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## Global Video Games

# Stars aligning heading into 2023

While 2022 has been a challenging year for the video game industry, we see 2023 setting up to be a favorable year as publishers push out a larger slate of new titles on a significantly higher installed base for next-gen consoles. Valuations at 7-year lows further support our positive outlook.



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# Stars aligning heading into 2023

**2022 has been a tough year but 2023 is looking brighter for the video game industry:** A high base from "shelter-at-home", post-COVID reopening, and delays to key titles have all resulted in 2022 being a tough year for publishers. As a result, global gaming stocks have underperformed key indices year-to-date, even though the sector lagged in 2021 as well. That said, we see 2023 shaping up to be an inflection year based on the following four key reasons.

## INDUSTRY VIEW

**S. Korea  
Telecoms, Media  
& Internet | Asia  
Pacific**  
In-Line

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## INDUSTRY VIEW

**China Internet and  
Other Services |  
Asia Pacific**  
In-Line

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## INDUSTRY VIEW

**Consumer  
Electronics |  
Japan**  
In-Line

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## INDUSTRY VIEW

**Internet | North  
America**  
In-Line

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## INDUSTRY VIEW

**Media &  
Entertainment |  
Europe**  
In-Line

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- **Game pipeline:** 2022 saw multiple flagship titles being delayed as a result of development issues, content modifications, and decisions to wait for the console installed base to improve. With progress on some of these issues, the content slate looks richer for 2023, which should support stronger growth heading into Christmas 2022 and next year.
- **Installed base for next-gen consoles:** As supply chain issues free up, we forecast PS5 sell-in to improve to 18 million by the end of the fiscal year ending March 2023, expanding the installed base to 27 million. The higher penetration of next-gen consoles should bring more triple A titles, which in-turn should lead to more players purchasing new titles.
- **Regulatory environment in China:** With the impact from restrictions on minors expected to normalize from September 2022, and game license approvals resuming and gaining steam, we forecast China's online game market to show a gradual recovery heading into 2023. While recognizing that visibility is low, we are cautiously optimistic the sector is bottoming out and new content can driver higher growth.

**Defensive business models trading at trough multiples:** Video games have proven to sell well during downturns, which we believe merits investors' attention given the current uncertain economic outlook. Valuations also look attractive with the average 12-month forward P/E ratio for the nine core publisher stocks trading at 16.5x, two standard deviations below the 7-year average of 20x. On EV/EBITDA basis this stands at 9.5x, which is at 5-year lows, and one standard deviation below its 5-year average.

**Our preferred picks are Ubisoft, Take-Two, Nexon, Netease and Nintendo:** We have screened our coverage universe for stocks with a robust game slate, exposure to next-gen consoles, beneficiaries of China's easing regulations, and valuations that look attractive in an historical context. From here, we apply our preference for stocks with well established IP portfolios and creative development teams to select Ubisoft, Take-Two, Nexon, and Netease among the pure play publishers. While Nintendo is not a pure play publisher, it is a pure play gaming name, and we see its F3/24 lineup being more powerful than expected, which combined with a growing installed base for Switch, should support strong earnings growth until at least F3/24.

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# I. Executive Summary

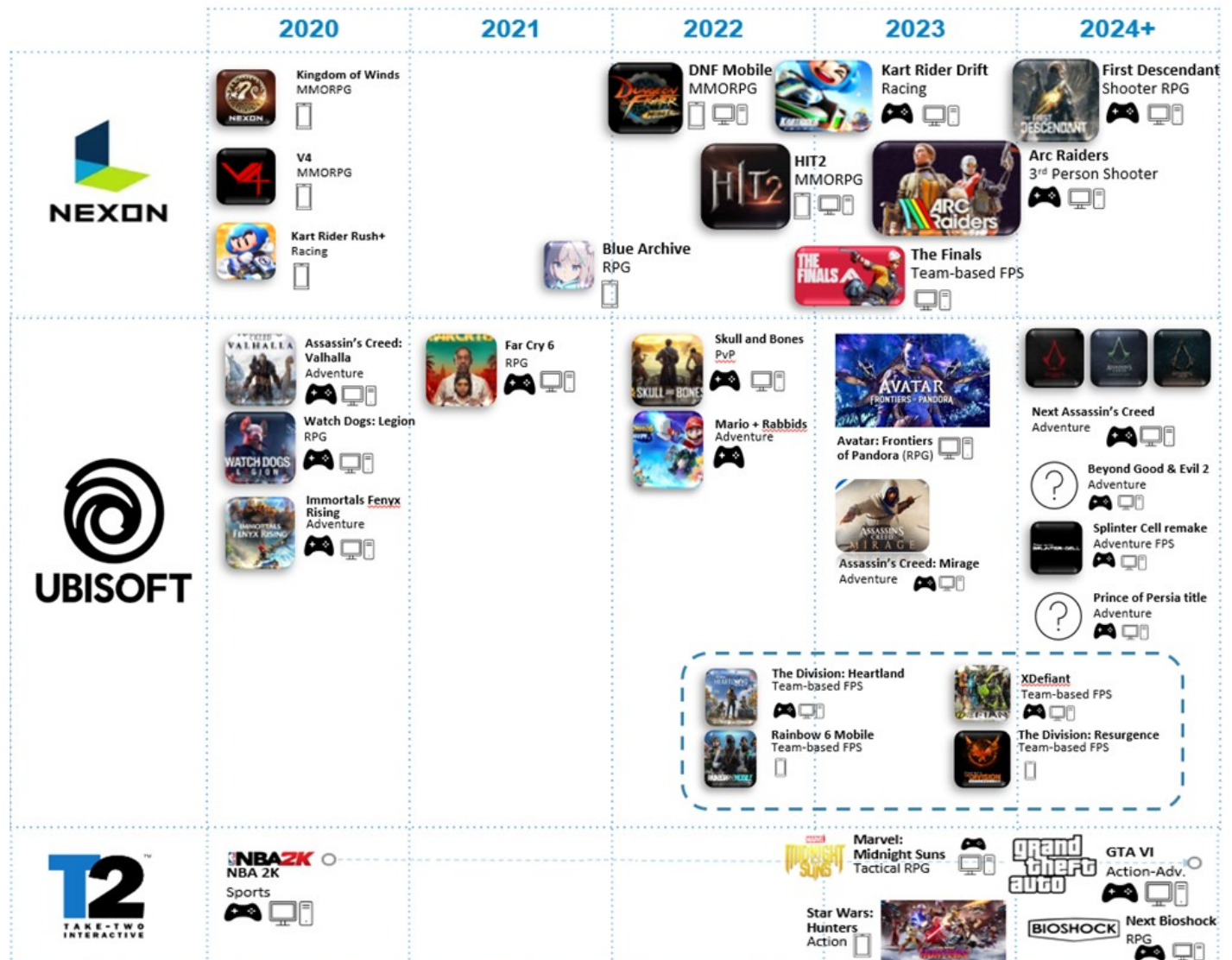
## Four reasons we see 2023 as an inflection year for video game stocks

2022 has so far played out to be a challenging year for the video game industry as headwinds from "reopening", tough year-on-year comps, supply chain issues for next generation consoles, and delays to key development projects have made it difficult for investors to take a constructive view. That said, we believe 2023 is setting up to be an inflection year, as we identify four key drivers which we see supporting a recovery.

## I. Robust game pipeline

The large number of delays to flagship titles in 2022 should lead to a much more robust game pipeline in 2023, with major publishers guiding for a richer slate next year. Development teams have been optimizing business processes to improve efficiency while titles that were strategically pushed back are now looking more likely to launch in 2023. We see an abundance of quality content as the single most important factor behind our expectations for a strong market recovery heading into the upcoming Christmas season.

**Exhibit 1:** Game pipeline for Nexon, Ubisoft and Take-Two: we see a much more robust game slate for 2023



Source: Company data, Morgan Stanley Research

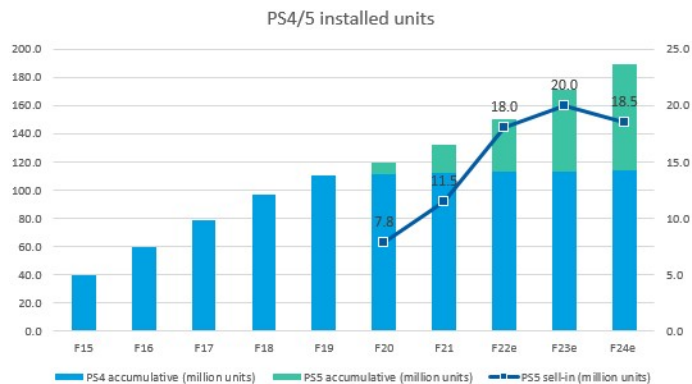
## II. Higher installed base for next-gen consoles

Sell-in for PS5 is showing a visible recovery as supply chain issues are being resolved, leading to a higher base of next generation consoles. We expect PS5 sell-in to reach 18mn units/year by end-Mar 2023 for a total cumulative 27.3mn units, implying a penetration rate of 25% of PS4's monthly active users. We see this leading to publishers rolling out new titles, which were strategically delayed, and accelerating the roll-out for future titles as they aim to ride the console up-cycle.

## III. Improving regulatory environment in China

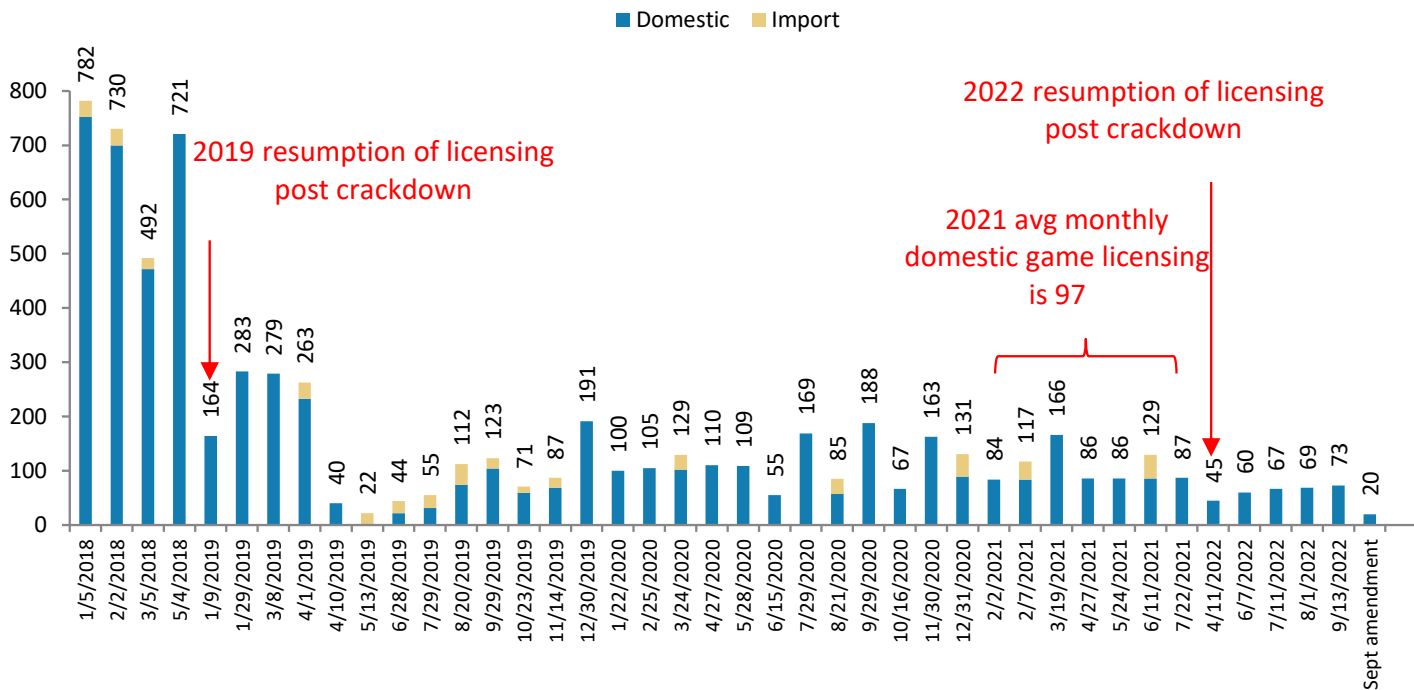
We see the impact of regulatory measures in China waning, and gradually recovering as the impact from restrictions on minors normalizes from September 2022 onwards and more licenses get approved. NPPA resumed game licenses in April 2022, with both Tencent and NetEase receiving licenses in September, which comes as a clear boost to sentiment, and while visibility remains low we see these as initial signs the regulatory environment has turned the corner.

**Exhibit 2:** Supply for PS5 has improved visibly which should lead to publishers coming out with more titles to ride the console up-cycle



Source: Company Disclosure, Morgan Stanley Research, e=Morgan Stanley Research estimate

**Exhibit 3:** China monthly game license approvals: resumption of approvals this April came as a positive signal

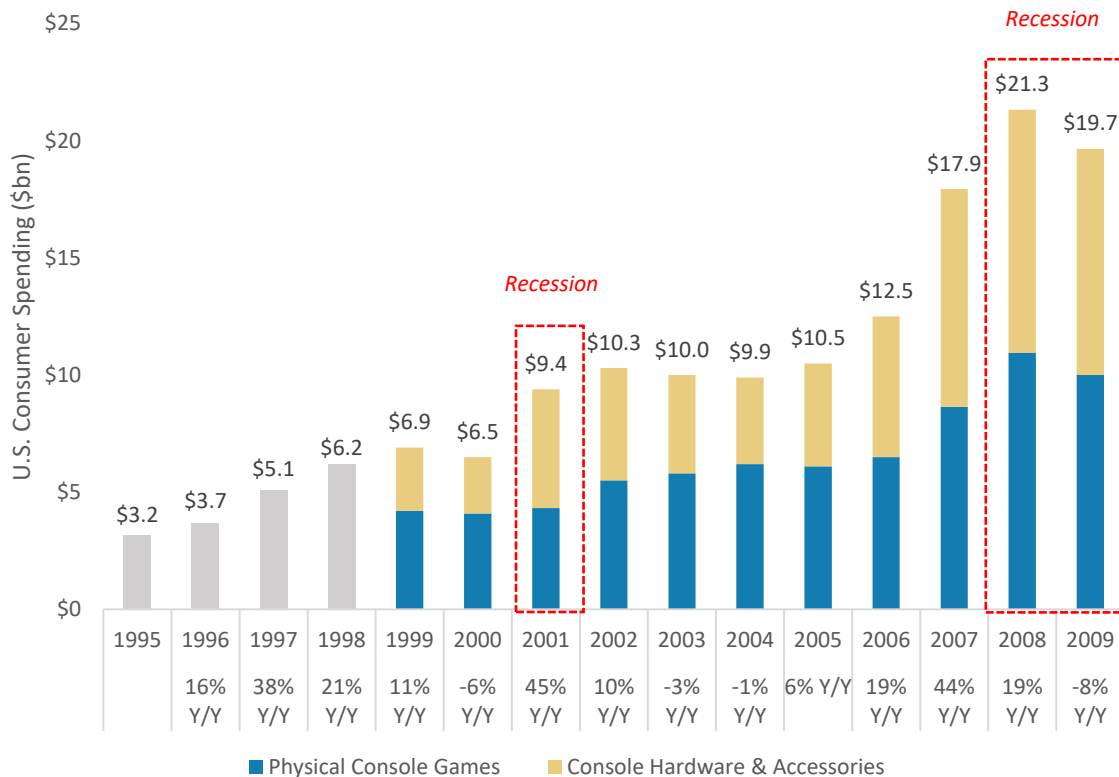


Source: NPPA, Morgan Stanley Research

### IV. Recession resilient businesses trading at multi-year lows

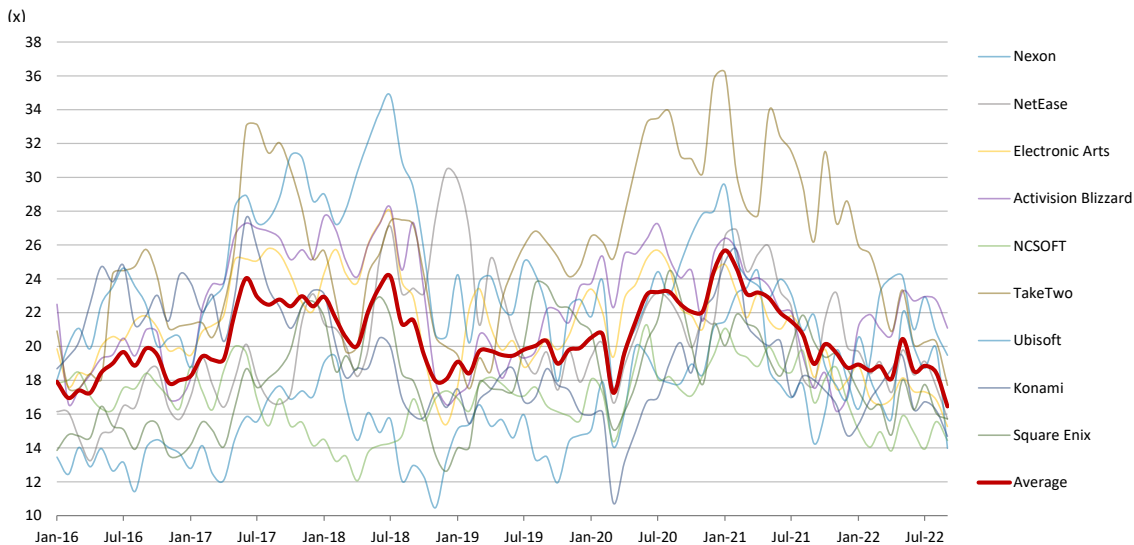
Global video game stocks have gone through a consistent downward trend in valuations since peaking in early '21 with the average multiple for publishers in our coverage trading near 7-year lows on forward P/E and 5-year lows on EV/EBITDA. In particular, we note that video game sales have proven to be resilient to economic down-cycles and hence see a clear opportunity for investors to accumulate preemptively in a sector that is offering attractive valuations while catalysts are starting to align.

**Exhibit 4:** US consumer spending on games has historically done well during previous recessions



Source: NPD, Morgan Stanley Research

**Exhibit 5:** Forward 12-month P/E ratios for global publishers: valuations at 16.5x are at a 7-year low



Source: DataStream, Morgan Stanley Research

## Our key concerns

### Slowing mobile market

The strong growth from mobile, which led overall industry growth for the past decade is clearly showing signs of slowing. While some factors behind this are transitional (high base, strong US dollar, slow game slate), from a top down view, penetration of mobile games is starting to reach saturation, particularly for markets such as the US, Japan, Korea, and China. This implies that spend per gamer will need to be an important driver for growth, which is why we are emphasizing content quality.

### Publishers overly relying on proven content

A related concern on the topic of content is creativity, as publishers have shown an increasing tendency to rely on proven content while investing less in new genres. While this does imply better earnings visibility it also works against market growth as new innovative content is what brings new players to the gaming world. We are taking a constructive view that the enlarged game slate in 2023 can demonstrate that creativity is still flourishing in the gaming world, but should this fall short we could see downside to our longer-term industry growth outlook.

### Short form video emerging as a potential threat

Short form video platforms have been gaining user time share at the expense of other online entertainment formats, particularly in China. While we are of the view that the video games industry has always been driven by the quality of titles rather than quantity, we do think short form video could be a risk to more casual genres.

## Our preferred picks

- **Nexon (3659.T; OW: PT ¥3,300):** Nexon offers the best of stability with its existing IP and new content in the pipeline to keep investors excited. The company's industry leading "game ops" capability has been well demonstrated via titles

such as DNF, MapleStory and FIFA, while the pipeline is looking strong, led by "Kartrider Drift" and new titles from Embark Studios. We believe Nexon's re-rating story still has legs, with new titles targeting a global audience and valuations at an undemanding 20x P/E based on our 2023 estimates.

- **Netease (NTES; OW: PT US\$110):** We see NetEase as one of the most defensive names in China with a well diversified game portfolio driving strong FCF and capital returns and a key beneficiary of an improving regulatory environment in China. We forecast revenue CAGR of 10% for 2022-24e, led by titles including Harry Potter in 2H22, and Naraka Bladepoint mobile and Justice mobile (subject to license approval) in 2H23. The stock is trading at 17x 2023e P/E (core 13x ex-cash), which we see as attractive.
- **Ubisoft (UBI; OW: PT €57):** After five years of heavy investment, we expect Ubisoft's burgeoning game slate of AAA, F2P and mobile content to deliver double digit annual top line and 2x EBIT growth in the next two years. Key titles driving this will be Avatar: Frontiers of Pandora, Assassin's Creed Mirage and Rainbow Six Mobile due in FY'24. Investor expectations are low and this has pushed valuation down to a multi-year low 13x calendarized 2023 P/E (9x 2024), which we see offering an attractive opportunity for longer term investors.
- **Take-Two (TTWO; OW: PT US\$190):** We believe Take-Two's core PC/console franchises is set to drive a multi-year earnings growth story, which we believe the market has not priced in. GTA VI is well under way, and we see contributions from NBA 2K and the next iteration of Bioshock contributing to a step up in bookings. The stock is trading at ~12x our FY24 EPS, a ~25% (3 turn) discount to its closest peer, despite industry-leading track record of success and strong pipeline.
- **Nintendo (7974.T, OW, PT PT ¥73,000):** We see Nintendo's F3/24 game lineup being more powerful than expected, which combined with a growing installed base for Switch, should support strong earnings growth until at least F3/24. The strong start for Splatoon 3 boosts our conviction of profit growth in F3/23, and upcoming flagship titles in F3/24 including the next Zelda title (Tears of the Kingdom) keep us constructive.



**Exhibit 6:** We have screened for stocks that: 1) have strong game slates; 2) exposure to next-gen consoles; 3) are beneficiaries of easing regulatory environment in China; and 4) are trading at trough valuations

	Game pipeline	Next-gen console exposure	China regulatory easing	Valuations
<b>Korea</b>				
Nexon	●	◐	◐	◐
NCSOFT	◐	○	○	◐
DoubleU Games	○	○	○	●
Pearl Abyss	●	◐	○	○
Netmarble Games	○	○	◐	○
Krafton	◐	○	◐	●
<b>Japan</b>				
Nintendo	●	◐	○	◐
Square Enix	●	◐	○	◐
Konami Corporation	◐	◐	○	●
<b>China</b>				
Netease	●	◐	●	◐
Perfect World	●	○	●	●
37 Interactive Entertainment	●	○	●	◐
G-bits Network Technology	○	○	◐	◐
<b>ASEAN</b>				
SEA	●	◐	○	◐
<b>US</b>				
Take-Two Interactive	●	●	○	●
Electronic Arts	◐	●	○	◐
Activision Blizzard	●	●	◐	◐
<b>Europe</b>				
Ubisoft	●	●	○	●
CD Projekt	◐	●	○	◐

Source: Morgan Stanley Research

## II. Four key reasons we see 2023 being an inflection year

### 1. Content pipeline looking much more robust

While 2022 did produce blockbuster hits such as Elden Ring (developed by FromSoft, published by Bandai Namco Entertainment), and some very creative titles such as Stray (published by Anna Purna Interactive where one plays a real life looking cat in a walled city populated by robots), the overall game slate has been on the weaker side with multiple flagship titles having seen delays. For some cases, the delay has been strategic in nature: coming from a change in development direction, addition of new content, or adjusting the launch timing to match the supply cycle for next generation consoles. For others, it's been production issues with the majority of publishers citing work-from-home significantly slowing down the game development process.

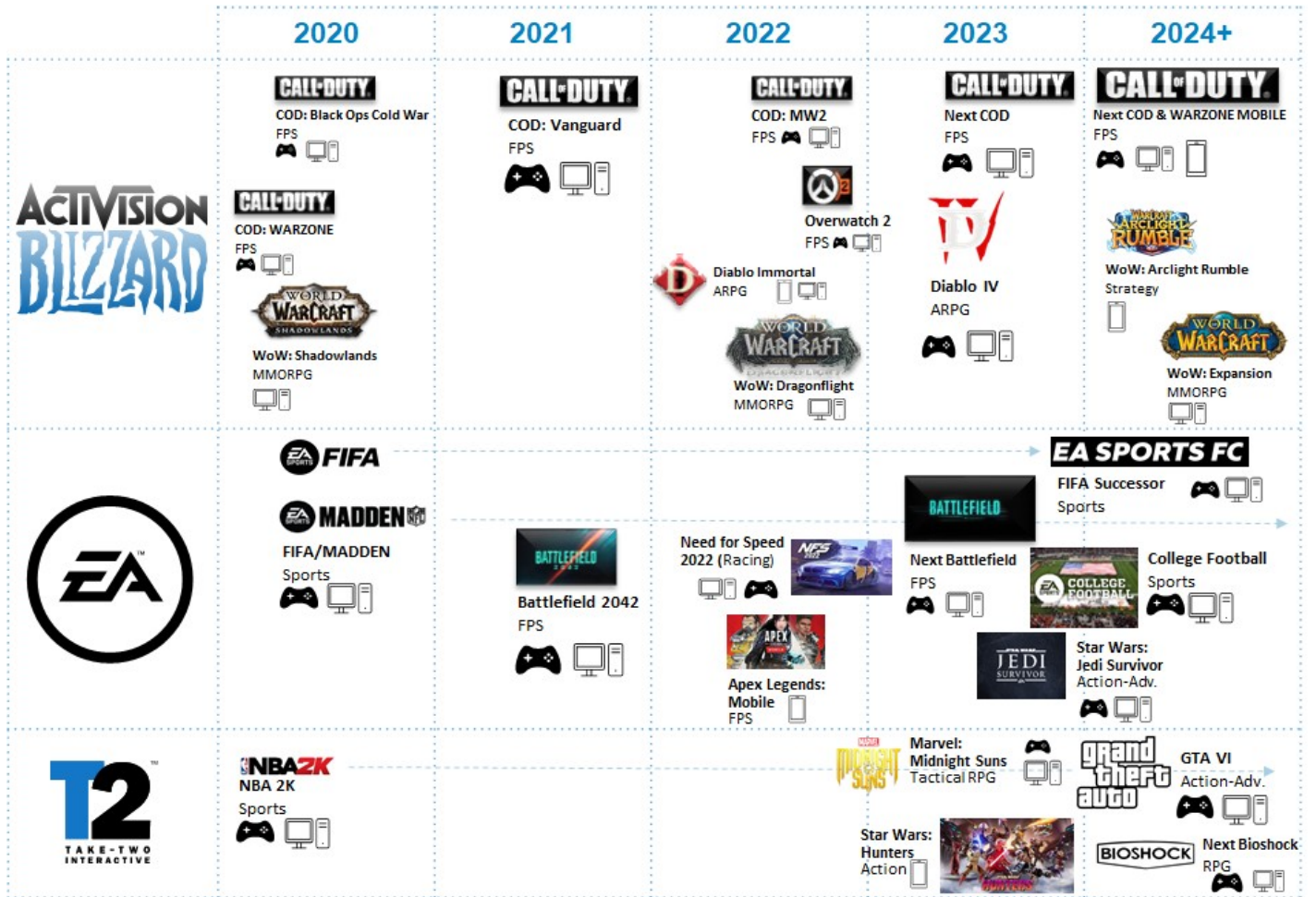
Some key titles that have been pushed out to 2023 include:

- **US:** Jedi: Survivor (EA), Diablo IV (Activision Blizzard)
- **Europe:** Avatar: Frontiers of Pandora, Assassin's Creed Mirage (Ubisoft)
- **Korea:** Throne & Liberty (NCSOFT), ARC Raiders (Nexon), Crimson Desert (Pearl Abyss)
- **Japan:** Final Fantasy 16, Final Fantasy 7 Rebirth (Square Enix)
- **China:** Harry Potter: Magic Awakened international, Justice mobile, Naraka Bladepoint mobile, Where Winds Meet by NetEase; DNF mobile, Avatar: Reckoning by Tencent

We acknowledge that game delays are not uncommon for publishers, and a game coming out on time and on budget tends not to be the norm. That said, as one can see below from [Exhibit 7](#) to [Exhibit 11](#), 2022 is looking particularly light on new titles.

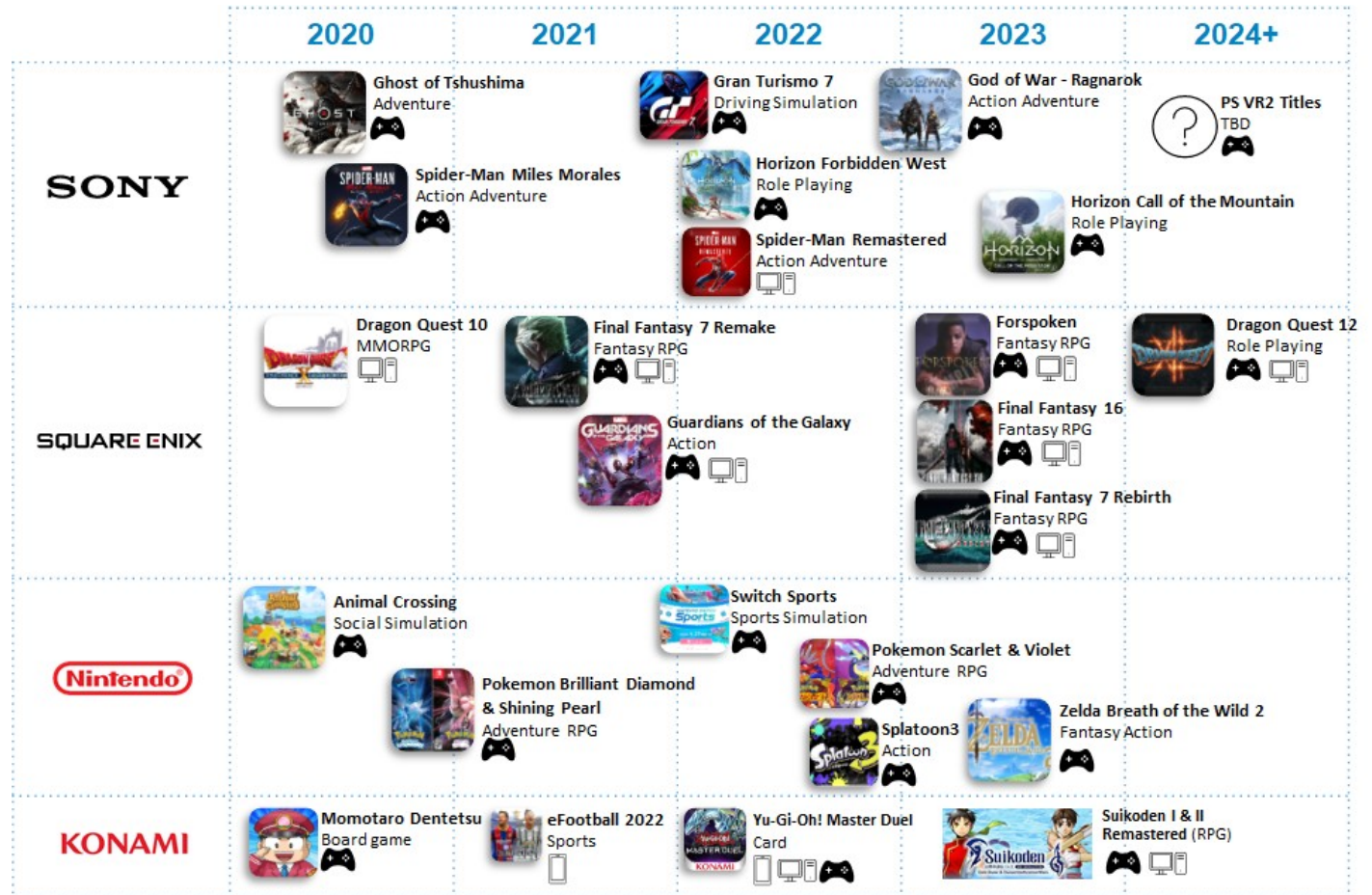
Fortunately, development teams are seeing better productivity as teams move back to 'work from office', and have been optimizing hybrid work models. Some of the titles that were strategically pushed back are looking more likely to launch in 2023, given the improving installed base for next-gen consoles (which we explain in more detail below), and publishers are in a position to deliver on growth. As a result, we see a much richer pipeline for 2023, on a lowered base, which we see supporting a strong market recovery. We remind investors that content is a key driver to market growth, especially for more mature markets, and publishers including Take-Two, Ubisoft, NCSOFT and Square Enix are clearly guiding for a more robust game slate for 2023.

Exhibit 7: Game launch history and upcoming pipeline (flagship titles only): US



Source: Company data, Morgan Stanley Research estimates

Exhibit 8: Game launch history and upcoming pipeline (flagship titles only): Japan



Source: Company data, Morgan Stanley Research estimates



Exhibit 9: Game launch history and upcoming pipeline (flagship titles only): Korea



Source: Company data, Morgan Stanley Research estimates







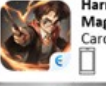

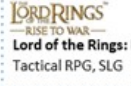














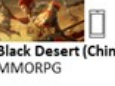






Exhibit 10: Game launch history and upcoming pipeline (flagship titles only): Europe



Source: Company data, Morgan Stanley Research estimates

Exhibit 11: Game launch history and upcoming pipeline (flagship titles only): China

	2020	2021	2022	2023	2024+
	 <p><b>EVE Echoes</b> SpaceShip MMORPG</p>	 <p><b>Naraka Blade Point</b> Action Battle Royale</p>  <p><b>Harry Potter: Magic Awakened (China)</b> Card based MMO</p>  <p><b>Yu-Gi-Oh! Duel Links (China)</b> Card</p>	 <p><b>Diablo Immortal (Global + China)</b> MMORPG</p>  <p><b>Harry Potter: Magic Awakened (Asia)</b> Card based MMO</p>  <p><b>Naraka Blade Point</b> Action Battle Royale</p>  <p><b>Lord of the Rings: Rise to War</b> Tactical RPG, SLG</p>	 <p><b>Naraka Blade Point Mobile</b> Action Battle Royale</p>  <p><b>Justice Online</b> MMORPG</p>	 <p><b>TBD game from GamesGrasshopper Manufacture (Japan)</b></p>  <p><b>TBD game from Quantic Dream</b></p>
	 <p><b>Moonlight Blade Mobile</b> MMORPG</p>  <p><b>Call of Duty Mobile (China)</b> FPS</p>  <p><b>League of Legends: Wild Rift (Overseas)</b> MOBA</p>  <p><b>Valorant PC (Overseas)</b> FPS</p>	 <p><b>The Battle of Golden Spatula</b> Strategy</p>  <p><b>League of Legends: Wild Rift (China)</b> MOBA</p>  <p><b>Pokémon UNITE</b> MOBA</p>	 <p><b>Arena Breakout</b> FPS</p>  <p><b>Return to the Empire</b> SLG</p>  <p><b>Black Desert (China)</b> MMORPG</p>	 <p><b>Tom Clancy's The Division 2</b> FPS</p>  <p><b>Avatar: Reckoning</b> MMORPG</p>  <p><b>Undawn</b> Open-world RPG</p>	 <p><b>TBD cloud gaming from Logitech collab</b></p>

Source: Company data, Morgan Stanley Research estimates

## 2. Easing supply chain issues to drive higher installed base for next-gen consoles

**PS5 sell-in showing visible recovery as supply issues are being resolved:** We expect PS5 sell-in to reach 18mn units/year by end-Mar 2023 for a total cumulative 27.3mn units sold since Nov 2020. We also estimate F3/24 sell-in to reach 20mn units (Sony appears to be aiming for over 22mn units), which would mark a record-high for annual sell-in volume for the PlayStation era. Many third-party publishers had been initially looking to launch PS5-exclusive titles (no compatibility with PS4) in F3/23, but it seems evident that shipments have been pushed back to F3/24 owing to the slow penetration of the PS5 console amidst the global supply chain disruptions. We hence expect new title launches to accelerate going into 2023.

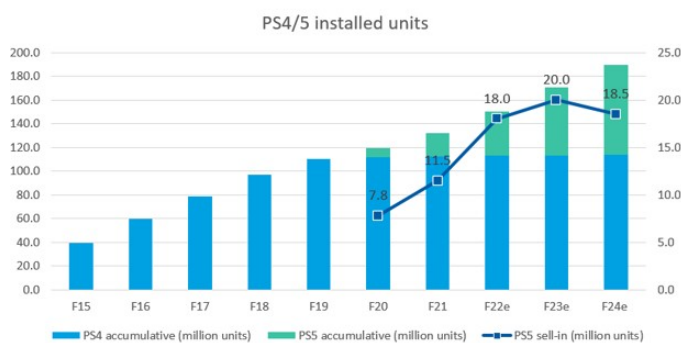
**PS5-exclusive titles to roll out in force from 2023:** Cumulative PS4 hardware sales volume at end-F3/22 was 117mn units. This implies that even if PS5 installed base reaches 37mn by end-F3/24, this would only represent 32% penetration. While PS4 cumulative sales volume may include a second PS4 console ownership by the same user, Sony’s disclosed MAU figure as of Jun 2022 was 102mn users, and so the math says that 65mn of those users could potentially be PS5 buyers. As users tend to purchase a fair amount of software

when buying their new consoles, as the supply shortages ease ahead, we should also expect robust sales contribution from PS5-exclusive titles. For game publishers, the ramp-up of PS5-exclusive title launches is still in the early stages, in our view.

**Publishers such as Square Enix are guiding for a robust 2023 pipeline:** Square Enix has pushed back the launch of its triple-A PS5-exclusive title Forespoken from Oct 2022 to Jan 2023. Its plan is to launch Final Fantasy XVI in summer 2023 and Final Fantasy VII Rebirth in winter 2023. Both of these are also PS5-exclusive titles.

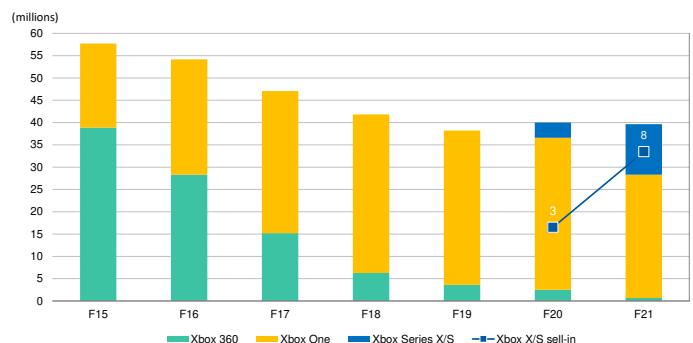
**Demand for major title IP alive and kicking in the console space:** While major title launches have been waylaid by the slow rollout of hardware amid supply glitches, the data, including the most recent, on sales of game series titles do not reveal any abandonment of such games among core users, in our view. Nintendo has announced that initial Japan-market sales of Splatoon 3, released on Sep 9, set an all-time high. While this may be due in part to the increase in hardware penetration volume, it also speaks of strong user engagement with major first-party titles.

**Exhibit 12:** Installed units for PS4 and PS5: we expect installed base for PS5 to expand meaningfully over the next couple of years as supply chain issues are resolved



Source: Company Disclosure, Morgan Stanley Research, e=Morgan Stanley Research estimates

**Exhibit 13:** Installed base for Xbox: we estimate Series X/S to reach nearly half of total installed base by end of 2022



Source: IDC, Morgan Stanley Research

### 3. Regulatory environment gradually improving in China

China's video games revenue has been falling YoY since March 2022, by 7% YoY in 2Q22, mainly due to restrictions on minors since September 2021 (gaming time cut to 3 hours per week), suspension of game licenses from August 2021 to March 2022, and China's weakening consumption power, in our view. Most companies reported 1% or less domestic game revenue exposure to minors, while Tencent had 6% (mainly driven by *Honor of Kings* and *Peacekeeper Elite*, in our view).

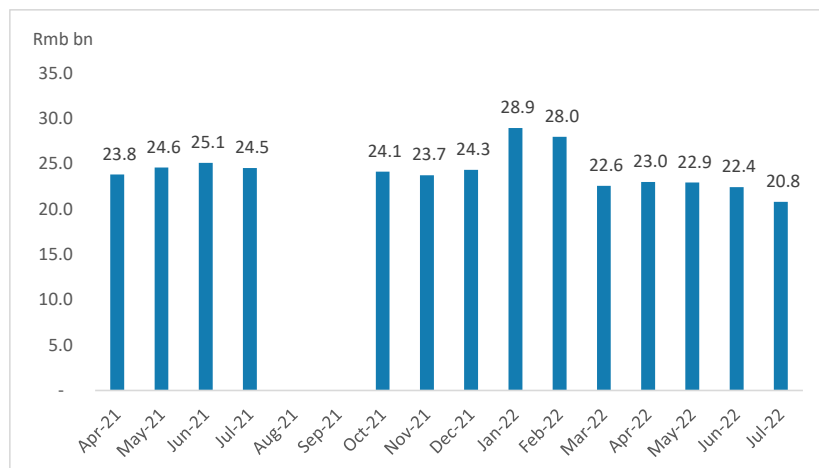
While we see growth rates in 4Q22 and 2023 remaining low/uncertain due to the low visibility of pipeline/licenses, as the impact from restrictions on minors normalizes from September 2022 onwards and more licenses get approved, we believe a gradual inflection is likely to play out heading into 2023.

#### Resumption of game licenses is a key positive signal

NPPA (National Press and Publication Administration) resumed license approval in April 2022, after suspending it in August 2021. Both Tencent and NetEase received licenses in Sept after being unsuccessful in the first four batches of licenses this year. The fifth batch of game licenses was released on Sept 13 with 73 domestic games on the list and another amendment batch was also released on the same day with 20 domestic games (see [China Internet - Gaming in Focus #76: Tencent and NetEase obtained game licenses in September \(13 Sep 2022\)](#)).

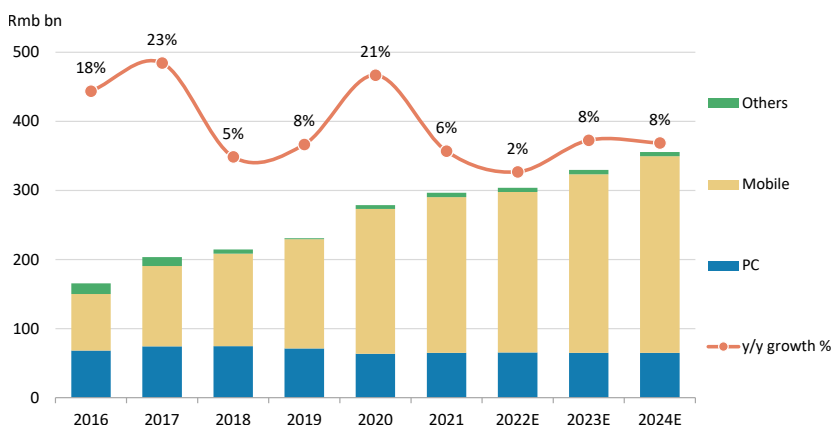
YTD, 314+20 domestic licenses have been released and we would note that the number of licenses has been rising progressively from 45 in April to 60 in June, 67 in July, 69 in August, and 73+20 in September.

**Exhibit 14:** China monthly video games revenues: have been stagnant coming into 2022



Source: CNG, Morgan Stanley Research

**Exhibit 15:** MS China video game market forecast: we are looking for a recovery going into 2023



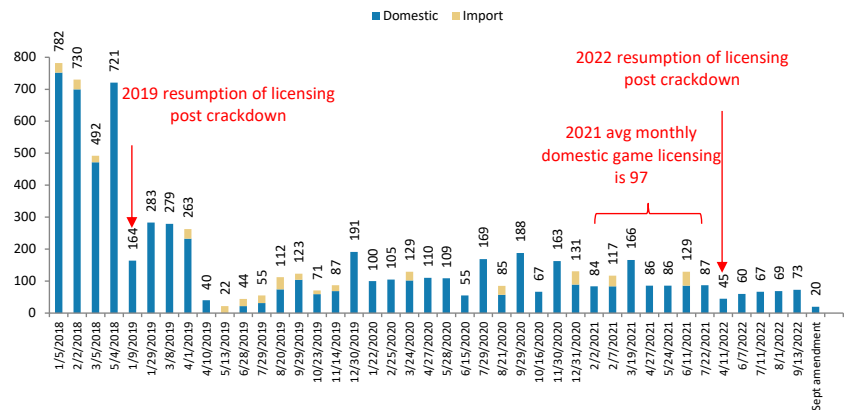
Source: CNG, Morgan Stanley Research (E) estimates

On July 21, 27 departments, including the Ministry of Commerce, published a notice on supporting the quality development of culture imports/exports, including: 1) expansion of game license pilot regions to increase approval capacity, and 2) expansion of imported high-quality cultural products to promote market competition. Shanghai, Guangdong, Beijing, Zhejiang, Jiangsu and Hainan were among those included in the pilot region list. In June 2022, 16 game licenses out of 60 were processed by the pilot regions, with the final decision still made by NPPA.

With the potential expansion of game license pilot regions to increase approval capacity ([China Internet – Gaming in Focus #71: Game License Approval Tailwind? \(21 Jul 2022\)](#)), there could be upside risk to our annual license run-rate expectation of 500-600.

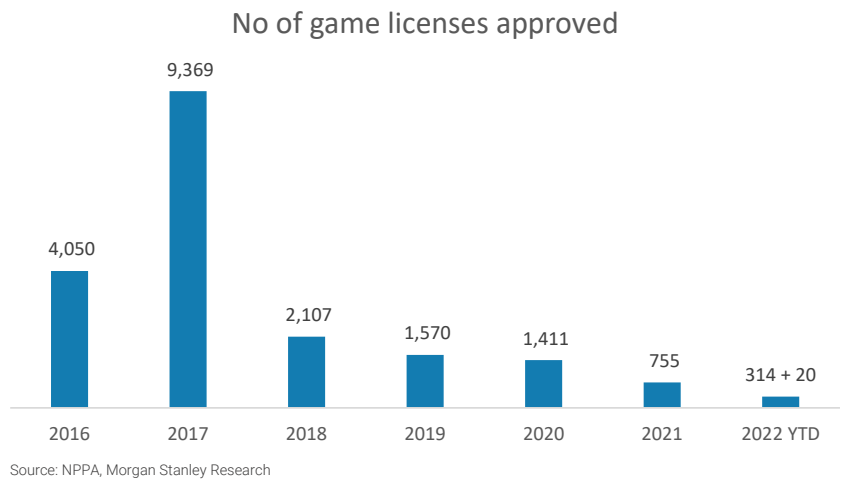
While visibility on imported game licenses remains low, we are turning cautiously optimistic that a gradual resumption could play out heading into 2023, which we see providing additional content to a market that has seen short supply. It would also serve as a key positive signal for global publishers that have been trying to gain access to China's US\$40bn video gaming market. We note that key import titles that have a license and are waiting to launch include *Dungeon & Fighter Mobile* (Nexon) and *Tom Clancy's Division 2* (Ubisoft)

**Exhibit 16:** Game license approval monthly



Source: NPPA, Morgan Stanley Research

**Exhibit 17:** Number of game license approvals per year: approvals have resumed this April (2022) and have been accelerating with each month



Source: NPPA, Morgan Stanley Research



## Game pipeline for the Big 2 publishers

**Tencent** - We expect key titles such as Undawn (license obtained), The Division 2 (license obtained) and Avatar: Reckoning (pending license) to be key launches in 2H22/2023. Tencent's domestic games growth in 1H22 was impacted by minor protection impact and normalized game demand from core titles HOK & PKE. With Tencent receiving game licenses recently, we see it as a positive sign to the industry and we expect Tencent's new games launches to accelerate in 2023. With minor protection impact to lapse in 4Q22, we expect domestic games growth of 3% YoY in 2023. We see overseas expansion as Tencent's key growth driver with prior investments since 2019 to start yielding fruit in 2023 (Triple-A titles tend to require ~3 years of R&D). While Tencent has stepped up its overseas expansion as by its recent stake increase in Ubisoft (Sep22) and Supercell

(Dec21), we expect overseas games growth to reaccelerate to 22% YoY in 2023 and drive 26% 3-year revenue CAGR over 2022-2025.

**NetEase** - The two key games in the pipeline that need licenses in our view are Justice Mobile and Naraka Bladepoint Mobile; both games are currently being developed for possible release in 2H23. We expect NetEase's game revenue to grow 9% YoY in 2H22 driven by Diablo Immortal, and mid to high single digit YoY in 1H23 driven by the launch of Harry Potter's international version, while the company waits for licenses for the two new titles. Naraka Bladepoint mobile could be released in international markets first before China, as the game's PC and console versions have established international audiences. While we are forecasting game revenue to grow 10% YoY in 2023, if import licenses resume, we think Lord of the Rings: Rise to War's launch in China could also add to the growth.

**Exhibit 18:** Tencent game pipeline (short version)

Game Title (EN)	Game Title (CN)	Genre
Dungeon & Fighter Mobile	地下城与勇士	Action
CrossFire HD	穿越火线HD	FPS
Rising Fire	火源计划	FPS
Legend of Honour	光明勇士	TBC
Deformers	百变球球	Action
Need for Speed Online	极品飞车OL 手机版	TBC
Battlerite Royale	冠军盛典	MOBA
Planet Handcraft	手工星球	Sandbox
Ylands	艾兰岛	Sandbox
Undawn	黎明觉醒	FPS
Soul Land	斗罗大陆: 魂师对决	3D RPG
Paragon	虚幻争霸	MOBA
Fortnite	堡垒之夜	FPS
H1Z1	生存王者	FPS
Playerunknown Battle Ground	绝地求生	FPS
Robocraft	罗博制造	Sandbox
Magic: The Gathering	万智牌: 竞技场	TCG
Tom Clancy's Rainbow Six Siege	彩虹六号: 围攻(WeGame)	FPS
Ring of Elysium	无限法则	FPS
Lineage II Revolution	天誓II: 革命	RPG
Roco Kingdom	洛克王国手游	RPG
Zhi Jing-yong	致金庸	Open world RPG
Avatar: Reckoning	阿凡达: 重返潘多拉	Shooting RPG
The Division 2	全境封锁2	Open-world shooting RPG

Source: Company data, Morgan Stanley Research

**Exhibit 19:** NetEase game pipeline (short version)

Game Title (English)	Game Title (Chinese)	Genre
<b>Pipeline</b>		
<b>Mobile games</b>		
Where Winds Meet	燕云十六声	Open world
Diablo Immortal	暗黑破坏神: 不朽	MMORPG
Harry Potter: Magic Awakened	哈利波特: 魔法觉醒	Card Collection, RPG
Naraka: Bladepoint Mobile	永劫无间手游	MOBA
Justice mobile	逆水寒手游	Open world
Faith on Football Field	绿茵信仰	SPG
Star survival	星海求生	Sandbox, open world
The Epic of Tia	泰亚史诗	MMORPG
Mission zero	零号任务	MOBA
Codename: ATLAS	代号: ATLAS	Shooting
Trinity Gears	湮灭效应	SLG, ACG
Disorder	Disorder	Shooting
Sanguo Blade	三国志将录	RPG
Code: Onmyoji Idol Project	代号: Onmyoji Idol Project	SLG
Codename: Ragnarök	代号: Ragnarök (诸神黄昏)	RPG
EGO Effect	伊格效应	RPG
Frostpunk	冰汽时代: 最后的家园	Survival
Cells at work	工作细胞IP手游	ACG
Lost Light	萤火突击	Survival, Shooting
Racing master	巅峰极速	Racing
The Untamed	陈情令	Card Collection
Code: World	代号: 世界	MMO
Codename T / Thesus	代号: T	Shooting
Total War Battles: WARHAMMER	全军破敌之战: 战锤	SLG
Ghost World Chronicles	隐世录	ACG
Onmyoji: monster class	阴阳师: 妖怪小班	Puzzle
Unknown record	未知记录	Cyber Punk, AVG
The Code Name: Rider	代号: Rider	MOBA
Zhan chunqiu	战春秋	MMORPG
Tantanhuanjing	弹弹幻境	Casual
Mission zero	零号任务	MOBA
Once be Human	曾经是人类	Survival
ZoZ: Final hour	ZoZ最后一小时	Shooting
Gates of Ages: Eon Strife		SLG
unVEIL the world		Tactical hero summoning RPG

Source: Company data, Morgan Stanley Research

## 4. Recession resilient businesses at trough valuations

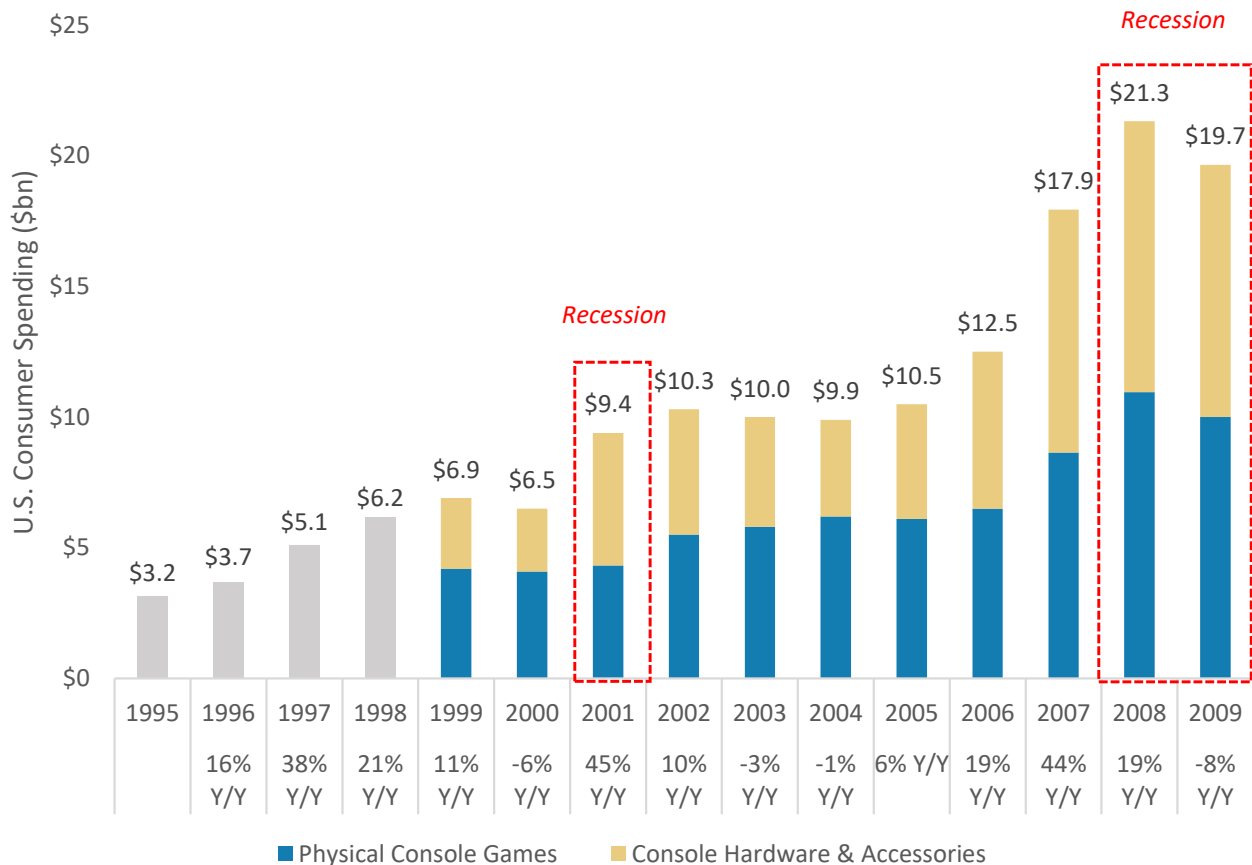
### History shows games tend to sell well during economic downturns

While we remain confident that game development schedules and console production will normalize going forward, investors remain keenly focused on the impacts of a potential recession over the near term. In order to assess the impacts this could have on the gaming industry, we look back to the US recessions of 2001 and 2008-09 and find that spending on console gaming was relatively resilient during economic downturns in the past. US consumer spending on games grew +45%/+10% in 2001/02 and +19%/-8% in 2008/09, which we attribute to gaming’s unique value proposition as a relatively cheap form of entertainment. While we fully acknowledge that

the industry has changed in the past decade (i.e. shifted to engagement monetization rather than full game sales, not to mention the growth of mobile), we believe that time spent on games could rise during a downturn, which would ultimately increase the resilience of consumer spending. To that point, we note that time spent by Americans on games grew 10% in 2009 (vs. 5% CAGR 2003-08) and reached absolute levels that were not surpassed until 2015.

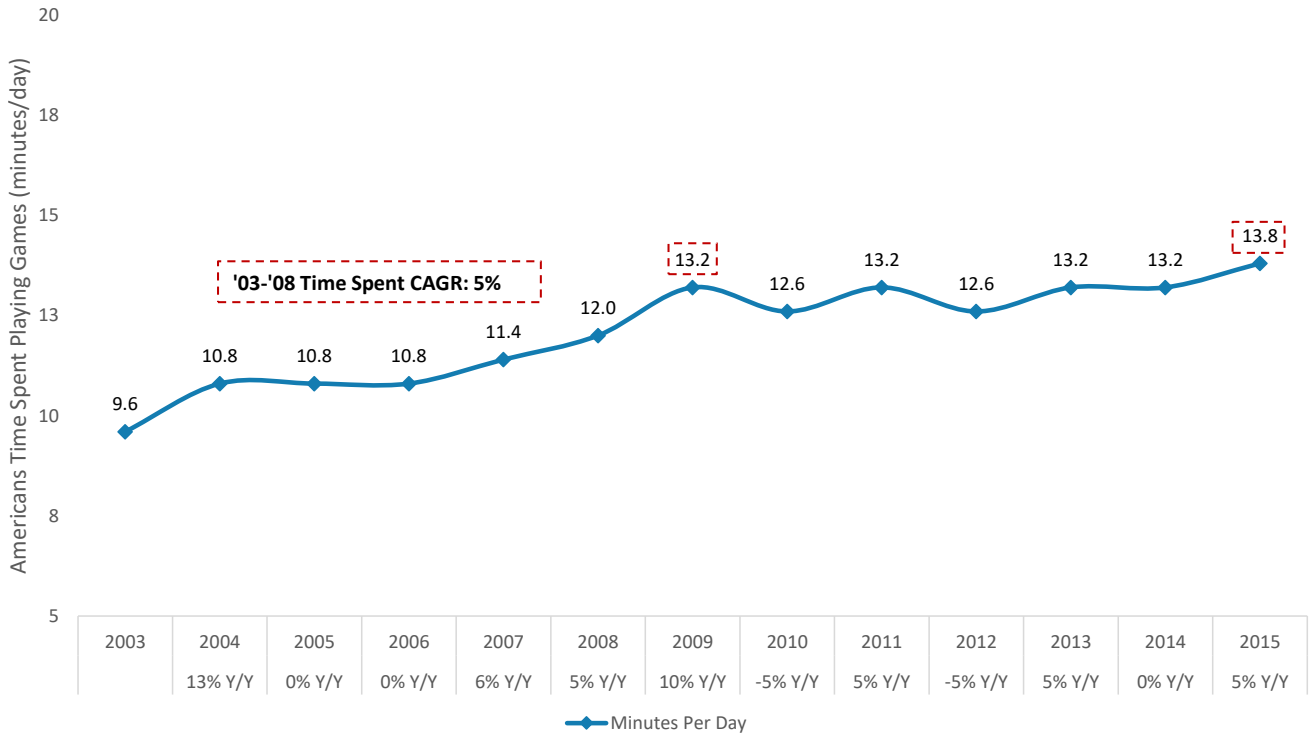
Video games’ counter-cyclical characteristics have also been observed for Korea, which saw strong growth in 2008/2009 when GDP growth was sluggish, and in 2018/2019, when GDP growth started to see a visible deceleration from 5% levels observed for most of the decade.

**Exhibit 20:** Consumer spending on games grew +45%/+10% in 2001/02 and +19%/-8% in 2008/09, which we attribute to value proposition as a relatively cheap form of entertainment.



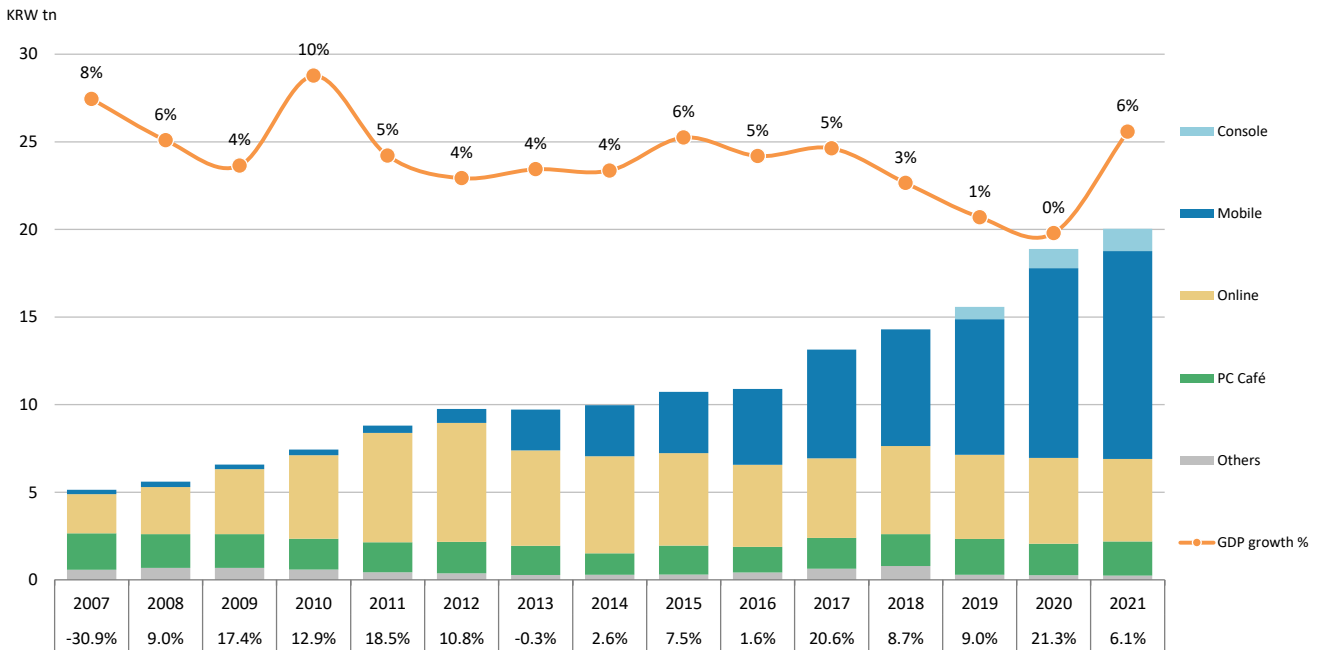
Source: NPD, Morgan Stanley Research

**Exhibit 21:** Time spent by Americans on games grew 10% in 2009 (vs. a 5% CAGR 2003-08) and reached absolute levels that were not surpassed until 2015.



Source: BLS, Morgan Stanley Research

**Exhibit 22:** Korea's gaming market has also shown higher growth during times of low GDP growth



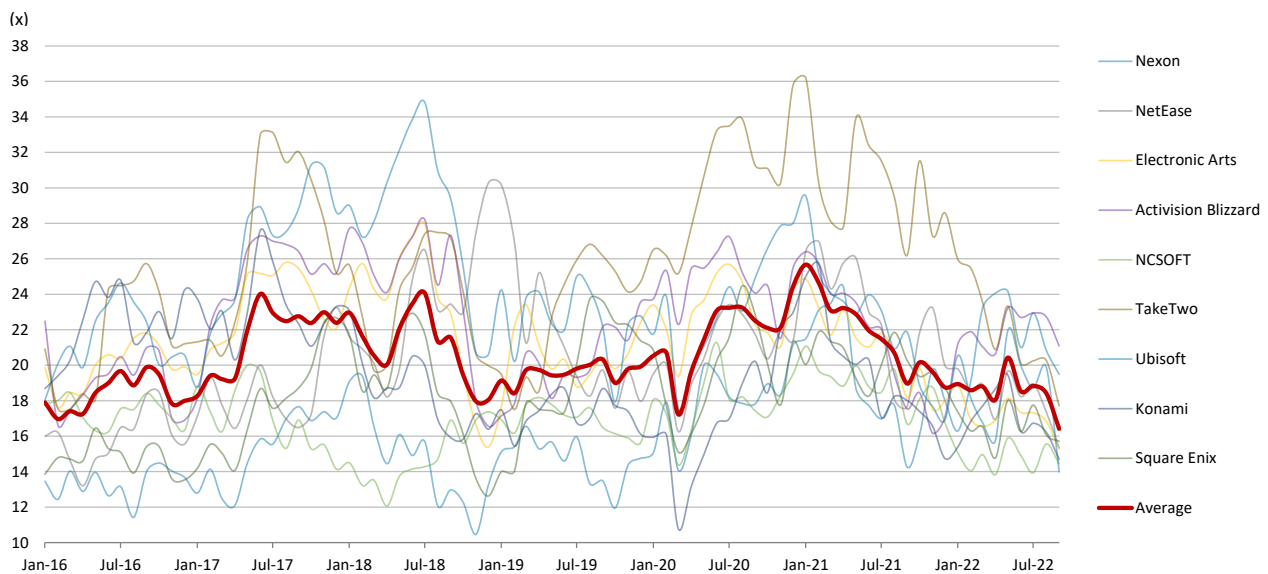
Source: Bank of Korea, KOCCA, Morgan Stanley Research

### Forward P/E multiples are at 7-year lows, EV/EBITDA at 5-year lows

With the global video game sector having gone through a consistent downward trend in valuations since peaking in early '21 (see [Exhibit 23](#) and [Exhibit 24](#)), the average multiple for publishers in our coverage is trading at 16.5x P/E on a forward 12-month basis, at 7-year lows and nearly two stand deviations below the 7-year average of 20x. On EV/EBITDA, the sector is trading at 5-year lows of 9.5x on forward basis, which is also 1 standard deviation below its 5-year average.

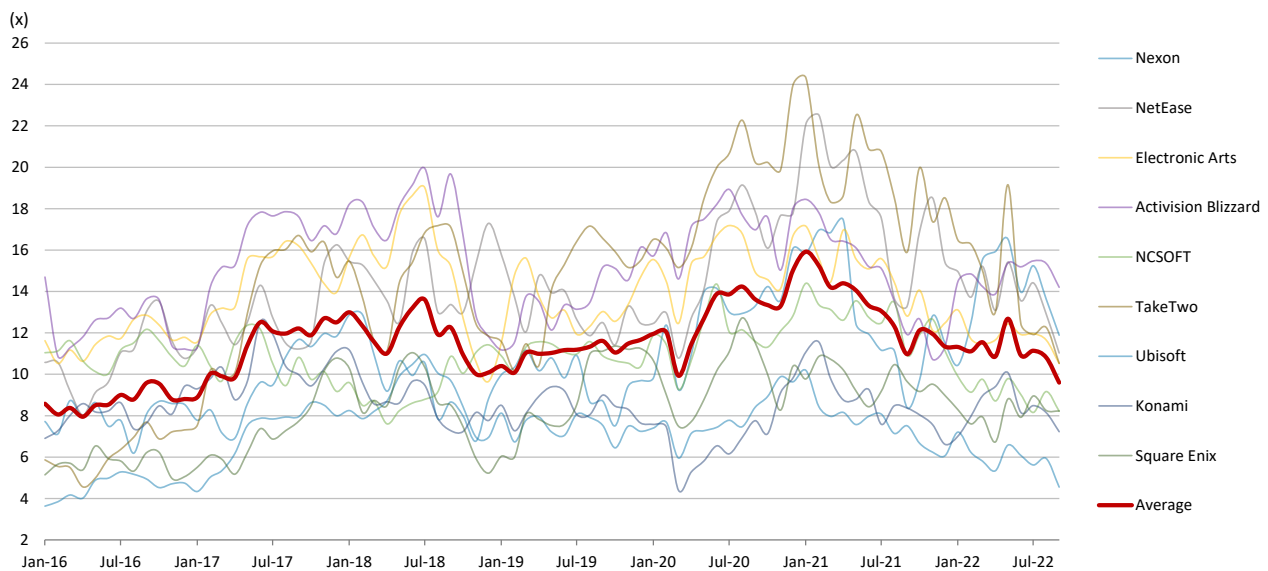
As we mentioned in the previous section, we believe that these declines in investor enthusiasm (to the extent that the average multiple is a proxy) are likely linked to pandemic-induced delays in game production, as well as supply chain issues for next generation consoles, both of which have weighed on growth at the publisher and industry levels. That said, we believe this has also created an opportunity for investors to be opportunistic with the highest quality pipelines/IP as delayed games ultimately come to market and supply chain issues which have impeded a faster penetration of next-gen consoles are resolved over the next ~2 years.

**Exhibit 23:** 12 Month Forward P/E: Stocks are trading near 7-year lows



Source: Datastream, Morgan Stanley Research

**Exhibit 24:** 12 Month Forward EV/EBITDA: Stocks are trading near 5-year lows



Source: Datastream, Morgan Stanley Research

## Exhibit 25: Global valuations comps

As of 23-Sep-22	CCY	Share Price	Rating	Price Target	MCap (local bn)	MCap (USD mn)	Rev 2022e (USD mn)	EPS		PER		ROE		EV/EBITDA		Dividend yield		FCF yield	
								F2022e	F2023e	F2022e	F2023e	F2022e	F2023e	F2022e	F2023e	F2022e	F2023e	F2022e	F2023e
<b>United States</b>																			
Activision Blizzard Inc	USD	75.0	EW	95.0	59.1	59,061	8,337	2.67	3.01	28.1	24.9	12.6%	13.3%	15.9	12.8	0.6%	0.0%	3.3%	4.2%
Electronic Arts Inc*	USD	116	EW	145	32.7	32,716	8,184	7.00	7.50	16.5	15.4	26.5%	28.5%	11.4	10.1	0.4%	0.6%	5.6%	5.8%
Take-Two Interactive*	USD	110	OW	190	13.1	13,140	4,498	5.25	9.50	21.0	11.6	13.1%	16.2%	11.3	5.4	0.0%	0.0%	5.4%	10.6%
Playtika Holding	USD	10.3	OW	20.0	4.24	4,243	2,817	0.70	0.87	14.7	11.9	NM	NM	2.9	2.4	0.0%	0.0%	9.6%	13.1%
SciPlay Corp	USD	10.9	EW	12.5	1.40	1,397	664	1.13	1.30	9.6	8.4	99.4%	59.1%	5.4	4.0	0.0%	0.0%	8.8%	9.9%
<b>United States Avg</b>										<b>18.0</b>	<b>14.4</b>	<b>37.9%</b>	<b>29.3%</b>	<b>9.4</b>	<b>6.9</b>	<b>0.2%</b>	<b>0.1%</b>	<b>6.5%</b>	<b>8.7%</b>
<b>Japan</b>																			
Nintendo Co Ltd**	JPY	61,320	OW	73,000	7,194	50,197	12,155	4,296	5,058	14.3	12.1	22.1%	22.9%	9.0	8.4	3.5%	4.1%	5.8%	0.9%
Nexon	JPY	2,548	OW	3,300	2,221	15,496	2,452	120	125	21.2	20.4	12.4%	11.7%	13.7	10.2	0.3%	0.4%	3.7%	4.8%
Bandai Namco Hldg**	JPY	9,695	NC	NA	2,127	14,942	6,524	453	466	21.4	20.8	16.2%	15.0%	10.9	10.3	2.3%	2.3%	NA	NA
Konami Hldg*	JPY	6,720	EW	8,400	964	6,728	2,175	380	387	17.7	17.3	14.1%	13.0%	8.0	7.3	1.7%	1.8%	5.1%	5.5%
Capcom**	JPY	3,645	NC	NA	960	6,744	843	165	185	22.1	19.7	23.1%	22.7%	15.9	13.4	1.4%	1.5%	NA	NA
Square Enix Hldg*	JPY	6,240	EW	6,200	747	5,209	2,391	405	425	15.4	14.7	16.0%	15.5%	9.2	6.9	1.9%	2.1%	3.4%	0.7%
Sega Sammy Hldg**	JPY	1,931	NC	NA	460	3,234	2,591	138	164	14.0	11.8	9.9%	11.1%	6.2	5.0	2.9%	3.6%	NA	NA
DENA**	JPY	1,881	NC	NA	242	1,700	994	121	118	15.6	16.0	5.8%	5.9%	8.5	5.5	1.5%	1.5%	NA	NA
GungHo Online*	JPY	2,199	NC	NA	198	1,392	697	279	296	7.9	7.4	15.2%	14.1%	3.0	2.2	1.7%	1.4%	NA	NA
mixi**	JPY	2,378	NC	NA	184	1,292	855	145	171	16.4	13.9	5.5%	5.1%	NA	NA	5.4%	5.6%	NA	NA
Colopl#	JPY	679	NC	NA	87.2	613	229	24.5	14.8	27.7	45.9	4.1%	2.5%	NA	NA	2.0%	1.7%	NA	NA
<b>Japan Avg</b>										<b>17.6</b>	<b>18.2</b>	<b>13.1%</b>	<b>12.7%</b>	<b>9.4</b>	<b>7.7</b>	<b>2.2%</b>	<b>2.4%</b>	<b>4.5%</b>	<b>2.9%</b>
<b>Korea</b>																			
Krafton	KRW	205,500	OW	310,000	9,713	6,834	1,413	16,206	15,522	12.7	13.2	15.3%	12.8%	6.1	5.2	0.0%	0.0%	6.7%	7.1%
NCSoft	KRW	330,000	EW	350,000	6,701	4,715	1,808	20,848	15,086	15.8	21.9	12.8%	8.6%	8.2	10.9	1.8%	1.9%	3.2%	1.7%
Netmarble	KRW	55,200	UW	50,000	4,523	3,182	1,966	(724)	1,754	NM	31.5	-1.0%	2.5%	16.6	16.4	0.9%	0.0%	4.8%	6.7%
Pearl Abyss	KRW	53,300	UW	46,000	3,262	2,295	249	353	2,423	NM	22.0	3.0%	18.2%	NM	12.7	0.0%	0.0%	-0.6%	4.8%
WeMade Entertainment*	KRW	49,050	NC	NA	1,678	1,181	431	189	3,218	NM	15.2	-1.1%	17.3%	NM	9.9	1.3%	1.3%	NA	NA
Com2uS*	KRW	78,600	NC	NA	1,024	720	534	5,093	6,245	15.4	12.6	5.2%	6.2%	9.7	6.6	1.9%	1.8%	NA	NA
DoubleU Games	KRW	42,200	EW	42,000	716	504	436	3,540	7,251	11.9	5.8	6.9%	13.0%	3.0	2.2	1.7%	1.7%	20.3%	21.1%
<b>Korea Avg</b>										<b>14.0</b>	<b>17.5</b>	<b>5.9%</b>	<b>11.2%</b>	<b>8.7</b>	<b>9.1</b>	<b>1.1%</b>	<b>1.0%</b>	<b>6.9%</b>	<b>8.3%</b>
<b>Europe</b>																			
Ubisoft Entertainment*	EUR	30.7	OW	57.0	3.44	3,329	2,390	2.02	2.85	15.2	10.8	13.6%	17.1%	5.7	4.1	0.0%	0.0%	-15.9%	-13.0%
CD Projekt	PLN	90.5	EW	87.0	9.11	1,857	165	2.75	1.22	33.0	73.9	14.0%	5.8%	29.3	56.8	1.1%	0.0%	0.5%	-0.8%
<b>Europe Avg</b>										<b>24.1</b>	<b>42.4</b>	<b>13.8%</b>	<b>11.5%</b>	<b>17.5</b>	<b>30.5</b>	<b>0.6%</b>	<b>0.0%</b>	<b>-7.7%</b>	<b>-6.9%</b>
<b>China</b>																			
NetEase, Inc	USD	77.6	OW	110	365	51,268	13,650	28.3	29.7	19.5	18.6	19.2%	19.3%	11.5	10.0	0.2%	0.3%	4.3%	4.7%
Bilibili	USD	16.2	EW	23.0	50.3	7,055	3,087	(17.4)	(13.6)	NM	NM	-47.4%	-62.7%	NM	NM	0.0%	0.0%	-6.1%	-3.7%
Kingsoft Corp Ltd	HKD	21.8	EW	25.0	27.5	3,855	1,078	0.14	0.64	NM	30.8	0.8%	3.5%	12.5	8.8	0.6%	0.6%	5.0%	6.7%
<b>China Avg</b>										<b>19.5</b>	<b>24.7</b>	<b>-9.2%</b>	<b>-13.3%</b>	<b>12.0</b>	<b>9.4</b>	<b>0.3%</b>	<b>0.3%</b>	<b>1.0%</b>	<b>2.6%</b>
<b>Global Peer Avg</b>										<b>17.7</b>	<b>19.6</b>	<b>12.5%</b>	<b>11.8%</b>	<b>10.2</b>	<b>9.9</b>	<b>1.3%</b>	<b>1.2%</b>	<b>3.8%</b>	<b>4.8%</b>
<b>Global Peer Median</b>										<b>15.8</b>	<b>15.4</b>	<b>12.8%</b>	<b>13.0%</b>	<b>9.2</b>	<b>8.4</b>	<b>1.2%</b>	<b>1.0%</b>	<b>4.8%</b>	<b>4.8%</b>

Note: ^ Not Covered (NC) stocks, \* fiscal year ending March, \*\* fiscal year ending June, # fiscal year ending September. Comps of companies with fiscal years ending in March 2021/22 compared with September/December 2020/21 comps of other companies for like-for-like comparison.

Source: Morgan Stanley Research estimates for covered stocks, otherwise Refinitiv for consensus estimates. Share prices as of September 23, 2022.



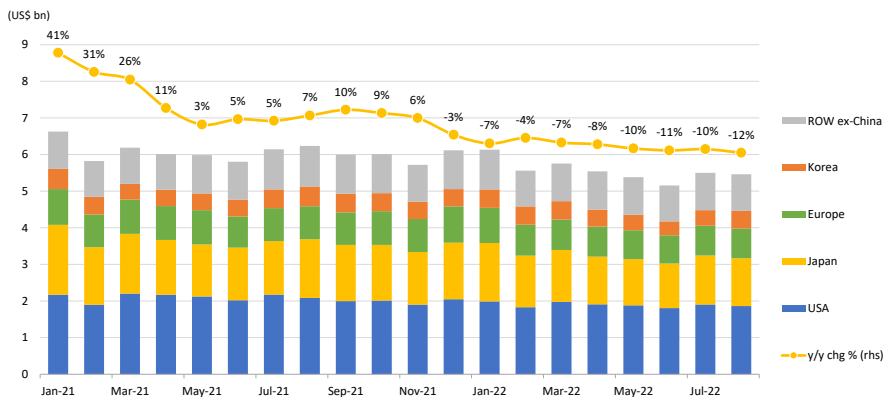
# III. What are our key concerns?

## 1. Slowing mobile market

Having led global market growth, mobile gaming is clearly the largest segment within the US\$230bn video gaming market we estimate for 2022 (excluding hardware and ads), accounting for roughly half of industry revenues. Given reasons we quoted for 2022 being a tough year, along with the impact of a strong US dollar, we are observing a sharp slowdown for mobile games, with revenue growth turning negative on a y/y basis in recent months, according to 3rd party stats, such as Sensor Tower (global ex-China) and CNG (China).

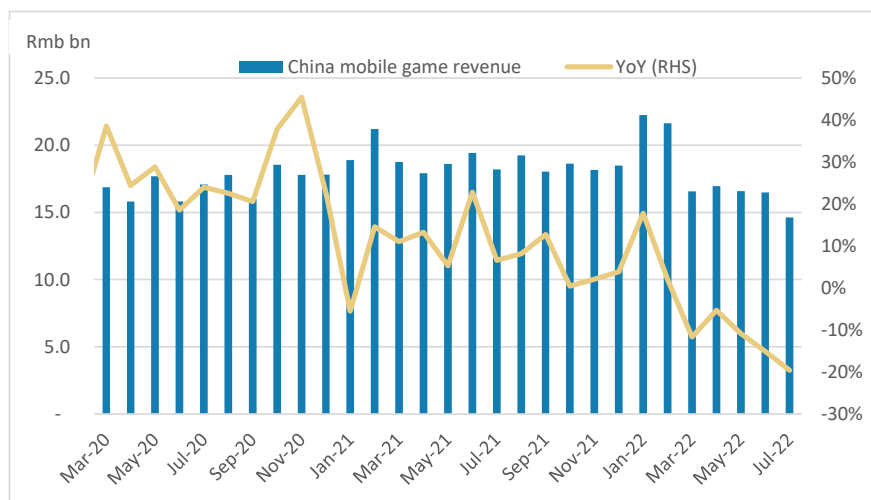
We believe some of the headwinds such as the impact from 're-opening' and macro headwinds such as the strong dollar are temporary and should level out over time. Others, such as mobile game penetration, are more structural and we believe further upside to penetration is becoming increasingly challenging for developed markets. Korea has seen mobile game penetration stagnate at 70% levels the past couple of years and we believe other Asian markets such as China and Japan are likely in similar positions. This implies that growth will need to be driven by higher spend than penetration, which puts more emphasis on the need to come out with innovative breakthrough titles to keep existing gamers engaged and attract potential consumers who have left gaming, or are yet to engage.

**Exhibit 26:** Monthly mobile game grossings: global revenues (ex-China) were showing negative y/y growth coming into 2022



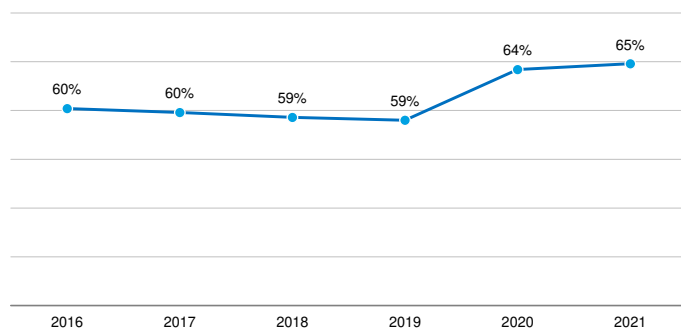
Source: Sensor Tower, Morgan Stanley Research

**Exhibit 27:** China mobile games revenues: we have seen double digit y/y declines in recent months



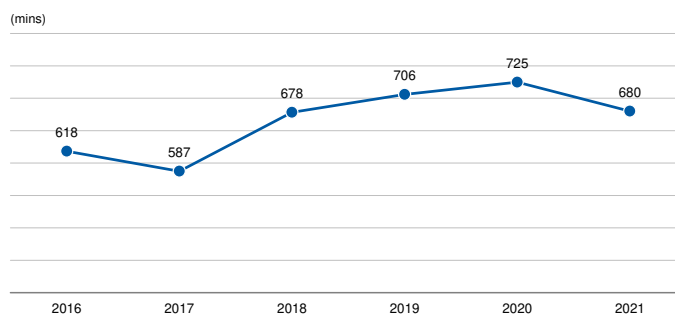
Source: CNG, Morgan Stanley Research

**Exhibit 28:** % of population aged 10-65 who play mobile games in Korea: we believe further penetration is likely challenging



Source: 2021 White Paper on Korean Gaming Market, Morgan Stanley Research

**Exhibit 29:** Average minutes played per week for Korean mobile gamer: we believe the peak in 2020 will be a difficult landmark to surpass



Source: 2021 White Paper on Korean Gaming Market, Morgan Stanley Research

## 2. Publishers leaning excessively on proven content

A key concern we are increasingly hearing from industry participants is that the video gaming industry is becoming more commercial and less creative. The consolidation of gaming studios over the past two decades has led to bigger publishers operating multiple proven IPs, giving these companies much more stable streams of revenue. At the same time this has naturally led to publishers taking less risk with new unproven genres and games.














































While this is good for revenues and profits in the near term, it could also work against market growth, as creativity is what drives new players to try games and brings dormant gamers back. Games like League of Legends, Players Unknown Battlegrounds, The Legend of Zelda: Breath of the Wild, and Candy Crush, hugely expanded the player base and opened new genres which had never been enjoyed before. Unfortunately this kind of innovative content was not some-

thing we were able to frequently observe during the COVID-19 years as publishers were able to monetize well with existing content.

We believe the need for fresh content will be a key long-term task for the publishers. Looking at the top grossing titles for the US, Japan and Korea, there has been very little change in rankings over the past three years. This indicates both a longer content life cycle for existing hit titles, and at the same time a shallower slate of serious new titles. While one can say this is positive for incumbents, we see this as negative over the longer term, as it fails to attract new players while aging games almost certainly result in player churn.

We are hopeful that the expanded line-up of new titles slated for 2023 can work to alleviate some of these concerns on creativity, but if the market fails to see multiple breakthrough titles next year, we believe investor concerns on the longer-term outlook for the video game market could emerge as a much bigger risk.

**Exhibit 30:** Top grossing mobile titles by region: we are seeing increasingly lower levels of churn for top titles, which is the cause and effect of the industry not willing to take more risk on new content

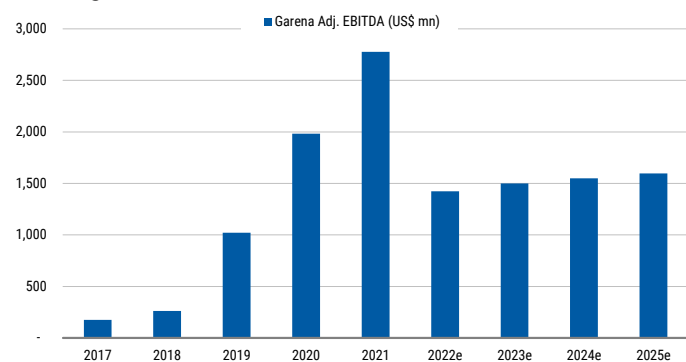
#	USA			Japan			Korea		
	2020	2021	1H22	2020	2021	1H22	2020	2021	1H22
1	 Roblox	 Roblox	 Candy Crush Saga	 Monster Strike	 Uma Musume Pretty Derby	 Uma Musume Pretty Derby	 Lineage 2M	 Lineage 2M	 Lineage W
2	 Candy Crush Saga	 Candy Crush Saga	 Roblox	 Fate/Grand Order	 Puzzles & Dragons	 Monster Strike	 Lineage M	 Lineage M	 Lineage M
3	 Coin Master	 Coin Master	 Coin Master	 Knives Out	 Fate/Grand Order	 Puzzles & Dragons	 Rise of Kingdoms	 Odin: Valhalla Rising	 Odin: Valhalla Rising
4	 Pokemon Go	 Garena Free Fire	 Evony: The King's Return	 Pro Baseball Spirits A	 Pro Baseball Spirits A	 Fate/Grand Order	 V4	 Miracle Sword	 Lineage 2M
5	 Gardenscapes	 Pokemon Go	 Pokemon Go	 Puzzles & Dragons	 Monster Strike	 Pro Baseball Spirits A	 Kingdom of the Winds	 Lineage W	 Dungeon&Fighter Mobile

Source: Sensor Tower, Morgan Stanley Research

### Case Study: The increasingly crowded MMORPG market in Korea

Korea's MMORPG genre is well known for being hard core, guild driven, and extreme "pay-to-win". The high engagement from gamers and resulting monetization has been a key driver behind the fast growth of Korea's mobile market. This also meant that those publishers successful in coming out with hit MMO titles were able to generate significant revenues (up to US\$1 billion per annum), and with it corresponding lucrative margins. This offered a big incentive for publishers to focus their development resources to the mobile MMO genre, and as a result competition has intensified while the market has shown clear signs of saturation. In the meantime, many publishers did not invest sufficiently in other genres which has resulted in a market that has shown weak growth coming in 2022, with many gamers and industry experts expressing concerns on the lack of innovative new content to drive future market growth.

**Exhibit 31:** Garena grew strongly on the back of Battle Royale mobile game Free Fire from 2017-21

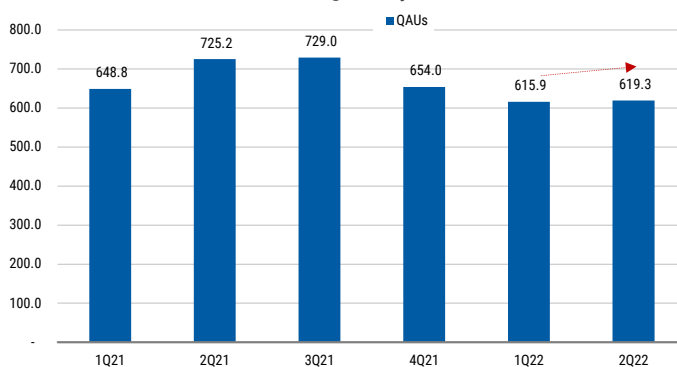


Source: Company Data, Morgan Stanley Research estimates

### Case Study: SEA's high reliance on Free Fire

Garena, which is the Digital Entertainment arm of Sea Ltd (covered by Mark Goodridge), grew strongly on the back of its one and only self-developed battle royale genre game Free Fire. Garena's adj. EBITDA had grown at a CAGR of 100% from US\$175mn in 2017 to US\$2.8bn in 2021 as shown in Exhibit 31. However, this concentration of revenue from one single game shows the risk of over reliance on a single game. Garena's growth has recently been negatively impacted by the re-opening, and we forecast 2022 adj. EBITDA of US\$1.4bn (~50% decline y/y). No surprise this is causing investors to be concerned. While management had indicated that they are expecting to expand its portfolio with more game genres such as multi-player action, role-playing, sandbox and casual games, we still expect Free Fire to be the biggest contributor. As we expect Free Fire revenues to gradually decline, SEA's ability to develop/source new titles will play a key role in the stock's recovery.

**Exhibit 32:** QAU's have been showing signs of stabilization but new titles should serve as a re-rating catalyst



Source: Company Data, Morgan Stanley Research

### 3. Short form video a potential threat to video games?

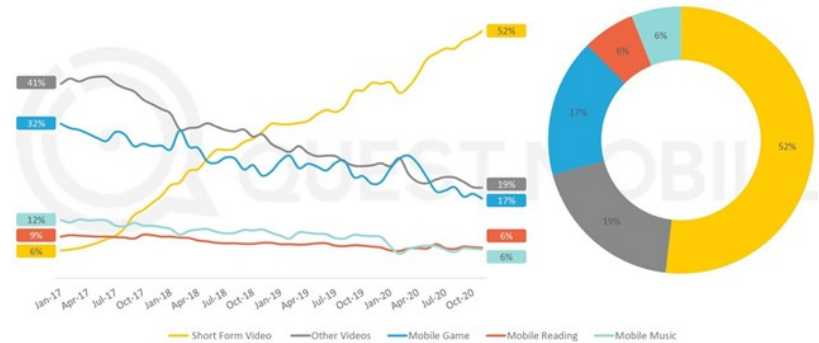
In China, short form video platforms Douyin and Kuaishou have been gaining user time share from all other online entertainment formats since 2017. This trend can also be seen in other international markets, as TikTok, and the short-video content on various global social/video platforms such as Instagram and YouTube, etc. are also occupying increasing user time spent.

In China, after over four years, total time spent on mobile games still fell 11% YoY in 1H22, although this also coincided with the suspension of game license approval for 8 months from August 2021 to March 2022. Within online entertainment, which represented about 40% of total China internet time spent, short videos' time spent market share increased from 6% in January 2017 to 61% in February 2022, while mobile games' time spent market share dropped to 15% from 32% during the same period, according to QuestMobile.

We think mobile games' share loss is approaching stabilization as the average user time spent on short video platforms has reached over 120 minutes per user per day, and the combined DAU of Douyin and Kuaishou (including overlaps) are over 1bn, which represents ~90% coverage of China internet users, and new games approvals have resumed. However, there is a risk that Tencent Video Account (short-video feature embedded in WeChat) could take further time share from other online entertainment including mobile games. While we are of the view that the video games industry has always been driven by the quality of titles rather than quantity, we do think short form video could be a risk to more casual genres.

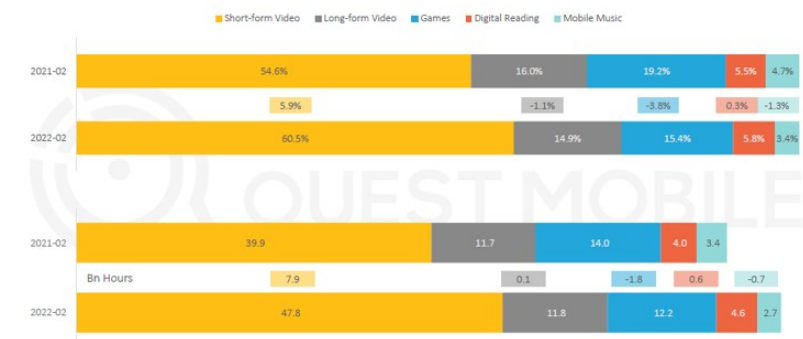
In other markets like the US and Korea, we have yet to see hard evidence that short form video is a direct threat to gaming. That said, we do recognize there could be some competition on time spent for casual gamers who are playing to kill time, and for the younger generation who tend to spend more time on video platforms. We are not expecting an immediate risk to revenues, as engaged gamers tend to account for the lion's share of monetization, but the longer term impact as generations change will be an angle we will need to monitor going forward.

**Exhibit 33:** China time spent market share: short form video has consistently gained share at the expense of other digital activities including gaming



Source: QuestMobile

**Exhibit 34:** Short Form Video Gained Most Time Spent from Games



Source: QuestMobile

# IV. Our preferred picks are Ubisoft, Take-Two, Nexon, Netease, and Nintendo

In coming up with our stock selection, we have screened our coverage universe for stocks that look best positioned to benefit from the four key drivers we have cited in this report as reasons to be constructive: 1) game slate; 2) higher installed base for next-gen consoles; 3) China's easing regulations; and 4) valuations from an historical peak/

trough context. From this short list, we have also applied our preference for publishers with a well established IP base and creative development teams, to come up with our global preferred list. We note that while Nintendo is not a pure play publisher, it is a pure play game stock and have therefore included it in our list.

**Exhibit 35:** We screen our global coverage universe for stocks that: 1) have exposure to a strong game slate; 2) next-gen consoles; 3) are beneficiaries of an easing regulatory environment in China; and 4) low valuations, to derive our preferred picks

	Game pipeline	Next-gen console exposure	China regulatory easing	Valuations
<b>Korea</b>				
Nexon	●	◐	◐	◐
NCSOFT	◐	○	○	◐
DoubleU Games	○	○	○	●
Pearl Abyss	●	◐	○	○
Netmarble Games	○	○	◐	○
Krafton	◐	○	◐	●
<b>Japan</b>				
Nintendo	●	◐	○	◐
Square Enix	●	◐	○	◐
Konami Corporation	◐	◐	○	●
<b>China</b>				
Netease	●	◐	●	◐
Perfect World	●	○	●	●
37 Interactive Entertainment	●	○	●	◐
G-bits Network Technology	○	○	◐	◐
<b>ASEAN</b>				
SEA	●	◐	○	◐
<b>US</b>				
Take-Two Interactive	●	●	○	●
Electronic Arts	◐	●	○	◐
Activision Blizzard	●	●	◐	◐
<b>Europe</b>				
Ubisoft	●	●	○	●
CD Projekt	◐	●	○	◐

Note: Valuations refers to current multiples relative to previous peak/trough  
Source: Morgan Stanley Research



## Ubisoft (UBI; Overweight: PT €57)

**Summary:** After five years of heavy investment, we expect Ubisoft's burgeoning game slate of AAA, F2P and mobile content to deliver double digit annual top line and 2x EBIT growth in the next two years. Key titles driving this will be *Avatar: Frontiers of Pandora*, *Assassin's Creed Mirage* and *Rainbow Six Mobile* due in FY'24 (year to March), plus an (unconfirmed) new *Star Wars* title for LucasFilm, likely in FY'25. Investor expectations are low, after modest success with recent game releases and a series of game delays, and a recent transaction by Tencent has dampened hopes that Ubisoft might participate in industry consolidation – but this has pushed the valuation down to highly attractive levels for long-term investors. On our forecasts, the stock trades at 12x calendarized 2023 P/E and 8x calendarized 2024, with FCF yields of 5% rising to 8%, respectively.

### Pipeline looks full, F2P, mobile and blockchain strategy in focus

Ubisoft's total cumulative cash R&D expenditure in the last five years is >€5bn, nearly 2x the prior five years, as it has invested heavily in its broad portfolio of titles and pivoted to F2P and mobile, but the company's release cadence has eased since 2019 driven by COVID, a transition in the creative management team, and an overall more cautious approach after some disappointing releases. Yet to be released content includes the new *Star Wars* project, *Beyond Good & Evil 2* and *Splinter Cell*, plus *The Division Heartland* (F2P), *The Division Resurgence* (mobile), *Rainbow Six Mobile* and *Assassin's Creed Jade* (mobile), as well as two more premium *Assassin's Creed* titles. On top of this, Ubisoft has also invested in franchises including *Far Cry*, *For Honor*, *The Crew* and in a range of non-premium titles including *Just Dance*, *Brawlhalla*, *Riders Republic* and *Rocksmith+*. We see the release of these titles driving an accelerated pace of growth, but regard the F2P and mobile titles as particularly important strategically, given Ubisoft's limited exposure currently to the

fastest-growing segments in gaming. Finally, Ubisoft has been a pioneer in investment in blockchain gaming (see [here](#) and [here](#)), which may drive new revenue streams in the longer term.

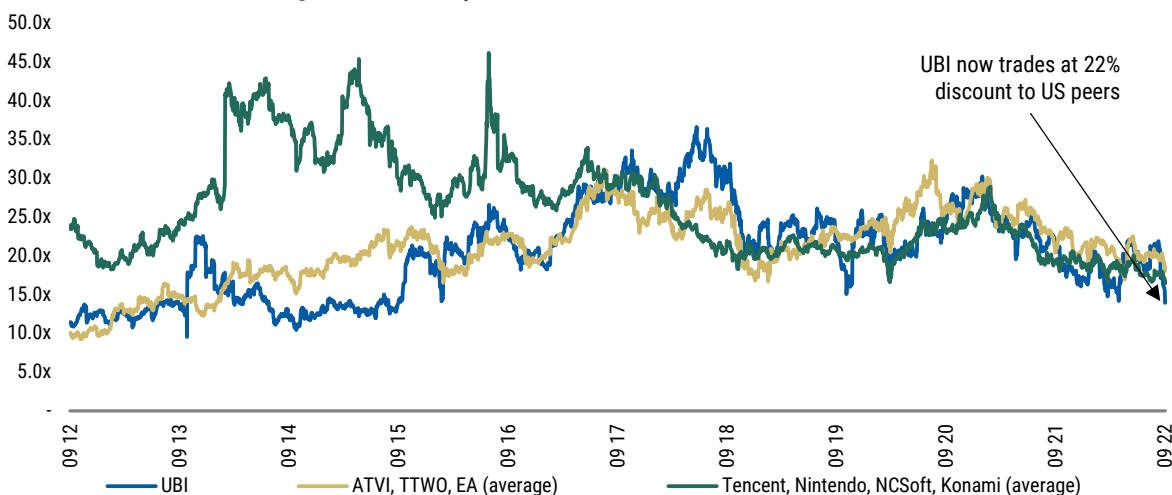
### Changes in ownership structure have dampened hopes for consolidation

Tencent (covered by Gary Yu) announced on 6 September (see [here](#)) that it had invested €300m for a 49.9% stake in Ubisoft's founding family's holding company, which controls 8m Ubisoft shares and a further 9m shares via derivatives contracts. Tencent's total effective shareholding increases from 4.5% of the share capital to 7.7%, which has been added to a concert party with Ubisoft's founding family, which controls 15% of the share capital (and 21% of the voting rights). Tencent has been granted authority to increase its direct stake to 9.99%, but has agreed not to go beyond this level for eight years. This share purchase and the creation of an enlarged concert party freezes the status quo in control of the company, although Ubisoft's CEO has highlighted that *"if a tender offer is presented, the board of directors will study it and determine whether it is of interest to the development of the group and its shareholders"* and *"we have discussed and are still discussing with different players in the sector. The companies we are discussing with are independent publishers as well as tech or entertainment giants, who have already joined or want to join our industry."* (See [here](#).)

### Valuation at multi-year lows

As we highlight in [Exhibit 36](#) below, Ubisoft trades close to multi-year lows on 12m forward P/E, notably close to the trough multiple it reached following the profit warning in 2019. Relative to US peers Activision Blizzard, Take-Two and Electronic Arts (covered by Brian Nowak and Matthew Cost), the stock currently trades at a 22% discount vs in-line on average over the last 10 years.

**Exhibit 36:** Ubisoft is trading close to multi-year lows, based on consensus forecasts



Note: Activision Blizzard, Take-Two Interactive and Electronic Arts are covered by Brian Nowak and Matthew Cost.  
Source: Refinitiv, Morgan Stanley Research

**Exhibit 37:** Ubisoft valuation multiples, calendarized and fiscal 2022-25

**Calendarized**

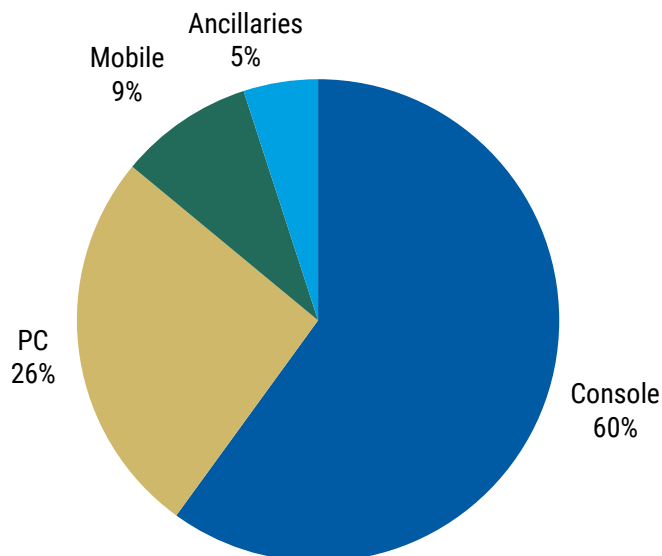
Multiples (calendarized) at current price €30.66				
Calendar year	CY2022	CY2023	CY2024	CY2025
Revenue	2,382	2,763	3,014	3,389
<b>EV/Revenue</b>	<b>1.9x</b>	<b>1.6x</b>	<b>1.5x</b>	<b>1.3x</b>
Adjusted EBITDA	658	816	1,074	1,271
<b>EV/EBITDA (adjusted)</b>	<b>6.9x</b>	<b>5.5x</b>	<b>4.2x</b>	<b>3.6x</b>
Adjusted EBIT	403	521	752	909
<b>EV/EBIT (adjusted)</b>	<b>11.2x</b>	<b>8.7x</b>	<b>6.0x</b>	<b>5.0x</b>
EPS (adjusted)	€2.05	€2.64	€3.83	€4.62
<b>P/E (adjusted)</b>	<b>15.0x</b>	<b>11.6x</b>	<b>8.0x</b>	<b>6.6x</b>
EPS (post SBC)	€1.68	€2.24	€3.43	€4.22
<b>P/E (post SBC)</b>	<b>18.3x</b>	<b>13.7x</b>	<b>8.9x</b>	<b>7.3x</b>
FCF (CFO-capex)	134.3	234.8	359.2	346.9
<b>EV/FCF</b>	<b>33.7x</b>	<b>19.3x</b>	<b>12.6x</b>	<b>13.0x</b>
<b>FCF yield</b>	<b>3.0%</b>	<b>5.2%</b>	<b>7.9%</b>	<b>7.7%</b>

**Fiscal**

Multiples (fiscal) at current price €30.66				
Fiscal year	2022/23	2023/24	2024/25	2024/25
Revenue	2,467	2,862	3,065	3,497
<b>EV/Revenue</b>	<b>1.8x</b>	<b>1.6x</b>	<b>1.5x</b>	<b>1.3x</b>
Adjusted EBITDA	665	866	1,143	1,314
<b>EV/EBITDA (adjusted)</b>	<b>6.8x</b>	<b>5.2x</b>	<b>4.0x</b>	<b>3.4x</b>
Adjusted EBIT	402	560	816	940
<b>EV/EBIT (adjusted)</b>	<b>11.3x</b>	<b>8.1x</b>	<b>5.5x</b>	<b>4.8x</b>
EPS (adjusted)	€2.02	€2.85	€4.16	€4.78
<b>P/E (adjusted)</b>	<b>15.2x</b>	<b>10.8x</b>	<b>7.4x</b>	<b>6.4x</b>
EPS (post SBC)	€1.63	€2.45	€3.76	€4.38
<b>P/E (post SBC)</b>	<b>18.8x</b>	<b>12.5x</b>	<b>8.1x</b>	<b>7.0x</b>
FCF (CFO-capex)	259.5	226.6	403.4	328.0
<b>EV/FCF</b>	<b>17.4x</b>	<b>19.9x</b>	<b>11.2x</b>	<b>13.8x</b>
<b>FCF yield</b>	<b>5.7%</b>	<b>5.0%</b>	<b>8.9%</b>	<b>7.3%</b>

Source: Company data, Morgan Stanley Research estimates (E)

**Exhibit 38:** Breakdown of FY22 net bookings by platform



Source: Company data, Morgan Stanley Research

## Take-Two Interactive (TTWO; Overweight: PT US\$190)

### Core TTWO Pipeline Set to Drive Record Bookings In the Next 2-3 Years

Despite the challenging macro backdrop, we believe the core TTWO PC/console franchises (including GTA VI), look set to drive multi-year earnings growth. We model a ~13% core TTWO revenue CAGR through FY25, driven by a ~US\$1.5bn step-up in core TTWO bookings in FY24 (i.e. next year, see Exhibit 39), largely as a result of the launch of GTA VI (the next installment of the GTA franchise), which management has indicated is "well under way". We also see solid contributions from stalwart franchise NBA 2K and the next iteration of the Bioshock franchise. Ultimately, we see years of compounding studio and headcount investments driving scale and operating leverage to near record EBITDA margins (just below COVID), of ~26% in FY24/FY25.

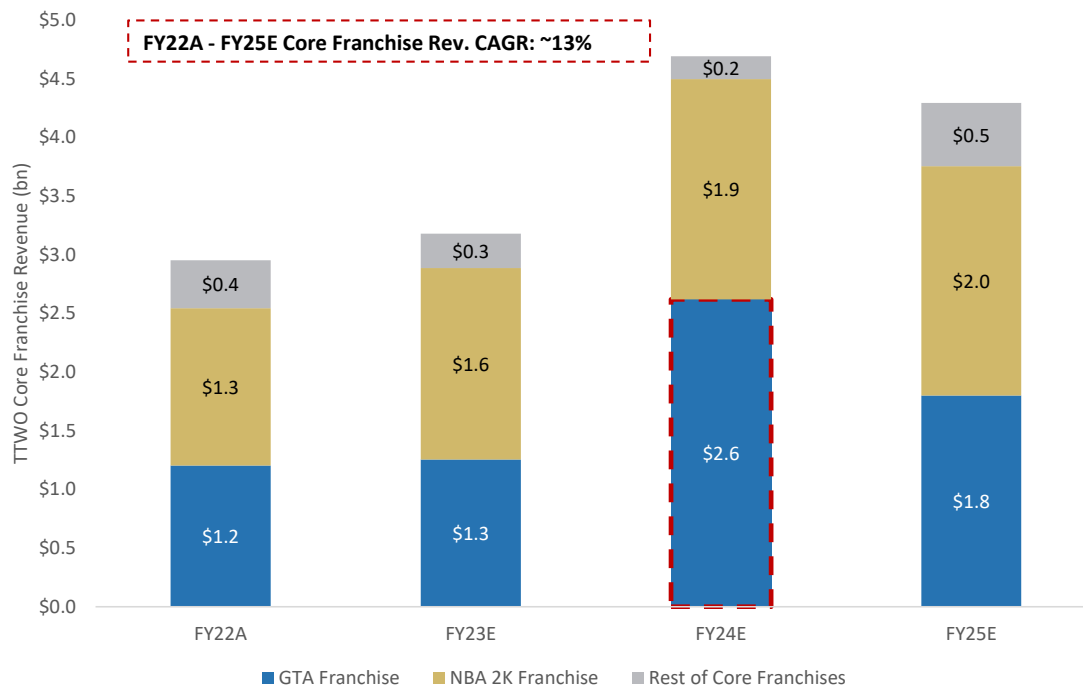
### Mobile Exposure Derisked

While the FY23 guidance was mixed, the overhang of the combined TTWO/ZNGA guidance is now behind us and we view the company's mobile revenue exposure as largely derisked from a forward expectations perspective. As a reminder, we also believe that ZNGA could be a positive for margins as well, as TTWO guided to 18% non-GAAP operating margins in FY23 (vs. 16% prior), implying meaningful accretion. Despite the near-term macro headwinds (privacy, recession risk etc.), ZNGA gives TTWO ownership of core mobile gaming franchises and access to what continues to be the largest TAM in gaming.

### Unpriced Multi-Year Earnings Growth Story

Given TTWO's track record of conservative guidance, consistent messaging on the pipeline, and large capitalized software balance, we are confident in the company's ability to achieve this level of growth...but more importantly, we believe the market remains cautious to price in such a large step up in revenue/earnings over the next several years. In our view, this has created a rare opportunity to own TTWO ahead of a multi-year growth cycle...and at a compelling valuation on near-term earnings, as (by our math) TTWO is currently trading at ~12x our FY24 EPS, a ~25% (3 turn) discount to its closest peer EA at ~15x, despite TTWO's industry-leading track record of success with core franchises and aforementioned strong pipeline.

**Exhibit 39:** We model a ~13% core TTWO revenue CAGR through FY25, with GTA VI driving a US\$1.5bn step-up in FY24 revenue



Source: Company data, Morgan Stanley Research (E) estimates

## Nexon (3659.T; Overweight: PT ¥3,300)

### Expanding content line-up keeps us constructive

In our view, Nexon offers the best of stability with its existing IP and new content in the pipeline to keep investors excited. For existing IP, the company's industry leading "game-ops" capability has been well demonstrated via titles such as DNF, MapleStory and FIFA, which have seen revenues grow for over two decades. New titles launched this year, DNF Mobile and HIT2, have also seen strong traction with Korea gamers this year, further expanding the company's well diversified game portfolio.

The company's pipeline is also looking strong to us, led by the global launch of "Kartrider Drift" and new titles from Embark Studios. For Kartrider Drift, pre-registration started in August, and the company just recently concluded its global racing test earlier this month (August 31- September 6). As a sequel to the original Kartrider released in 2004, Kartrider Drift will be full cross-platform, allowing players on Playstation, XBOX, Windows, Android and iOS to play against each other. The game already boasts a strong fan base in Asia, but we see upside should the cross-platform play enable the company to boost its popularity globally.

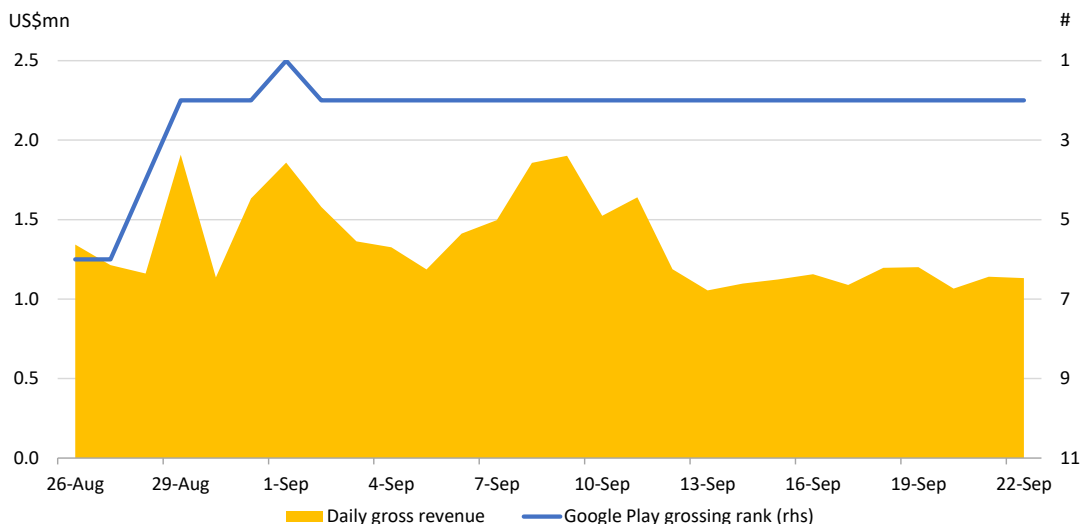
### New titles from Embark could mark a new chapter for Nexon

Embark Studios, which Nexon acquired back in 2019, has announced that its maiden title "The Finals" could launch as early as 2022. The company had initially been aiming to launch "ARC Raiders", a co-operative 3rd person shooter, first, but recently changed its plans to release The Finals ahead of ARC Raiders. While not much has been disclosed regarding the The Finals, the company has expressed high expectations from the Sweden based studio led by Patrick Söderlund, and we see potential for Embark to significantly raise Nexon's global presence.

### Catalysts abundant, valuations undemanding

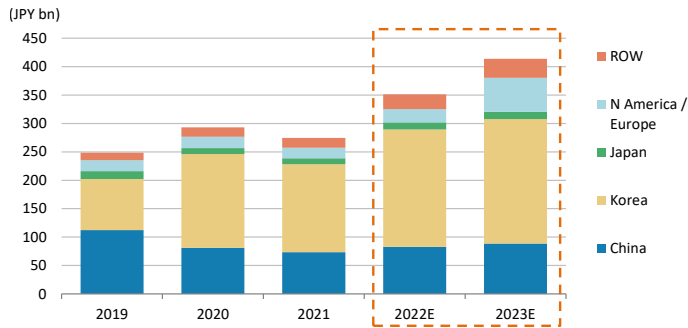
Nexon shares have been one of the few publishers to visibly outperform this year, up 23% year-to-date, having outperformed the TOPIX by more than 25 percentage points. A strong recovery for core titles such as MapleStory, coupled with positive reception to new titles, have been some of the key factors which we believe have contributed favorably to share price performance. That said, we believe Nexon's re-rating story still has legs, as the pipeline looks robust heading into year-end, and with new titles targeting a global audience which has so far been outside its core gamers. We forecast the company to grow revenues by 18% in 2023, resulting in 32% operating profit growth. On our 2023 estimates, the stock is trading at 20x P/E, and 8.5x EV/EBITDA, which we see as attractive particularly considering the company's superior game-ops capability and rich content portfolio.

**Exhibit 40:** HIT2 has emerged as a surprise hit for Nexon, which we see augmenting its existing formidable IP portfolio



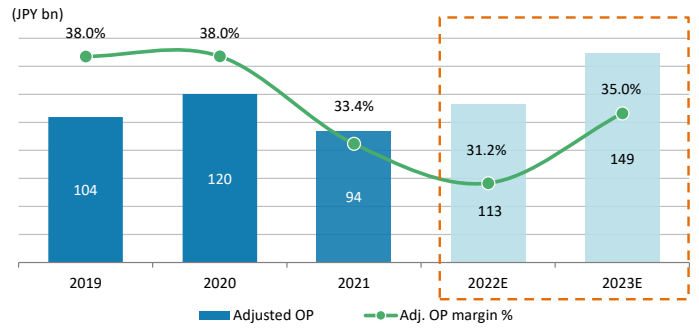
Source: Sensor Tower, Morgan Stanley Research

**Exhibit 41:** Nexon revenue forecast: we forecast another strong year of top line growth for 2023



Source: Company data, Morgan Stanley Research (E) estimates

**Exhibit 42:** Nexon OP forecast: we see new titles stacking on existing IP portfolio to drive margin expansion in 2023



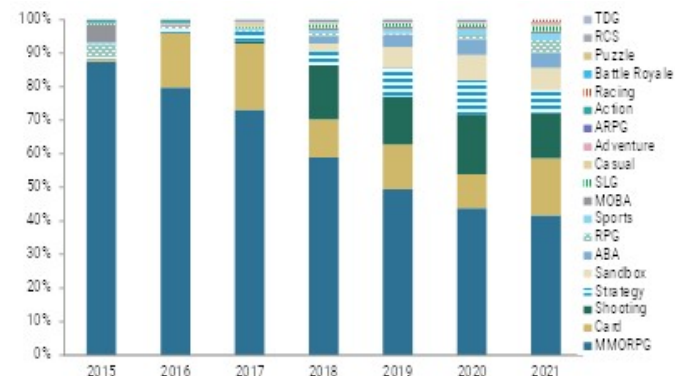
Source: Company data, Morgan Stanley Research (E) estimates

## NetEase (NTES; Overweight: PT US\$110)

**Defensive play with sustainable EPS growth:** NetEase is one of the most defensive names in China internet with a steady game revenue CAGR of 15% for 2017-22e, strong FCF and capital returns, and we expect a similar CAGR of 10% for 2022-24e, despite changes in macroeconomic conditions and China's regulatory reset. As China reopening remains uncertain and its macro recovery remains subpar, we think NetEase's low teens profit CAGR looks attractive, driven by its best-in-class content development capabilities, reinvestments, and share gain in the growing global TAM of >US\$200bn (2022E), while most China internet verticals are approaching user saturation with lower profitability.

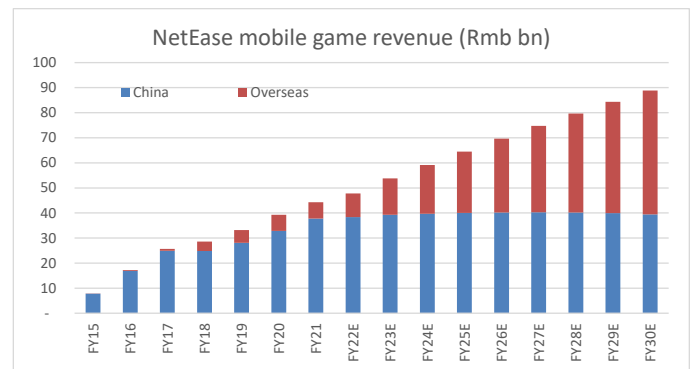
**Genre and geography diversification:** We think genre and geography diversifications are the two major growth drivers for NetEase's share gain in the global game market. NetEase began its genre diversification with the launch of Invincible in 2015, followed by Onmyoji in 2016, Knives Out and Identity V in 2018, LifeAfter in 2019, and Ace Racer, Nakara BladePoint and Harry Potter: Magic Awakened in 2021. Its non-MMORPG iOS grossing contribution had increased to over 50% in 2021 vs. less than 20% in 2016, according to Sensor Tower. For overseas, NetEase aims to ramp up the grossing contribution from 10-15% to 30% by 2025. It has been investing in game studios globally, including Grasshopper in Japan, Kepler Interactive in the UK, Lightforge Games in the US, etc.

**Exhibit 43:** NetEase - mobile games grossing breakdown by genre



Source: Sensor Tower, Morgan Stanley Research

**Exhibit 44:** NetEase's overseas revenue to reach >30% of its mix



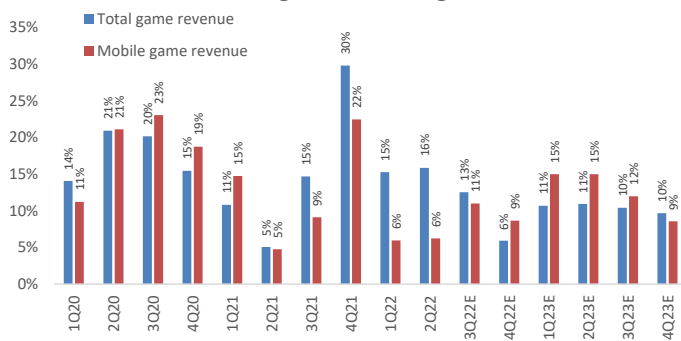
Source: Company data, Morgan Stanley Research (E) estimates



**Intact growth in 2H22-23:** Diablo China was released on July 25, 2022. We expect game revenue to grow by 9% yoy in 2H22 driven by Diablo's contribution, with the deceleration from 16% yoy in 1H22 purely due to last year's high base effect (release of Naraka Bladepoint PC and Harry Potter China in 3Q21). We expect the release of Harry Potter Asia in late 2022 to drive growth in 1H23, and the release of Naraka Bladepoint mobile and Justice mobile (both subject to license approval process) to drive growth in 2H23.

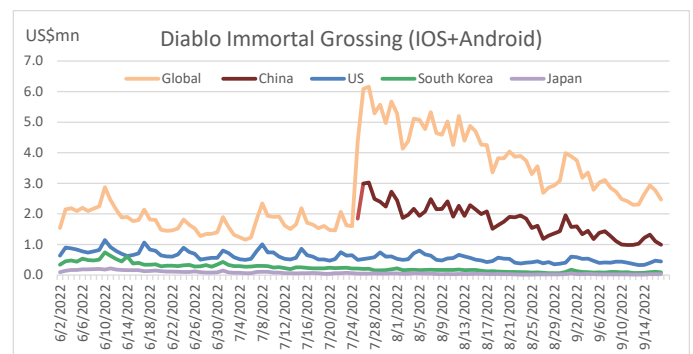
**Strong profitability drivers:** We see improving profitability driven by margin expansion in the non-game segment. Music gross margin improved to 13% in 2Q22 from 2% in 2021. Losses from both Youdao and the music segments are narrowing.

**Exhibit 45:** NetEase quarterly game revenue growth



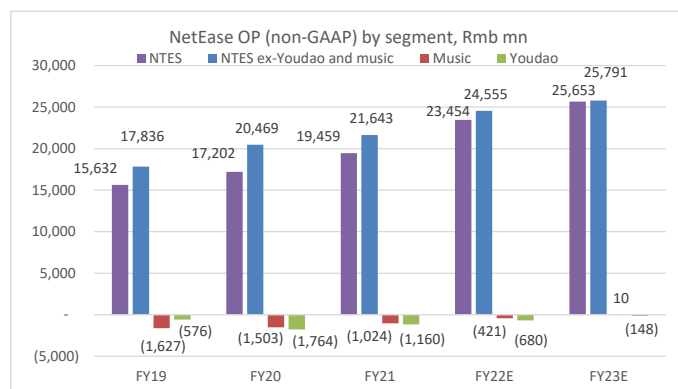
Source: Company data, Morgan Stanley Research (E) estimates

**Exhibit 46:** Diablo grossing



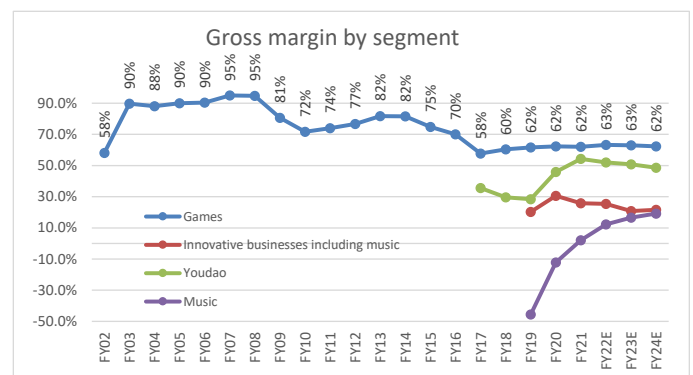
Source: Sensor Tower, Morgan Stanley Research

**Exhibit 47:** NetEase operating margin by segment



Source: Company data, Morgan Stanley Research (E) estimates

**Exhibit 48:** NetEase GPM by segment



Source: Company data, Morgan Stanley Research (E) estimates

**Cheaper valuation than most of its global peers:** The stock is trading at 17x 2023e P/E (core 13x ex-cash), based on 10% game revenue growth in 2023 and stable margin, which is cheaper than many global of NetEase's peers.

**Exhibit 49:** 2023E P/E at 17x (core 13x)

<b>Market cap</b>	<b>56,301</b>				
Net cash 2Q22	(12,996)				
<b>Enterprise value</b>	<b>43,304</b>				
Less: music attributable	(1,534)				
Less: Youdao attributable	(417)				
<b>EV for games</b>	<b>41,354</b>				
<b>Financials and valuation multiples</b>	<b>2021</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>
Net profit (non-GAAP)	2,928	3,092	3,277	3,414	3,756
Add: Youdao attributable net loss	91	63	11	(33)	(56)
Add: Music attributable net loss	91	39	(1)	(26)	(56)
Core net profit (non-GAAP)	3,109	3,195	3,287	3,355	3,644
<b>Overall P/E</b>	<b>19.8</b>	<b>18.3</b>	<b>17.0</b>	<b>16.0</b>	<b>14.4</b>
<i>Premium/(Discount) to Tencent</i>	<i>-7%</i>	<i>-22%</i>	<i>-12%</i>	<i>7%</i>	<i>24%</i>
<b>Core P/E ex cash, music and Youdao</b>	<b>13.3</b>	<b>12.9</b>	<b>12.6</b>	<b>12.3</b>	<b>11.3</b>
Diluted EPADS (non-GAAP) (Rmb)	29.2	31.7	34.1	36.1	40.3
Diluted EPADS (non-GAAP) (US\$)	4.3	4.7	5.0	5.3	6.0
<b>Overall P/E ex cash</b>	<b>14.8</b>	<b>14.0</b>	<b>13.2</b>	<b>12.7</b>	<b>11.5</b>
EBIT (non-GAAP)	2,883	3,475	3,800	4,032	4,491
<b>Overall EV/EBIT</b>	<b>15.0</b>	<b>12.5</b>	<b>11.4</b>	<b>10.7</b>	<b>9.6</b>
EBIT (non-GAAP)	3,206	3,638	3,821	3,945	4,309
<b>EV/EBIT ex music and Youdao</b>	<b>13.5</b>	<b>11.9</b>	<b>11.3</b>	<b>11.0</b>	<b>10.0</b>
Revenue	12,979	14,411	15,910	17,248	18,718
<b>Overall EV/Sales</b>	<b>3.3</b>	<b>3.0</b>	<b>2.7</b>	<b>2.5</b>	<b>2.3</b>
Operating CF	3,693	3,766	4,229	4,364	4,807
FCFF	2,048	2,056	2,503	2,613	3,021
<b>FCFF Yield</b>	<b>4.7%</b>	<b>4.7%</b>	<b>5.8%</b>	<b>6.0%</b>	<b>7.0%</b>
DPS (US\$)	1.2	1.3	1.4	1.5	1.7
<b>Dividend yield</b>	<b>1.4%</b>	<b>1.5%</b>	<b>1.6%</b>	<b>1.7%</b>	<b>1.9%</b>

Source: Company data, Morgan Stanley Research estimates

## Nintendo (7974.T, Overweight, PT ¥73,000)

### **Solid start for Splatoon3 has multiple positive implications:**

Splatoon3's domestic sell-through for the first three days of sales marked a solid 3.45mn units, and the strong start has three significant implications: (1) It boosts conviction in the F3/23 profit growth scenario; (2) by underscoring the ongoing presence of Switch's core users, it supports the idea that the Switch console cycle will be long-lived; and (3) we can expect it to lead to an increase in Nintendo Switch Online accounts given the multi-online game feature.

### **Growing installed base + expanding contents power:**

The number of annual Nintendo Switch players continues to grow, reaching 104 million as of June 22, according to the company. This is almost on par with PS4/PS5 MAUs. We forecast the Switch user base to continue to grow for the foreseeable future and strong sales of Splatoon 3 underscore Nintendo's growing IP power which should allow the company to well surpass previous titles. With a new Pokemon title set for 3Q F3/23, Fire Emblem Engage and Octopath Traveller 2 (Square Enix) set for 4Q, and much anticipated The Legend of Zelda: Tears of the Kingdom set for May 2023, Nintendo's pipeline is looking flush heading into 2023, which should drive strong earnings momentum through at least F3/24 1H.

We also highlight the growth of subscriptions and increase in in-game titles, as well as titles to maintain new users gained through Animal Crossing: New Horizons engaged to broaden the firm's range of million-seller pipeline.

We remain at the high end of the consensus range, but we recently lowered our F3/23 OP estimate from ¥658.7bn to ¥608.3bn in light of 1Q results, on the view that the firm may rely more on air cargo for shipping products ahead of the year-end shopping season than we

had previously forecast; this brings the SG&A ratio assumption up from 20% to 22%. For software sales, we estimate 237mn units (virtually unchanged), still expecting more than the firm's 210mn plan and F3/22 figure of 235mn.

**Reiterate OW, keep ¥73,000 PT:** We also recently trimmed our earnings forecast on changes to the SG&A ratio assumption, but raised the target multiple from F3/24e EV/EBITDA 9.8x to 10.5x (set just below the historical median now that the Switch console has reached the middle of its cycle) on higher global average (up from 11x to 13x) for peers.

### Recent updates

In the Nintendo Direct livestream broadcast (September 13 Japan time), the company disclosed its pipeline of games to be released through the coming F3/24 1H. Our impression is that this is a more powerful lineup than we anticipated. We expect a strong start to sales of Splatoon3 will lead to sales of 12mn units in 2Q and 17mn for the full year. We estimate shipments of Pokemon Scarlet and Violet, to be launched in November, at 18mn units for 3Q and 20mn for the full year. In both cases, we expect that sell-in figures will exceed those of the previous installment in the respective series. We look for total Switch software shipments for F3/23 to reach about 237mn units, exceeding the company plan (210mn units) and the F3/22 total (235mn).

Furthermore, the launch date for one of strongest contenders, The Legend of Zelda: Breath of the Wild sequel Tears of the Kingdom, has been set for May 12, 2023, and we take a positive view of the commitment to high F3/24 1Q earnings and content with outstanding user engagement that this plan indicates.

**Exhibit 50:** Key 1P Titles to be released in F22-23

Key 1P Titles to be released in F22-23	Release date	MS software unit sales assumptions	Previous Title	Release date	Unit sales (accumulated)
Switch Sports	2022/4/29	12.8M	n/a	n/a	n/a
Splatoon3	2022/9/9	17.0M	Splatoon2	2017/7/21	13.0M
Bayonetta 3	2022/10/28	1.0M	Bayonetta 2	2014/9/20	1.3M
Pokemon Scarlet / Violet	2022/11/18	20.0M	Pokemon Brilliant Diamond / Shining	2021/11/19	14.8M
Fire Emblem: Engage	2023/1/20	3.0M	Fire Emblem: Three Houses	2019/7/26	3.8M
The Legend of Zelda: Tears of the Kingdom	2023/5/12	20.0M	The Legend of Zelda: Breath of the Wild	2017/3/3	27.1M
Pikmin 4	2023	2.5M	Pikmin 3 Deluxe	2020/10/30	2.2M

Source: Company website, Nintendo Direct, VG Chartz, Morgan Stanley Research

**Exhibit 51:** Key 3P Titles announced at Nintendo Direct

Key 3P Title	Publisher	Release date
NieR: Automata The End of YoRHa Edition	Square Enix	2022/10/6
Fishing Spirits: Fish and Play Aquarium	Bandai Namco	2022/10/27
It Takes Two	EA Originals	2022/11/5
Sonic Frontier	SEGA	2022/11/8
Mario + Rabbids Galaxy Battle	Ubisoft	2022/12/2
Dragon Quest Treasures	Square Enix	2022/12/9
Fit Boxing Fist of the north star	Imagineer	2022/12/22
Story of Seasons: A Wonderful Life	Marvelous	2023/1/26
Theatrhythm Final Bar Line	Square Enix	2023/2/16
Octopath Traveller 2	Square Enix	2023/2/24
Rune Factory 3 Special	Marvelous	2023 Spring

Source: Nintendo Direct, Morgan Stanley Research

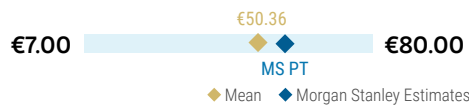
## Risk Reward – Ubisoft Entertainment SA (UBIP.PA)

Playing for better execution

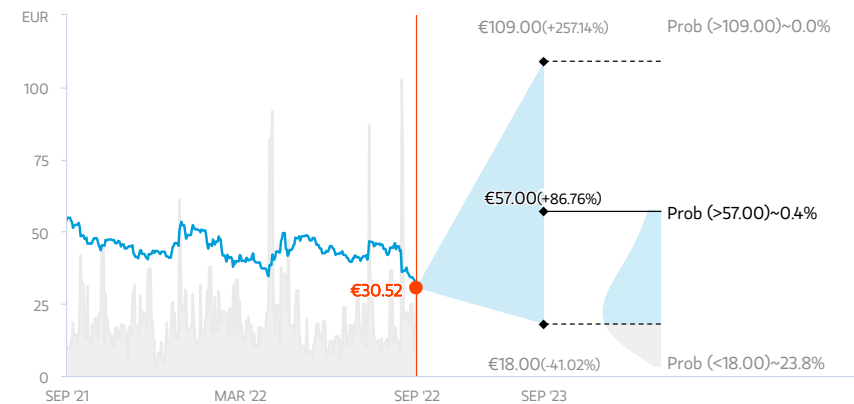
### PRICE TARGET €57.00

We value Ubisoft using a DCF model, in which we assume an 8% WACC and 3% perpetual growth rate.

#### Consensus Price Target Distribution



### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 22 Sep, 2022. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

#### BULL CASE

€109.00

#### BASE CASE

€57.00

Perfect execution, successful pivot to F2P/mobile

UBI sells 36m/50m units for new releases and back catalogue in FY'23 (*Mario + Rabbids* and *Skull & Bones*) and FY'24 (*Avatar, Star Wars, Beyond Good & Evil 2*), with PRI growing 23% pa 2022-26 to reach ~€1.9bn in FY'26 (48% of revenue). EBIT margins reach 34% by 2026, revenue/EPS grow by 14%/25% pa 2021-26.

Execution improves

UBI sells 30m/39m units for new releases and back catalogue in FY'23 (*Mario + Rabbids* and *Skull & Bones*) and FY'24 (*Avatar, Star Wars, Beyond Good & Evil 2*), with PRI growing 17% pa 2022-26 to reach ~€1.5bn in FY'26 (46% of revenue). EBIT margins expand to 27% by 2026, revenue/EPS grow by 9%/14% pa 2021-26.

#### BEAR CASE

€18.00

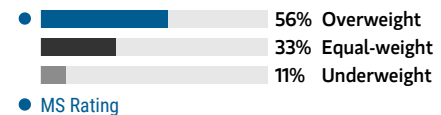
Execution continues to falter

UBI sells 23m/29m units for new releases and back catalogue in FY'23 (*Mario + Rabbids* and *Skull & Bones*) and FY'24 (*Avatar, Star Wars, Beyond Good & Evil 2*), with PRI growing ~4% pa 2022-26 to reach ~€950m in FY'26 (37% of revenue). EBIT margins reach 24% by 2026, revenue/EPS grow by 2%/7% pa 2021-26.

### OVERWEIGHT THESIS

- Ubisoft is one of the top four AAA publishers of video games globally, with a broad portfolio of titles. Engagement with the company's titles continues to grow and will be a key value driver, we believe.
- Execution of key games releases mis-fired during calendar 2019 and only partially recovered in 2020 and 2021. We expect this to improve.
- The company is pivoting towards F2P and mobile gaming which should increase its TAM, but success is uncertain.
- The value of the company's PRI (player recurring investment) is not adequately reflected in the stock price, in our view.

#### Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

#### Risk Reward Themes

Secular Growth: Positive  
Market Share: Positive

View descriptions of Risk Rewards Themes [here](#)



## Risk Reward – Ubisoft Entertainment SA (UBIP.PA)

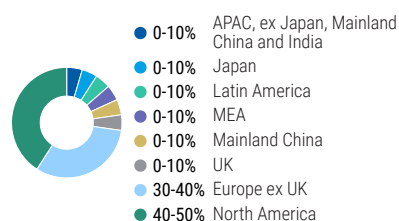
### KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Net bookings growth (%)	(5)	12	16	7
PRI as % of sales (%)	38	37	39	45
EBIT margin (%)	19.1	16.3	19.6	26.6
Cash R&D as % of sales (%)	55.2	54.7	51.1	41.8

### INVESTMENT DRIVERS

- Unit sales of new releases, which generate one-off sales via physical disc or digital download.
- Monthly Active Users (MAU) of online games, which generate micro-transaction (MTX) revenues.
- R&D and marketing costs.

### GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate  
View explanation of regional hierarchies [here](#)

### MS ALPHA MODELS

**1/5 MOST** 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

### RISKS TO PT/RATING

#### RISKS TO UPSIDE

- Unit sales of new releases and recurring revenue may surpass expectations.
- Mobile and F2P games portfolio may surpass expectation

#### RISKS TO DOWNSIDE

- Ubisoft's franchises may wane in popularity, lowering unit sales and recurring revenue.
- Technology shifts and rising competition for developer talent may drive up R&D spend on new games.
- Regulation in key markets may impact ability of publishers to release new games.

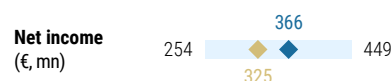
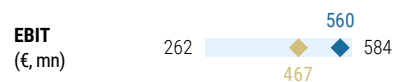
### OWNERSHIP POSITIONING

Inst. Owners, % Active	81%	<div style="width: 81%;"></div>
HF Sector Long/Short Ratio	2x	<div style="width: 200%;"></div>
HF Sector Net Exposure	5.4%	<div style="width: 5.4%;"></div>

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

### MS ESTIMATES VS. CONSENSUS

FY Mar 2024e



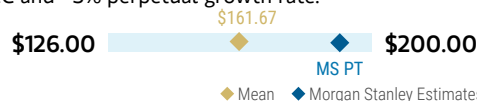
◆ Mean ◆ Morgan Stanley Estimates  
Source: Refinitiv, Morgan Stanley Research

## Risk Reward – Take-Two Interactive Software (TTWO.O)

### PRICE TARGET \$190.00

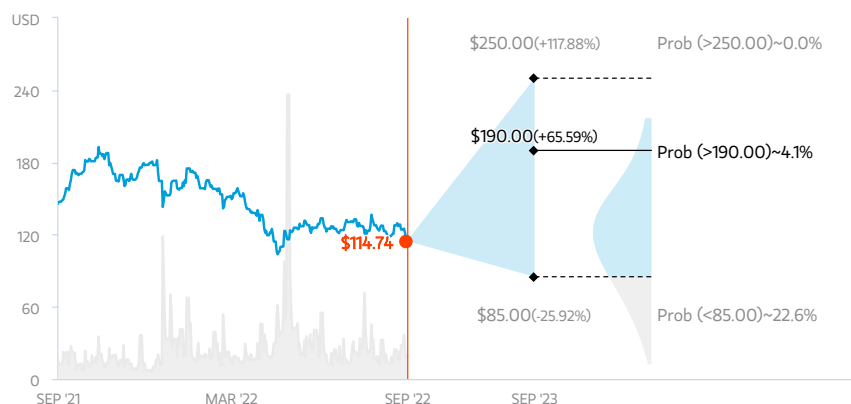
Price Target based on DCF with ~8% WACC and ~3% perpetual growth rate.

#### Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



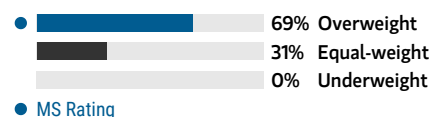
Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 22 Sep, 2022. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

### OVERWEIGHT THESIS

- We believe TTWO is well positioned to continue seeing strong growth given 1) best in class content and 2) a large, engaged, and relatively under-monetized player base.
- Rockstar Games' IP has garnered industry-high ratings with an average Metacritic score of 93 out of 100.
- Despite having the highest rated games, TTWO lags ATVI on in-game revenues per title. We see this gap closing over time.

#### Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

#### BULL CASE

**\$250.00**

##### 25x FY24 Bull Case EPS

Revenue/EPS grow at 37%/26% CAGRs through FY24, with EBITDA margins expanding to >30% by FY25.

#### BASE CASE

**\$190.00**

##### 20x FY24 Base Case EPS

Revenue/EPS grow at 32%/20% CAGRs through FY25, with EBITDA margins expanding to ~30% by FY25.

#### BEAR CASE

**\$85.00**

##### 15x FY24 Bear Case EPS

Revenue/EPS grow at 26%/0% CAGRs through FY24, with EBITDA margins expanding to <25% by FY25.

## Risk Reward – Take-Two Interactive Software (TTWO.O)

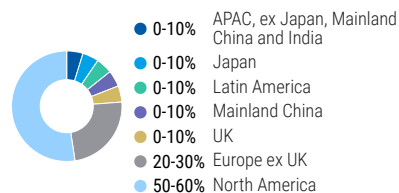
### KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Bookings (\$, mm)	3,409	6,003	8,089	7,743
EPS (\$)	5.06	5.25	9.50	8.92
Recurrent Consumer Spending (\$, mm)	2,171	4,378	5,375	5,554
Recurrent Consumer Spending Growth Y/Y (%)	(3.8)	101.6	22.8	3.3

### INVESTMENT DRIVERS

- Continued in-game success with GTA Online and NBA 2K MyTeam, driving monetization per MAU to parity with peer group.
- Strong review scores and affinity from fans, enabling strong MAUs, retention, and in-game monetization.

### GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate  
View explanation of regional hierarchies [here](#)

### MS ALPHA MODELS

<b>4/5 BEST</b>	24 Month Horizon	<b>5/5 MOST</b>	3 Month Horizon
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Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

### RISKS TO PT/RATING

#### RISKS TO UPSIDE

- Earlier than expected release of the next Rockstar title
- NBA 2k decelerates less than expected over time

#### RISKS TO DOWNSIDE

- If Rockstar is able to renegotiate more favorable contracts, this would hamper margin expansion and earnings growth.
- Gamers have recently shown more resistance to in-game transactions. This could impact in-game revenue growth and earnings.

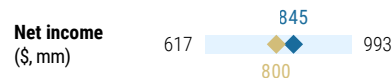
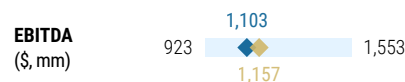
### OWNERSHIP POSITIONING

Inst. Owners, % Active	63.8%	<div style="width: 63.8%;"></div>
HF Sector Long/Short Ratio	2.5x	<div style="width: 2.5;"></div>
HF Sector Net Exposure	11.8%	<div style="width: 11.8%;"></div>

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure - Short Exposure).

### MS ESTIMATES VS. CONSENSUS

FY Mar 2023e



◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

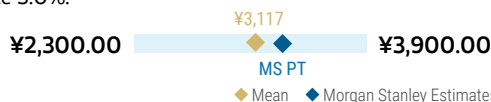
## Risk Reward – Nexon Co Ltd (3659.T) Top Pick

Strong recovery for core IP and robust pipeline for 2H22 keep us bullish.

### PRICE TARGET ¥3,300

¥3,300: Base case scenario, derived from our DCF valuation. We believe DCF best captures how the bottom-up revenues from individual titles flow through to earnings and valuation. Key assumptions: WACC 8.4% (beta 0.82, risk-free rate 3.5%, equity risk premium 6.0% on an all-equity structure); terminal growth rate 3.0%.

#### Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 22 Sep, 2022. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

#### BULL CASE

¥4,000

33x bull case 2022e EPS

**DNF drives secular double-digit top-line growth:** We assume *DNF Mobile's* modest success enables China revenues to surpass ¥100bn in 2023, with mobile accounting for 30% share. We also assume *DNF Online* revenues can be sustained at ¥70bn levels in the medium term, driving OP margins near 40% levels. We apply a higher terminal growth rate of 4.0%.

#### BASE CASE

¥3,300

27x base case 2022e EPS

**Steady earnings growth and ongoing expansion of mobile titles:** New title launches drive a 25%+ expansion in revenue for 2022, followed by 15%+ growth for 2023, gradually declining to stable mid-single-digit growth for the medium term. *DNF Online* steadies at ¥90bn+ levels in annual revenues. OP margins stable at high-30% levels for the medium term.

#### BEAR CASE

¥2,200

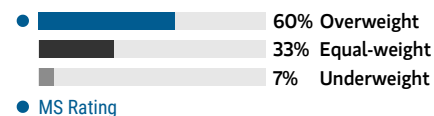
19x bear case 2022e EPS

**DNF growth slows as mobile fails to gain traction:** We assume *DNF Mobile* fails to gain strong traction in China, leading to a near-term 10% annual decline for the franchise. We assume long-term OP margins fall to high-20% levels and apply a terminal growth rate of 1.5%.

### OVERWEIGHT THESIS

- Core titles including MapleStory, DNF, and FIFA all showing stable performance on the back of Nexon's industry leading game ops capabilities.
- Pipeline looking strong with global launch of *Kartrider Drift*, and *Project Discovery* scheduled for 2H22, and *ARC Raiders* in early 2023.
- Valuation looks attractive at 23x P/E for 2023e, and 14x when adjusted for cash and investments.

#### Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

#### Risk Reward Themes

Secular Growth: *Positive*  
New Data Era: *Positive*

View descriptions of Risk Rewards Themes [here](#)

## Risk Reward – Nexon Co Ltd (3659.T)

### KEY EARNINGS INPUTS

Drivers	2021	2022e	2023e	2024e
China PC revenue (¥, mn)	72,839	82,000	88,000	92,400
NA&EU PC/console revenue (¥, mn)	5,560	9,000	45,000	55,000
Korea revenue (¥, mn)	154,683	206,500	219,000	231,630

### CATALYST CALENDAR

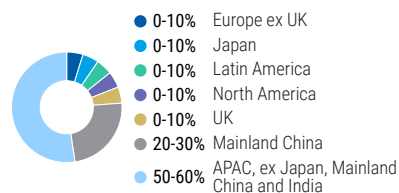
Date	Event
Q4 2022	Launch of Kartrider Drift
07 Nov 2022 - 11 Nov 2022	Q3 2022 Nexon Co Ltd Earnings Release

Source: Refinitiv, Morgan Stanley

### INVESTMENT DRIVERS

- Revenue trends for existing core titles: *DNF Online, MapleStory, DNF Mobile*, etc.
- Successful development and launch of new titles
- Investment and development in new content and IP

### GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate  
View explanation of regional hierarchies [here](#)

### RISKS TO PT/RATING

#### RISKS TO UPSIDE

- Strong reception for new title launches: *Kartrider Drift, Project Discovery, Arc Raiders*
- Events that could lead up to launch of *Mobile DNF* in China
- Acquisitions that increase the content competitiveness

#### RISKS TO DOWNSIDE

- Cancellation/delay of new titles
- Failure to come out with new titles that can contribute to revenue
- Possible sell down by NXC

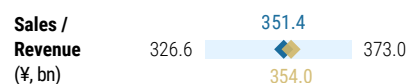
### OWNERSHIP POSITIONING

Inst. Owners, % Active 82.9%

Source: Refinitiv, Morgan Stanley Research

### MS ESTIMATES VS. CONSENSUS

FY Dec 2022e



◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

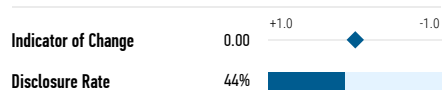
### MS ALPHA MODELS

5/5  
MOST

3 Month  
Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

### SUSTAINABILITY & ESG





## Risk Reward – NetEase, Inc (NTES.O) Top Pick

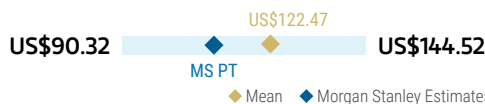
Multi-year product cycle with medium-term margin tailwind

### PRICE TARGET US\$110.00

Base case, sum of the parts.

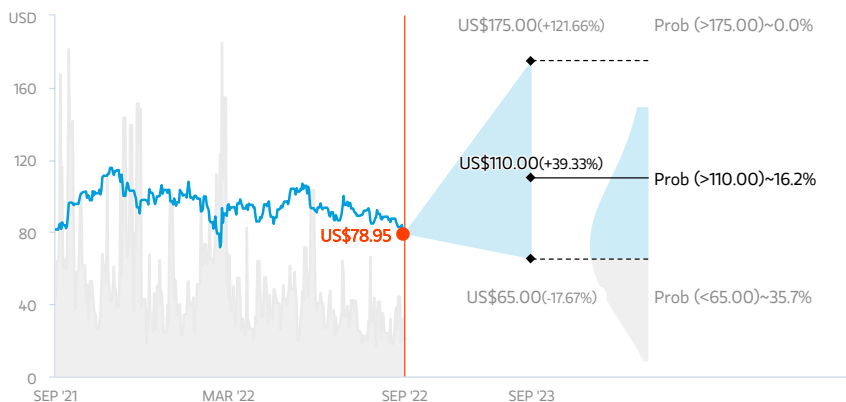
- Games - 19x 2023e P/E, compared to US/EU publishers at 15-35x, because overseas markets are rising in NetEase's game revenue revenue mix.
- Music - Latest market cap adjusted for NTES stake of 61.35%.
- Youdao - Morgan Stanley's price target.

#### Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 22 Sep, 2022. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

#### BULL CASE

**US\$175.00**

21x 2023e bull case non-GAAP EPS

**Stronger-than-expected growth driven by diversification and global expansion:** We assume game revenue CAGR of 26% in 2021-23. Non-GAAP operating margin 5ppt above our base case in 2022.

#### BASE CASE

**US\$110.00**

22x 2023e base case non-GAAP EPS

**Sustained growth in gaming revenue:** Game revenue CAGR of 11% over 2021-23. Non-GAAP operating margin of 24% in 2022.

#### BEAR CASE

**US\$65.00**

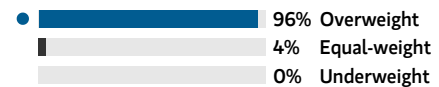
24x 2023e bear case non-GAAP EPS

**Gaming revenue growth is capped by competition while margin is eroded by loss-making businesses:** Game revenue CAGR of 8% in 2021-23. Non-GAAP operating margin 6ppt below our base case in 2022.

### OVERWEIGHT THESIS

- Its more certain and sustainable low- to mid-teens game revenue and profit CAGRs through 2024 vs. a shrinking number of high-growth companies in China's internet industry.
- Narrowing losses of non-game segments, and share buybacks of US\$2bn, p.a., also help EPS growth.
- NetEase also pays 25-30% of GAAP net profit in dividends quarterly.
- Our SOTP-based price target implies 21x 2023e P/E, reflecting potential upside from the margin tailwind of the decrease in channel fees in the medium term.

#### Consensus Rating Distribution



#### MS Rating

Source: Refinitiv, Morgan Stanley Research

#### Risk Reward Themes

Market Share: *Positive*

View descriptions of Risk Rewards Themes [here](#)

## Risk Reward – NetEase, Inc (NTES.O)

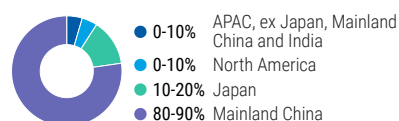
### KEY EARNINGS INPUTS

Drivers	2021	2022e	2023e	2024e
Mobile game revenue (Rmb, mn)	44,260	47,801	53,776	59,153
PC game revenue (Rmb, mn)	18,547	22,627	23,985	25,352
Innovative business and others (Rmb, mn)	12,448	13,195	14,160	15,203

### INVESTMENT DRIVERS

- Diversification and global expansion
- Game revenue growth
- Margin expansion

### GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate  
View explanation of regional hierarchies [here](#)

### MS ALPHA MODELS

<b>2/5 BEST</b>	24 Month Horizon	<b>4/5 MOST</b>	3 Month Horizon
-----------------	------------------	-----------------	-----------------

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

### SUSTAINABILITY & ESG



### RISKS TO PT/RATING

#### RISKS TO UPSIDE

- Better-than-expected performance of existing and/or new game titles
- Faster-than-expected overseas expansion

#### RISKS TO DOWNSIDE

- Shorter-than-expected lifecycle of games
- Weaker-than-expected margin, with a drag from loss-making businesses

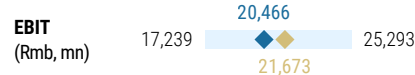
### OWNERSHIP POSITIONING

Inst. Owners, % Active	85.7%
HF Sector Long/Short Ratio	2.5x
HF Sector Net Exposure	11.8%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure - Short Exposure).

### MS ESTIMATES VS. CONSENSUS

FY Dec 2022e



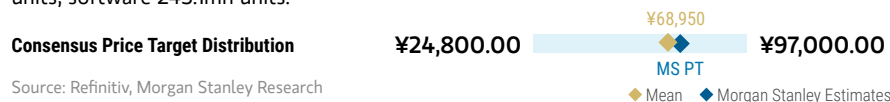
◆ Mean ◆ Morgan Stanley Estimates  
Source: Refinitiv, Morgan Stanley Research

## Risk Reward – Nintendo (7974.T) Top Pick

Key is ability to raise digital sales ratio & extend console life cycle

### PRICE TARGET ¥73,000

We value the stock at F3/24e EV/EBITDA of 10.5x. The global average for game publisher stocks is 13.0x, but we include a discount to reflect the console exposure and concerns over the peak out of stay-at-home demand. Switch shipment assumptions: F3/24 hardware 17.5mn units, software 243.1mn units.



### RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

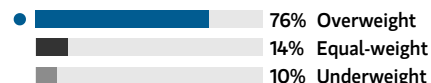
Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 22 Sep, 2022. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology [here](#)

BULL CASE	¥85,000	BASE CASE	¥73,000	BEAR CASE	¥50,000
F3/24e EV/EBITDA x 11.2		F3/24e EV/EBITDA x 10.5		F3/24e EV/EBITDA x 7.4	
Switch shipment volume assumptions: F3/24 hardware 22.0mn units, software 280.0mn units.		We value the stock at F3/24e EV/EBITDA of 10.5x. The global average for game publisher stocks is 13.0x, but we include a discount to reflect the console exposure and concerns over the peak out of stay-at-home demand. Switch shipment assumptions: F3/24 hardware 17.5mn units, software 243.1mn units.		Switch shipment assumptions: F3/24 hardware 15.0mn units, software 200.0mn units.	

### OVERWEIGHT THESIS

- We like the company's strategy of proactively seeking to increase digital sales.
- We think the extension of the lifecycle of Sony's PS4 generation enhances conviction that the same can be achieved for Nintendo Switch.
- The same strategy can push up OP margins just as it did for Sony's G&N segment and overseas game publishers, with positive implications for valuations.

### Consensus Rating Distribution



● MS Rating

Source: Refinitiv, Morgan Stanley Research

### Risk Reward Themes

Market Share: *Positive*

View descriptions of Risk Rewards Themes [here](#)

## Risk Reward – Nintendo (7974.T)

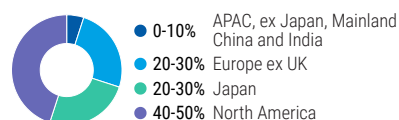
### KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Switch Units (mn)	23.1	21.0	17.5	15.6
SW for Switch (000s)	235.1	237.0	243.1	232.0
OP (¥, bn)	592.8	608.2	651.6	653.5

### INVESTMENT DRIVERS

- Launch schedule and sales trends for Switch hardware and key 1st party titles.
- Software digital download rates.
- Subscription rates for Nintendo Online.

### GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate  
View explanation of regional hierarchies [here](#)

### MS ALPHA MODELS

2/5 MOST 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

### SUSTAINABILITY & ESG



### RISKS TO PT/RATING

#### RISKS TO UPSIDE

- Growth in Switch hardware & software for the China market
- Announcement of a momentous proposal from leading shareholders

#### RISKS TO DOWNSIDE

- Sluggish sales of Nintendo's core titles for the Switch.
- If physical sales of 1st party titles holding up better than expected means that the digital sales ratio fails to rise, or if sales of add-on titles struggle with the same result.

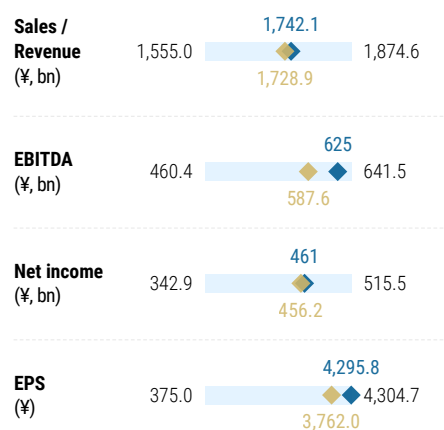
### OWNERSHIP POSITIONING

Inst. Owners, % Active 84.7%

Source: Refinitiv, Morgan Stanley Research

### MS ESTIMATES VS. CONSENSUS

FY Mar 2023e



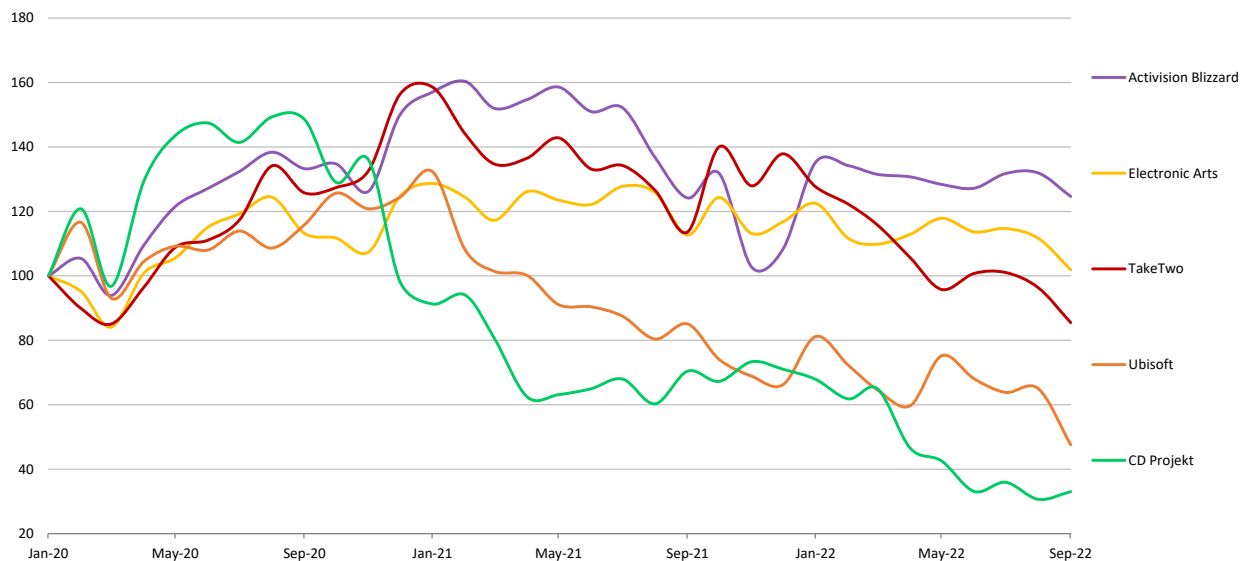
Source: Refinitiv, Morgan Stanley Research

# V. Appendix

## Share price performance of key publishers since 2020

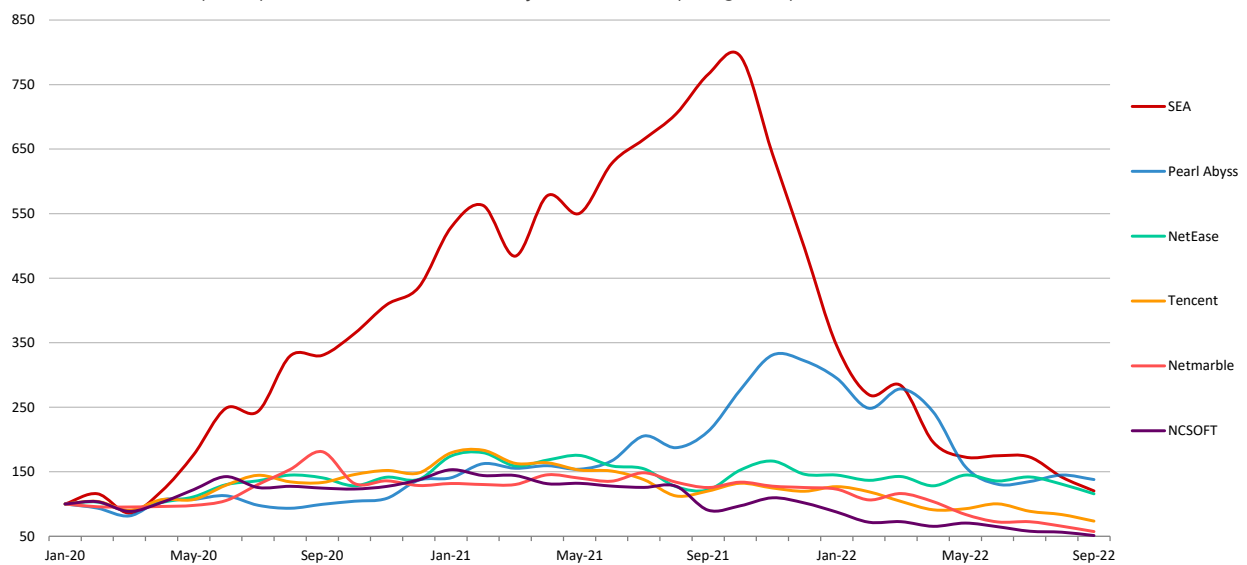
With the exception of Japan, which saw number of publishers including Capcom (Resident Evil Village, Monster Hunter Rise), Bandai Namco (Elden Ring), and Nexon (Dungeon & Fighter Mobile) delivering on hit content, the majority of the global publishers under our coverage have given up share price gains from 2020.

**Exhibit 52:** Share price performance 2020- 2022 YTD: US/Europe game publishers

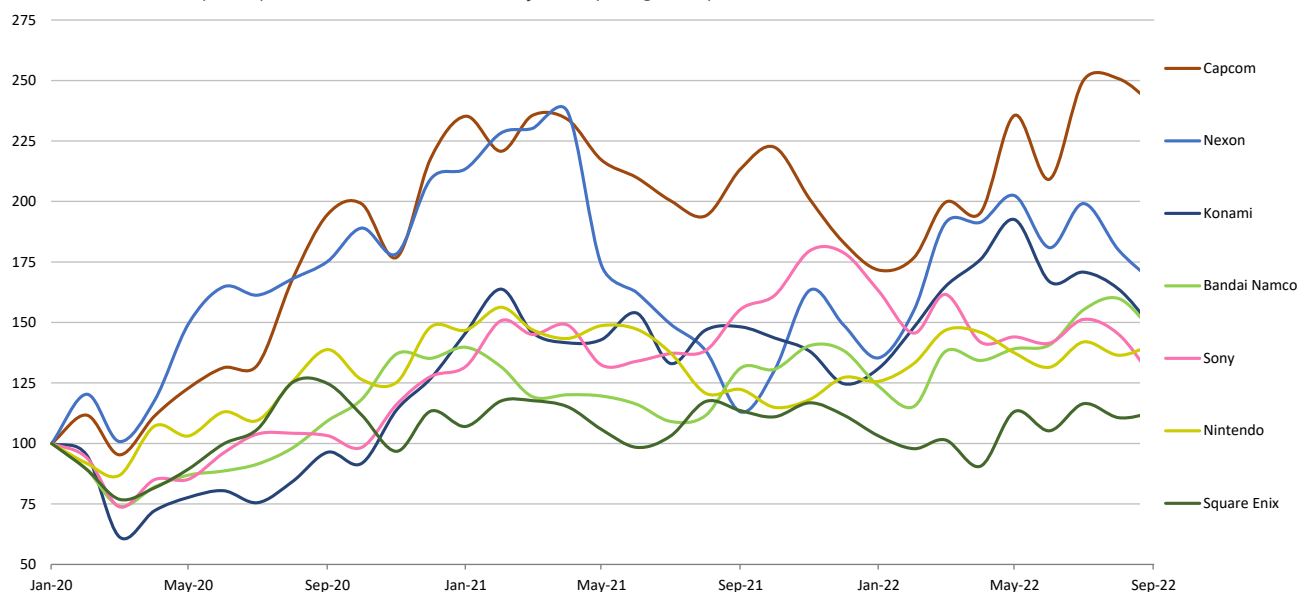


Source: Datastream, Morgan Stanley Research

**Exhibit 53:** Share price performance 2020- 2022 ytd: Asia ex-Japan game publishers



Source: Datastream, Morgan Stanley Research

**Exhibit 54:** Share price performance 2020- 2022 ytd: Japan game publishers

Source: Datastream, Morgan Stanley Research

## Outlook for other Chinese game publishers under our coverage

**Bilibili (BILI; Equal-weight: PT US\$23)** - We expect game revenue to fall 3% YoY in 2022 due to limited new launches in 1H22 and decay of existing titles. Bilibili launched *Space Hunter 3* on June 29 and a Japanese ACG title overseas on June 27. According to Sensor Tower, grossing of *Space Hunter 3* has fallen >80% since launch, and the ACG title is tracking at ~Rmb100mn grossing in 3Q. Bilibili will launch *FIST* (PC and PS) in September and *Non Anonymous Instruction* (card) and four other titles in 2H22. Game revenue growth from 2023 onwards will be mainly driven by its self-developed games, but with a limited track record so far.

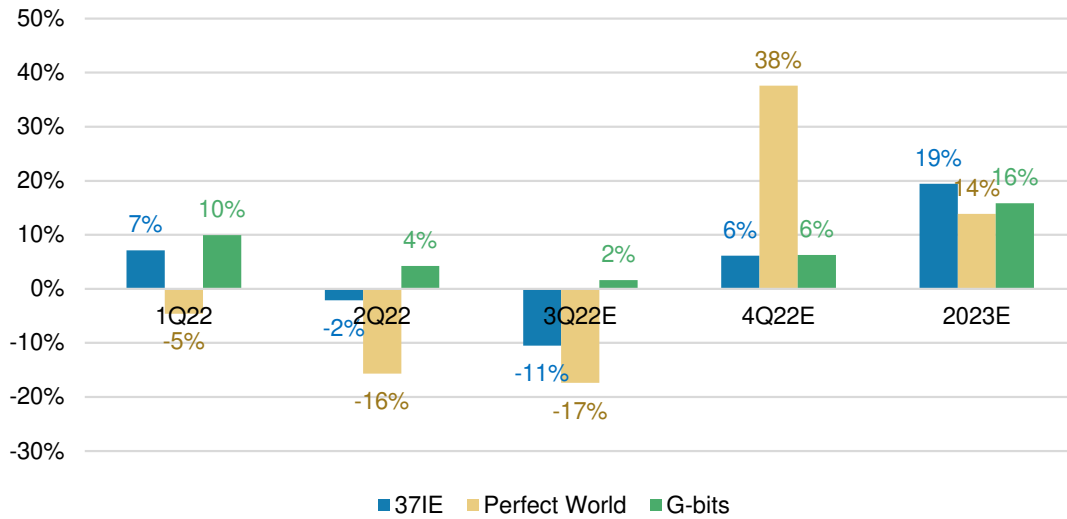
**37IE (002555.SZ; Overweight: PT Rmb22.70)** - The company has showcased its success overseas with several blockbusters that continue to drive growth. Looking ahead, 37IE has a rich slate of new titles ready to launch both domestically and overseas, which could help growth regain its mojo. However, domestic license uncertainties and hit-or-miss risk from new overseas titles (despite past track record) remain concerning. We expect revenue to fall 11% YoY in 3Q22, due to limited new releases and tough comps, before returning to positive growth of 6% YoY in 4Q22 and 19% YoY in 2023.

**Perfect World (002624.SZ; Equal-weight: PT Rmb14.40)** - Its recent overseas title, *Tower of Fantasy overseas* performed better than we expected in its first week (US\$40mn grossing, per the company). We think it is more important to focus on longer-term sustainability - an indication of PW's overseas success and improved resilience, but we have low visibility at the moment. For its influential IP series (backbone driver), we expect to see supply improvement as early as 4Q22, with the potential release of *Zhuxian World PC* (has license), followed by several others in the pipeline. Together with other new innovative titles (which have been under development for years), we expect a brighter 2023 and onwards outlook. We forecast revenue growth to decline by 17% YoY in 3Q22, but re-accelerate to 38% YoY in 4Q22, although with uncertainties around license approval, release schedule, and hit-or-miss risk. We expect revenue to grow 14% YoY in 2023.

**G-bits (603444.SS; Equal-weight: PT Rmb320)** - We expect revenue to remain stable and resilient at 2% and 6% YoY in 3-4Q22 respectively, and 16% YoY in 2023. We continue to like G-bits' years-long resiliency from legacy titles, even amid industry downcycles. In terms of new releases, the biggest catalyst, *Aobi Island*, is now past, and other catalysts' visibility remains low as new titles are still in the preparation stage, even though some have received license already.

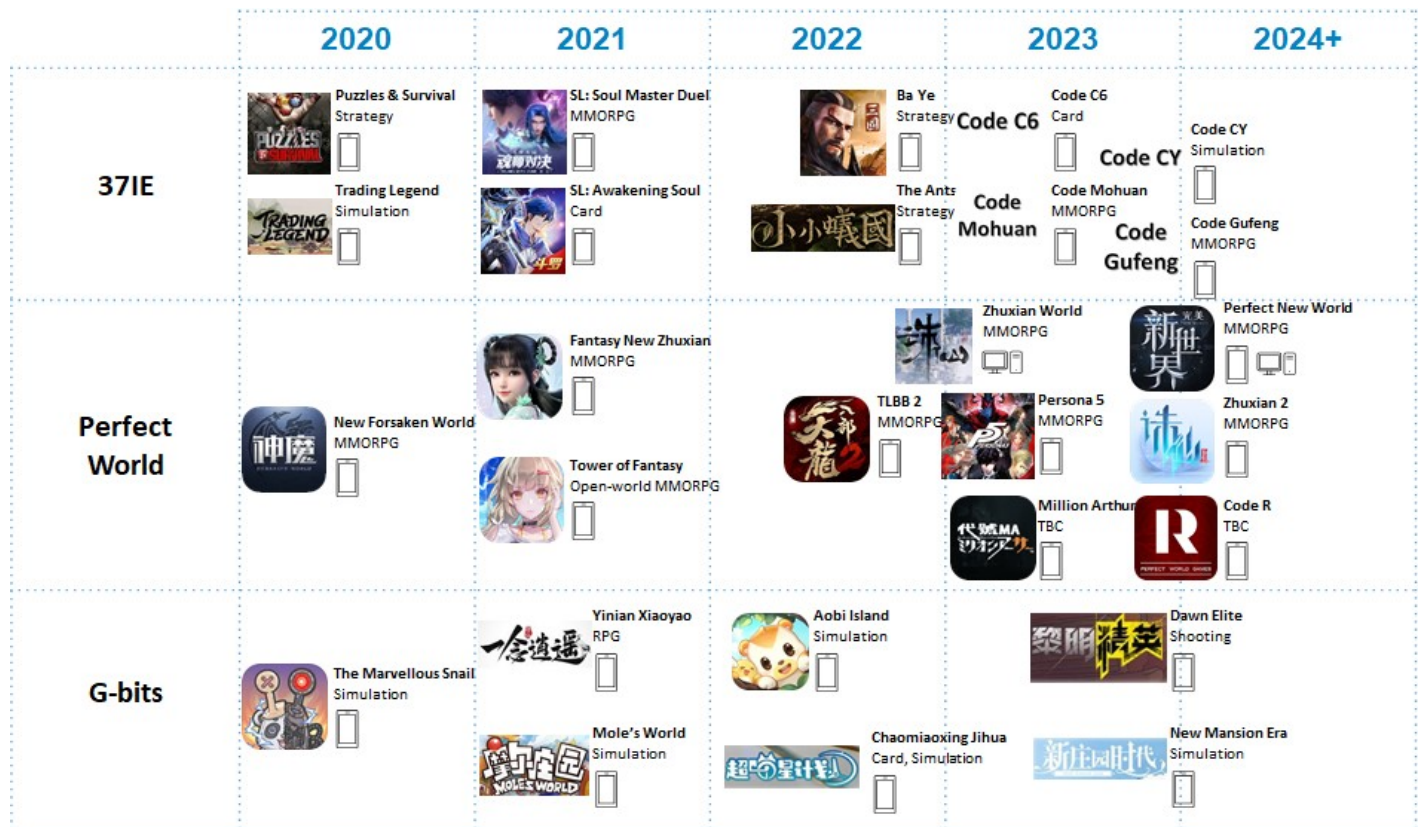


**Exhibit 55:** Revenue growth outlook of A-share game studios  
% Total revenue YoY



Source: Company data, Morgan Stanley Research (E) estimates

**Exhibit 56:** Game launch history and upcoming pipeline (flagship titles only): China (cont.)



Source: Company data, Morgan Stanley Research

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(as of August 31, 2022)

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Stock Rating Category	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1356	38%	304	41%	22%	596	39%
Equal-weight/Hold	1589	45%	349	47%	22%	716	47%
Not-Rated/Hold	0	0%	0	0%	0%	0	0%
Underweight/Sell	610	17%	90	12%	15%	225	15%
Total	3,555		743			1537	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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Equal-weight (E or Equal) - The stock's total return is expected to be in line with the total return of the relevant country MSCI Index or the average total return of the analyst's industry (or

industry team's) coverage universe, on a risk-adjusted basis over the next 12-18 months.

Not-Rated (NR) - Currently the analyst does not have adequate conviction about the stock's total return relative to the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U or Under) - The stock's total return is expected to be below the total return of the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

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Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

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Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

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**INDUSTRY COVERAGE: S. Korea Telecoms, Media & Internet**

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/26/2022)
<b>Seyon Park</b>		
Coupang Inc (CPNG.N)	O (06/29/2022)	US\$16.08
DoubleU Games Co Ltd (192080.KS)	E (07/26/2022)	₩41,750
Kakao Corp (035720.KS)	E (10/01/2021)	₩59,700
Krafton Inc (259960.KS)	O (05/20/2022)	₩209,000
KT Corp (030200.KS)	O (03/21/2022)	₩36,800
LG Uplus Corp (032640.KS)	E (03/21/2022)	₩11,150
Naver Corp (035420.KS)	E (04/22/2022)	₩204,500
NCSoft Corp (036570.KS)	E (02/16/2022)	₩327,000
Netmarble Games Corp (251270.KS)	U (12/11/2018)	₩54,500
Nexon Co Ltd (3659.T)	O (09/29/2021)	₩2,480
Pearl Abyss Corp (263750.KQ)	U (08/12/2022)	₩52,100
SK Telecom Co Ltd (017670.KS)	O (08/27/2019)	₩53,500

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\* Historical prices are not split adjusted.

**INDUSTRY COVERAGE: China Internet and Other Services**

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/23/2022)
<b>Alex Poon</b>		
Bilibili Inc (BILI.O)	E (01/07/2022)	US\$16.18
DouYu International Holdings Limited (DOYU.O)	U (10/13/2021)	US\$1.17
Hello Group Inc (MOMO.O)	E (09/20/2021)	US\$4.44
HUYA Inc (HUYA.N)	U (10/13/2021)	US\$2.66
JOYY Inc. (YY.O)	E (06/02/2022)	US\$25.86
Kuaishou Technology (1024.HK)	O (02/28/2022)	HK\$55.60
NetEase, Inc (NTES.O)	O (12/06/2018)	US\$77.55
Sohu.Com Inc (SOHU.O)	E (08/01/2020)	US\$17.14
Tongcheng Travel Holdings (0780.HK)	O (01/04/2019)	HK\$15.24
Trip.com Group Ltd (TCOM.O)	O (05/17/2021)	US\$25.99
Weibo Corp (WB.O)	E (01/08/2019)	US\$17.48
<b>Eddy Wang, CFA</b>		
Dingdong Cayman Limited (DDL.N)	U (03/21/2022)	US\$3.89
JD.com, Inc. (JD.O)	O (04/15/2020)	US\$52.31
Kanzhun Ltd (BZ.O)	O (08/04/2021)	US\$18.25
Pinduoduo (PDD.O)	E (07/12/2022)	US\$60.05
Vipshop Holdings Ltd (VIPS.N)	E (02/24/2022)	US\$9.18
<b>Gary Yu</b>		
Alibaba Group Holding (BABA.N)	O (11/21/2019)	US\$78.80
Baidu Inc (BIDU.O)	E (09/07/2020)	US\$118.75
Meituan (3690.HK)	O (03/31/2020)	HK\$167.50
Tencent Holdings Ltd. (0700.HK)	O (03/19/2020)	HK\$283.20
<b>Rebecca Xu</b>		
IQIYI Inc (IQ.O)	U (01/12/2021)	US\$2.97
<b>Steven Tsai, CFA</b>		
Autohome Inc (ATHM.N)	E (07/21/2021)	US\$30.56
KE Holdings Inc (BEKE.N)	O (03/16/2022)	US\$16.30
Tongdao Liepin Group (6100.HK)	E (12/11/2019)	HK\$7.76

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\* Historical prices are not split adjusted.



**INDUSTRY COVERAGE: Consumer Electronics**

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/26/2022)
<b>Masahiro Ono</b>		
Casio Computer (6952.T)	O (12/02/2020)	¥1,274
Nintendo (7974.T)	O (04/07/2020)	¥59,490
Panasonic Holdings Corp (6752.T)	O (10/11/2017)	¥1,046
Sharp (6753.T)	U (03/23/2021)	¥898
Sony Group Corp (6758.T)	O (07/28/2021)	¥9,682
Yamaha (7951.T)	E (12/02/2020)	¥4,815

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

**INDUSTRY COVERAGE: Internet**

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/23/2022)
<b>Brian Nowak, CFA</b>		
Activision Blizzard Inc (ATVI.O)	E (11/02/2021)	US\$74.95
Airbnb Inc (ABNB.O)	E (01/04/2021)	US\$101.75
Alphabet Inc. (GOOGL.O)	O (08/11/2015)	US\$98.74
Amazon.com Inc (AMZN.O)	O (04/24/2015)	US\$113.78
Booking Holdings Inc (BKNG.O)	E (01/09/2019)	US\$1,669.88
Compass, Inc. (COMP.N)	E (07/20/2022)	US\$2.35
Criteo SA (CRTO.O)	E (01/26/2016)	US\$26.79
Despegar.com Corp (DESP.N)	E (10/16/2017)	US\$6.17
DoorDash Inc (DASH.N)	E (04/24/2022)	US\$52.01
Expedia Inc. (EXPE.O)	E (01/09/2019)	US\$91.26
Innovid Corp (CTV.N)	U (09/12/2022)	US\$2.10
Integral Ad Science Holding Corp. (IAS.O)	O (07/26/2021)	US\$7.34
Lyft Inc (LYFT.O)	E (10/24/2019)	US\$13.99
Meta Platforms Inc (META.O)	O (04/27/2016)	US\$140.41
Nextdoor Holdings Inc (KIND.N)	E (02/24/2022)	US\$2.84
Pinterest Inc (PINS.N)	E (03/28/2022)	US\$22.59
Quotient Technology Inc. (QUOT.N)	U (12/19/2019)	US\$2.10
Roblox Corporation (RBLX.N)	E (02/16/2022)	US\$35.54
Snap Inc. (SNAP.N)	U (07/25/2022)	US\$10.32
TRIVAGO NV (TRVG.O)	E (09/28/2017)	US\$1.31
Twitter Inc (TWTR.N)	++	US\$41.58
Uber Technologies Inc (UBER.N)	O (06/04/2019)	US\$27.82
Wheels Up Experience Inc. (UP.N)	U (11/08/2021)	US\$1.36
Yelp Inc (YELP.N)	U (01/10/2019)	US\$32.61
Zillow Group Inc (Z.O)	E (04/18/2018)	US\$29.51

**Lauren Schenk**

Bumble Inc. (BMBL.O)	E (03/08/2021)	US\$21.23
Chewy Inc (CHWY.N)	E (04/16/2020)	US\$31.76
eBay Inc (EBAY.O)	U (06/23/2022)	US\$38.19
Etsy Inc (ETSY.O)	E (08/04/2021)	US\$96.47
Farfetch Ltd. (FTCH.N)	O (11/17/2020)	US\$8.57
FIGS, Inc. (FIGS.N)	E (06/21/2021)	US\$9.02
Match Group Inc (MTCH.O)	O (06/17/2021)	US\$47.30
Mytheresa (MYTE.N)	E (04/12/2022)	US\$12.46
Peloton Interactive, Inc. (PTON.O)	E (03/14/2022)	US\$8.51
Poshmark Inc (POSH.O)	E (02/08/2021)	US\$14.38
RealReal Inc (REAL.O)	E (11/17/2020)	US\$1.59
Rent the Runway, Inc. (RENT.O)	O (11/22/2021)	US\$2.38

Revolve Group Inc (RVLV.N)	E (02/24/2022)	US\$23.64
Rover Group Inc (ROVR.O)	E (08/06/2021)	US\$3.20
Shutterstock Inc (SSTK.N)	E (07/28/2022)	US\$49.83
Stitch Fix Inc (SFIX.O)	E (12/03/2021)	US\$4.27
ThredUp Inc. (TDUP.O)	E (04/20/2021)	US\$2.07
WW International Inc (WW.O)	E (04/07/2021)	US\$4.40
<b>Matthew Cost</b>		
AppLovin Corp (APP.O)	O (09/23/2022)	US\$20.21
Electronic Arts Inc (EA.O)	E (08/04/2021)	US\$115.64
ironSource (IS.N)	++	US\$3.56
Playstudios Inc. (MYPS.O)	E (09/23/2021)	US\$3.56
Playtika Holding Corp (PLTK.O)	O (02/09/2021)	US\$10.32
SciPlay Corporation (SCPL.O)	E (05/28/2019)	US\$10.89
Take-Two Interactive Software (TTWO.O)	O (02/01/2018)	US\$110.36
Unity Software Inc (U.N)	++	US\$33.25

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\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Media & Entertainment

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/23/2022)
<b>Omar F Sheikh</b>		
Ascential PLC (ASCL.L)	E (04/06/2020)	213p
CD Projekt (CDR.WA)	E (09/08/2022)	PLN 90.49
Informa (INF.L)	O (03/19/2019)	522p
ITV (ITV.L)	U (09/08/2022)	61p
MultiChoice Group Ltd (MCGJ.J)	E (10/08/2020)	ZAc 11,730
Pearson (PERSON.L)	E (04/13/2022)	861p
ProSiebenSat.1 Media SE (PSMGn.DE)	U (09/08/2022)	€7.32
Publicis Groupe (PUBPPA)	U (05/23/2022)	€48.82
RELX (REL.L)	O (03/16/2020)	2,182p
S4 Capital PLC (SFOR.L)	E (07/22/2022)	154p
Ubisoft Entertainment SA (UBIPP.A)	O (12/04/2019)	€30.66
Universal Music Group (UMG.AS)	O (10/07/2021)	€18.47
Viaplay Group AB (VPLAYb.ST)	O (12/04/2020)	SKr 241.50
Vivendi (VIV.PA)	O (04/30/2018)	€8.28
Wolters Kluwer (WLSNc.AS)	O (01/07/2016)	€98.80
WPP Group Plc (WPPL)	U (05/23/2022)	760p

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