	2 Joy-Cons	No Joy-Cons	2 Joy-Cons	Redesigned Joy-Cons
Mounting system	Rail slide mounting system	Rail slide mounting system	Rail slide mounting system	Magnetic mounting system
Screen	6.2" 720p LCD	5.5" 720p LCD	7" 720p OLED	8" 1080p LCD
Battery	2.5-6 hours 4,310mAh	3-7 hours 3,570mAh	4.5-9 hours 4,310mAh	TBC 5,405mAh?
Launch time	2017	2019	2021	2025F
Starting price (USD)	USD\$299	USD\$199	USD\$349	TBC

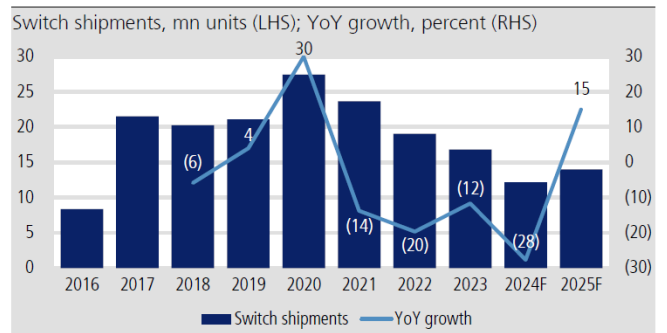
Source: Company data; KGI Research

Figure 7: The Switch 2 launch will drive shipments growth



Source: Bloomberg; KGI Research

Figure 8: Switch shipments will grow by 10-20% YoY in 2025F, driven by the Switch 2 launch



Source: Bloomberg; KGI Research estimates

Figure 9: Nintendo has a broad game portfolio



Source: Nintendo; KGI Research

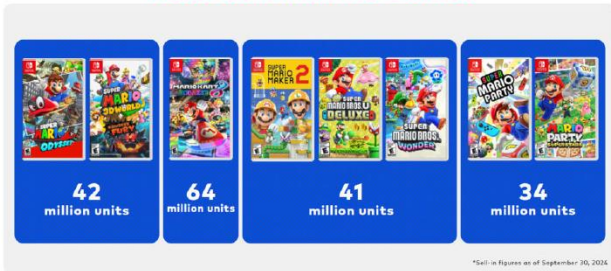
Figure 10: Nintendo will announce several new game titles in 2025F, boosting hardware & software sales



Source: Nintendo; KGI Research

Figure 11: "Mario Kart 9" will be released with the Switch 2

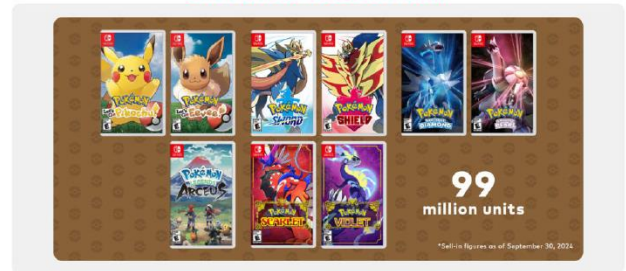
Sales Volumes for Mario Related Titles on Nintendo Switch



Source: Nintendo; KGI Research

Figure 12: Nintendo will release "Pokemon Legends Z-A" game in 2025F

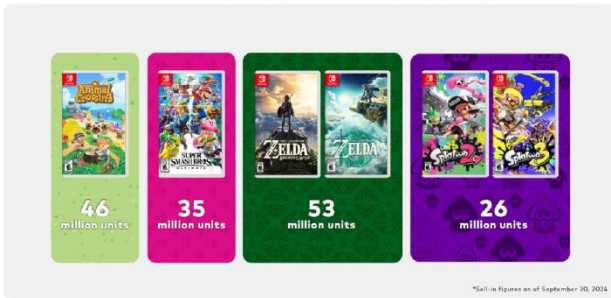
Sales Volume for Pokémon Series Titles on Nintendo Switch



Source: Nintendo; KGI Research

Figure 13: Abundant game titles for Nintendo Switch

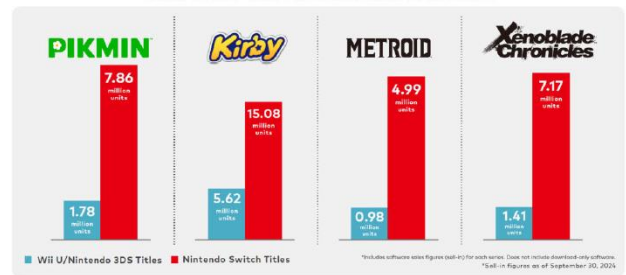
Sales Volumes for Nintendo Switch Titles



Source: Nintendo; KGI Research

Figure 14: Other Nintendo Switch games

Many Series Titles are Showing Growth on Nintendo Switch



Source: Nintendo; KGI Research

Figure 15: Game console supply chain – Valuations

Model	Company	Ticker	Related business	Market cap. (US\$mn)	Share price (LCY)	Rating	Target Price (LCY)	EPS (LCY)			EPS YoY (%)			PE (x)			PB (x)			ROE (%)			Cash yield (%)	
								2023	2024F	2025F	2023	2024F	2025F	2023	2024F	2025F	2023	2024F	2025F	2023	2024F	2025F	2023	2024F
PS5	TSMC	2330 TT	Foundry	866,501	1,085.0	Outperform	1,450.0	32.34	45.23	57.87	(17.5)	39.9	27.9	33.6	24.0	18.7	8.1	6.6	5.3	26.2	30.4	31.5	1.2	1.5
	Mediatek	2454 TT	IC design	70,042	1,420.0	Outperform	1,700.0	48.51	67.16	70.24	(35.0)	38.4	4.6	29.3	21.1	20.2	6.2	5.7	5.4	19.0	27.8	27.1	3.9	4.9
	Zltek Technology	6679 TT	IC design	578	341.5	Outperform	460.0	6.95	10.37	13.14	(33.2)	49.3	26.7	49.2	32.9	26.0	3.7	3.5	3.3	7.5	10.7	12.8	1.6	2.4
	Anpec*	6138 TT	IC design	405	175.0	Not rated	N.A.	7.00	N.M.	N.M.	0.0	N.A.	N.A.	25.0	N.A.	N.A.	3.9	4.0	N.A.	15.7	15.7	N.M.	5.1	3.4
	Phison Elec*	8299 TT	Memory	3,004	475.0	Not rated	N.A.	18.48	32.11	32.03	(33.3)	73.8	(0.3)	25.7	14.8	14.8	2.2	2.0	1.9	9.0	14.5	12.9	2.8	3.8
	Hon Hai	2317 TT	ODM	78,767	184.5	Outperform	290.0	10.25	11.50	14.48	0.4	12.2	25.9	18.0	16.0	12.7	1.7	1.6	1.5	9.7	10.4	12.4	2.9	3.3
	Foxconn Tech*	2354 TT	Chassis	3,367	77.3	Not rated	N.A.	3.01	2.89	4.10	(0.3)	(4.0)	41.9	25.7	26.7	18.9	1.0	0.7	0.7	4.1	3.8	5.3	1.9	1.9
	Cheng Uei*	2392 TT	Mechanical	1,147	72.7	Not rated	N.A.	3.09	N.M.	N.M.	(1.6)	N.A.	N.A.	23.5	N.A.	N.A.	1.4	N.A.	N.A.	6.0	N.M.	N.M.	2.8	N.A.
	Jentech*	3653 TT	Thermal	6,513	1,480.0	Not rated	N.A.	16.59	24.72	32.80	(15.1)	49.0	32.7	89.2	59.9	45.1	18.2	N.A.	N.A.	21.9	N.M.	N.M.	0.7	N.A.
	Nidec*	6230 TT	Thermal	538	202.5	Not rated	N.A.	7.02	N.M.	N.M.	(1.1)	N.A.	N.A.	28.8	N.A.	N.A.	3.0	N.A.	N.A.	10.9	N.M.	N.M.	0.5	N.A.
	Anli*	5223 TT	Thermal	43	31.6	Not rated	N.A.	(0.08)	N.M.	N.M.	N.M.	N.M.	N.A.	N.M.	N.A.	N.A.	0.7	N.A.	N.A.	(0.2)	N.M.	N.M.	0.0	N.A.
	Lite-On Tech	2301 TT	Power	7,265	100.5	Outperform	120.0	6.36	5.53	6.64	2.8	(13.1)	20.1	15.8	18.2	15.1	2.8	N.A.	2.4	17.6	14.6	16.4	4.5	4.0
	Unimicron Tech	3037 TT	ABF	6,716	143.0	Outperform	205.0	7.88	4.32	12.78	(60.7)	(45.2)	195.8	18.1	33.1	11.2	2.4	2.3	2.0	13.6	7.1	19.3	2.1	1.2
Nan Ya Printed	8046 TT	ABF	2,189	110.0	Neutral	105.0	9.00	0.16	7.20	(70.0)	(98.3)	4485.2	12.2	700.3	15.3	1.5	1.5	1.3	11.4	0.2	9.2	5.0	0.1	
Hannstar Board*	5469 TT	PCB	747	49.9	Not rated	N.A.	5.07	N.M.	N.M.	(16.5)	N.A.	N.A.	9.8	N.A.	N.A.	0.9	N.A.	N.A.	9.2	N.M.	N.M.	3.2	N.A.	
JPC Connectivity*	6197 TT	Connector	558	148.5	Not rated	N.A.	5.20	N.M.	N.M.	0.0	N.A.	N.A.	28.6	N.A.	N.A.	5.9	5.4	N.A.	19.8	19.8	N.M.	2.2	2.8	
Kinko Optical*	6209 TT	Lens	149	27.8	Not rated	N.A.	(0.29)	N.M.	N.M.	N.M.	N.M.	N.A.	N.M.	N.A.	N.A.	1.5	1.6	N.A.	(1.6)	(1.6)	N.M.	1.4	1.8	
Switch	Foxconn Tech*	2354 TT	ODM/Chassis	3,367	77.3	Not rated	N.A.	3.01	2.89	4.10	(0.3)	(4.0)	41.9	25.7	26.7	18.9	1.0	0.7	0.7	4.1	3.8	5.3	1.9	1.9
	Andes Technology	6533 TT	IP design	615	394.0	Outperform	480.0	(2.01)	(1.80)	3.97	N.M.	N.M.	N.M.	N.M.	N.M.	N.A.	N.A.	N.A.	(1.9)	(1.9)	4.2	N.A.	N.A.	
	Realtek Semi	2379 TT	IC design	8,655	548.0	Neutral	510.0	17.85	29.49	31.86	(43.6)	65.2	8.0	30.7	18.6	17.2	6.7	6.3	5.9	20.6	34.9	35.5	2.8	4.7
	Witrend*	2436 TT	IC design	308	56.1	Not rated	N.A.	1.18	N.M.	N.M.	0.0	N.A.	N.A.	47.5	N.A.	N.A.	3.1	2.9	N.A.	6.3	6.3	N.M.	2.1	2.1
	Pixart Imaging*	3227 TT	IC design	1,126	245.0	Not rated	N.A.	5.57	11.22	13.09	(24.8)	101.4	16.7	44.0	21.8	18.7	3.6	N.A.	N.A.	8.4	15.5	17.0	1.9	N.A.
	Genesys Logic*	6104 TT	IC design	447	160.0	Not rated	N.A.	1.07	3.06	3.44	0.0	186.0	12.4	149.5	52.3	46.5	7.5	7.9	N.A.	5.1	5.1	13.8	1.6	1.1
	Zltek Technology	6679 TT	MEMS	578	341.5	Outperform	460.0	6.95	10.37	13.14	(33.2)	49.3	26.7	49.2	32.9	26.0	3.7	3.5	3.3	7.5	10.7	12.8	1.6	2.4
Macronix Intl*	2337 TT	Memory	1,197	21.0	Not rated	N.A.	(0.92)	(1.12)	0.12	N.M.	N.M.	N.M.	N.M.	N.M.	176.1	0.8	0.9	0.9	(3.4)	(4.5)	(0.2)	2.4	1.1	
Lite-On Tech	2301 TT	Power	7,265	100.5	Outperform	120.0	6.36	5.53	6.64	2.8	(13.1)	20.1	15.8	18.2	15.1	2.8	N.A.	2.4	17.6	14.6	16.4	4.5	4.0	
Xbox	TSMC	2330 TT	Foundry	866,501	1,085.0	Outperform	1,450.0	32.34	45.23	57.87	(17.5)	39.9	27.9	33.6	24.0	18.7	8.1	6.6	5.3	26.2	30.4	31.5	1.2	1.5
	Mediatek	2454 TT	IC design	70,042	1,420.0	Outperform	1,700.0	48.51	67.16	70.24	(35.0)	38.4	4.6	29.3	21.1	20.2	6.2	5.7	5.4	19.0	27.8	27.1	3.9	4.9
	Foxconn Tech*	2354 TT	Chassis	3,367	77.3	Not rated	N.A.	3.01	2.89	4.10	(0.3)	(4.0)	41.9	25.7	26.7	18.9	1.0	0.7	0.7	4.1	3.8	5.3	1.9	1.9
	Pegatron	4938 TT	ODM	7,521	91.7	Neutral	105.0	5.90	7.00	7.05	4.2	18.7	0.7	15.5	13.1	13.0	1.3	1.3	1.2	8.4	9.7	9.5	4.4	5.0
	Delta Elec	2308 TT	Power	34,037	425.5	Outperform	512.0	12.86	15.56	18.97	2.2	21.0	22.0	33.1	27.4	22.4	5.5	4.8	4.3	17.3	18.8	20.1	1.5	1.8
	Lite-On Tech	2301 TT	Power	7,265	100.5	Outperform	120.0	6.36	5.53	6.64	2.8	(13.1)	20.1	15.8	18.2	15.1	2.8	N.A.	2.4	17.6	14.6	16.4	4.5	4.0
Chicony Power*	6412 TT	Power	1,444	117.0	Not rated	N.A.	8.27	8.57	10.66	0.6	3.6	24.3	14.1	13.7	11.0	3.4	3.7	3.2	24.9	24.9	28.8	5.1	5.3	

Source: KGI Research estimates; Bloomberg
*: Bloomberg consensus

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