

US Internet/Video Games & Interactive Media

May Mobile Game Tracker: run rate lower on seasonality, Y/Y comps broadly stable

Industry Overview

Bookings stable since Aug, Y/Y comps to ease through 2023

We track monthly IAP revenues for 800+ mobile games across eight video game stocks on Sensor Tower for intra-quarter reads. Monthly mobile game bookings have been mostly stable since August '22, though May run rates were slightly lower than in April due to seasonality. Visibility on 2H23 remains low, but several publishers in the US & Europe have indicated flattish bookings and profit growth in 2023 based on current trends to date. We think calling a bottom would require some evidence that revenue run rates can remain at least sequentially stable through the early stages of a recession.

TTWO: Avg run rate through May -3% Q/Q, 2CQ risk low

April + May 3P mobile IAP estimates were down -18% Y/Y like-for-like, with average daily run rate 3% lower than in 1CQ; actual bookings through May were likely higher as tough Y/Y comps in 3P data may lead to underestimation of true Y/Y trends. We see low risk to 2CQ because mobile is now less relevant to the central thesis as investor focus shifts to 1) GTA6 revenue potential and 2) FY24 beat-and-raise cycle.

EA: Tracking through May inline, FIFA higher sequentially

3P estimates fell 2% Y/Y in April + May, roughly inline with BofA 2CQ forecast of -4% Y/Y. *FIFA Mobile* bookings were up +16% Q/Q in May, a sign of rebound after two months of sequential declines, though Y/Y comps continued to normalize (+64% Y/Y in May). If current run rate (~\$430mn annualized YTD) can sustain, *FIFA Mobile* can still play a central role in stabilizing the declines of EA's mobile business. Meanwhile, games ex-FIFA struggle to recover as bookings estimates fell 27% Y/Y in May.

ATVI: Candy growth continued to slow on tough comps

3P estimates of King mobile game bookings fell 1% Y/Y in May, a further slowdown from +1% Y/Y in Apr, with monthly run rate also lower sequentially. *Candy Crush*'s bookings (~45% of bookings, excl. DTC) grew +7% Y/Y, and CODM grew 3% Y/Y. *Diablo Immortal* monthly bookings fell ~30% sequentially to ~\$11mn.

APP continued to stabilize in May, tracking above Street

April + May 3P bookings estimates fell 17% Y/Y, slightly above Street 2CQ (-20% Y/Y). Monthly run rate has been broadly stable since Aug '22 despite having rationalized some long-tail games. UBI 3P estimates were -25% Y/Y in May, with monthly run rate slightly down from April level.

Social Casino: SCPL leads again in May, others down Y/Y

PLTK mobile bookings (3P ests) fell 4% Y/Y in April + May, slightly below Street 2CQ (-2% Y/Y). Risk to the Q is low as DTC bookings (not tracked) should outgrow 3P bookings. SCPL April + May bookings growth (+25% Y/Y 3P ests) were well above Street 2CQ (+16% Y/Y), likely benefiting from offline campaigns. MYPs bookings were -1% Y/Y in April + May, slightly below Street 2CQ at +1% Y/Y. Advertising revenue, which is now ~15% of total revenue, could represent upside to our tracking and de-risk the quarter.

05 June 2023

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IAP: In-app Purchase

TTWO: Take-Two Interactive

EA: Electronic Arts

ATVI: Activision Blizzard

UBI: Ubisoft

APP: AppLovin

PLTK: Playtika

SCPL: SciPlay

MYPs: PLAYSTUDIOS, Inc.

CODM: Call of Duty Mobile

GTA: Grand Theft Auto

3P: Third party

DTC: Direct to consumer

CQ: Calendar quarter

Ests: Estimates

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Mobile Gaming in May: Y/Y comps broadly stable, mixed vs 2CQ expectations

We track monthly In-app Purchase (IAP) revenues for 800+ mobile games across eight gaming companies (TTWO, EA, ATVI, UBI, APP, PLTK, SCPL, MYPS) on mobile intelligence platform Sensor Tower for intra-quarter reads on the mobile gaming market.

Sensor Tower conducts quarterly download/revenue data revisions designed to implement the most up-to-date models, tune parameters for key markets, and to audit for accuracy degradation. These revisions impact historical data series (and Y/Y comps) and may result in differences vs data history published in our previous reports. While the magnitude of impact varies across individual apps and geographies, on an aggregate level these changes account for less than 0.5% of App store total revenue.

Exhibit 1: Mobile In-App Purchase Tracking vs. Expectations, May 2023

May mobile booking estimates were sequentially lower than in April on seasonality, Y/Y comps were broadly stable

Ticker	Mobile Mix of Revs	Reported Metric	Y/Y Growth (3P Ests)				Indicated Bookings Y/Y Growth (2CQ)			Tracking vs. Expectations
			1CQ	Apr	May	Apr + May	Street	Guide	BofA	
TTWO	40%	Mobile IAP Bookings	-20%	-18%	-18%	-18%*	-5%**		-11%*	Worse
EA	15%	Mobile Bookings	5%	6%	-8%	-2%	2%**		-4%	Inline
APP	63%	Mobile IAP Bookings	-24%	-20%	-13%	-17%	-20%		-19%	Better
PLTK	100%	Total Revenue	-5%	-6%	-2%	-4%	-2%		-4%	Worse
SCPL	100%	Mobile IAP Revenue	15%	23%	26%	25%	16%		12%	Better
MYPS	100%	IAP Revenue	0%	2%	-3%	-1%	1%		-5%	Worse
ATVI - King	40%	Mobile Bookings	7%	1%	-1%	0%	6%			
UBI	10%	Mobile Bookings	-33%	-22%	-25%	-24%				

Source: BofA Global Research, Visible Alpha, Company Reports

*TTWO growth rates are calculated on a like-for-like basis (T2 Mobile + Zynga pro forma). Apr + May avg daily run rate is 3% lower than avg level in 1CQ per 3P tracking. Street est implies -1% Q/Q in 2CQ (incl. advertising)

** TTWO Street 2CQ consensus includes mobile ad revenue, and is only based on 4 sell-side estimates. EA Street 2CQ consensus is only based on 1 sell-side estimate and is unlikely to be representative

*** Due to Sensor Tower's periodic data revisions, historical Y/Y comps may have small differences (usually less than 1% change) vs ests previously published

**** UBI is covered by Adrien de Saint Hilaire in the BofA European Media & Internet research team. BofA does not cover ATVI

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Exhibit 2: BofA Video Games & GameTech Current Ratings

Current ratings of our coverage

Company	Ticker	Rating	Price Objective	Price 6/2/2023
Roblox	RBLX	BUY	54.00	\$40.34
Take-Two Interactive	TTWO	BUY	146.00	\$137.52
Digital Turbine	APPS	BUY	13.00	\$9.40
Electronic Arts	EA	NEUTRAL	135.00	\$127.67
AppLovin	APP	BUY	27.00	\$24.81
Playtika	PLTK	UNDERPERFORM	10.00	\$10.14
SciPlay	SCPL	NO RATING		\$19.37
Playstudios	MYPS	UNDERPERFORM	3.50	\$4.47
Ubisoft	UBI*	UNDERPERFORM	17.00	€ 27.40

Source: BofA Global Research, Bloomberg

*UBI is covered by Adrien de Saint Hilaire in the BofA European Media & Internet research team

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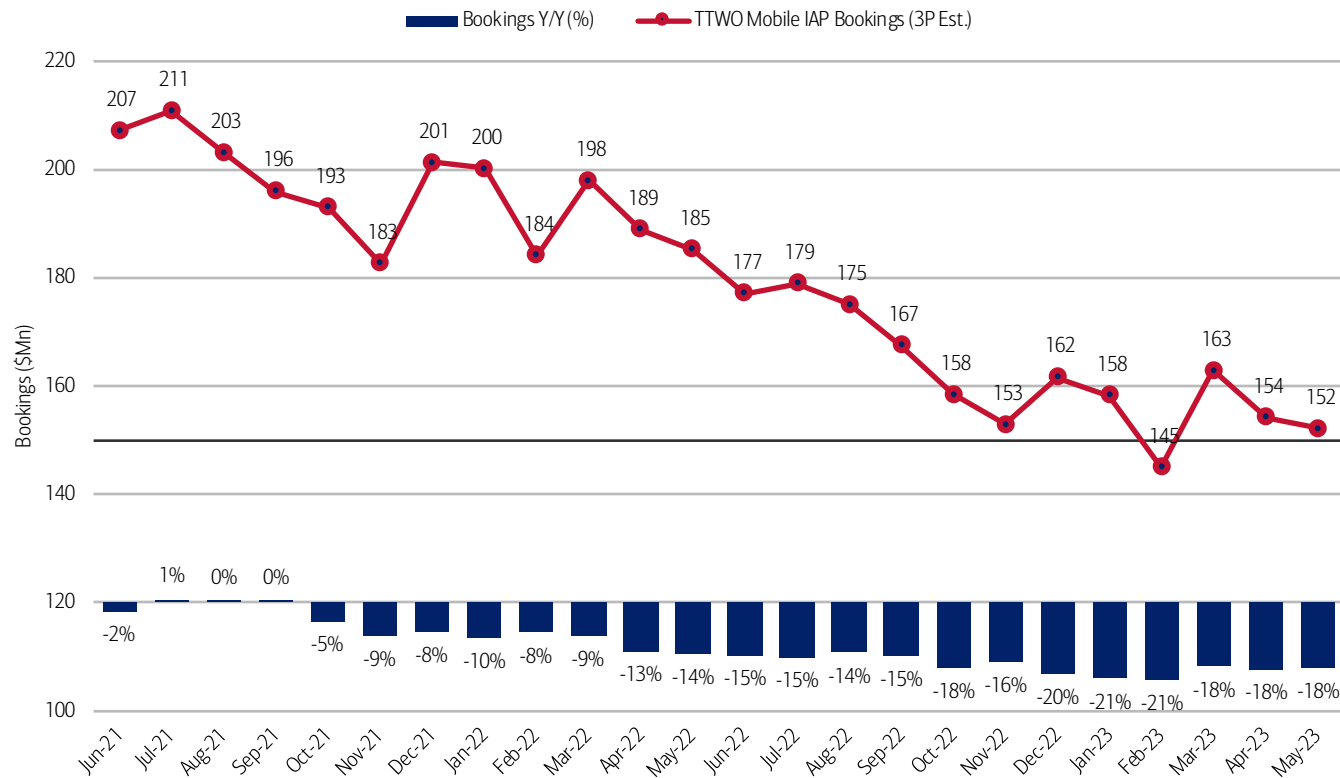
TTWO: Run rate through May suggests -3% Q/Q, risk to 2CQ is low

Per our tracking of 100+ mobile games developed by TTWO:

- 3P estimates of mobile IAP bookings were -18% Y/Y like-for-like in May vs -18% Y/Y in April. May avg daily run rate was slightly lower than April level, likely driven by seasonality
- Apr + May tracking -18% Y/Y is likely below Street (-5% Y/Y including advertising); avg daily run rate in Apr + May is 3% lower than that in 1CQ while Street 2CQ expectations imply -1% Q/Q (incl. advertising).** We note that 3P tracking will likely underestimate true Y/Y growth in 2CQ given the tough Y/Y comp in the 3P data set, and that Q/Q trends will give a better indication of actual bookings trends. We think actual Apr + May bookings may trail Street expectations just slightly, and June data, if better than May, could de-risk Street estimates
- Monthly bookings run rates have shown signs of stabilization (yet at 2022 bottom levels) since 4Q22

Exhibit 3: TTWO Mobile IAP Bookings (3P Ests), Jun '21 – May '23

TTWO mobile IAP bookings (3P Ests) fell 18% Y/Y like-for-like in May, avg daily run rate was flattish compared to Apr



Source: Sensor Tower, BofA analysis of 100+ TTWO mobile games

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Y/Y declines stabilizing in some titles, but dispersion still high

- Y/Y declines in some titles, such as *Toon Blast*, *Toy Blast*, *Wizard of Oz Slots*, and *Game of Thrones Slots*, appear to have moderated since March
- Dispersion in performance across TTWO's (ind. Zynga's) largest titles have led to anemic growth in the overall portfolio over the past 12 months.
- *Top Eleven 2021* appears to be the only consistently growing games in 2022. *Merge Dragons* has seen recovery since 4Q22, and some Social Casino games (*Wizard of Oz*, *Game of Thrones*) appear to have been improving
- The lack of consistency in growth implies to us that slower growth longer term will be driven by both wavering portfolio quality and user acquisition challenges

Exhibit 4: Mobile IAP Bookings (3P Ests) Y/Y Growth, TTWO Top Games, 2022 - 2023

Lack of consistently growing titles has led to unsteady growth in TTWO's portfolio, suggesting continuous investment into new games is likely needed to revive growth

Key

Y/Y Growth < 0%

-20%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

20%

Mobile Franchise	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	-15%	-15%	-14%	-15%	-18%	-16%	-20%	-21%	-21%	-18%	-18%	-18%	
Empires & Puzzles: Match-3 RPG	-7%	-17%	2%	-5%	-23%	-5%	-16%	-15%	-18%	-12%	-18%	-20%	16%
Toon Blast	-21%	-28%	-27%	-31%	-29%	-30%	-31%	-36%	-39%	-34%	-30%	-30%	14%
Merge Dragons!	-9%	-11%	-5%	-2%	-4%	11%	9%	-2%	3%	2%	5%	-3%	9%
Toy Blast	-27%	-25%	-29%	-32%	-33%	-33%	-32%	-30%	-33%	-30%	-29%	-26%	7%
Zynga Poker™ - Texas Hold'em	-13%	4%	4%	10%	21%	5%	-12%	-13%	-12%	-6%	-11%	-15%	6%
Top Eleven 2021: Be a Soccer Manager	14%	16%	22%	19%	12%	9%	17%	20%	32%	28%	-1%	3%	4%
Wizard of Oz Slots Games	-16%	-12%	-21%	-14%	-14%	-14%	-13%	-13%	-14%	-16%	-13%	-8%	4%
Harry Potter: Puzzles & Spells	-23%	-20%	-25%	-30%	-30%	-34%	-37%	-35%	-32%	-29%	-31%	-30%	4%
Hit it Rich! Casino Slots Game	-11%	3%	0%	9%	-1%	4%	-8%	-3%	-10%	-3%	-12%	-15%	3%
Game of Thrones Slots Casino	-9%	6%	4%	0%	-2%	-2%	-2%	-1%	6%	6%	19%	19%	3%
Golf Rival	-13%	11%	-12%	-6%	-28%	-23%	-29%	-30%	-31%	-23%	-30%	-29%	3%
CSR 2 Drag Racing Car Games	-41%	-21%	-19%	-12%	-12%	-22%	-29%	-27%	-10%	-10%	-11%	4%	3%
Words With Friends 2 Word Game	26%	21%	20%	21%	-3%	-7%	3%	-9%	-15%	-2%	-15%	-14%	3%
Two Dots: Brain Puzzle Games	36%	14%	20%	-5%	-7%	-5%	0%	-16%	-12%	-13%	-21%	-27%	2%
Dragon City Mobile	-31%	-39%	-43%	-45%	-32%	-30%	-36%	-37%	-37%	-33%	-27%	-16%	2%
WWE SuperCard - Battle Cards	-27%	-29%	-25%	-31%	-17%	-30%	-41%	-40%	-40%	-31%	-20%	-19%	2%
Other Games	-15%	-17%	-21%	-20%	-19%	-26%	-25%	-24%	-26%	-24%	-23%	-21%	14%

Source: Sensor Tower, BoFA Analysis of 100+ TTWO mobile games

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Bookings lower than pre-COVID as top titles fell

When comparing the current revenue run rates of TTWO's top mobile titles with pre-COVID levels (same month in 2019), we note that:

- TTWO and Zynga's four largest games, which account for ~46% bookings appear to be in decline, a potential sign of game saturation among the most mature games; their 2022 monthly bookings estimates were 20% to 40% below their pre-COVID run rates since July 2022
- Several of Zynga's "forever franchises" are above their pre-COVID run rates, including *Zynga Poker* and *Words With Friends*
- Social Casino (*Game of Thrones Slots*, *Hit it Rich!*, *Zynga Poker*) and Sports (*Top Eleven*, *Golf Rival*) appear to be best performing genres in TTWO's portfolio since 2019, with bookings notably above pre-Covid run rates. *Words With Friends 2* & *Two Dots* also performed better than pre-COVID
- Before its acquisition by TTWO, Zynga identified about a dozen "forever franchises" that were > \$100Mn in bookings and could grow organically for at least 5 years through live events they called "bold beats"

Exhibit 5: Mobile IAP Bookings (3P Ests) Comparison vs Pre-COVID, TTWO Top Games

TTWO's four largest games are showing potential signs of game saturation, with bookings now 20-40% lower vs pre-COVID

Key

Y/Y Growth < 0%

Y/Y Growth = 0%

Y/Y Growth > 0%

Mobile Franchise	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	10%	4%	-1%	-5%	-13%	-15%	-14%	2%	-3%	-1%	0%	-8%	
Empires & Puzzles: Match-3 RPG	20%	-17%	0%	-13%	-18%	-10%	-21%	-7%	-12%	-17%	-20%	-21%	16%
Toon Blast	-16%	-22%	-27%	-32%	-39%	-43%	-38%	-35%	-36%	-31%	-25%	-34%	14%
Merge Dragons!	-34%	-40%	-43%	-41%	-39%	-35%	-22%	9%	-7%	-16%	-25%	-34%	9%
Toy Blast	-20%	-17%	-24%	-30%	-39%	-41%	-38%	-35%	-36%	-32%	-30%	-43%	7%
Zynga Poker™ - Texas Hold'em	15%	27%	18%	22%	27%	19%	20%	15%	16%	22%	26%	7%	6%
Top Eleven 2021: Be a Soccer Manager	143%	165%	177%	202%	154%	167%	129%	236%	181%	193%	161%	129%	4%
Wizard of Oz Slots Games	29%	46%	31%	19%	8%	3%	4%	29%	19%	22%	26%	15%	4%
Harry Potter: Puzzles & Spells													4%
Hit it Rich! Casino Slots Game	33%	27%	23%	37%	14%	15%	12%	28%	17%	17%	9%	9%	3%
Game of Thrones Slots Casino	130%	112%	90%	62%	54%	46%	82%				29583%	2520%	3%
Golf Rival	114%	107%	65%	98%	73%	71%	87%	618%	396%	342%	204%	97%	3%
CSR 2 Drag Racing Car Games	-30%	-5%	-28%	-30%	-28%	-40%	-33%	-35%	-46%	-39%	-36%	-29%	3%
Words With Friends 2 Word Game	80%	96%	90%	69%	39%	30%	40%	79%	81%	64%	78%	56%	3%
Two Dots: Brain Puzzle Games	142%	120%	116%	98%	57%	55%	34%	186%	159%	132%	117%	93%	2%
Dragon City Mobile	14%	5%	-3%	4%	12%	3%	-14%	-14%	-5%	-4%	0%	25%	2%
WWE SuperCard - Battle Cards	-5%	11%	-17%	5%	-8%	-26%	-36%	-33%	-17%	-6%	-8%	14%	2%
Other Games	8%	9%	2%	-9%	-24%	-30%	-28%	-10%	-13%	-11%	-4%	-12%	14%

Source: Sensor Tower, BofA Analysis of 100+ TTWO mobile games

Numbers in table represent growth of estimated bookings relative to bookings in the same month in 2019. E.g. Jan '23 comp = Bookings (Jan '23) / Bookings (Jan '19) - 1

* Comparisons vs pre-COVID are not available for Harry Potter: Puzzles & Spells as the game was launched after 2019

* Comparisons vs pre-COVID for Game of Thrones Slots are elevated as it was lapping the year of launch





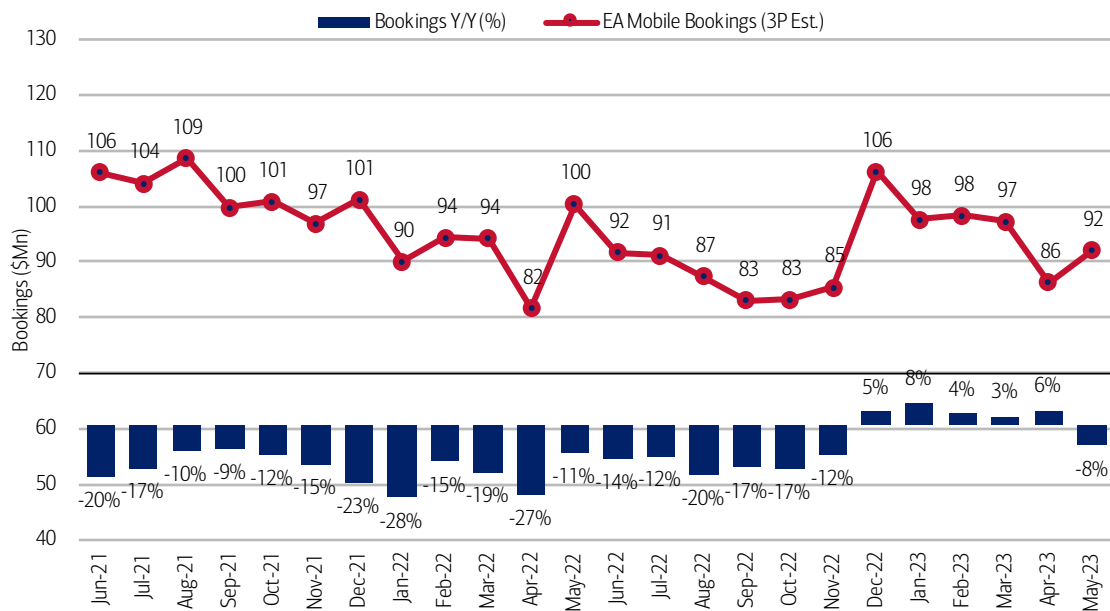
EA: 2CQ inline, FIFA higher sequentially but Y/Y growth continued to decelerate

Per our tracking of 200+ mobile games from EA:

- **3P estimates of mobile IAP bookings fell 8% Y/Y in May (vs +6% Y/Y in Apr) on a tough Y/Y comp lapping the *Apex Legends Mobile* launch month (May '22); sequentially bookings ests were 7% higher than in April**
- **Apr + May tracking -2% Y/Y appears in line with BofA 2CQ forecast of -4% Y/Y in mobile bookings. Avg daily run rate in Apr + May -11% lower than that in 1CQ per 3P estimates; BofA 2CQ forecast implies -9% Q/Q. Impact on the stock should be limited** due to EA's low exposure to mobile gaming (~15% FY24E bookings). Street 2CQ mobile forecast, which implies +2% Y/Y, is only based on 1 analyst estimate and is unlikely to be representative
- **FIFA Mobile avg daily run rate rebounded in May, up 12% sequentially; Y/Y growth continued to normalize (February/March/April/May Y/Y growth now at +110%/+97%/+87%/+64%).** Game downloads continued to fall sequentially (-6% M/M), an indication that the pent-up player interest driven by the World Cup may be normalizing. Excluding *FIFA Mobile*, estimated bookings were -27% Y/Y in May (vs -13% Y/Y in April), suggesting a weakness in the rest of the portfolio.

Exhibit 6: EA Mobile IAP Bookings (3P Ests), Jun '21 - May '23

EA mobile IAP bookings (3P Ests) fell 8% Y/Y like-for-like in May lapping the launch month of *Apex Legends Mobile*, vs +6% Y/Y in Apr; avg daily run rate was higher Q/Q in May

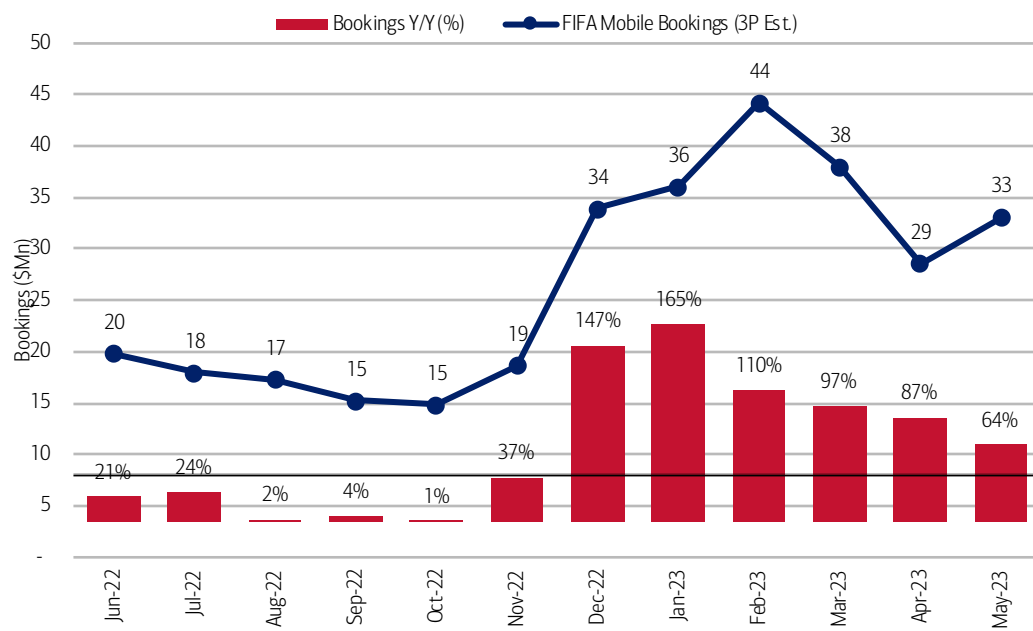


Source: Sensor Tower, BofA analysis of >200 EA games

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Exhibit 7: FIFA Mobile Bookings (3P Ests), June '22 - May '23

FIFA Mobile monthly run rate continued to normalize after the World Cup, but remain well above pre-World Cup levels; bookings were up 16% in May but Y/Y growth decelerated



Source: Sensor Tower

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Declines across the board (excl. FIFA Mobile), but deterioration moderated in several titles

- EA's top mobile titles have shown consistent bookings (3P ests) declines in 2022, except *FIFA Mobile*
- Y/Y declines have moderated across much of the portfolio since March as comps became easier, eg *Design Home*, *SimCity*, *The Sims*, and *Golf Clash*
- Declines appear to be broad-based across both Casual (*Covet Fashion*, *Kim Kardashian*, *Plants vs Zombies*) and IP-based games (*Star Wars*, *Madden*, *Need for Speed*, etc.). EA views its already successful PC/Console IP as a growth driver for its mobile games, but we do not see evidence of IP-based games meaningfully outperforming in our 3P data
- EA acquired Playdemic for \$1.4Bn in September '21, of which *Golf Clash* is the main asset. *Golf Clash* bookings (3P ests) have been falling 20%-40% Y/Y since EA's acquisition, pointing to potentially declining franchise value

Exhibit 8: Mobile IAP Bookings (3P Ests) Y/Y Growth, EA Top Games, 2022 - 2023

Most of EA's top titles appear to have declined Y/Y, with FIFA Mobile the only exception

Key

Y/Y Growth < 0%

-20%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

20%

Game	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	-14%	-12%	-20%	-17%	-17%	-12%	5%	8%	4%	3%	6%	-8%	
FIFA Soccer	21%	24%	2%	4%	1%	37%	147%	165%	110%	97%	87%	64%	29%
Star Wars™: Galaxy of Heroes	-32%	-17%	-32%	-20%	-25%	-39%	-29%	-29%	-30%	-33%	-20%	-33%	13%
Golf Clash	-25%	-22%	-23%	-22%	-31%	-25%	-21%	-29%	-36%	-16%	-18%	-21%	11%
Design Home: Lifestyle Game	-32%	-28%	-19%	-19%	-8%	-3%	-7%	-13%	-18%	-8%	1%	-4%	8%
SimCity BuildIt	-21%	-24%	-27%	-15%	-12%	-10%	-8%	6%	-11%	-1%	0%	-7%	5%
Madden NFL 23 Mobile Football	-19%	-26%	-41%	-31%	-19%	-21%	-23%	-20%	-39%	3%	2%	-23%	4%
Covet Fashion: Outfit Stylist	-23%	-22%	-23%	-20%	-19%	-20%	-4%	-17%	-11%	-26%	-10%	-9%	3%
The Sims™ FreePlay	-43%	-39%	-18%	-31%	-27%	-21%	-37%	-31%	-24%	-25%	-2%	-2%	3%
MLB Tap Sports Baseball 2022									19759%	-26%	-100%	-100%	2%
Plants vs Zombies™ 2	-25%	-10%	-28%	-34%	-39%	-29%	-28%	-25%	-41%	-31%	-31%	-29%	2%
The Simpsons™: Tapped Out	20%	-9%	-15%	-5%	0%	-5%	-13%	0%	2%	18%	37%	13%	2%
Need for Speed™ No Limits	-67%	-65%	-64%	-62%	-63%	-59%	-50%	-36%	-35%	-39%	-35%	-23%	2%
Kim Kardashian: Hollywood	-37%	-44%	-48%	-51%	-42%	-32%	-47%	-47%	-55%	-51%	-52%	-44%	2%
Other Games	13%	-1%	-16%	-15%	-18%	-12%	-7%	-18%	-32%	-25%	12%	-36%	14%

Source: Sensor Tower, BofA analysis of >200 EA games

MLB Tap Sports Baseball Mar '23 Y/Y comp was lapping month of launch

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Games have declined vs pre-COVID except FIFA Mobile

When comparing the current revenue run rates of EA's top mobile titles with pre-COVID levels (same month in 2019), we note that:

- FIFA Mobile appears to be the only title among top 13 (86% of total bookings) that has grown since 2019, excluding new launches (*Madden*, *MLB Tap Sports Baseball*)
- Across the portfolio, bookings estimates are 20%-60% lower than pre-COVID, suggesting that declines are driven by a structural deterioration in EA's core mobile franchise, not by the reopening dynamic post pandemic

Exhibit 9: Mobile IAP Bookings (3P Ests) Comparison vs Pre-COVID, EA Top Games

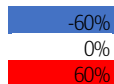
Bookings (3P ests) on top games also appear to be lower than pre-COVID, except FIFA Mobile

Key

Y/Y Growth < 0%

Y/Y Growth = 0%

Y/Y Growth > 0%



Game	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	-16%	-15%	-19%	-21%	-24%	-19%	-16%	-14%	-7%	-14%	-18%	-11%	
FIFA Soccer	76%	85%	79%	57%	29%	66%	145%	222%	341%	273%	221%	244%	29%
Star Wars™: Galaxy of Heroes	-18%	-13%	-13%	-29%	-41%	-35%	-49%	-34%	-34%	-45%	-39%	-24%	13%
Golf Clash	-36%	-32%	-26%	-28%	-35%	-33%	-32%	-51%	-58%	-49%	-50%	-46%	11%
Design Home: Lifestyle Game	-44%	-38%	-35%	-39%	-36%	-40%	-32%	-45%	-41%	-32%	-36%	-41%	8%
SimCity BuildIt	-24%	-16%	-26%	-26%	-8%	-14%	-10%	-11%	-23%	-12%	0%	-15%	5%
Madden NFL 23 Mobile Football													4%
Covet Fashion: Outfit Stylist	-35%	-30%	-20%	-33%	-31%	-25%	-24%	-41%	-13%	-45%	-25%	-13%	3%
The Sims™ FreePlay	-37%	-20%	-8%	-4%	-8%	-21%	-25%	-37%	-33%	-38%	-24%	-35%	3%
MLB Tap Sports Baseball 2022													2%
Plants vs Zombies™ 2	-28%	-11%	-19%	-28%	-23%	-18%	-17%	-8%	-34%	-27%	-34%	-47%	2%
The Simpsons™: Tapped Out	-20%	-29%	-29%	-6%	12%	8%	-21%	-36%	-32%	-26%	3%	-1%	2%
Need for Speed™ No Limits	-51%	-43%	-54%	-50%	-47%	-51%	-41%	-45%	-45%	-40%	-47%	-47%	2%
Kim Kardashian: Hollywood	40%	38%	21%	9%	-26%	-35%	-64%	-57%	-62%	-55%	-35%	-22%	2%
Other Games	-33%	-41%	-56%	-55%	-53%	-52%	-56%	-58%	-69%	-66%	-60%	-53%	14%

Numbers in table represent growth of estimated bookings relative to bookings in the same month in 2019. E.g. Jan '23 comp = Bookings (Jan '23) / Bookings (Jan '19) - 1

* Comparisons vs 2019 are not available for Madden, and MLB Tap Sports Baseball as the games were launched after 2019

Source: Sensor Tower, BofA analysis of >200 EA games

BofA GLOBAL RESEARCH





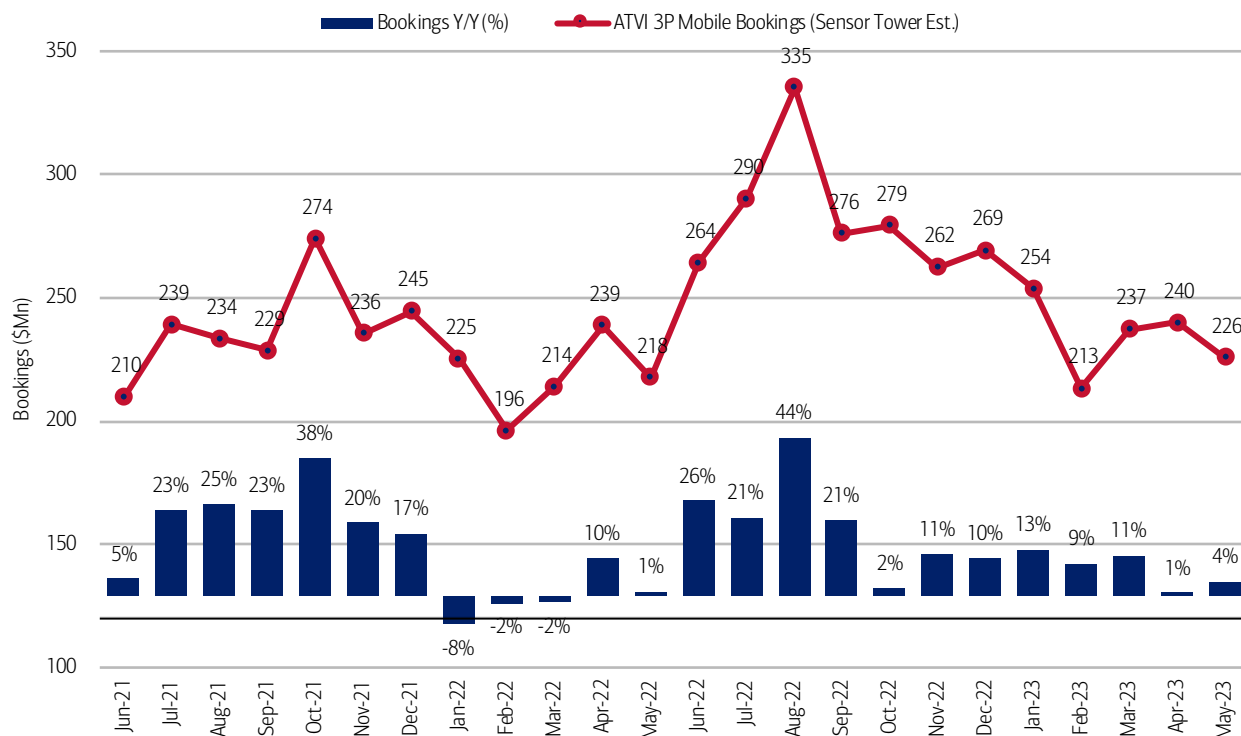
ATVI: Tracking above Street (2CQ) despite Candy Crush deceleration

Per our tracking of 18 ATVI mobile games:

- 3P estimates of mobile IAP bookings were +4% Y/Y like-for-like in May, an improvement from Apr (+1% Y/Y) but still a notable slowdown from +11% Y/Y in 1CQ. *Candy Crush*, the main growth driver of ATVI's mobile portfolio, continued to decelerate, up 7% Y/Y vs +11% Y/Y in April & +22% Y/Y in 1CQ. *Call of Duty Mobile* fell 7% Y/Y in Apr + May, vs -11% Y/Y in 1CQ.
- Street expects -4% Y/Y for total mobile revenue in 2CQ, below our Apr + May tracking (+2% Y/Y).** Mobile makes up an important component of ATVI's overall business, contributing ~40% to total revenue (FY24E Street Consensus est.)
- Candy Crush's* sustained strength (consistent growth of 20%+ Y/Y in 2022) stands in contrast to the struggle experienced by most casual mobile games, some signs of slowdown have emerged since March but mostly driven by tougher Y/Y comps.** Our 3P tracking shows *Candy Crush* generates 45% of ATVI's total mobile IAP revenue in the last 12 months.

Exhibit 10: ATVI Mobile IAP Bookings (3P Ests), Jun '21 – May '23

ATVI consolidated mobile IAP bookings (3P Ests) grew +4% Y/Y in May, slightly improved from Apr (+1% Y/Y)



Source: Sensor Tower

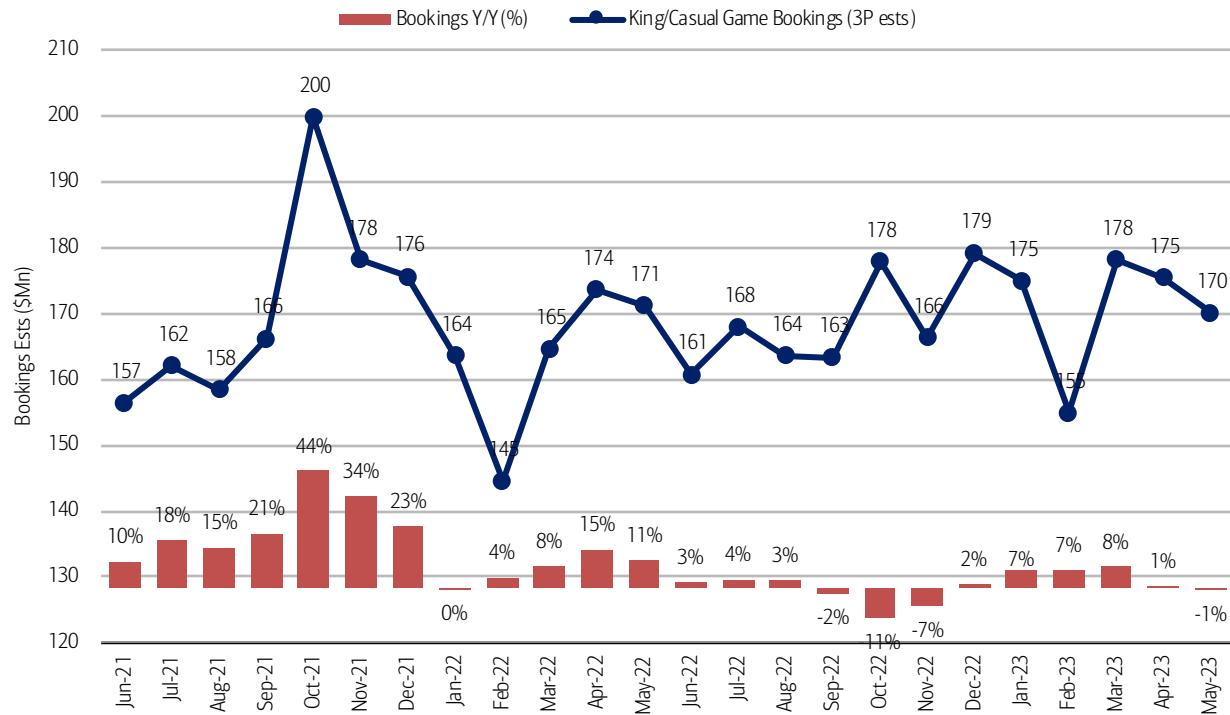
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King still the growth driver, *Diablo Immortal Mobile* declined since launch

- King's casual games (*Candy Crush*, *Farm Heroes*, etc.) still appear to be the growth driver for ATVI's mobile business, though bookings growth decelerated to flat Y/Y in Apr + May (vs +7% Y/Y in 1CQ). **Street 1CQ consensus of +6% Y/Y (incl. advertising) in King bookings appear high relative to our tracking.**
- The launch of *Diablo Immortal Mobile* in June 2022 made significant contribution (peak monthly run rate at \$100Mn+ in August 22) to ATVI's high-fidelity mobile game portfolio. The game has since declined and currently averages \$10-15Mn monthly run rate per 3P bookings estimates
- Call of Duty Mobile* benefited from the launch of *Call of Duty Modern Warfare II* (launched Oct 28), with bookings up 18% M/M in Nov; run rates have since normalized (~\$40Mn monthly run rate currently per 3P bookings ests)

Exhibit 11: ATVI King/Casual Game Bookings (3P Ests), Jun '21 – May '23

IAP bookings (3P Ests) on King's top Casual games fell -1% Y/Y in May vs +1% Y/Y in Apr



Source: Sensor Tower

Includes Candy Crush Saga, Candy Crush Soda Saga, and Farm Heroes Saga

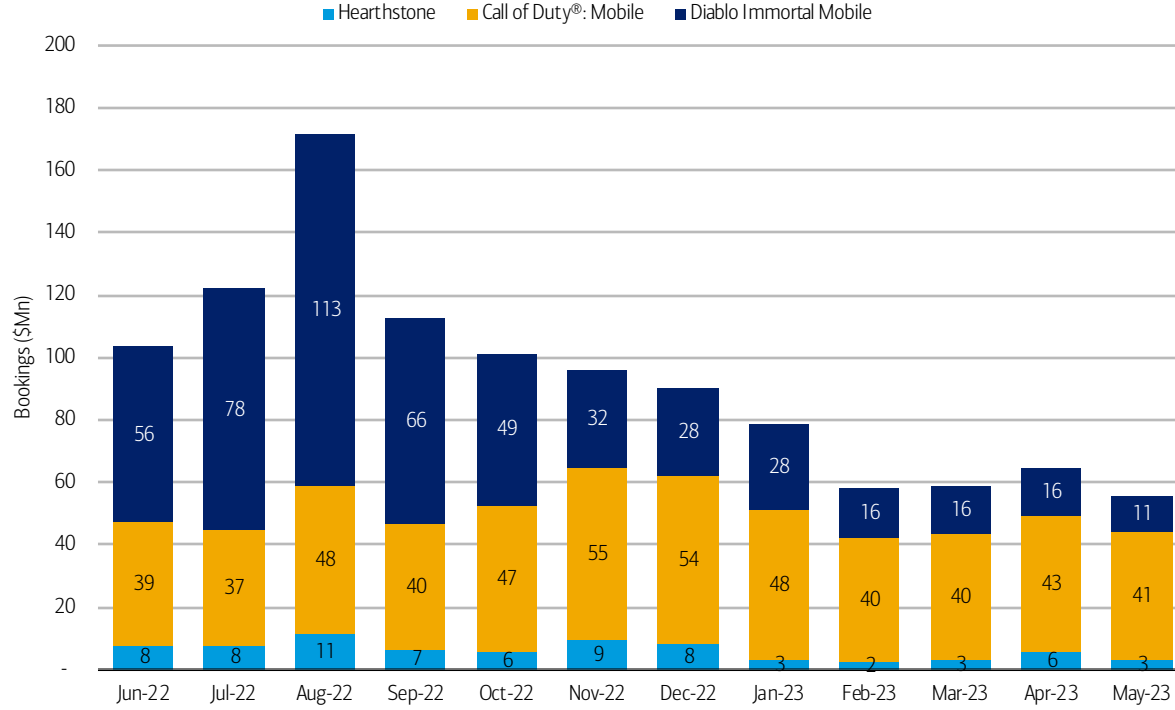
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Exhibit 12: ATVI High-Fidelity/Strategy Game Bookings (3P Ests), Jun '22 – May '23

Monthly run rates for CoD Mobile & Hearthstone have been mostly stable in the last 12 months; Diablo Immortal Mobile monthly revenue (3P ests) hit \$100Mn peak in Aug '22, but has since declined and stabilized at around \$15mn



Source: Sensor Tower

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Games broadly declined Y/Y facing COVID comps, Candy Crush the only exception

- Growth in King has been primarily driven by *Candy Crush*, which consistently grew 20%+ Y/Y in 2022
- Diablo Immortals Mobile* had a successful launch in June 2022, but has declined after reaching peak monthly bookings of \$100Mn (3P ests) in August 2022
- Call of Duty Mobile* benefited from the launch of *Call of Duty Modern Warfare II* in Oct 2022, up 18% Y/Y in the following month; the lift was however short-lived
- Heartstone* has mostly declined Y/Y, ending 2022 with 11% lower in estimated bookings (vs 2021)

Exhibit 13: Mobile IAP Bookings (3P Ests) Y/Y Growth by Franchise, May '22 - Apr '23

Candy Crush's continued strength has supported growth in King; Activision's CoD Mobile has consistently declined Y/Y since 2022; Blizzard growth has been mostly inorganic, driven by the launch of Diablo Immortal Mobile

Key

Y/Y Growth < 0%

-20%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

20%

Game	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Mobile IAP (LTM)
King Top Games Total	3%	4%	3%	-2%	-11%	-7%	2%	7%	7%	8%	1%	-1%	65%
Candy Crush Saga	16%	21%	19%	11%	-7%	-1%	13%	22%	21%	23%	11%	7%	45%
Candy Crush Soda Saga	-9%	-14%	-11%	-12%	-9%	-7%	-8%	-5%	-3%	-6%	-12%	-13%	12%
Farm Heroes Saga	-24%	-35%	-35%	-38%	-33%	-29%	-27%	-23%	-13%	-11%	-7%	0%	3%
Other Games	-23%	-22%	-25%	-29%	-31%	-29%	-30%	-32%	-34%	-34%	-31%	-26%	5%
Activision Top Games Total	-17%	-45%	-26%	-31%	-26%	15%	-4%	-16%	-14%	-2%	-15%	3%	17%
Call of Duty®: Mobile	-17%	-45%	-26%	-31%	-26%	15%	-4%	-16%	-14%	-2%	-15%	3%	17%
Blizzard Top Games Total	1055%	775%	1143%	1524%	432%	346%	186%	575%	238%	122%	54%	124%	19%
Diablo Immortal Mobile													16%
Hearthstone	41%	-20%	13%	46%	-44%	1%	-34%	-34%	-57%	-62%	-59%	-50%	2%

Source: Sensor Tower

Y/Y comparison not available for Diablo Immortal Mobile as the game was launched in June 2022

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Candy Crush has grown vs pre-COVID, Heartstone showing secular decline

When comparing the current revenue run rates of ATVI's top mobile titles with pre-COVID levels (same month in 2019), we note that:

- Candy Crush has grown vs pre-COVID, with bookings 30-50% higher
- Heartstone shows signs of secular decline, with bookings ~70% lower than their pre-COVID levels

Exhibit 14: Mobile IAP Bookings (3P Ests) Comparison vs Pre-COVID, ATVI Top Games

Heartstone is the only top game that has declined vs pre-COVID. Candy Crush bookings are 20-50% higher than before the pandemic

Key

Y/Y Growth < 0%	-60%
Y/Y Growth = 0%	0%
Y/Y Growth > 0%	60%

Game	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	75%	91%	104%	91%	29%	43%	50%	49%	43%	42%	52%	44%	
Candy Crush Saga	31%	41%	26%	48%	28%	37%	51%	39%	41%	52%	61%	47%	45%
Call of Duty®: Mobile		49885%	33241%	7043%	-13%	70%	93%						17%
Diablo Immortal Mobile													16%
Candy Crush Soda Saga	15%	15%	11%	8%	22%	21%	22%	4%	8%	8%	19%	8%	12%
Farm Heroes Saga	18%	13%	0%	-5%	-3%	-2%	8%	-5%	-3%	3%	17%	19%	3%
Hearthstone	-5%	-10%	-20%	-12%	1%	-6%	-20%	-61%	-65%	-75%	-68%	-68%	2%
Other Games	-43%	-44%	-44%	-44%	-46%	-46%	-44%	-62%	-63%	-62%	-58%	-59%	5%

Numbers in table represent growth of estimated bookings relative to bookings in Dec '19. E.g. Jan '23 comp = Bookings (Jan '23) / Bookings (Dec '19) - 1

Comparisons vs pre-COVID not available for CoD Mobile and Diablo Immortal Mobile as the games were launched in/after 2019

Source: Sensor Tower

BoFA GLOBAL RESEARCH

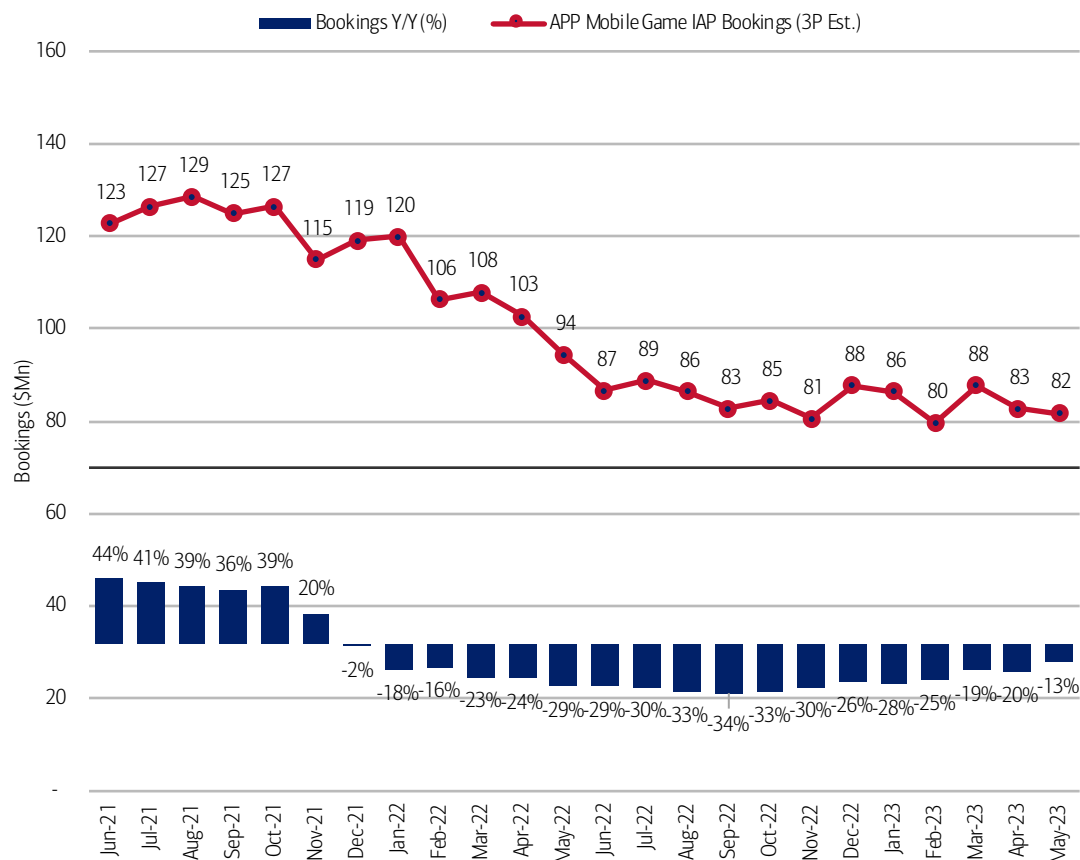
APP: Y/Y declines continued to moderate, Street 2CQ seems de-risked

Per our tracking of 250+ mobile games developed by APP:

- 3P estimates of mobile IAP bookings were -13% Y/Y like-for-like in May, improving from Apr on easier Y/Y comp; monthly run rate has been broadly stable since Aug '22
- Apr + May 3P tracking at -17% Y/Y is above Street's 2CQ consensus (-20% Y/Y) and BofA forecast (-19% Y/Y).** We believe Y/Y declines will continue to moderate through 2H23 as Y/Y comps get notably easier

Exhibit 15: Mobile IAP Bookings (3P Ests) Y/Y Growth, APP Top Games, Jun '21 - May '23

APP mobile IAP bookings (3P Ests) fell 13% in May, with trends improved vs Apr; monthly run rate was sequentially stable



Source: Sensor Tower, BofA Analysis of 250+ APP mobile games

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Top games fell Y/Y except new launches, but declines moderating for select titles

- Excluding new launches (*Jackpot Master*, *Bermuda Adventures Farm Island*), APP's top mobile titles have broadly declined in 2022
- The decline of the core portfolio suggests that APP's decision to rationalize its gaming business is the right move, as previous Sales & Marketing investments did not seem to have led to consistent growth
- Although bookings on most games remain notably lower than in 2022, Y/Y declines have shown signs of moderation on select top games such as *Cash Tornado*, *Matchington Mansion*, and *West Game*.

Exhibit 16: Mobile IAP Bookings (3P Ests) Y/Y Growth, APP Top Games, 2022 - 2023

APP's top mobile titles appear to have broadly declined Y/Y, except new titles launched in 2021

Key

Y/Y Growth < 0%

-20%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

20%

Game	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	-29%	-30%	-33%	-34%	-33%	-30%	-26%	-28%	-25%	-19%	-20%	-13%	
Project Makeover	-46%	-48%	-51%	-45%	-40%	-35%	-32%	-36%	-34%	-30%	-27%	-23%	19%
Cash Tornado™ Slots - Casino	7%	-2%	-4%	1%	-5%	-1%	2%	-1%	-3%	9%	-2%	16%	11%
Matchington Mansion	-42%	-40%	-45%	-48%	-41%	-33%	-29%	-24%	-19%	-17%	-22%	-13%	9%
Jackpot Master™ Slots-Casino		48179%	1961%	472%	180%	184%	116%	73%	70%	54%	33%	33%	7%
West Game	-32%	-23%	-25%	-33%	-27%	-30%	-24%	-22%	-24%	-21%	-21%	-15%	7%
Wordscapes	1%	6%	12%	-3%	-12%	-12%	-13%	-24%	-21%	-21%	-19%	-16%	6%
Clockmaker: Jewel Match 3 Game	-31%	-32%	-42%	-44%	-44%	-41%	-38%	-38%	-36%	-30%	-31%	-28%	6%
Cooking Madness -A Chef's Game	-5%	-9%	-19%	-32%	-29%	-23%	-21%	-33%	-36%	-29%	-26%	-24%	4%
Game of War - Fire Age	-28%	-24%	-9%	3%	0%	-8%	-9%	1%	-12%	-5%	-13%	-18%	2%
Final Fantasy XV: A New Empire	-51%	-48%	-63%	-54%	-61%	-63%	-54%	-59%	-53%	-59%	-54%	-52%	2%
Bermuda Adventures Farm Island	778%	232%	206%	103%	46%	28%	30%	4%	-12%	-17%	-24%	-28%	2%
Mobile Strike	-37%	-34%	-26%	-17%	-21%	-26%	-28%	-17%	-30%	-12%	-22%	-30%	2%
Solitaire Cruise Tripeaks Game	-68%	-70%	-67%	-68%	-71%	-68%	-60%	-58%	-48%	-46%	-43%	-38%	2%
Match 3D -Matching Puzzle Game	-62%	-55%	-49%	-53%	-54%	-51%	-53%	-54%	-46%	-40%	-30%	-19%	2%
Word Connect	-1%	-3%	-8%	-20%	-26%	-21%	-21%	-22%	-25%	-23%	-5%	8%	2%
Other Games	-33%	-40%	-44%	-48%	-48%	-45%	-42%	-38%	-32%	-17%	-18%	-10%	18%

* Jackpot Master and Bermuda Adventures Farm Island were launched in 2021, Y/Y growth rates are elevated as they are lapping the year of launch

Source: Sensor Tower, BofA Analysis of 250+ APP mobile games

BofA GLOBAL RESEARCH

Growth vs pre-COVID mostly driven by new game launches

When comparing the current revenue run rates of APP's top mobile titles with pre-COVID levels (same month in 2019), we note that:

- APP's mobile portfolio has grown modestly since the pandemic, but growth has been largely driven by new launches since 2019; 7 of top 15 games today have been launched in/after 2019
- Among older games, only *Cooking Madness* and *Word Connect* have shown consistent growth vs pre-COVID
- Continuous investment into new games is likely needed to support growth; we view management's decision to rationalize the gaming portfolio as a positive for stock as "growth-at-all-cost" is no longer favored in the current environment

Exhibit 17: Mobile IAP Bookings (3P Ests) Comparison vs Pre-COVID, APP Top Games

Core titles (ex new launches) have declined vs pre-pandemic, an indication of secular decline of the core portfolio

Key

Y/Y Growth < 0%	-60%
Y/Y Growth = 0%	0%
Y/Y Growth > 0%	60%

Game	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	10%	18%	13%	15%	11%	8%	13%	5%	-1%	-2%	0%	1%	
Project Makeover													19%
Cash Tornado™ Slots - Casino													11%
Matchington Mansion	-70%	-64%	-68%	-66%	-60%	-57%	-51%	-59%	-66%	-70%	-72%	-72%	9%
Jackpot Master™ Slots-Casino													7%
West Game	457%	323%	169%	100%	75%		49%			1123736%	4132%	1023%	7%
Wordscapes	-20%	-15%	-7%	-11%	-11%	-17%	-12%	-22%	-30%	-27%	-27%	-23%	6%
Clockmaker: Jewel Match 3 Game	86%	59%	22%	4%	-3%	-24%	-22%	149%	130%	114%	96%	66%	6%
Cooking Madness -A Chef's Game	188%	137%	130%	133%	157%	188%	160%	148%	95%	122%	103%	99%	4%
Game of War - Fire Age	-50%	-52%	-53%	-39%	-45%	-53%	-53%	-47%	-53%	-57%	-55%	-59%	2%
Final Fantasy XV: A New Empire	-85%	-80%	-80%	-82%	-86%	-85%	-83%	-93%	-93%	-94%	-93%	-93%	2%
Bermuda Adventures Farm Island													2%
Mobile Strike	-58%	-57%	-54%	-46%	-46%	-60%	-61%	-57%	-63%	-65%	-66%	-67%	2%
Solitaire Cruise Tripeaks Game													2%
Match 3D -Matching Puzzle Game													2%
Word Connect	109%	120%	95%	98%	94%	93%	81%	108%	137%	152%	115%	112%	2%
Other Games	-8%	-24%	-28%	-26%	-32%	-32%	-34%	-15%	-16%	-15%	-12%	-10%	18%

Numbers in table represent growth of estimated bookings relative to bookings in the same month in 2019. E.g. Jan 23 comp = Bookings (Jan 23) / Bookings (Jan 19) - 1

* Comparisons vs pre-pandemic are not available for Project Makeover, Cash Tornado, Jackpot Master, Solitaire Cruise, Bermuda Adventures Farm Island, and Match 3D as the games were launched after 2019

** West Game was launched in 2019, comps are elevated as they are lapping the year of launch

Source: Sensor Tower, BofA Analysis of 250+ APP mobile games

BofA GLOBAL RESEARCH





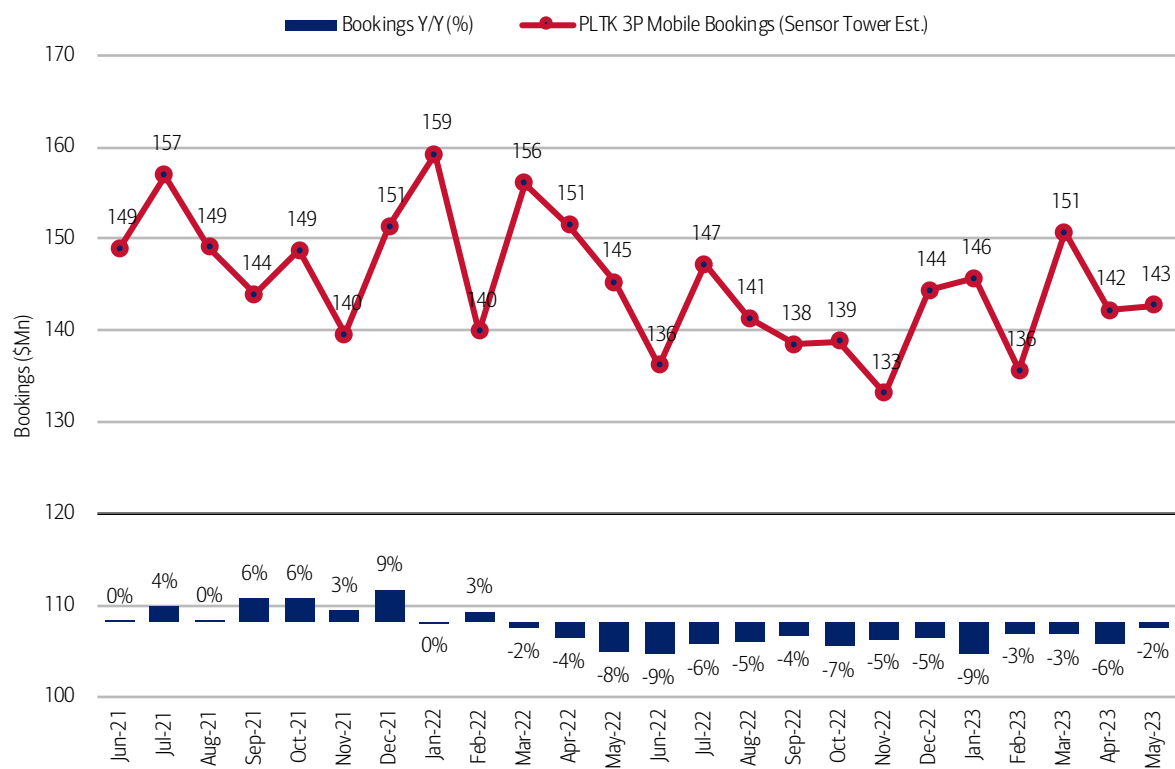
PLTK: Tracking -4% Y/Y in Apr + May is below Street 2CQ, but risk to Q is low

Per our tracking of PLTK's mobile games on Sensor Tower:

- 3P estimates of mobile IAP bookings -2% Y/Y in May, slightly improved from -6% Y/Y in April on easier Y/Y comp; sequentially daily avg run rate was lower than Apr and in 1CQ due to seasonality
- **3P bookings ests were -4% Y/Y in Apr + May, below Street 2CQ expectations (-2% Y/Y)**
- We think risk to 2CQ estimates is low as growth from the DTC platform, which our 3P data does not track, will likely be a source of upside to consensus, as bookings through the DTC channel have meaningfully outgrown bookings through 3P channels in the past

Exhibit 18: PLTK Mobile IAP Bookings (3P Ests), Jun '21 – May '23

PLTK mobile IAP bookings (3P Ests) fell 2% Y/Y in May, slightly improved from Apr on easier Y/Y comp (-6% Y/Y)



Source: Sensor Tower

BofA GLOBAL RESEARCH

Casual continued to outperform Social Casino

- Performance of PLTK's Casual games and Social Casino games continued to diverge, with top Casual games (*Bingo Blitz*, *Solitaire Grand Harvest*, *June's Journey*) notably outperforming top Social Casino games (*Slotomania*, *House of Fun*, *Caesars Slots*). *Bingo Blitz*, PLTK's largest game, has shown signs of slowdown since 2023.
- PLTK's Social Casino portfolio continued to see steep Y/Y declines, though *Slotomania* and *House of Fun* started to show some signs of moderation
- June's Journey* resumed growth after two consecutive months of Y/Y decline (Dec '22 – Jan '23); *Solitaire Grand Harvest* continued to grow at 30%+ Y/Y
- The continued mix shift into Casual means average user monetization could go down, but user acquisition cost for Casual games is generally lower than for Social Casino games due to less reliance on high LTV players

Exhibit 19: Mobile IAP Bookings (3P Ests) Y/Y Growth, PLTK Top Games, 2022 - 2023

PLTK's top Casual titles continued to outperform its top Social Casino titles in Apr

Key

Y/Y Growth < 0%

-20%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

20%

Game	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	-8%	-9%	-6%	-5%	-4%	-7%	-5%	-5%	-9%	-3%	-3%	-6%	-2%	
Bingo Blitz	-2%	-2%	2%	10%	15%	21%	15%	19%	12%	10%	4%	0%	-5%	21%
Solitaire Grand Harvest	4%	2%	8%	14%	23%	14%	17%	18%	24%	30%	27%	30%	31%	17%
Slotomania	-19%	-26%	-14%	-22%	-15%	-14%	-11%	-3%	-9%	-12%	-8%	-17%	-11%	16%
June's Journey	24%	54%	47%	22%	16%	-8%	11%	-2%	-20%	28%	14%	4%	32%	13%
WSOP	-5%	-8%	-3%	0%	-3%	-7%	-7%	-15%	-19%	-20%	-6%	-10%	-11%	8%
House of Fun	-29%	-34%	-36%	-28%	-30%	-24%	-12%	-12%	-6%	-13%	-9%	-7%	-7%	7%
Best Fiends	-9%	-14%	-17%	-14%	-19%	-21%	-23%	-21%	-25%	-25%	-25%	-18%	-23%	6%
Caesars Slots	-3%	-8%	-9%	-6%	-14%	-12%	-16%	-18%	-25%	-14%	-12%	-18%	-10%	5%
Other Games	-24%	-20%	-29%	-23%	-30%	-35%	-40%	-40%	-43%	-40%	-43%	-41%	-34%	8%

Source: Sensor Tower

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Run rates on top Casino games fell below pre-COVID levels

When comparing the current revenue run rates of PLTK's top mobile titles with those pre-COVID, we note that:

- Most of PLTK's top games have grown vs pre-COVID, with Casual games leading the pack (e.g. *Solitaire Grand Harvest*, *June's Journey*)
- PLTK's largest Social Casino games (*Slotomania*, *House of Fun*) now have lower revenue run rates than pre-COVID, signaling structural declines among its longest running Casino games
- We think the deterioration of PLTK's core Social Casino titles could be a sign that its largest games have reached saturation, a growth headwind if true, given its top Casino games are also its best monetized games

Exhibit 20: Mobile IAP Bookings (3P Ests) Comparison vs Pre-COVID, PLTK Top Games

Bookings (3P ests) on PLTK's largest Social Casino titles (*Slotomania*, *House of Fun*) are now lower than pre-COVID, a sign that its most mature games could have reached saturation

Key

Y/Y Growth < 0%

-60%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

60%

Game	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	27%	22%	29%	21%	21%	20%	17%	22%	39%	36%	33%	34%	25%	
Bingo Blitz	94%	100%	87%	85%	95%	95%	65%	93%	130%	106%	110%	91%	84%	21%
Solitaire Grand Harvest	234%	207%	189%	177%	184%	161%	141%	169%	671%	582%	474%	425%	339%	17%
Slotomania	-24%	-33%	-20%	-35%	-37%	-37%	-32%	-36%	-23%	-30%	-29%	-28%	-33%	16%
June's Journey	205%	229%	211%	183%	224%	181%	141%	147%	272%	290%	296%	305%	304%	13%
WSOP	16%	11%	9%	5%	9%	2%	10%	12%	11%	4%	7%	11%	4%	8%
House of Fun	-36%	-38%	-32%	-27%	-32%	-31%	-27%	-16%	-31%	-27%	-39%	-37%	-41%	7%
Best Fiends	18%	9%	5%	0%	-8%	-5%	-1%	2%	33%	22%	7%	7%	-9%	6%
Caesars Slots	10%	6%	6%	19%	12%	13%	12%	9%	3%	-3%	-7%	1%	-1%	5%
Other Games	12%	2%	9%	7%	-6%	-4%	-11%	-8%	-27%	-21%	-23%	-24%	-26%	8%

Numbers in table represent growth of estimated bookings relative to bookings in the same month in 2019. E.g. Jan '23 comp = Bookings (Jan '23) / Bookings (Jan '19) - 1

Source: Sensor Tower

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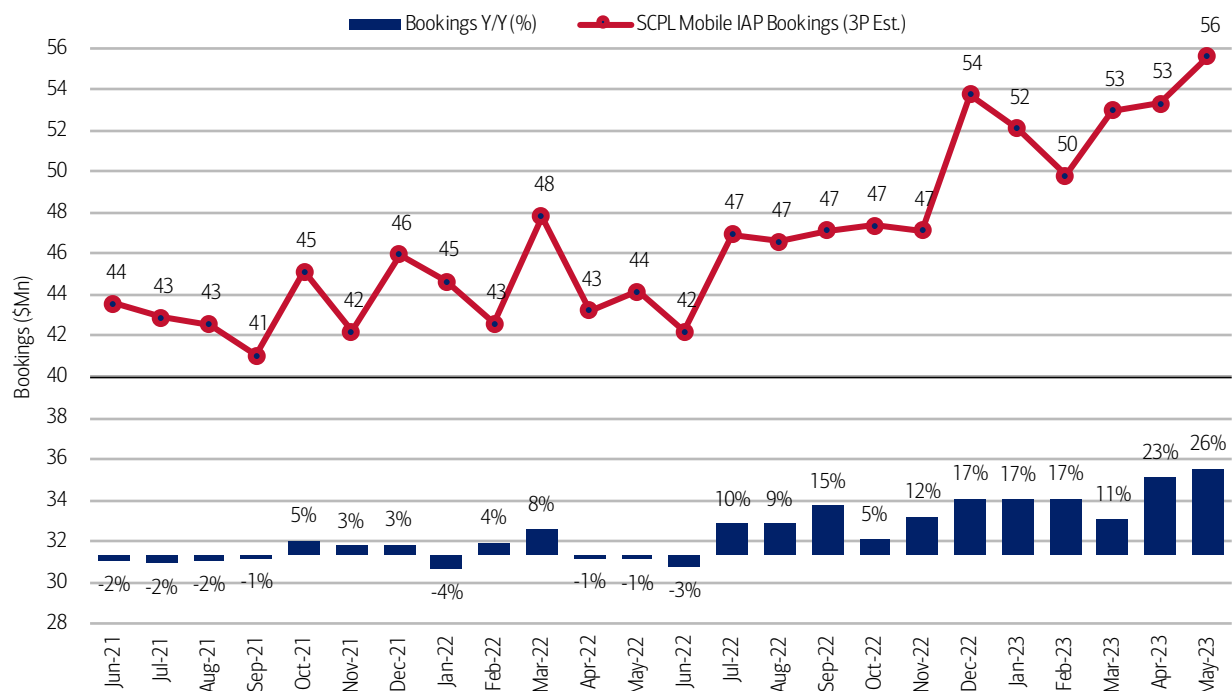
SCPL: April + May bookings ests well above Street, 2CQ de-risked

Per our tracking of SCPL's mobile games on Sensor Tower:

- 3P estimates of mobile IAP bookings continued to grow at an accelerated pace (+26% Y/Y in May); daily average run rate in May was sequentially flat vs Apr level but higher than in 1CQ despite weaker seasonality
- Monthly revenue run rate (3P ests) remained above \$50Mn (highest level in 2022)
- **3P bookings ests in Apr + May were up +25% Y/Y, well above Street 2CQ expectations of +16% Y/Y, de-risking the quarter.** SCPL's '23 offline campaigns will be spread out throughout the year and appear to have yielded good results so far.
- SCPL's top three games (>80% of total bookings) all grew vs pre-COVID, with bookings estimates 100%+ higher than pre-COVID levels (same month in 2019). *Gold Fish*, which has seen bookings decline Y/Y throughout much of 2022, has started to show signs of accelerated growth in 2023.
- SCPL's high portfolio concentration and focus on user retention should reduce its dependency on mobile user acquisition; nevertheless, marketing expense has notably increased in 2022 (+31% Y/Y). We think investors will need to see a cadence of sustainable growth without margin declines to re-rate the stock (recall 2022 Adj. EBITDA margin -300bps Y/Y).

Exhibit 21: SCPL Mobile IAP Bookings (3P Ests), Jun '21 – May '23

SCPL mobile IAP bookings (3P Ests) grew 26% Y/Y in May, further accelerating from +23% Y/Y in Apr



Source: Sensor Tower

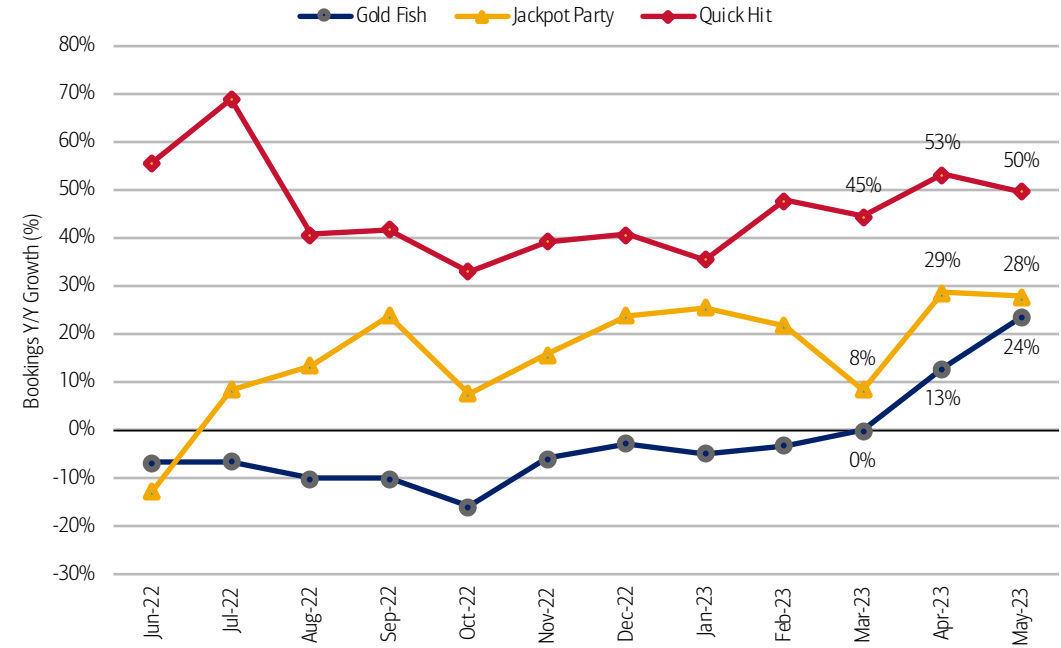
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Exhibit 22: Mobile Bookings (3P Ests.) Y/Y Growth by Game, 2022 - 2023

Growth accelerated in Apr vs Mar on easier Y/Y comps across the whole portfolio

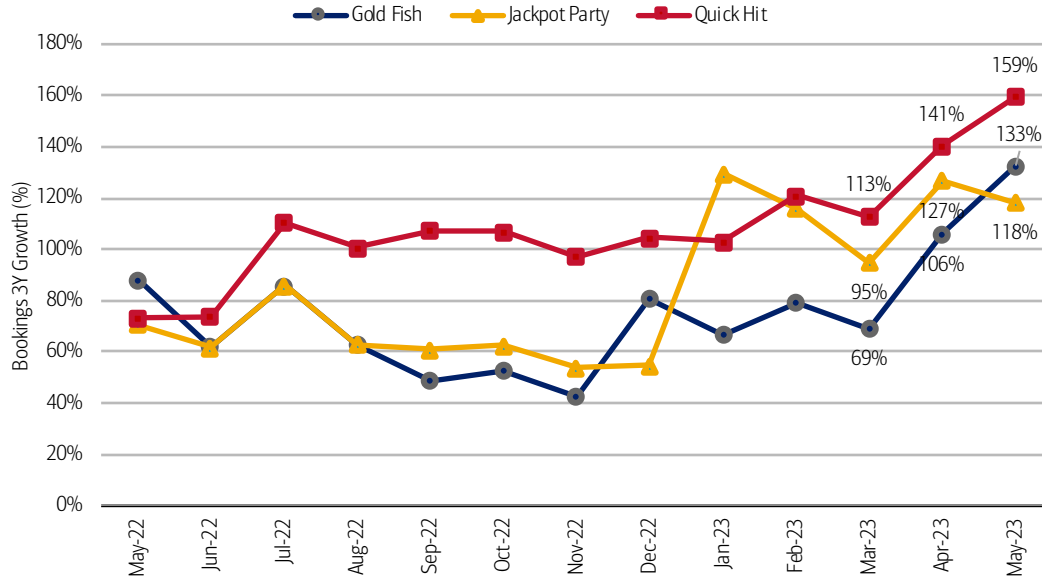


Source: Sensor Tower

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Exhibit 23: Mobile Bookings (3P Ests.) Growth by Game, Comparison vs Pre-COVID

SCPL's top 3 games all grew notably vs pre-COVID



Source: Sensor Tower

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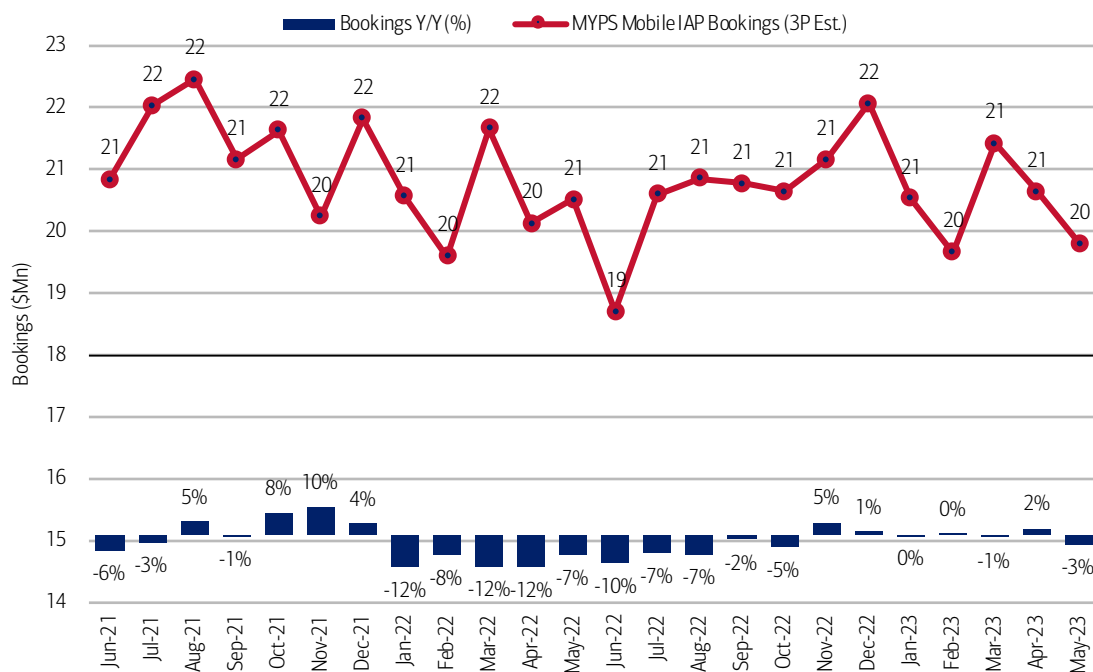
MYPS: 3P bookings ests -1% Y/Y, slightly below Street 2CQ

Per our tracking of MYPS' mobile games on Sensor Tower:

- 3P estimates of mobile IAP bookings -3% Y/Y in May, decelerating from +2% Y/Y in Apr. Average daily run rate was lower than in Apr and in 1CQ likely on weaker seasonality
- **Apr + May tracking was -1% Y/Y, slightly below Street 2CQ expectations of +1% Y/Y.** Advertising revenue, which our 3P data does not track, could represent upside to our tracking as advertising now contributes increasingly to total revenue (~15%) after the acquisition of Brainium
- Both *myVEGAS Slots* and *myKONAMI Slots* have declined Y/Y further since 2023, *POP! Slots* Y/Y growth also inflected to negative in May
- *POP! Slots* and *myVEGAS Slots* both grew vs pre-COVID; *myKONAMI Slots* revenue (3P ests) remained below 2019/early 2020 levels, potentially an indication of its inability to reach scale

Exhibit 24: MYPS Mobile IAP Bookings (3P Ests), Jun '21 – May '23

MYPS mobile IAP bookings (3P Ests) fell 3% Y/Y in May vs +2% Y/Y in Apr

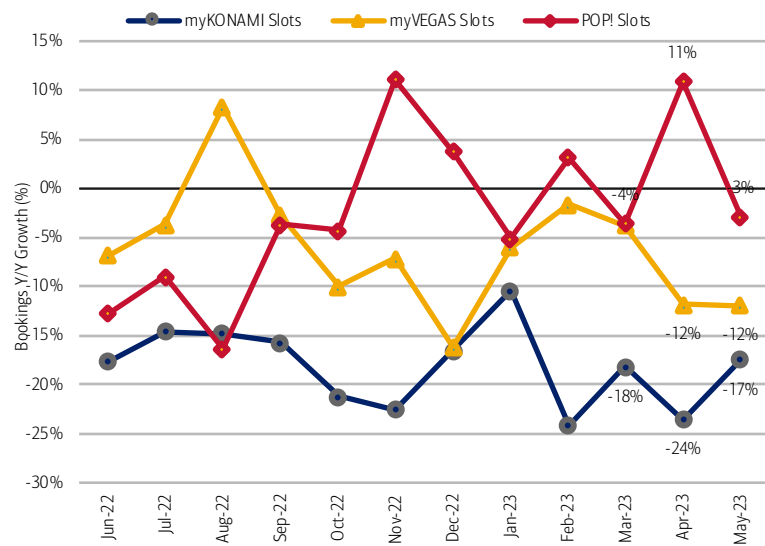


Source: Sensor Tower

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Exhibit 25: Mobile Bookings (3P Ests.) Y/Y Growth by Game, 2022 - 2023

POP! Slot appears to be the only top game growing Y/Y

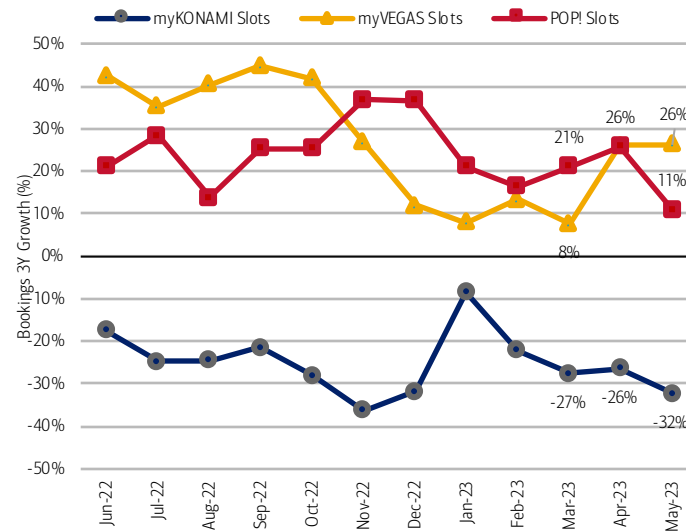


Source: Sensor Tower

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Exhibit 26: Mobile Bookings (3P Ests.) Growth by Game, Comparison vs 3-years Ago

Both POP! Slots and myVEGAS Slots have grown vs pre-COVID, while myKNOAMI Slots appears to have declined



Source: Sensor Tower

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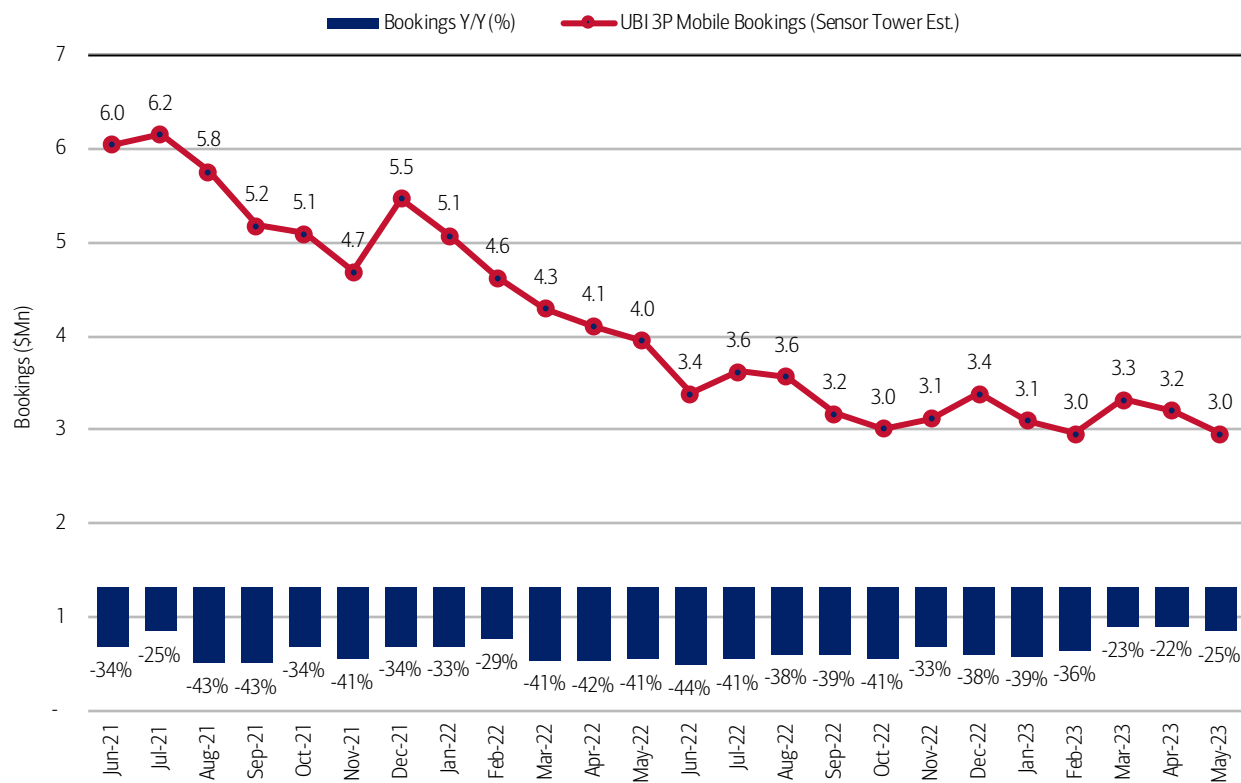
UBI: Declines still steep, run rate sequentially stable

Per our tracking of 150+ mobile games from UBI:

- 3P estimates of mobile IAP bookings were -25% Y/Y like-for-like in May, vs -22% Y/Y in April; Sequentially, monthly revenue run rates have been mostly stable since August 2022. Y/Y declines appear to have moderated since 4Q'22 as comps ease
- Declines are seen across the portfolio with bookings 20-60% lower Y/Y. When compared to the pre-COVID period (same month in 2019), almost all games have declined (except *Just Dance Now*), a sign of secular deterioration

Exhibit 27: UBI Mobile IAP Bookings (3P Ests), Jun '21 – May '23

UBI mobile IAP bookings (3P Ests) fell 25% Y/Y in May, monthly run rates have been sequentially stable since Aug '22



Source: Sensor Tower

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Exhibit 28: Mobile IAP Bookings (3P Ests) Y/Y Growth, UBI Top Games, 2022 - 2023

UBI's top mobile games have seen steep Y/Y declines across the board, with bookings 20% - 60% lower Y/Y

Key

Y/Y Growth < 0%

-20%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

20%

Game	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	-44%	-41%	-38%	-39%	-41%	-33%	-38%	-39%	-36%	-23%	-22%	-25%	
Might & Magic: Era of Chaos	-43%	-34%	-33%	-44%	-46%	-28%	-36%	-46%	-35%	-22%	-36%	-37%	20%
Hungry Shark World	-43%	-43%	-32%	-21%	-37%	-38%	-34%	-35%	-37%	-28%	-45%	-37%	13%
Growtopia	-21%	-24%	-13%	-29%	-28%	-33%	-44%	-40%	-21%	-23%	-5%	-33%	11%
Hungry Shark Evolution	-26%	-26%	-12%	-8%	-19%	-20%	-11%	-15%	-27%	-27%	-17%	-10%	11%
South Park: Phone Destroyer™	-44%	-46%	-48%	-55%	-56%	-40%	-59%	-46%	-24%	57%	45%	20%	10%
Just Dance Now	-39%	-40%	-34%	-28%	-27%	-21%	-18%	-19%	-8%	-10%	-9%	-3%	9%
Brawlhalla	-40%	-28%	-43%	-44%	-40%	-39%	-46%	-50%	-53%	-53%	-30%	-10%	4%
Assassin's Creed Rebellion	-6%	-18%	-8%	1%	-23%	6%	-20%	-13%	-29%	-14%	-5%	-29%	3%
Is it Love? Stories - Roleplay	-54%	-60%	-66%	-62%	-67%	-61%	-60%	-60%	-67%	-58%	-45%	-30%	3%
Other Games	-61%	-57%	-56%	-51%	-46%	-41%	-40%	-45%	-54%	-41%	-35%	-38%	16%

Source: Sensor Tower

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Exhibit 29: Mobile IAP Bookings (3P Ests) Comparison vs Pre-COVID, UBI Top Games

Bookings (3P ests) on UBI's top games have shown signs of secular decline, with bookings below the pre-COVID level

Key

Y/Y Growth < 0%	-60%
Y/Y Growth = 0%	0%
Y/Y Growth > 0%	60%

Game	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	% of Total Bookings (LTM)
Consolidated	-63%	-57%	-54%	-58%	-70%	-65%	-53%	-68%	-67%	-64%	-62%	-62%	
Might & Magic: Era of Chaos					16387%	195%	-63%						20%
Hungry Shark World	-14%	-26%	-42%	-27%	-27%	-33%	-26%	-50%	-54%	-49%	-62%	-51%	13%
Growtopia	-57%	-43%	-43%	-47%	-16%	-31%	-36%	-40%	-23%	-54%	-39%	-58%	11%
Hungry Shark Evolution	-14%	-24%	-22%	-15%	-19%	-4%	-14%	42%	10%	-2%	16%	39%	11%
South Park: Phone Destroyer™	-68%	-74%	-76%	-74%	-79%	-74%	-75%	-70%	-66%	-47%	-40%	-54%	10%
Just Dance Now	52%	34%	34%	41%	37%	36%	24%	39%	31%	24%	49%	55%	9%
Brawlhalla													4%
Assassin's Creed Rebellion	-73%	-75%	-81%	-63%	-70%	-54%	-70%	-93%	-90%	-87%	-86%	-86%	3%
Is it Love? Stories - Roleplay													3%
Other Games	-86%	-91%	-89%	-87%	-86%	-84%	-81%	-91%	-92%	-91%	-90%	-91%	16%

Numbers in table represent growth of estimated bookings relative to bookings in the same month in 2019. E.g. Jan 23 comp = Bookings (Jan '23) / Bookings (Jan '19) - 1

* Comparisons vs pre-COVID period are not available for Brawlhalla and Is it Love, as the games were launched after 2019

** Comparisons vs pre-COVID period are elevated for Might & Magic, as it was lapping the year of launch

Source: Sensor Tower

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Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R1} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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