

US Internet/Video Games & Interactive Media

March Mobile Game Tracker: scraping along the bottom; YY comps ease thru '23

Industry Overview

1CQ flattish to 4CQ22, 1Q23 expectations de-risked

We track monthly IAP revenues for 800+ mobile games across 8 video game stocks on Sensor Tower for intra-quarter reads. Although Y/Y declines persisted in March, monthly run rates were stable, and Y/Y declines in some games became shallower on easier comps. In 1Q23, run rates did not deteriorate significantly since 2H22. Y/Y comps will become easier with each month as 2023 unfolds but we don't expect sequential growth.

TTWO: Slight upside to guide/BofA 1CQ, -2% Q/Q

3P mobile IAP ests fell 18% Y/Y like-for-like in Mar (-20% Y/Y in 1CQ); 1Q23/4Q22 appeared -2%, meaning 1Q23 could be the 2nd flat sequential print in a row, a potential positive those who had passed on mobile deterioration concerns. Mgmt's 1CQ implied mobile guide of -17% Y/Y (incl. advertising) appears de-risked, barring a HSD % Y/Y decline in ad revenue, which benefits from the Popcore acquisition. Mgmt indicated it would cut UA spend on hypercasual, and we expect the same on casual, which would make a flat Q/Q print all the more notable. We think it is still too early to call a bottom, as TTWO has 38 games the success rate of which is TBD.

EA: Street 1CQ de-risked, FIFA Mobile \$450Mn run rate

3P ests. grew 3% Y/Y like-for-like in Mar (+5% Y/Y in 1CQ), driven by *FIFA Mobile* (+119% Y/Y in 1CQ). Actual 1CQ mobile bookings were likely flattish Y/Y (based on 3P Q/Q trends) as easy comps may have skewed the 3P data; nevertheless, Street 1CQ expectations of -1% Y/Y look de-risked. Several IP-focused games (30% of portfolio) had shallower Y/Y declines in March vs 2022, signifying some bottoming, or a focusing of UA spend on key titles. But all titles except *SimCity* and *FIFA* were well below pre-COVID run rates.

ATVI: Upside to Street 1CQ, Candy still a 20%+ grower

3P ests. of King mobile game bookings grew 8% Y/Y in Mar (+7% Y/Y in 1CQ), ahead of the Street's 1CQ expectations of +2% Y/Y (incl. ads). *Candy Crush*'s bookings (~45% of bookings, excl. DTC) continued to grow at 20%+ Y/Y in Mar, while *CODM* fell 2% Y/Y. *Diablo Immortal* monthly bookings were flat sequentially at ~\$15Mn.

APP inline with Street, UBI Declines still steep

3P est of APP's mobile game bookings fell 19% Y/Y in Mar (-24% Y/Y in 1CQ), inline with Street's 1CQ consensus of -25% Y/Y. UBI 3P bookings ests were -23% Y/Y in Mar (-33% Y/Y in 1CQ), but run rates have been stabilizing since Aug '22.

Social Casino: Upside in SCPL, PLTK/MYPS inline

PLTK bookings (3P ests) fell 5% Y/Y in 1CQ (-4% Y/Y in Mar), inline with Street 1CQ (-6% Y/Y), with Casual games continuing to outperform Social Casino games. **SCPL** runs most of its '23 offline marketing campaigns in 1Q, driving strong bookings growth. SCPL bookings grew 15% Y/Y in 1CQ (+10% Y/Y in Mar), above Street's 1CQ expectations of +12% Y/Y in mobile IAP bookings. **MYPS** bookings were flat Y/Y in 1CQ (-1% Y/Y in Mar), roughly in line with Street 1CQ consensus (-1% Y/Y).

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Est.: Estimate

Mgmt: Management

UA: User Acquisition

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

TBD: to be determined

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Refer to important disclosures on page 28 to 30.

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Mobile Gaming in Mar: 1CQ largely de-risked as 3P data meets expectations

We track monthly IAP revenues for 800+ mobile games across 8 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.

In March, Y/Y trends of 3P bookings estimates were largely a continuation of those in Feb across our universe. Overall for 1CQ, we see little downside risk to Street consensus estimates as 3P bookings estimates meet growth expectations.

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

Mar Y/Y bookings trends were similar to those in Feb, Street 1CQ mobile ests are largely de-risked

Ticker	Mobile Mix of Revs	Reported Metric	Y/Y Growth (3P Ests)				Indicated Bookings Y/Y Growth (1CQ)			Tracking vs. Expectations
			Jan	Feb	Mar	1CQ	Street	Guide	BofA	
TTWO	45%	Mobile IAP Bookings	-21%	-22%	-18%	-20%	-10%**	-17%*	-22%	Better
EA	17%	Mobile Bookings	8%	4%	3%	5%*****	-1%		0%	Inline
APP	63%	Mobile IAP Bookings	-28%	-25%	-19%	-24%	-25%		-28%	Inline
PLTK	100%	Total Revenue	-9%	-3%	-4%	-5%	-6%		-5%	Inline
SCPL	100%	Mobile IAP Revenue	17%	17%	10%	15%	12%		11%	Better
MYPs	100%	IAP Revenue	0%	0%	-1%	0%	-1%		-2%	Inline
ATVI - King	40%	Mobile Bookings	7%	7%	8%	7%	2%			
UBI	10%	Mobile Bookings	-39%	-36%	-23%	-33%				

Source: BofA Global Research, Visible Alpha, Company Reports

*TTWO growth rates are calculated on a like-for-like basis (T2 Mobile + Zynga pro forma). Mgmt. FY23 Guidance implies -17% Y/Y growth in Mobile revenue (IAP + advertising) in 4FQ23 (March Q)

** TTWO Street 1CQ consensus is only based on 2 sell-side estimates, which are unlikely to be representative. As such, we do not compare with Street ests for our analysis in this report

*** 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

***** Actual bookings growth could be lower than +5% Y/Y as 3P ests benefit from an easier Y/Y comp (1Q22 3p ests \$40mn below actual). We estimate EA's actual 1CQ mobile bookings were likely flattish Y/Y

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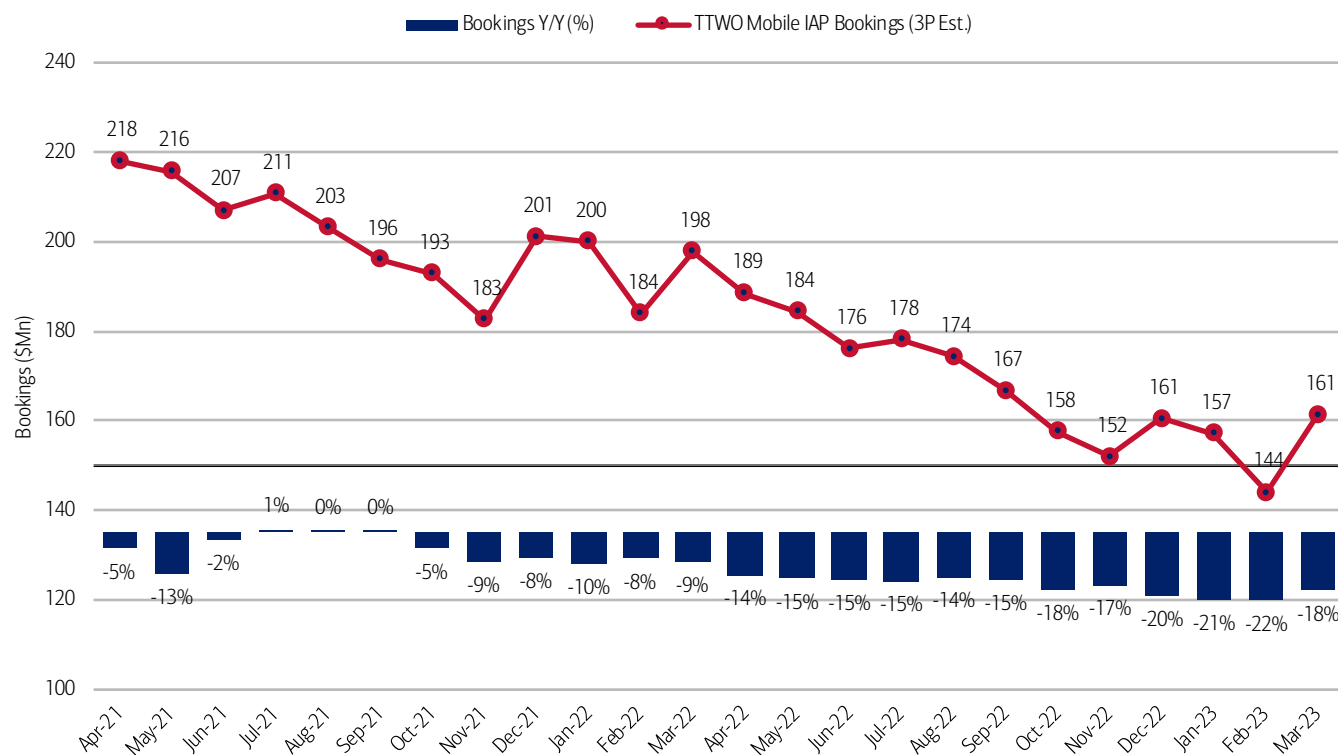
TTWO: See modest upside to 1CQ

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

- 3P estimates of mobile IAP bookings were -18% Y/Y like-for-like in Mar (-20% Y/Y in 1CQ overall), improving from -22% Y/Y in Feb
- Street 1CQ mobile revenue expectations of -10% Y/Y (incl. advertising) appears high relative to 3P bookings ests, assuming advertising revenue does not grow significantly Y/Y (BoFA assumes roughly flat Y/Y).** However, we see slight upside to 1CQ implied mobile guide of -17% Y/Y (incl. advertising), if ad revenue can steer clear of a notable Y/Y decline (i.e. -10% Y/Y).
- Mar bookings were particularly strong with average daily run rate reaching highest since July '22

Exhibit 2: TTWO Mobile IAP Bookings (3P Ests), Apr '21 – Mar '23

TTWO mobile IAP bookings (3P Ests) fell 18% Y/Y like-for-like in Mar, improving from Feb (-22% Y/Y)



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

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Y/Y declines shallower in some titles in March on easier comps, but dispersion still high;

- *Empires & Puzzles, Zynga Poker, Words with Friends, and Hit it Rich Casino Slots* Y/Y declines appeared to moderate slightly
- 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. Growths of *Words With Friends 2, Two Dots* started to soften in 4Q22.
- 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 3: 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														% of Total Bookings (LTM)	
Y/Y Growth < 0%		-20%													
Y/Y Growth = 0%		0%													
Y/Y Growth > 0%		20%													
Publisher	Mobile Franchise	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23		
TTWO	Consolidated	-14%	-15%	-15%	-15%	-14%	-15%	-18%	-17%	-20%	-21%	-22%	-18%		
Zynga Inc.	Empires & Puzzles	-12%	-4%	-7%	-17%	2%	-5%	-23%	-5%	-16%	-15%	-18%	-12%	16%	
Peak Games	Toon Blast	-21%	-18%	-21%	-28%	-27%	-31%	-29%	-30%	-31%	-36%	-39%	-34%	14%	
Zynga Inc.	Merge Dragons	-21%	-20%	-9%	-11%	-5%	-2%	-4%	11%	9%	-2%	3%	1%	8%	
Peak Games	Toy Blast	-21%	-27%	-27%	-25%	-29%	-32%	-33%	-33%	-32%	-30%	-33%	-30%	7%	
Zynga Inc.	Zynga Poker	1%	-12%	-13%	4%	4%	10%	21%	5%	-12%	-13%	-12%	-6%	6%	
Nordeus	Top Eleven 2021	18%	12%	14%	16%	22%	19%	12%	9%	17%	20%	32%	27%	4%	
Zynga Inc.	Harry Potter: Puzzles & Spells	-28%	-26%	-23%	-20%	-25%	-30%	-30%	-34%	-37%	-35%	-32%	-29%	4%	
Zynga Inc.	Wizard of Oz Slots	-9%	-14%	-16%	-12%	-21%	-14%	-14%	-14%	-13%	-13%	-14%	-17%	4%	
Zynga Inc.	Golf Rival	-10%	-13%	-13%	11%	-12%	-6%	-28%	-23%	-29%	-30%	-31%	-23%	4%	
Zynga Inc.	Hit it Rich! Casino Slots	-24%	-14%	-11%	3%	0%	9%	-1%	4%	-8%	-3%	-10%	-3%	3%	
Zynga Inc.	CSR 2	-20%	-43%	-41%	-21%	-19%	-12%	-12%	-22%	-29%	-27%	-10%	-10%	3%	
Zynga Inc.	Game of Thrones Slots	-7%	-8%	-9%	6%	4%	0%	-2%	-2%	-2%	-1%	6%	5%	3%	
Zynga Inc.	Words With Friends 2	44%	45%	26%	21%	20%	21%	-3%	-7%	3%	-9%	-15%	-2%	3%	
Tencent Mobile Games	Two Dots	27%	45%	36%	14%	20%	-5%	-7%	-5%	0%	-16%	-12%	-13%	2%	
Socialpoint	Dragon City Mobile	-18%	-18%	-31%	-39%	-43%	-45%	-32%	-30%	-36%	-37%	-37%	-33%	2%	
2K	WWE SuperCard	-10%	-2%	-27%	-29%	-25%	-31%	-17%	-30%	-41%	-40%	-40%	-31%	2%	
	Other Games	-13%	-18%	-18%	-20%	-23%	-22%	-22%	-29%	-28%	-27%	-29%	-27%	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 (Dec '19), 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 50% below their pre-COVID run rates since May 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
- 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 4: 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 20-50% lower vs pre-COVID

Key														% of Total Bookings (LTM)	
Y/Y Growth < 0%		-60%													
Y/Y Growth = 0%		0%													
Y/Y Growth > 0%		60%													
Publisher	Mobile Franchise	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23		
TTWO	Consolidated	0%	-2%	-6%	-5%	-7%	-11%	-16%	-19%	-15%	-16%	-23%	-14%		
Zynga Inc.	Empires & Puzzles	-20%	-18%	-12%	-27%	-20%	-17%	-24%	-17%	-21%	-35%	-37%	-29%	16%	
Peak Games	Toon Blast	-16%	-16%	-24%	-20%	-22%	-31%	-35%	-43%	-38%	-35%	-45%	-38%	14%	
Zynga Inc.	Merge Dragons	-29%	-26%	-28%	-30%	-28%	-29%	-30%	-30%	-22%	-22%	-26%	-22%	8%	
Peak Games	Toy Blast	-11%	-16%	-22%	-20%	-25%	-32%	-36%	-42%	-38%	-31%	-39%	-31%	7%	
Zynga Inc.	Zynga Poker	34%	34%	28%	41%	29%	28%	27%	15%	20%	23%	13%	28%	6%	
Nordeus	Top Eleven 2021	140%	119%	124%	144%	154%	132%	124%	112%	129%	141%	118%	139%	4%	
Zynga Inc.	Harry Potter: Puzzles & Spells													4%	
Zynga Inc.	Wizard of Oz Slots	16%	11%	10%	16%	8%	8%	4%	-4%	4%	10%	-5%	7%	4%	
Zynga Inc.	Golf Rival	162%	169%	146%	169%	131%	142%	99%	82%	87%	83%	58%	120%	3%	
Zynga Inc.	Hit it Rich! Casino Slots	26%	31%	26%	31%	24%	29%	13%	6%	12%	13%	4%	17%	3%	
Zynga Inc.	CSR 2	-27%	-37%	-42%	-26%	-24%	-31%	-35%	-44%	-33%	-39%	-42%	-30%	3%	
Zynga Inc.	Game of Thrones Slots	63%	64%	52%	71%	72%	65%	56%	49%	82%	74%	75%	89%	3%	
Zynga Inc.	Words With Friends 2	68%	59%	50%	60%	65%	53%	43%	31%	40%	55%	40%	51%	3%	
Tencent Mobile Games	Two Dots	39%	48%	43%	37%	39%	23%	25%	22%	34%	27%	9%	12%	2%	
Socialpoint	Dragon City Mobile	14%	19%	-4%	-2%	-11%	-21%	-18%	-5%	-14%	-19%	-22%	-9%	2%	
2K	WWE SuperCard	-13%	-33%	-43%	-38%	-48%	-51%	-54%	-37%	-36%	-60%	-54%	-47%	2%	
	Other Games	-10%	-18%	-23%	-22%	-27%	-31%	-33%	-37%	-31%	-30%	-36%	-29%	14%	

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

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 are not available for Harry Potter: Puzzles & Spells as the game was launched after 2019



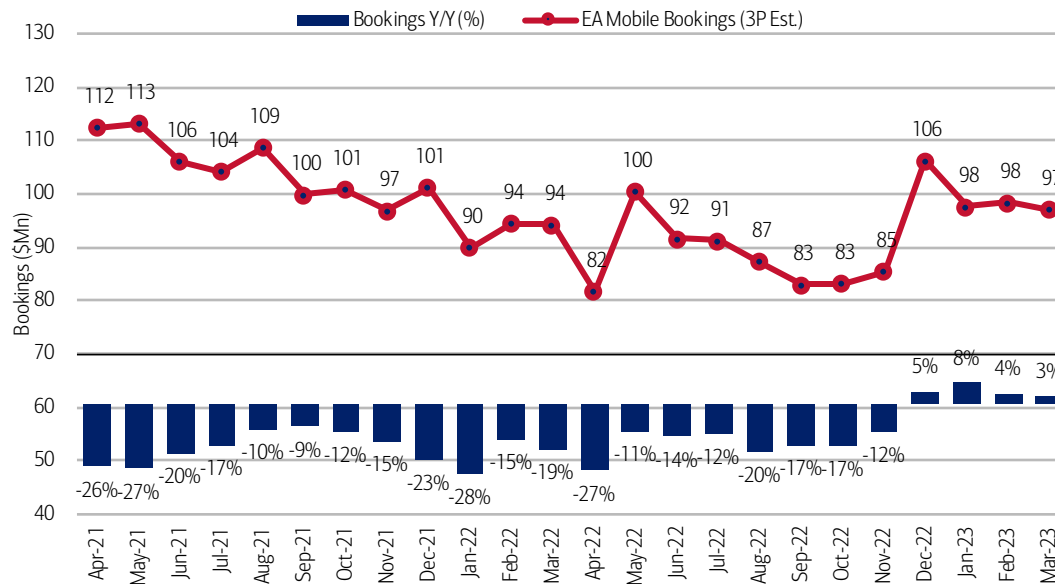
EA: 1CQ likely de-risked, expect flat Q/Q, FIFA growth still strong

Per our tracking of 200+ mobile games from EA:

- 3P estimates of mobile IAP bookings were +3% Y/Y like-for-like in Mar (+5% Y/Y for 1CQ overall). Sequentially 1CQ estimated bookings were up +7% Q/Q. We estimate that **actual 1CQ mobile bookings were likely flattish Y/Y** (estimated based on Q/Q trends) as 3P ests benefit from an easier Y/Y comp than actual bookings (1CQ22 3P ests \$40Mn lower than actual).
- Street 1CQ expectations of -1% Y/Y for mobile revenue looks de-risked relative to 3P bookings ests (and BofA est. of +0% Y/Y). Impact on the stock should be limited** due to EA's low exposure to mobile gaming (<17% FY23E bookings)
- 3P estimates suggest that FIFA Mobile continued to perform strongly in March, though growth has decelerated (+97% Y/Y in Mar vs +110% Y/Y in Feb).** Daily average run rate was down 23% M/M in March but remained higher than levels during the World Cup period (Dec '22). Game downloads continued to fall sequentially (-15% M/M), an indication that the pent-up player interest driven by the World Cup could be normalizing. Excluding FIFA Mobile, estimated bookings were -21% Y/Y in March (vs -26% Y/Y in Feb), suggesting a weakness in the rest of the portfolio.

Exhibit 5: EA Mobile IAP Bookings (3P Ests), Apr '21 - Mar '23

EA mobile IAP bookings (3P Ests) grew 3% Y/Y like-for-like in Mar, slightly decelerated from Feb (+4% Y/Y)

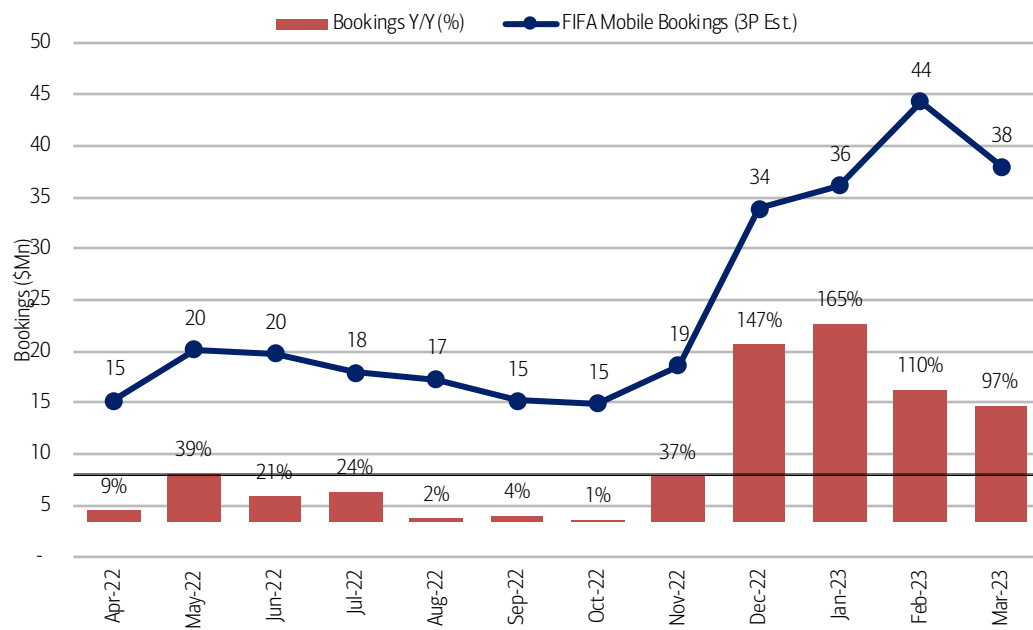


Source: Sensor Tower, BofA analysis of >200 EA games

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Exhibit 6: FIFA Mobile Bookings (3P Ests), Apr '22 - Mar '23

FIFA Mobile continued to grow rapidly after the World Cup, with 3P bookings ests +97% Y/Y in Mar; daily run rates fell 23% M/M in Mar but remained above World Cup period levels



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) decline in 2022, except *FIFA Mobile*
- Design Home*, *SimCity*, *Madden 23 Mobile*, and *Golf Clash* Y/Y deterioration moderated slightly in March
- 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 7: 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%

Y/Y Growth = 0%

Y/Y Growth > 0%

Game	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	-19%	-27%	-11%	-14%	-12%	-20%	-17%	-17%	-12%	5%	8%	4%	3%	
FIFA Mobile	55%	9%	39%	21%	24%	2%	4%	1%	37%	147%	165%	110%	97%	26%
Star Wars	-14%	-24%	-23%	-32%	-17%	-32%	-20%	-25%	-39%	-29%	-29%	-30%	-33%	13%
Golf Clash	-26%	-31%	-25%	-25%	-22%	-23%	-22%	-31%	-25%	-21%	-29%	-36%	-16%	12%
Design Home: Dream Makeover	-32%	-38%	-36%	-32%	-28%	-19%	-19%	-8%	-3%	-7%	-13%	-18%	-8%	8%
SimCity	-25%	-16%	-18%	-21%	-24%	-27%	-15%	-12%	-10%	-8%	6%	-11%	-1%	5%
Apex Legends Mobile													-100%	5%
Madden 23 Mobile	-39%	-43%	-23%	-19%	-26%	-41%	-31%	-19%	-21%	-23%	-20%	-39%	3%	4%
Covet Fashion	-29%	-28%	-19%	-23%	-22%	-23%	-20%	-19%	-20%	-4%	-17%	-11%	-26%	4%
The Sims	-27%	-44%	-48%	-43%	-39%	-18%	-31%	-27%	-21%	-37%	-31%	-24%	-25%	3%
MLB Tap Sports Baseball												19760%	-26%	3%
Plants vs Zombies 2	0%	-16%	-19%	-25%	-10%	-28%	-34%	-39%	-29%	-28%	-25%	-41%	-32%	2%
Need for Speed	-28%	-50%	-59%	-67%	-65%	-64%	-62%	-63%	-59%	-50%	-36%	-35%	-39%	2%
Kim Kardashian: Hollywood	-50%	-53%	-47%	-37%	-44%	-48%	-51%	-42%	-32%	-47%	-47%	-55%	-51%	2%
Other Games	-42%	-49%	-43%	-46%	-45%	-47%	-46%	-39%	-30%	-34%	-29%	-29%	-17%	12%

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

* Apex Legends Mobile will officially sunset in May '23; 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 (Dec '19), we note that:

- FIFA Mobile appears to be the only title among top 13 (88% of total bookings) that has grown since 2019, excluding new launches (*Madden, Apex Legends Mobile, MLB Tap Sports Baseball*); *SimCity* now appears to be at its pre-COVID run rate
- Across the portfolio, bookings estimates are 20%-80% 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 8: 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%

-60%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

60%

Game	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	-25%	-35%	-21%	-27%	-28%	-31%	-34%	-34%	-32%	-16%	-23%	-22%	-23%	
FIFA Mobile	40%	10%	46%	43%	30%	25%	10%	8%	35%	145%	161%	220%	175%	26%
Star Wars	-34%	-43%	-32%	-44%	-39%	-45%	-45%	-53%	-60%	-49%	-55%	-60%	-56%	13%
Golf Clash	-23%	-31%	-26%	-32%	-29%	-30%	-35%	-40%	-39%	-32%	-46%	-52%	-36%	12%
Design Home: Dream Makeover	-37%	-47%	-45%	-53%	-45%	-40%	-46%	-40%	-45%	-32%	-46%	-49%	-42%	8%
SimCity	-1%	1%	-9%	-16%	-13%	-22%	-16%	-13%	-16%	-10%	0%	-19%	-2%	5%
Apex Legends Mobile														5%
Madden 23 Mobile														4%
Covet Fashion	-23%	-30%	-13%	-40%	-36%	-20%	-37%	-34%	-18%	-24%	-41%	-19%	-43%	4%
The Sims	0%	-27%	-35%	-32%	-20%	-15%	-28%	-30%	-38%	-25%	-23%	-29%	-25%	3%
MLB Tap Sports Baseball														3%
Plants vs Zombies 2	16%	2%	3%	-9%	6%	-5%	-22%	-18%	-22%	-17%	-9%	-30%	-21%	2%
Need for Speed	-13%	-26%	-38%	-45%	-46%	-47%	-52%	-52%	-51%	-41%	-41%	-43%	-47%	2%
Kim Kardashian: Hollywood	-45%	-53%	-56%	-46%	-50%	-57%	-62%	-56%	-49%	-64%	-65%	-73%	-73%	2%
Other Games	-64%	-70%	-68%	-73%	-71%	-73%	-75%	-68%	-63%	-67%	-69%	-74%	-70%	12%

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 2019 are not available for Apex Legends Mobile and 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





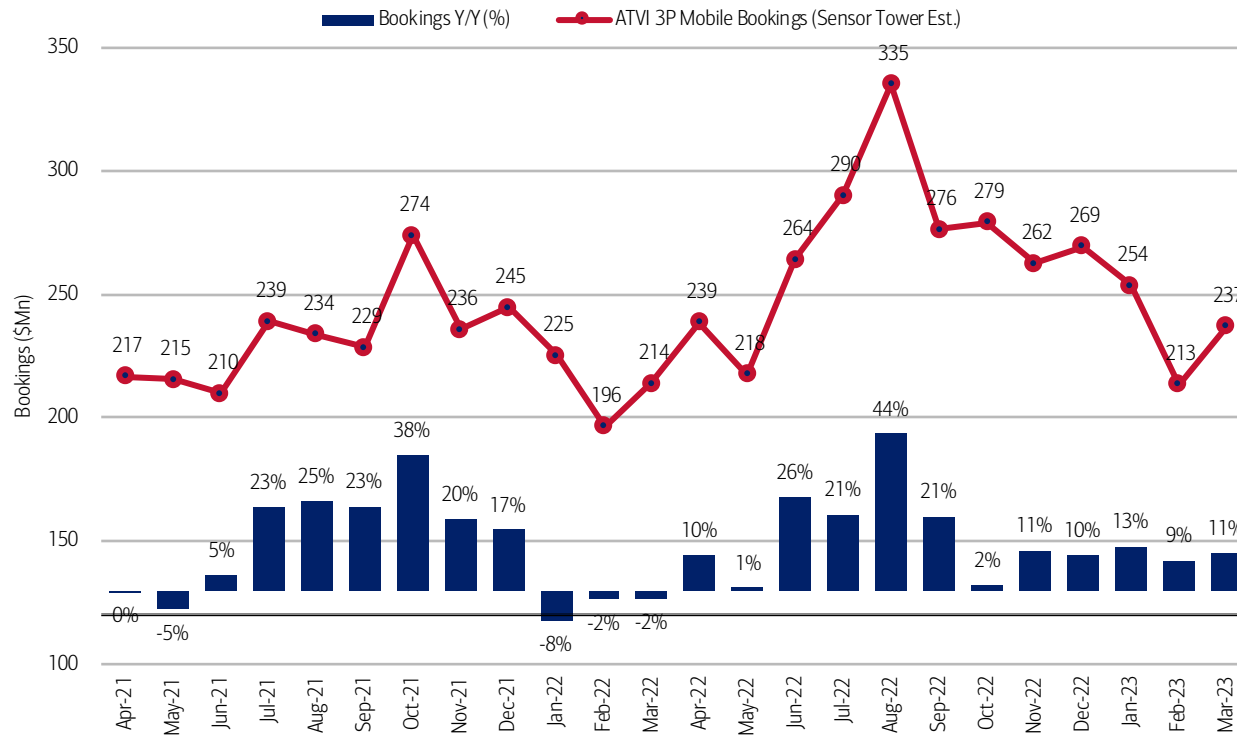
ATVI: 1CQ tracking above Street, Candy Crush still growing 20%+ Y/Y

Per our tracking of 18 ATVI mobile games:

- 3P estimates of mobile IAP bookings were +11% Y/Y like-for-like in Mar (+11% Y/Y for 1CQ overall). Growth was mostly driven by *Candy Crush*, which was up 22% Y/Y in the month (and +22% Y/Y in 1CQ overall)
- **Street expects +5% Y/Y for mobile revenue in 1CQ, below our tracking (+11% Y/Y).** Mobile makes up an important component of ATVI's overall business, contributing ~40% to total revenue (FY23E 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.** Our 3P tracking shows *Candy Crush* generates 44% of ATVI's total mobile IAP revenue in the last 12 months.

Exhibit 9: ATVI Mobile IAP Bookings (3P Ests), Apr '21 – Mar '23

ATVI consolidated mobile IAP bookings (3P Ests) grew 11% Y/Y in Mar, accelerated from Feb (+9% Y/Y)



Source: Sensor Tower

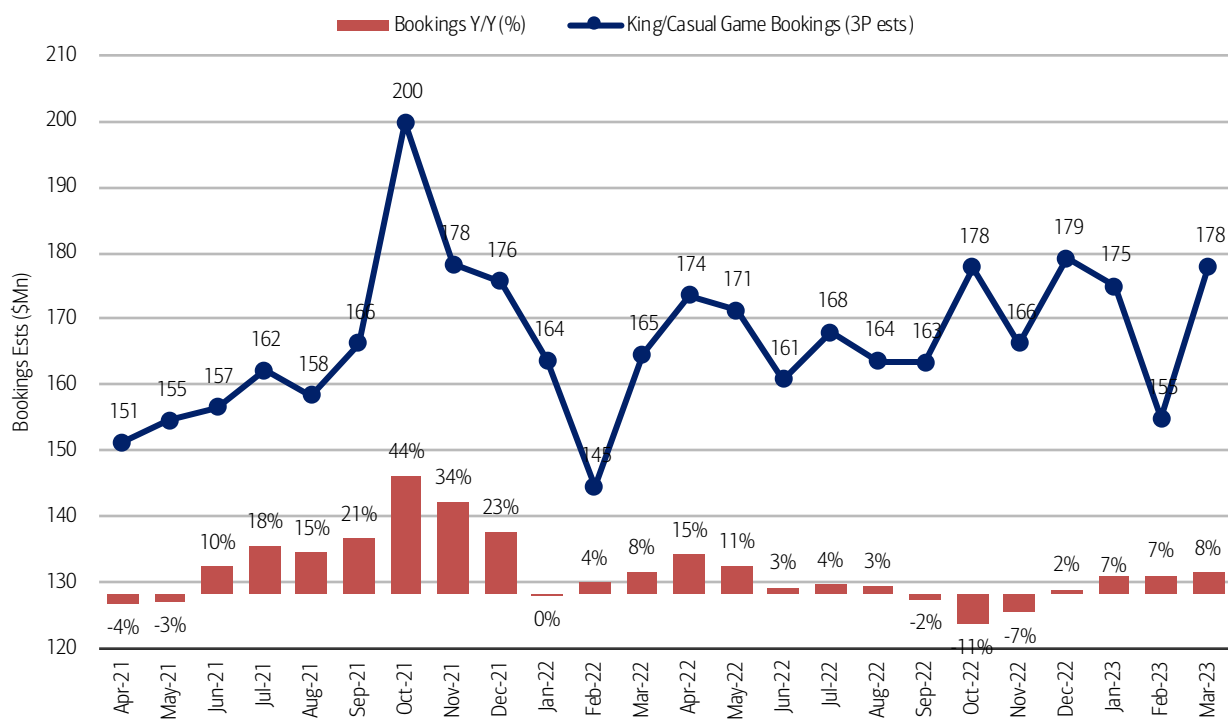
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King still the growth driver, Diablo Immortal Mobile declined since launch

- King's casual games (*Candy Crush*, *Farm Heroes*, etc.) still appear to be the growth driver for ATVI's mobile business, with bookings +8% Y/Y in Mar (+7% Y/Y in 1CQ overall). **Street 1CQ consensus of +2% Y/Y (incl. advertising) in King bookings looks conservative, as advertising revenue has consistently grown Y/Y in 2022 so far.**
- 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 ~\$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 10: ATVI King/Casual Game Bookings (3P Ests), Apr '21 – Mar '23

IAP bookings (3P Ests) on King's top Casual games grew +8% Y/Y in Mar vs +7% Y/Y in Feb



Source: Sensor Tower

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

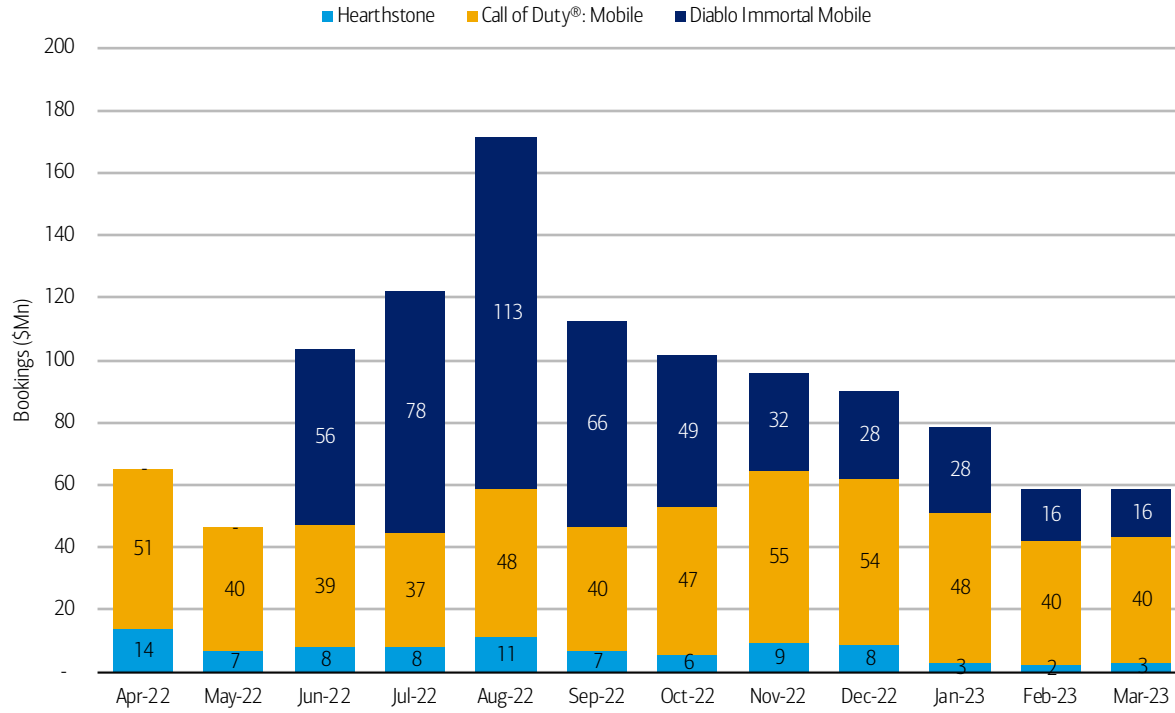
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Exhibit 11: ATVI High-Fidelity/Strategy Game Bookings (3P Ests), Apr '22 – Mar '23

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



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 has been consistently growing 20%+ Y/Y
- *Diablo Immortals Mobile* had a successful launch in June 2022, but have 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 12: Mobile IAP Bookings (3P Ests) Y/Y Growth by Franchise, Apr '22 - Mar '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	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Mobile IAP (LTM)
King Top Games Total	15%	11%	3%	4%	3%	-2%	-11%	-7%	2%	7%	7%	8%	65%
Candy Crush Saga	36%	29%	16%	21%	19%	11%	-7%	-1%	13%	22%	21%	22%	44%
Candy Crush Soda Saga	6%	-3%	-9%	-14%	-11%	-12%	-9%	-7%	-8%	-5%	-3%	-6%	12%
Farm Heroes Saga	-23%	-22%	-24%	-35%	-35%	-38%	-33%	-29%	-27%	-23%	-13%	-11%	3%
Other Games	-28%	-26%	-23%	-22%	-25%	-29%	-31%	-29%	-30%	-32%	-34%	-34%	6%
Activision Top Games Total	-8%	-27%	-17%	-45%	-26%	-31%	-26%	15%	-4%	-16%	-14%	-2%	17%
Call of Duty®: Mobile	-8%	-27%	-17%	-45%	-26%	-31%	-26%	15%	-4%	-16%	-14%	-2%	17%
Blizzard Top Games Total	52%	17%	1055%	775%	1143%	1524%	432%	346%	186%	575%	238%	121%	18%
Diablo Immortal Mobile													15%
Hearthstone	52%	17%	41%	-20%	13%	46%	-44%	1%	-34%	-34%	-57%	-62%	3%

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 & CoD Mobile have grown vs pre-COVID, Hearthstone showing secular decline

When comparing the current revenue run rates of ATVI's top mobile titles with pre-COVID levels (Dec '19), we note that:

- *Candy Crush* and *Call of Duty Mobile* have grown vs pre-COVID, with bookings 30-50% higher
- *Hearthstone* shows signs of secular decline, with bookings ~70% lower than their pre-COVID levels

Exhibit 13: Mobile IAP Bookings (3P Ests) Comparison vs Pre-COVID, ATVI Top Games

Hearthstone is the only top game that has declined vs pre-COVID. Candy Crush & CoD Mobile bookings are 30-50% higher than before the pandemic

Key

Y/Y Growth < 0%

-60%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

60%

Game	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	33%	21%	47%	62%	87%	54%	56%	46%	50%	41%	19%	32%	
Candy Crush Saga	34%	36%	28%	37%	32%	36%	49%	39%	51%	48%	30%	52%	44%
Call of Duty®: Mobile	85%	44%	42%	32%	72%	44%	69%	100%	93%	73%	44%	44%	17%
Diablo Immortal Mobile													15%
Candy Crush Soda Saga	32%	25%	15%	15%	16%	11%	26%	16%	22%	18%	5%	17%	12%
Farm Heroes Saga	35%	28%	22%	19%	13%	3%	4%	0%	8%	12%	5%	19%	3%
Hearthstone	32%	-38%	-26%	-26%	7%	-37%	-46%	-12%	-20%	-72%	-78%	-69%	3%
Other Games	-27%	-32%	-36%	-36%	-38%	-43%	-43%	-46%	-44%	-45%	-52%	-48%	6%

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 Diablo Immortal Mobile as the game was launched in 2022

Source: Sensor Tower

BoFA GLOBAL RESEARCH

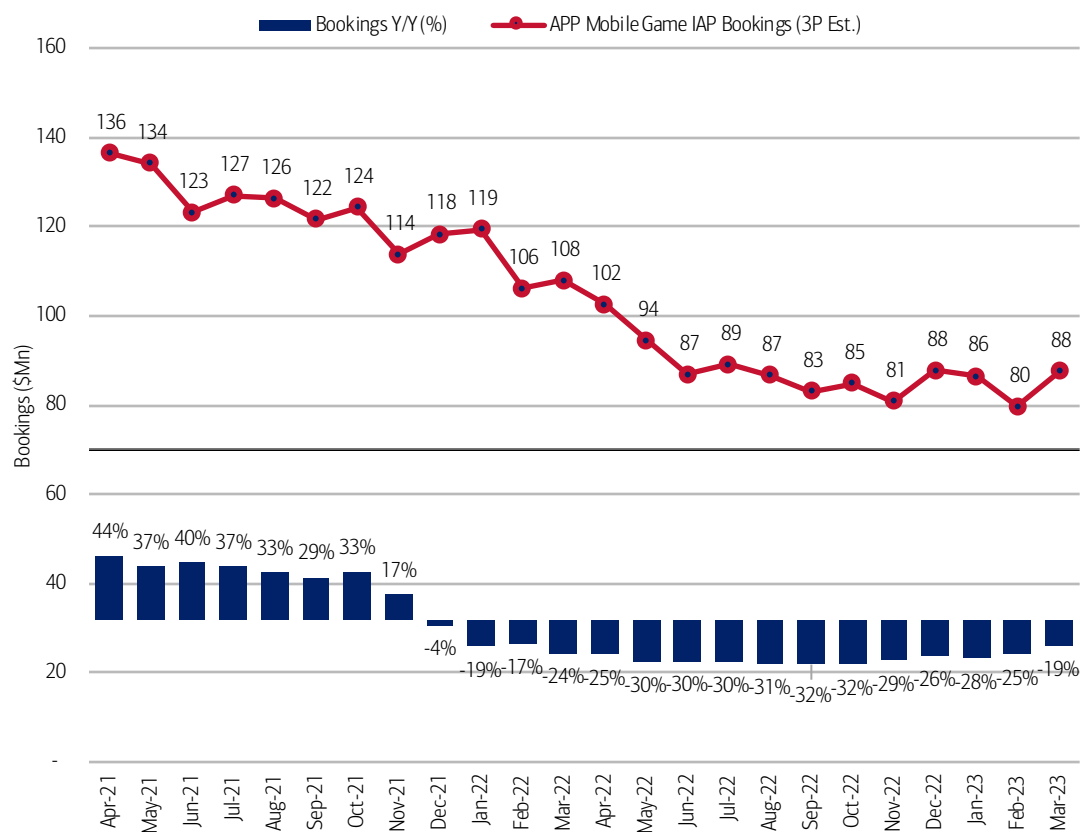
APP: Trends continued to stabilize, bookings inline with Street

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

- 3P estimates of mobile IAP bookings were -19% Y/Y like-for-like in Mar (-24% Y/Y in 1CQ overall)
- **Mar Q mobile consensus of -25% Y/Y growth appears inline with 3P tracking (-24% Y/Y in 1CQ)**
- Overall the consistent Y/Y declines of 20%+ in '22 seem daunting, but signs of stabilization have emerged as monthly revenue run rate has been mostly steady since June '22

Exhibit 14: Mobile IAP Bookings (3P Ests) Y/Y Growth, APP Top Games, Apr '21 - Mar '23

APP mobile IAP bookings (3P Ests) fell 19% in Mar, improved from Feb (-25% Y/Y)



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

BofA GLOBAL RESEARCH



Top games fell Y/Y except Cash Tornado, but declines moderating

- Excluding new launches (*Jackpot Master*, *Ace Defender*, *Bermuda Adventures Farm Island*), APP's top mobile titles have broadly declined in 2022, except *Cash Tornado*

- 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
- Cash Tornado growth seems to have plateaued, as the game has shown negative to low Y/Y growth consistently since July '22. Cash Tornado was +9% Y/Y in Mar

Exhibit 15: 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 Cash Tornado and new titles launched in 2021

Key

Y/Y Growth < 0%

-20%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

20%

Game	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	-25%	-30%	-30%	-30%	-31%	-32%	-32%	-29%	-26%	-28%	-25%	-19%	
Project Makeover	-39%	-45%	-46%	-48%	-51%	-45%	-40%	-35%	-32%	-36%	-34%	-30%	19%
Cash Tornado™ Slots - Casino	44%	30%	7%	-2%	-4%	1%	-5%	-1%	2%	-1%	-3%	9%	10%
Matchington Mansion	-41%	-46%	-42%	-40%	-45%	-48%	-41%	-33%	-29%	-24%	-19%	-17%	9%
Jackpot Master™ Slots-Casino				48179%	1961%	472%	180%	184%	116%	73%	70%	54%	7%
West Game	-31%	-24%	-32%	-23%	-25%	-33%	-27%	-30%	-24%	-22%	-24%	-21%	7%
Wordscapes	6%	3%	1%	6%	12%	-3%	-12%	-12%	-13%	-24%	-21%	-21%	6%
Clockmaker: Match 3 Games!	-24%	-29%	-31%	-32%	-42%	-44%	-44%	-41%	-38%	-38%	-36%	-30%	6%
Cooking Madness -A Chef's Game	41%	-2%	-5%	-9%	-19%	-32%	-29%	-23%	-21%	-33%	-36%	-29%	4%
Final Fantasy XV: A New Empire	-48%	-52%	-51%	-48%	-63%	-54%	-61%	-63%	-54%	-59%	-53%	-59%	2%
Game of War - Fire Age	-44%	-30%	-28%	-24%	-9%	3%	0%	-8%	-9%	1%	-12%	-5%	2%
Bermuda Adventures Farm Island	6789%	7982%	778%	232%	206%	103%	46%	28%	30%	4%	-12%	-18%	2%
Solitaire Cruise Tripeaks Game	-61%	-63%	-68%	-70%	-67%	-68%	-71%	-68%	-60%	-58%	-48%	-46%	2%
Mobile Strike	-50%	-37%	-37%	-34%	-26%	-17%	-21%	-26%	-28%	-17%	-30%	-12%	2%
Ace Defender: Dragon War	122%	47%	-7%	-8%	-8%	-56%	-72%	-70%	-68%	-61%	-63%	-65%	2%
Match 3D -Matching Puzzle Game	-67%	-70%	-62%	-55%	-49%	-53%	-54%	-51%	-53%	-54%	-46%	-40%	2%
Other Games	-33%	-40%	-34%	-40%	-38%	-37%	-36%	-35%	-33%	-31%	-27%	-11%	18%

* Jackpot Master, Ace Defender, 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 (Dec '19), 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* has 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 16: 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	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	30%	20%	10%	13%	10%	5%	8%	3%	11%	10%	1%	11%	
Project Makeover													19%
Cash Tornado™ Slots - Casino	2441%	2266%	2076%	2345%	2364%	2449%	2404%	2290%	2537%	2316%	2184%	2526%	10%
Matchington Mansion	-51%	-56%	-57%	-55%	-58%	-61%	-54%	-57%	-51%	-53%	-56%	-57%	9%
Jackpot Master™ Slots-Casino													7%
West Game	81%	84%	52%	73%	62%	45%	58%	38%	49%	54%	42%	51%	7%
Wordscapes	-8%	-15%	-22%	-15%	-7%	-13%	-10%	-20%	-12%	-12%	-27%	-22%	6%
Clockmaker: Match 3 Games!	3%	-6%	-18%	-13%	-20%	-28%	-23%	-29%	-22%	-24%	-31%	-25%	6%
Cooking Madness -A Chef's Game	202%	179%	168%	160%	162%	150%	153%	144%	160%	161%	118%	142%	4%
Final Fantasy XV: A New Empire	-72%	-76%	-79%	-80%	-83%	-84%	-86%	-85%	-83%	-85%	-86%	-86%	2%
Game of War - Fire Age	-53%	-51%	-55%	-54%	-54%	-51%	-55%	-53%	-53%	-48%	-56%	-58%	2%
Bermuda Adventures Farm Island													2%
Solitaire Cruise Tripeaks Game													2%
Mobile Strike	-57%	-55%	-58%	-60%	-57%	-59%	-58%	-60%	-61%	-57%	-64%	-62%	2%
Ace Defender: Dragon War													2%
Match 3D -Matching Puzzle Game													2%
Other Games	-17%	-23%	-29%	-34%	-35%	-38%	-38%	-41%	-38%	-39%	-40%	-25%	18%

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-pandemic are not available for Project Makeover, Jackpot Master, Solitaire Cruise, Ace Defender and Bermuda Adventures Farm Island as the games were launched after 2019

** Cash Tornado 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





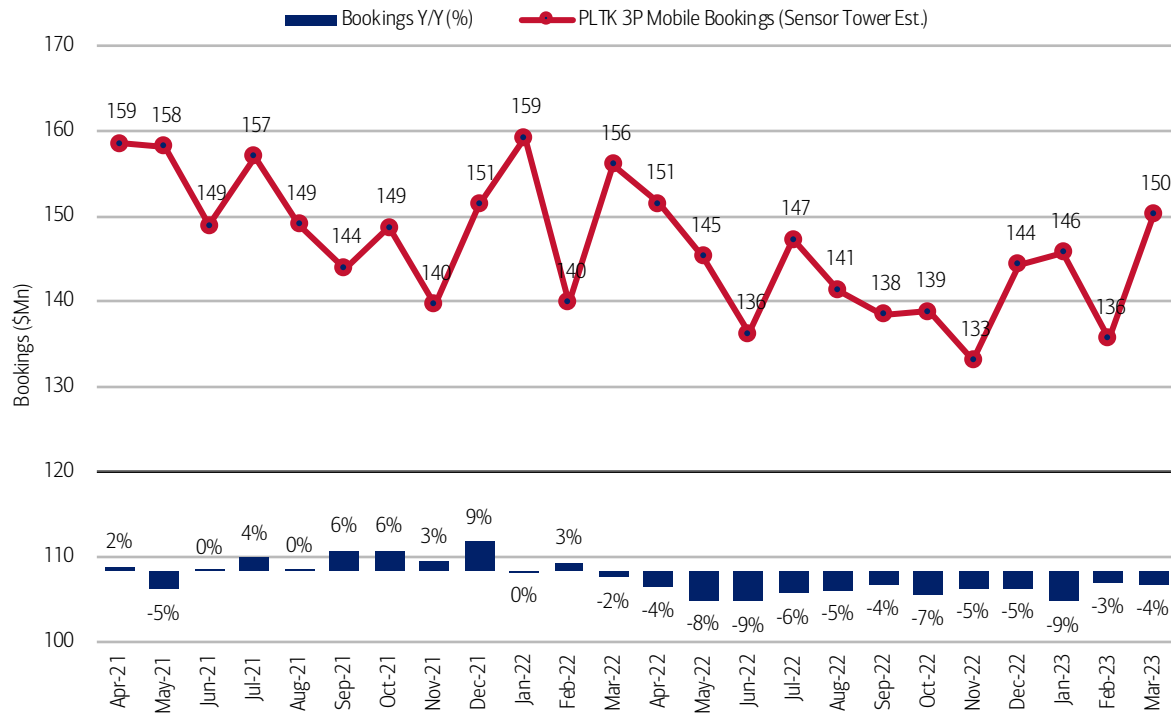
PLTK: 1CQ likely inline, DTC could drive modest upside

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

- 3P estimates of mobile IAP bookings -4% Y/Y in Mar (-5% Y/Y in 1CQ overall); average daily run rate has been consistently improving since November
- **1CQ consensus of -6% Y/Y is roughly in line with 3P tracking (-5% Y/Y in 1CQ)**
- Growth from PLTK's DTC platform, which our 3P data does not track, could be a source of upside to consensus, as bookings through the DTC channel have meaningfully outgrown bookings through 3P channels in the past

Exhibit 17: PLTK Mobile IAP Bookings (3P Ests), Apr '21 – Mar '23

PLTK mobile IAP bookings (3P Ests) fell 4% Y/Y in Mar, slightly decelerated from Feb (-3% 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*)
- Except *Slotomania*, which has shown some signs of stabilization as Y/Y comps ease, PLTK's Social Casino portfolio has not shown visible improvements
- June's Journey* continued to grow double-digits after two consecutive months of Y/Y decline
- 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, according to management

Exhibit 18: 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 March

Key

Y/Y Growth < 0%

-20%

Y/Y Growth = 0%

0%

Y/Y Growth > 0%

20%

Game	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	-4%	-8%	-9%	-6%	-5%	-4%	-7%	-5%	-5%	-9%	-3%	-4%	
Bingo Blitz	-1%	-2%	-2%	2%	10%	15%	21%	15%	19%	12%	10%	4%	21%
Slotomania	-13%	-19%	-26%	-14%	-22%	-15%	-14%	-11%	-3%	-9%	-12%	-8%	16%
Solitaire Grand Harvest	11%	4%	2%	8%	14%	23%	14%	17%	18%	24%	30%	26%	16%
June's Journey	57%	24%	54%	47%	22%	16%	-8%	11%	-2%	-20%	28%	14%	13%
WSOP	-8%	-5%	-8%	-3%	0%	-3%	-7%	-7%	-15%	-19%	-20%	-6%	8%
House of Fun	-35%	-29%	-34%	-36%	-28%	-30%	-24%	-12%	-12%	-6%	-13%	-9%	7%
Best Fiends	-5%	-9%	-14%	-17%	-14%	-19%	-21%	-23%	-21%	-25%	-25%	-25%	6%
Caesars Slots	-6%	-3%	-8%	-9%	-6%	-14%	-12%	-16%	-18%	-25%	-14%	-12%	5%
Other Games	-23%	-24%	-20%	-29%	-23%	-30%	-35%	-40%	-40%	-43%	-40%	-44%	8%

Source: Sensor Tower

BofA GLOBAL RESEARCH





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 19: 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	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	28%	23%	15%	25%	20%	17%	18%	13%	22%	23%	15%	27%	
Bingo Blitz	86%	89%	80%	99%	94%	92%	97%	85%	93%	101%	88%	108%	21%
Slotomania	-31%	-33%	-39%	-32%	-38%	-41%	-41%	-40%	-36%	-36%	-44%	-40%	16%
Solitaire Grand Harvest	130%	123%	112%	144%	144%	146%	152%	136%	169%	200%	185%	203%	16%
June's Journey	170%	127%	137%	144%	115%	152%	137%	124%	147%	120%	131%	189%	13%
WSOP	21%	17%	4%	15%	12%	5%	3%	4%	12%	11%	0%	17%	8%
House of Fun	-17%	-13%	-24%	-21%	-18%	-26%	-21%	-22%	-16%	-11%	-26%	-22%	7%
Best Fiends	17%	14%	5%	7%	2%	-7%	-2%	-6%	2%	0%	-7%	-1%	6%
Caesars Slots	27%	18%	12%	12%	19%	7%	7%	0%	9%	12%	1%	8%	5%
Other Games	37%	25%	11%	14%	10%	-2%	-6%	-15%	-8%	-16%	-20%	-11%	8%

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

Source: Sensor Tower

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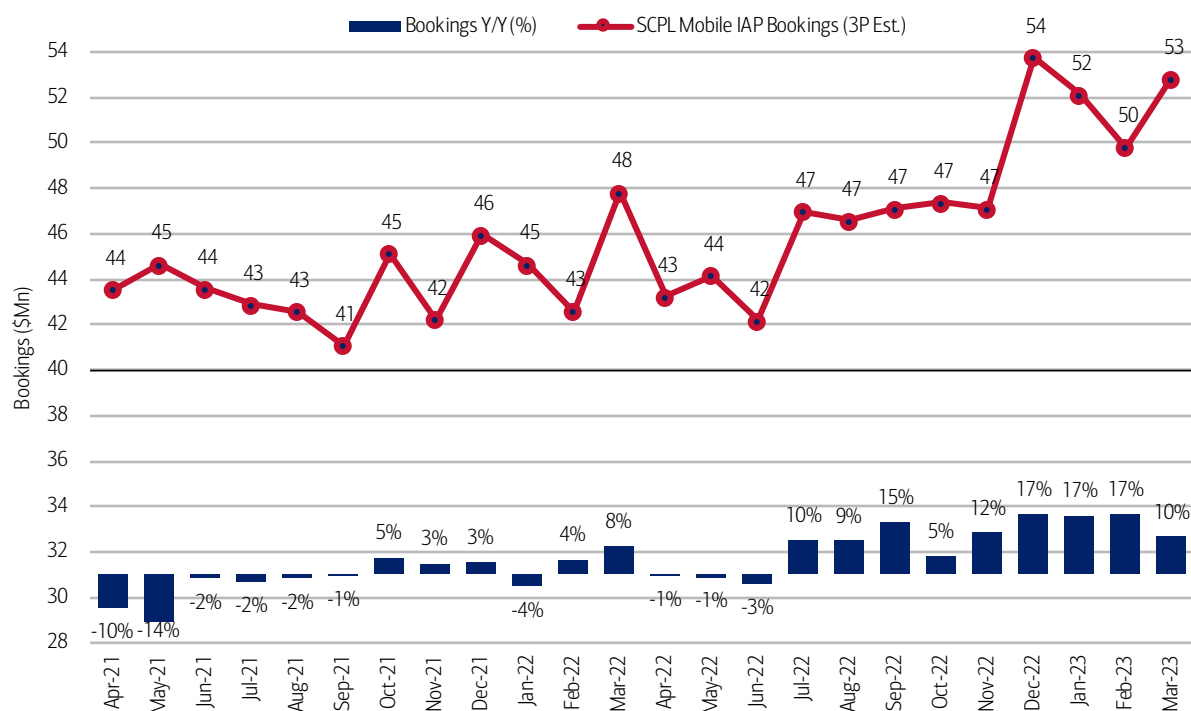
SCPL: 1CQ tracking above Street despite March decel

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

- 3P estimates of mobile IAP bookings were +10% Y/Y in Mar (+15% Y/Y in 1CQ overall), decelerated from Feb (+17% Y/Y)
- Monthly revenue run rate (3P ests) remained above \$50Mn (highest level in 2022)
- **Street's 1CQ ests de-risked as 3P bookings ests (+15% Y/Y) track above Street (+12% Y/Y).** Strong 1CQ seasonality is expected given majority of SCPL's '23 offline campaigns are taking place in 1CQ
- Across the top 3 games, Y/Y growth rates broadly improved from Jan except *Jackpot Party*
- SCPL's top 3 games (>80% of total bookings) all grew vs pre-COVID, with bookings estimates 50%-120% higher than in Dec 2019
- We think SCPL's high portfolio concentration and focus on user retention should reduce its dependency on mobile user acquisition, but increase its exposure to user monetization risks, particularly in a recession

Exhibit 20: SCPL Mobile IAP Bookings (3P Ests), Apr '22 – Mar '23

SCPL mobile IAP bookings (3P Ests) grew 10% Y/Y in Mar, decelerated from Feb (+17% Y/Y)



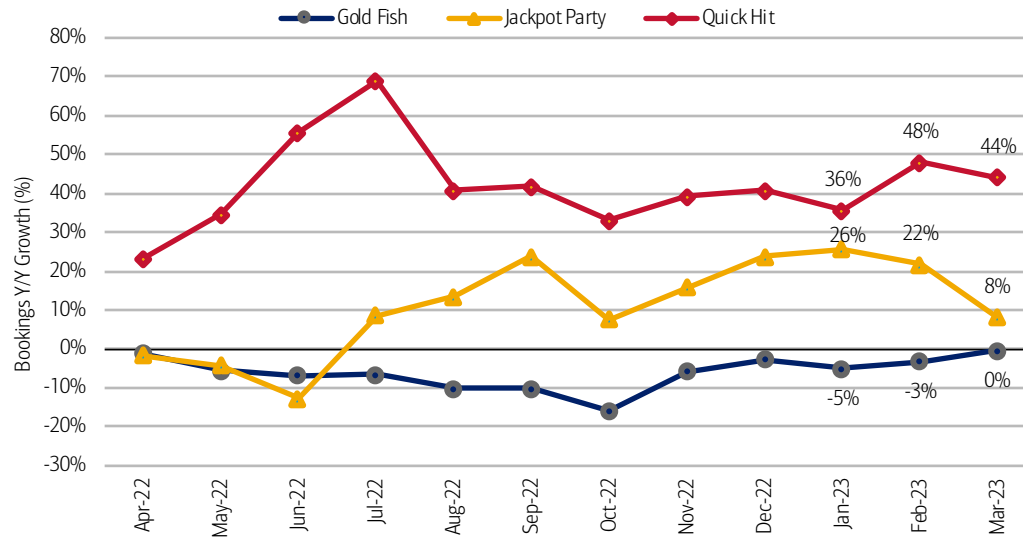
Source: Sensor Tower

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**Exhibit 21: Mobile Bookings (3P Ests.) Y/Y Growth by Game, 2022 - 2023**

Growth decelerated in Marvs Feb, except Gold Fish

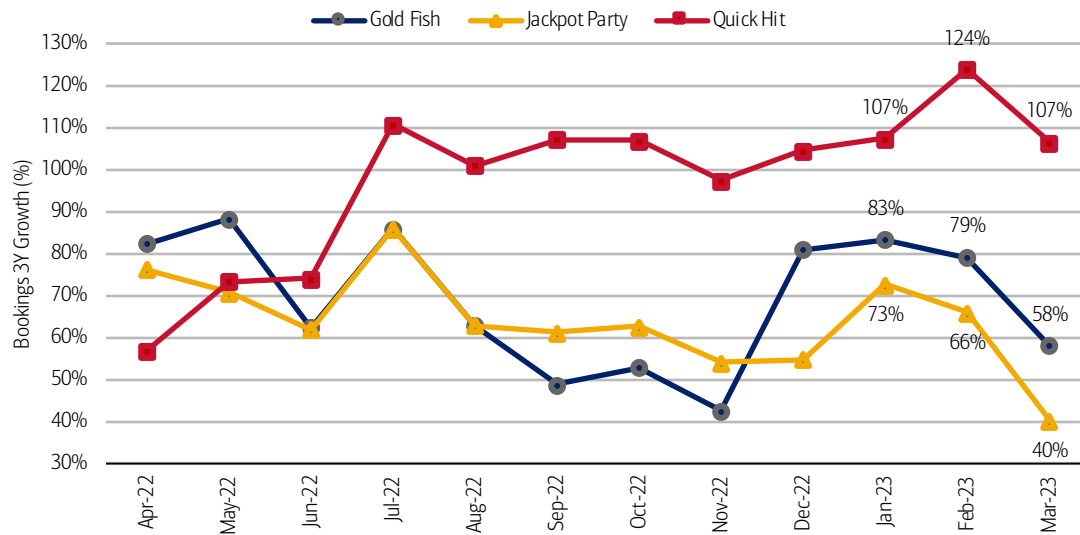


Source: Sensor Tower

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Exhibit 22: Mobile Bookings (3P Ests.) Growth by Game, Comparison vs Pre-COVID

SCPL's top 3 games all grew notably vs pre-COVID, with 3P bookings estimates 50%-120% higher than in 2019



Source: Sensor Tower

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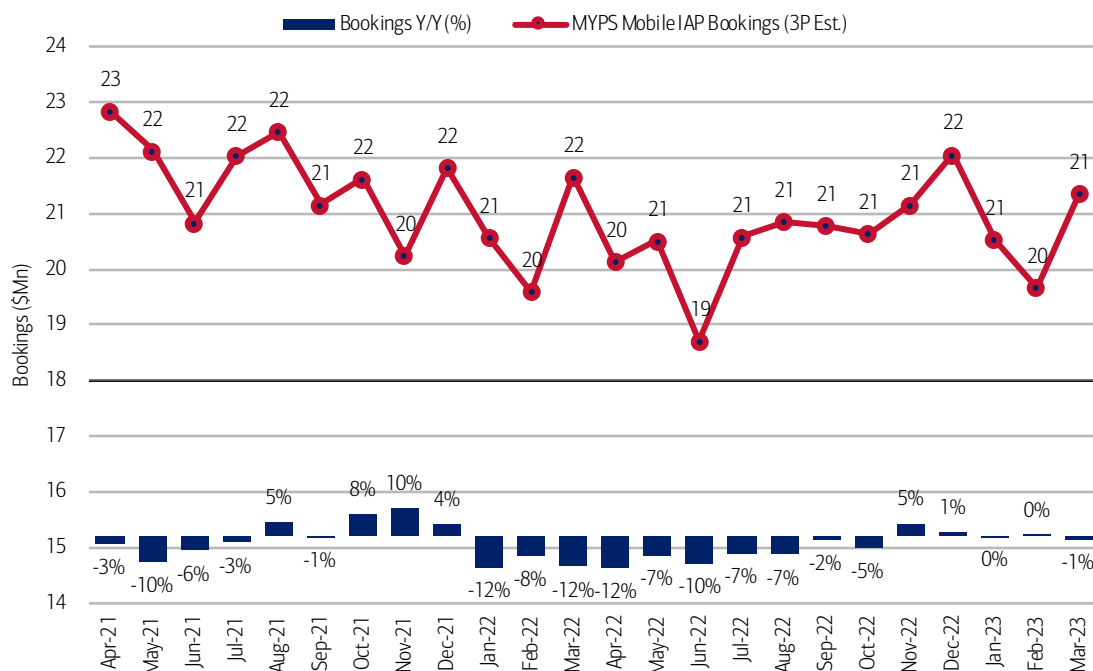
MYPS: Bookings flat Y/Y, in line with Street 1CQ expectations

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

- 3P estimates of mobile IAP bookings -1% Y/Y in Mar (flat Y/Y in 1CQ overall). Average daily run rate broadly stable since 3Q22
- **Street 1CQ growth expectations of -1% Y/Y largely de-risked, as 3P ests track inline**
- But *myVEGAS Slots* and *myKONAMI Slots* have declined Y/Y in Feb, *POP! Slots* the only major title that grew Y/Y in the month
- *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 23: MYPS Mobile IAP Bookings (3P Ests), Mar '21 – Feb '23

MYPS mobile IAP bookings (3P Ests) grew -1% Y/Y in Feb vs flat in Jan



Source: Sensor Tower

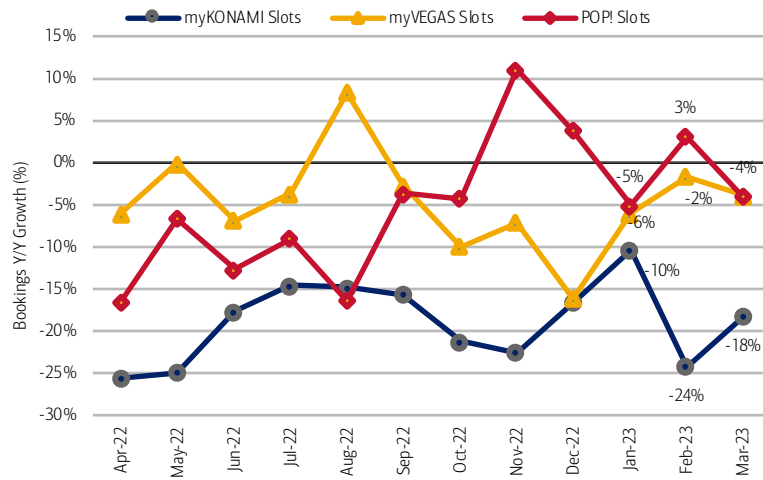
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Exhibit 24: Mobile Bookings (3P Ests.) Y/Y Growth by Game, Mar '22 - Feb '23

Growth in overall bookings was mostly driven by smaller/new games, as top 3 games have all declined Y/Y

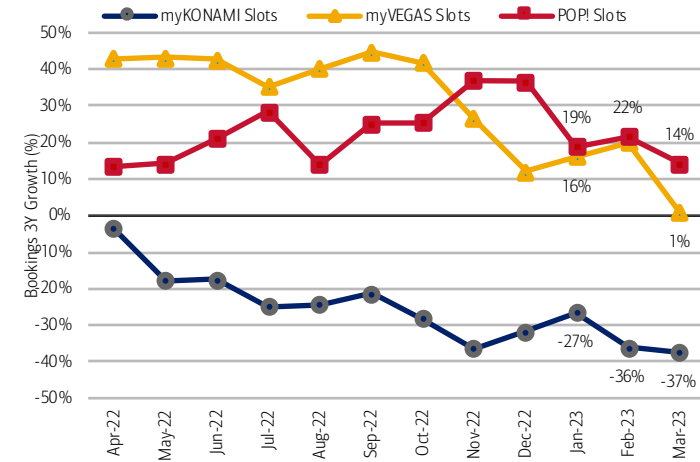


Source: Sensor Tower

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Exhibit 25: 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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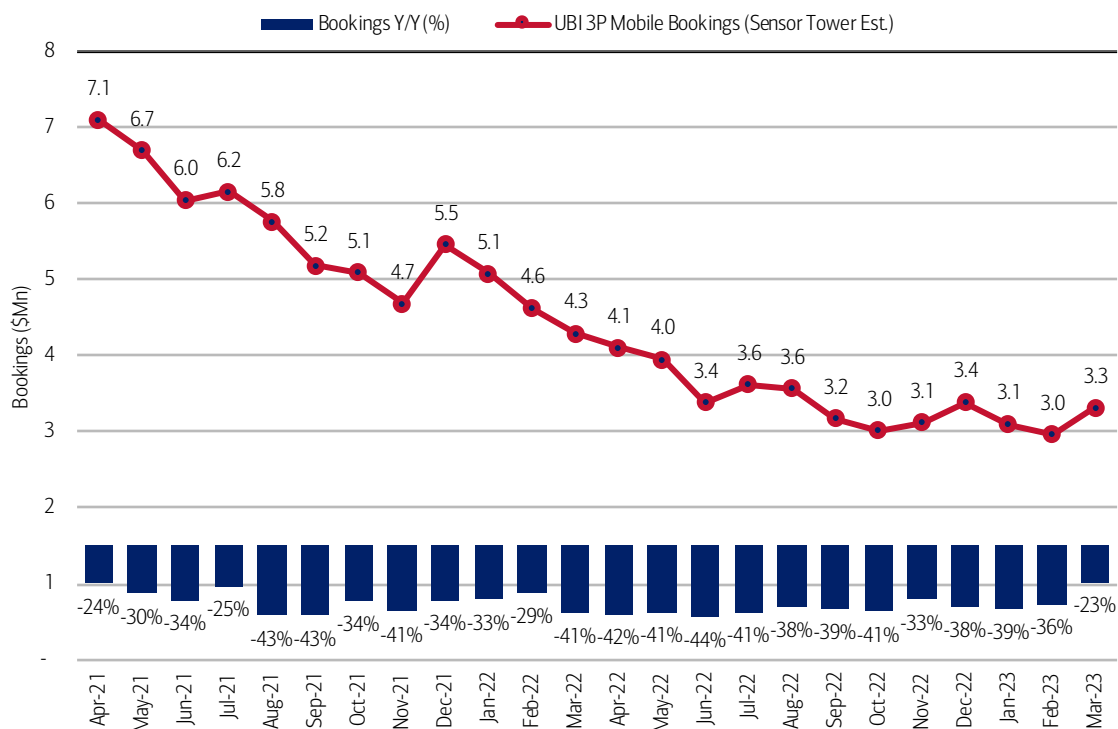
UBI: Declines still steep in Mar, but run rates stable

Per our tracking of 150+ mobile games from UBI:

- 3P estimates of mobile IAP bookings were -23% Y/Y like-for-like in Mar (-33% Y/Y in 1CQ overall); Sequentially, monthly revenue run rates have been mostly stable since August 2022
- Declines are seen across the portfolio with bookings 20-60% lower Y/Y. When compared to the pre-COVID period (Dec '19), almost all games have declined (except *Just Dance Now*), a sign of secular deterioration

Exhibit 26: UBI Mobile IAP Bookings (3P Ests), Apr '21 – Mar '23

UBI mobile IAP bookings (3P Ests) fell 23% Y/Y in Mar, monthly run rates have been sequentially stable since Aug '22



Source: Sensor Tower

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Exhibit 27: 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	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	-42%	-41%	-44%	-41%	-38%	-39%	-41%	-33%	-38%	-39%	-36%	-23%	
Might & Magic: Era of Chaos	-48%	-36%	-43%	-34%	-33%	-44%	-46%	-28%	-36%	-46%	-35%	-22%	21%
Hungry Shark World	-13%	-25%	-43%	-43%	-32%	-21%	-37%	-38%	-34%	-35%	-37%	-29%	14%
Growtopia	-31%	-20%	-21%	-24%	-13%	-29%	-28%	-33%	-44%	-40%	-21%	-23%	11%
Hungry Shark Evolution	-32%	-27%	-26%	-26%	-12%	-8%	-19%	-20%	-11%	-15%	-27%	-27%	11%
South Park: Phone Destroyer™	-33%	-43%	-44%	-46%	-48%	-55%	-56%	-40%	-59%	-46%	-24%	56%	9%
Just Dance Now	-52%	-48%	-39%	-40%	-34%	-28%	-27%	-21%	-18%	-19%	-8%	-10%	8%
Brawlhalla	-33%	-36%	-40%	-28%	-43%	-44%	-40%	-39%	-46%	-50%	-53%	-53%	4%
Assassin's Creed Rebellion	-25%	-25%	-6%	-18%	-8%	1%	-23%	6%	-20%	-13%	-29%	-14%	3%
Is it Love? Stories - Roleplay	-51%	-61%	-54%	-60%	-66%	-62%	-67%	-61%	-60%	-60%	-66%	-58%	3%
Other Games	-58%	-58%	-61%	-57%	-56%	-51%	-46%	-41%	-40%	-45%	-54%	-41%	17%

Source: Sensor Tower

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Exhibit 28: 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	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	% of Total Bookings (LTM)
Consolidated	-50%	-52%	-59%	-56%	-57%	-61%	-63%	-62%	-59%	-62%	-64%	-60%	
Might & Magic: Era of Chaos	-60%	-55%	-65%	-62%	-61%	-65%	-69%	-60%	-62%	-71%	-73%	-69%	21%
Hungry Shark World	20%	5%	-14%	3%	7%	-13%	-28%	-33%	-26%	-27%	-33%	-17%	14%
Growtopia	-52%	-52%	-59%	-51%	-53%	-63%	-47%	-56%	-36%	-52%	-37%	-60%	11%
Hungry Shark Evolution	12%	9%	8%	18%	10%	-2%	-18%	-21%	-14%	-3%	-20%	-8%	11%
South Park: Phone Destroyer™	-53%	-58%	-67%	-68%	-69%	-74%	-75%	-70%	-75%	-70%	-64%	-34%	9%
Just Dance Now	23%	14%	9%	9%	1%	-6%	-4%	0%	24%	29%	9%	12%	8%
Brawlhalla													4%
Assassin's Creed Rebellion	-72%	-70%	-72%	-73%	-72%	-67%	-71%	-66%	-70%	-73%	-75%	-75%	3%
Is it Love? Stories - Roleplay													3%
Other Games	-76%	-77%	-81%	-80%	-82%	-82%	-83%	-84%	-81%	-83%	-86%	-84%	17%

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 period are not available for Brawlhalla and Is it Love, as the games were launched after 2019

Source: Sensor Tower

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
Buy	≥ 10%	≤ 70%
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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