

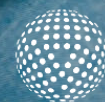


# VIDEO GAMES WINTER UPDATE

---

It's not all fun and games anymore!

December 2022



**Houlihan Lokey**

# Executive Summary

---

- » **After two years of extraordinary growth in 2020 and 2021 (and a COVID-19 boom), the global video games industry is facing near-term headwinds.**
  - **Video game industry revenues are forecast to decline by 4.3% in 2022, marking the first decline in market history:** The industry now faces a number of challenges: including a post-pandemic pull-back, privacy changes (elimination of IDFA) making user acquisitions more challenging; an inflationary environment which is weighing on consumer discretionary spending; a tight market for game developers and supply chain disruptions.
  - **The long-term outlook for industry remains positive:** While industry growth is expected to slow over the next few years (~5%), market forecasts for 2023 are still well above pre-pandemic levels (only 2022 will be a corrective year). Video game industry growth will be driven by a variety of factors, including the proliferation of mobile games; expansion of more accessible models (such as free-to-play and web3 games), high demand for games in developed markets (led by the US and China); and a significant shift in media consumption towards video games among younger generations.
  - **The video game industry is very clearly a force to be reckoned with and has earned a prominent position within the broader media ecosystem:** The global video games market is now more than 3.6x the music streaming and movie box office markets combined.
- » **2022 has been a historic year for M&A, punctuated by three mega deals:** Microsoft / Activision (\$69.0bn); Take-Two / Zynga (\$12.7bn); and Sony / Bungie (\$2.4bn).
  - **Large, diversified video game companies are leading the industry consolidation:** Driven by the need for mobile / cross platform gaming capabilities; developer talent; and premium IP.
  - **IP continues to be a hotly pursued investment strategy:** Companies are looking for scale via new IP and capabilities to maintain brand and franchise strength, especially as transmedia becomes more relevant; the adoption of video games franchises into film (and vice versa) have seen multiple launches this year, from Uncharted to Marvel's Spider-Man.
  - **Further consolidation is coming:** We expect further consolidation over the next 12 months as choppy markets and lower valuations will create opportunities for both strategic and financial buyers—scale matters increasingly in choppy markets.
- » **The video games industry has seen a record level of investment over the last two and a half years, with significant investment dollars flowing into web3 / blockchain gaming.**
  - **Historic levels of investment:** Investment into the global video games industry hit record years in 2020 and 2021; and remained high through 1H of 2022.
  - **Web3 / blockchain gaming:** Web3 / blockchain gaming has attracted significant investment, but this has slowed over the course of 2022, due in part to macro and crypto market concerns.
- » **We remain bullish on the long-term outlook for the video game industry.**
  - While the industry is facing some near-term challenges, we expect it will overcome these challenges by super-servicing gamers around the world with exceptional and highly engaging content across multiple platforms; and via innovative consumption models.

## Houlihan Lokey's Video Games Coverage Team

---



**John Lambros**  
*Co-Head of U.S.  
Technology Group*  
[John.Lambros@HL.com](mailto:John.Lambros@HL.com)



**Daniel Gossels**  
*Managing Director*  
[DGossels@HL.com](mailto:DGossels@HL.com)



**Adrian Reed**  
*Managing Director*  
[Adrian.Reed@HL.com](mailto:Adrian.Reed@HL.com)



**Ronald de Gier**  
*Senior Vice President*  
[RDeGier@HL.com](mailto:RDeGier@HL.com)



**Durgesh Panchani**  
*Associate*  
[Durgesh.Panchani@HL.com](mailto:Durgesh.Panchani@HL.com)



**Kevin Lang**  
*Associate*  
[Kevin.Lang@HL.com](mailto:Kevin.Lang@HL.com)



**Dhavan Khatri**  
*Analyst*  
[DKhatri@HL.com](mailto:DKhatri@HL.com)



**Rahul Amin**  
*Analyst*  
[Rahul.Amin@HL.com](mailto:Rahul.Amin@HL.com)

Houlihan Lokey is a leading global investment bank with expertise in Mergers and Acquisitions, Capital Markets, Financial Restructuring, and Valuation

## Key Facts and Figures



**35**  
LOCATIONS  
WORLDWIDE

**2,200**  
TOTAL FINANCIAL  
PROFESSIONALS

**300+**  
MANAGING  
DIRECTORS<sup>(1)</sup>

**2,000+**  
CLIENTS SERVED ANNUALLY

**\$6.5B**  
MARKET  
CAPITALIZATION<sup>(2)</sup>

**\$2.3B**  
REVENUE

## Our Services



Corporate Finance

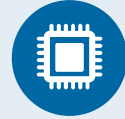


Financial  
Restructuring



Financial and  
Valuation Advisory

## Our Coverage Areas



Technology



Business Services



Consumer, Food,  
and Retail



Energy



Financial Services



Healthcare



Industrials



Real Estate, Lodging,  
and Leisure



Financial Sponsors  
Coverage



Equity Capital  
Markets



Debt Advisory

Houlihan Lokey is a trusted advisor to more top decision-makers than any other independent global investment bank



## Corporate Finance

- No. 1 global M&A advisor
- Leading capital markets advisor raising more than \$100 billion in past five years

### 2021 Investment Banking Rankings All Global Transactions

Rank	Advisor	Deals
1	<b>Houlihan Lokey</b>	<b>549</b>
2	Goldman Sachs	511
3	JP Morgan	508

Source: Refinitiv.  
Excludes accounting firms and brokers.



## Financial Restructuring

- No. 1 global restructuring advisor
- \$3.0 trillion of aggregate transaction value completed

### 2021 Global Distressed Debt & Bankruptcy Restructuring Rankings

Rank	Advisor	Deals
1	<b>Houlihan Lokey</b>	<b>63</b>
2	Rothschild	38
3	Moelis	34

Source: Refinitiv.



## Financial and Valuation Advisory

- No. 1 global M&A fairness opinion advisor over the past 20 years
- 1,000+ annual valuation engagements

### 2002 to 2021 Global M&A Fairness Opinion Advisory Rankings

Rank	Advisor	Deals
1	<b>Houlihan Lokey</b>	<b>952</b>
2	JP Morgan	890
3	Duff & Phelps, A Kroll Business	882

Source: Refinitiv  
Announced or completed transactions.



## Financial Sponsors Coverage

- No. 1 global advisor to private equity firms
- 1,000+ sponsors covered globally

### 2021 Most Active Global Investment Banks to Private Equity Firms

Rank	Advisor	Deals
1	<b>Houlihan Lokey</b>	<b>323</b>
2	Deloitte	218
3	William Blair	183

Source: PitchBook.

# Our Tech M&A Team Is No. 1 Globally With Unparalleled Reach

## North America

Atlanta  
**Boston**  
 Chicago  
 Dallas  
 Houston  
**Los Angeles**

**Miami**  
 Minneapolis  
**New York**  
**San Francisco**  
 Washington, D.C.

## Europe and Middle East

Amsterdam  
 Dubai  
**Frankfurt**  
**London**  
 Madrid  
**Manchester**

**Milan**  
 Munich  
**Paris**  
**Stockholm**  
**Tel Aviv**  
 Zurich

## Asia-Pacific

Beijing  
 Fukuoka  
 Gurugram  
 Ho Chi Minh City  
 Hong Kong SAR  
**Mumbai**

Nagoya  
 Osaka  
 Shanghai  
 Singapore  
 Sydney  
**Tokyo**

### 2021 Investment Banking Rankings – All Global Technology Transactions

Rank	Advisor	Deals
1	Houlihan Lokey	124
2	Goldman Sachs	114
3	JP Morgan	91
4	Morgan Stanley	87
5	William Blair	67

Source: Refinitiv. Excludes accounting firms and brokers.

**14**  
 LOCATIONS  
 WORLDWIDE

**200+**  
 TECHNOLOGY  
 BANKERS

**40+**  
 MANAGING  
 DIRECTORS

**250+**  
 TECHNOLOGY  
 DEALS IN CY '21

Local Technology team

# Houlihan Lokey Global Technology Group Positioning

## LARGE-CAP TRANSACTION EXPERTISE

- CEO-level relationships with leading tech companies
- Large senior team with unparalleled transaction experience
- Broad network including Fortune 500 relationships
- Highest quality client service
- M&A advisory and capital-raising expertise



## MIDDLE MARKET/ GROWTH SECTOR FOCUS

- Unique global access to venture capital, private equity, and strategic investors
- Growth company focus
- Deep sector expertise and domain knowledge
- Extensive capital markets access
- Late-stage private through public company orientation

# Extensive history advising video game companies

<p>Transaction Pending</p> <p><b>realnetworks</b> comprised of operating businesses including <b>gamehouse</b> <b>RealPlayer</b></p> <p><b>S&amp;FR KONTXT</b> has agreed to be acquired by an affiliate of</p> <p><b>Founder, Chairman &amp; CEO Robert D. Glaser</b></p> <p>Sellside Advisor</p>	<p><b>Chess.com</b></p> <p>has received a growth investment from</p> <p><b>GENERAL ATLANTIC</b></p> <p>Financial Advisor</p>	<p><b>Acies</b></p> <p>has been acquired by</p> <p><b>PlayStation</b></p> <p>Fairness Opinion</p>	<p>Acquisition Financing</p> <p><b>NORTH EDGE</b></p> <p>has made an investment in</p> <p><b>Catalis</b></p> <p>Financing Advisor*</p>	<p><b>MEDIA TONIC</b></p> <p>partnership investment from</p> <p><b>SYNOVA CAPITAL</b></p> <p>Financial Advisor*</p>	<p><b>AVALANCHE STUDIOS</b></p> <p>has been acquired by</p> <p><b>NORDISK FILM EGMONT</b></p> <p>Sellside Advisor*</p>	<p><b>team17</b></p> <p>a portfolio company of</p> <p><b>LDC</b></p> <p>E217m IPO on AIM</p> <p>Financial Advisor*</p>	<p><b>JUMPSTART</b></p> <p>has been acquired by</p> <p><b>ND</b></p> <p>Sellside Advisor</p>
<p><b>AVALANCHE STUDIOS</b></p> <p>has received investment from</p> <p><b>NORDISK FILM EGMONT</b></p> <p>Financial Advisor*</p>	<p><b>99GAMES</b></p> <p>Preferred Stock</p> <p><b>DI</b></p> <p>Financial Advisor*</p>	<p><b>CROWDSTAR</b></p> <p>majority shareholders has sold a controlling interest to</p> <p><b>glu</b></p> <p>Sellside Advisor*</p>	<p><b>Nintendo</b></p> <p>has acquired</p> <p><b>JESNET</b></p> <p>and video game business from AJIOKA</p> <p>Due Diligence*</p>	<p><b>WGT MEDIA</b></p> <p>has been acquired by</p> <p><b>TOPGOLF</b></p> <p>Sellside Advisor</p>	<p><b>OUYA</b></p> <p>has been acquired by</p> <p><b>Razer</b></p> <p>Sellside Advisor*</p>	<p><b>Z</b></p> <p>has been acquired by</p> <p><b>King</b></p> <p>Sellside Advisor*</p>	<p><b>VIACOM</b></p> <p>has merged its gaming assets and made an investment into</p> <p><b>DEFY MEDIA</b></p> <p>Financial Advisor*</p>
<p><b>PHOENIXAGE</b></p> <p>has been acquired by</p> <p><b>KABAM</b></p> <p>Sellside Advisor*</p>	<p><b>indexo</b></p> <p>has been acquired by</p> <p><b>SEGA</b></p> <p>Sellside Advisor*</p>	<p><b>aeria GAMES</b></p> <p>has merged with</p> <p><b>Gamepot</b></p> <p><b>So-net</b></p> <p>Financial Advisor*</p>	<p><b>product madness</b></p> <p>has been acquired by</p> <p><b>ARISTOCRAT</b></p> <p>Sellside Advisor*</p>	<p><b>playforge</b></p> <p>has been acquired by</p> <p><b>SABAN Brands</b></p> <p>Sellside Advisor*</p>	<p><b>FUNZIO</b></p> <p>has been acquired by</p> <p><b>GREE</b></p> <p>Sellside Advisor*</p>	<p><b>indiagames.com</b></p> <p>has been acquired by</p> <p><b>Disney</b></p> <p>Strategic Advisor*</p>	<p><b>Imagimatics</b></p> <p>has been acquired by</p> <p><b>zynga</b></p> <p>Sellside Advisor*</p>
<p><b>ow</b></p> <p><b>lolapps</b></p> <p>has received an investment from</p> <p><b>NEXON</b></p> <p>Sellside Advisor*</p>	<p><b>SEN</b></p> <p>has been acquired by</p> <p><b>Hand Job!</b></p> <p>Sellside Advisor*</p>	<p><b>ColumbusNova</b></p> <p>has acquired</p> <p><b>HARMONIX</b></p> <p>from</p> <p><b>VIACOM</b></p> <p>Financial Advisor*</p>	<p><b>newtoy</b></p> <p>has been acquired by</p> <p><b>zynga</b></p> <p>Sellside Advisor*</p>	<p><b>DeNA</b></p> <p>has acquired</p> <p><b>ngmoco:)</b></p> <p>Buyside Advisor*</p>	<p><b>zynga</b></p> <p>\$29m Series B</p> <p>Financial Advisor*</p>	<p><b>zynga</b></p> <p>Preferred Stock Offering</p> <p><b>KLEINER PERKINS</b></p> <p><b>IVP</b></p> <p>Financial Advisor*</p>	<p><b>nonoba</b> play together</p> <p>has been acquired by</p> <p><b>MANGROVE CAPITAL PARTNERS</b></p> <p>Sellside Advisor*</p>

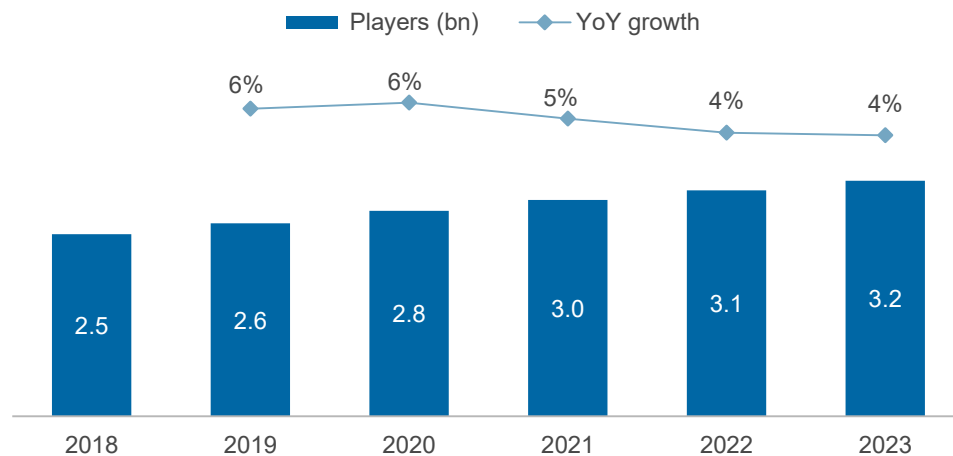
\*Selected transactions were executed by Houlihan Lokey professionals while at other firms acquired by Houlihan Lokey or by professionals from a Houlihan Lokey joint venture company. Tombstones included herein represent transactions closed from 2008 forward.. (1) Viacom's digital gaming assets included Addicting Games, GameTrailers, and Shockwave.

# Video Games Market: Near-Term Headwinds; Long-Term Optimism

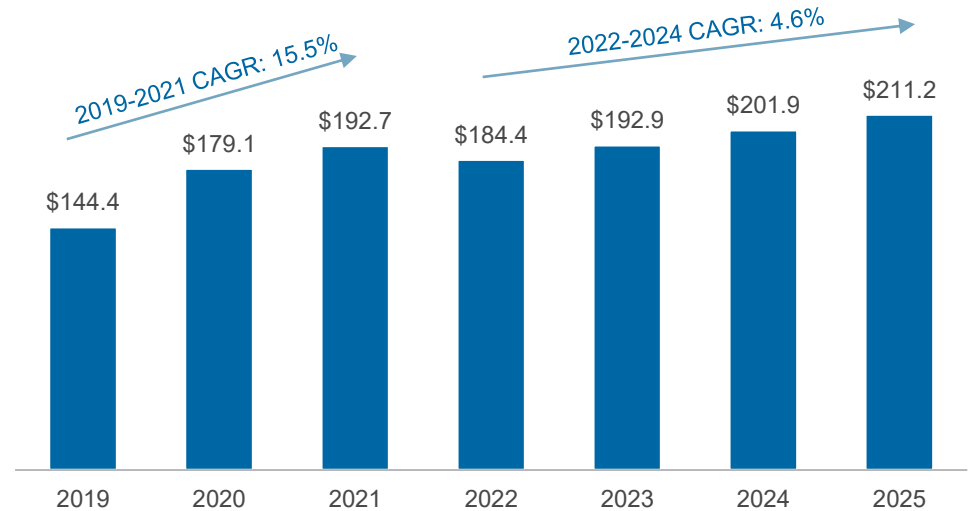
## Commentary

- After two years of extraordinary (15%+) growth in 2020 and 2021, the global video games market is experiencing near-term headwinds. Revenues in 2022 are forecasted to reach ~\$184 billion, a 4.3% decline from the prior year and the first decline in market history.
- Despite the correction, the overall market size in 2022 is forecast to be larger than pre-pandemic levels; with the market CAGR between 2019 and 2022 still a very healthy 8.5%; with global game players set to surpass 3 billion in 2022.
- While industry growth is expected to slow over the next few years (~5%), the long-term outlook for the market remains strong, supported by several structural tailwinds, including a generational shift in video game consumption, which in turn has driven the number of gamers and consumer spending.

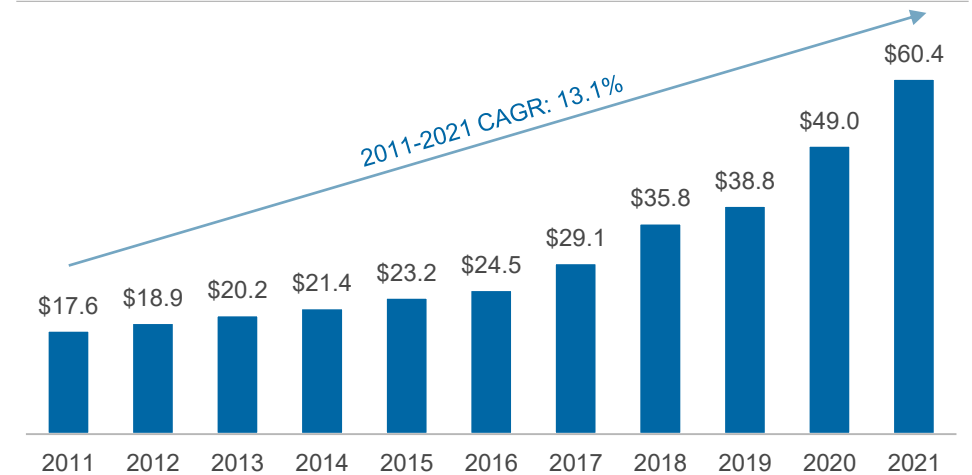
## Total Players – World Gamers Set to Pass Three Billion



## Video Games Market Experiences a Corrective Year (\$bn)



## US Consumer Spending on Video Gaming 2010-2021 (\$bn)





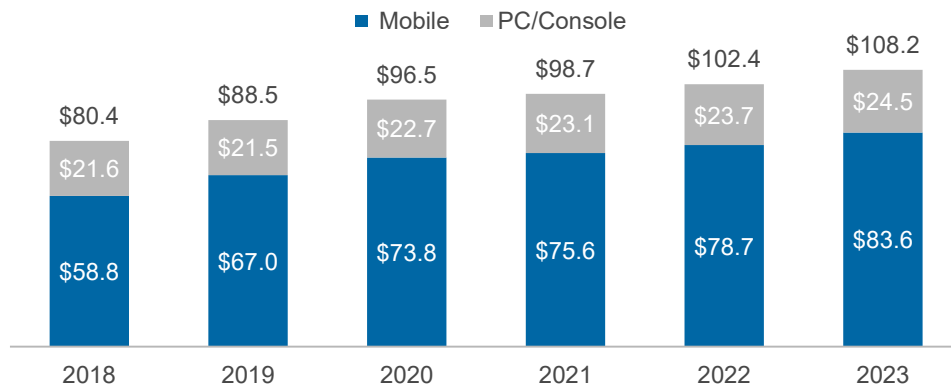
# Industry Growth Has Been Driven by a Multitude of Factors

## Commentary

- Video game industry growth is driven by a variety of factors, including the growth and proliferation of mobile games; expansion of more accessible free-to-play models, high demand for growth in the development markets (led by the US and China); and a significant shift in media consumption towards video games among younger generations.
- The free-to-play model in combination with “live services”, in which a constant stream of new levels keeps audiences engaged, has emerged over the past decade as a powerful, more accessible model utilizing in-game purchases and advertising to monetize audiences across a significantly larger base of gamers
- Gen Z players are increasingly online, driving further growth in the video game industry. 87% of Gen Z play games at least once a week; and spend billions of hours per month watching others play on streaming platforms.
- The US and China represent ~50% of the overall market, and the US is approaching China in 2022 (\$45.0 billion vs. \$45.8 billion)
- Mobile revenues, the biggest segment by device, are facing headwinds due to the elimination of IDFA and a squeeze on people’s disposable incomes, declining by 6.4% in 2022 from the year prior.

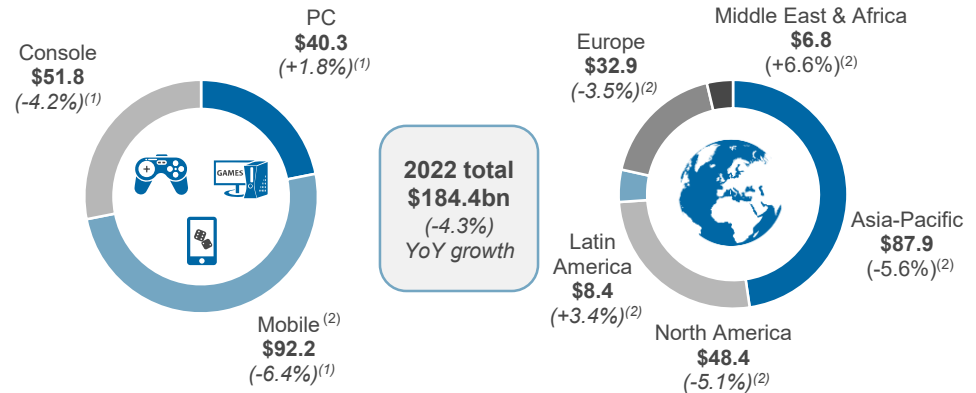
## F2P global video games revenue (\$bn)

New, more accessible business models such as F2P, have reduced barriers to entry and driven user engagement and growth



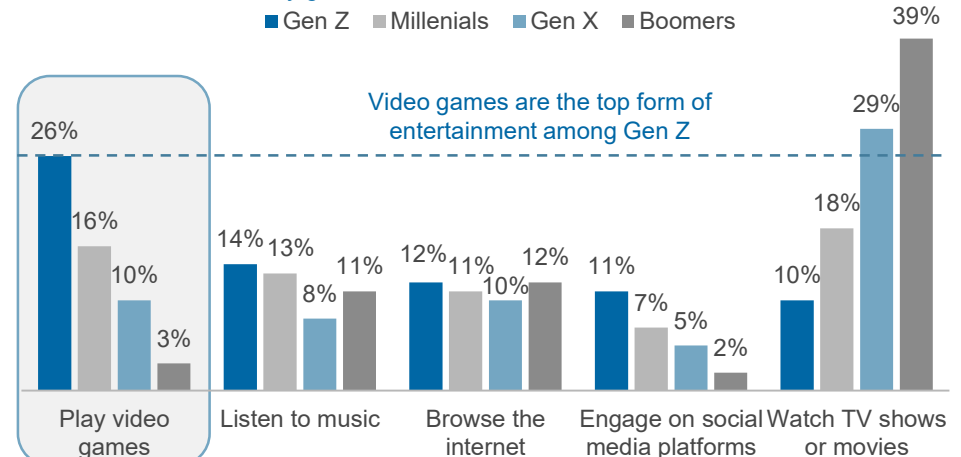
## Revenues by Segment (\$bn)

Mobile accounts for >50% of total gaming revenues. Asia-Pacific and North America combine to account for 74% of the gaming market



## Generational shift in media consumption to video games

Favourite entertainment by generation



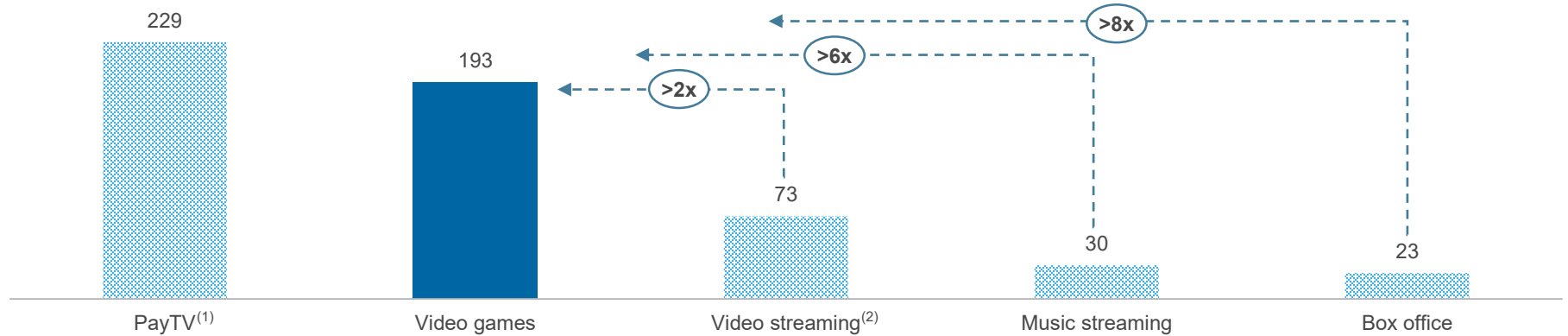
Sources: Statista, Business of Apps, Deloitte – 2022 Digital Media Trends, 16th edition (2022), Newzoo – Global Games Market Report (November 2022).

(1) Percentages are 2022 YoY Growth; (2) Includes mobile and tablet revenue.

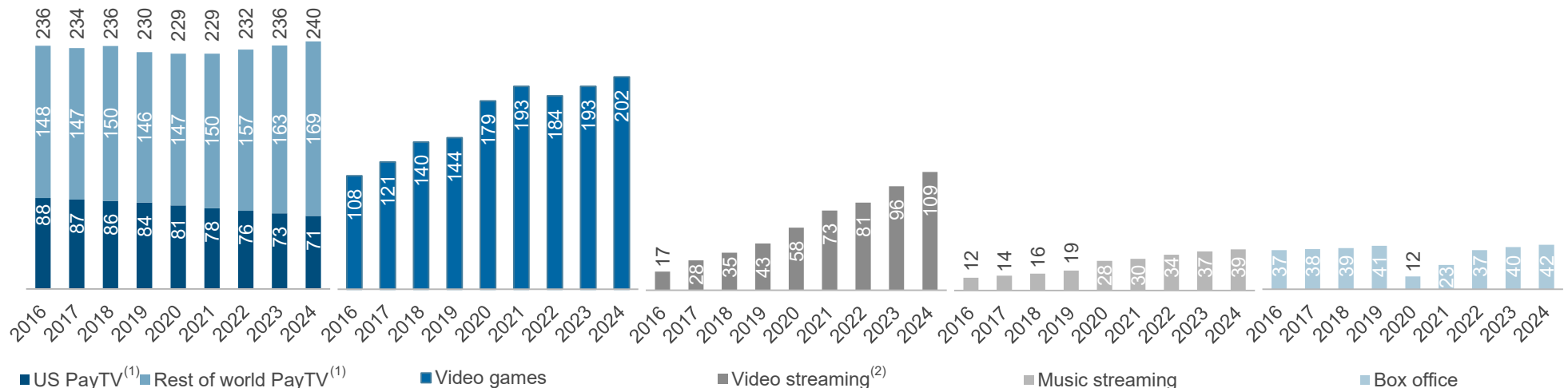
# The Video Games Market Is More Than 3.6x the Music Streaming and Movie Box Office Markets Combined

## Selected Global Entertainment Market (2021) (\$bn)

The COVID-19 outbreak in 2020 and related lockdowns across the world became a catalyst for the video gaming industry, which became one of the key beneficiaries of the “stay at home” environment



## Global Video Gaming is Forecast to Surpass \$200 Billion by 2024 (\$bn)

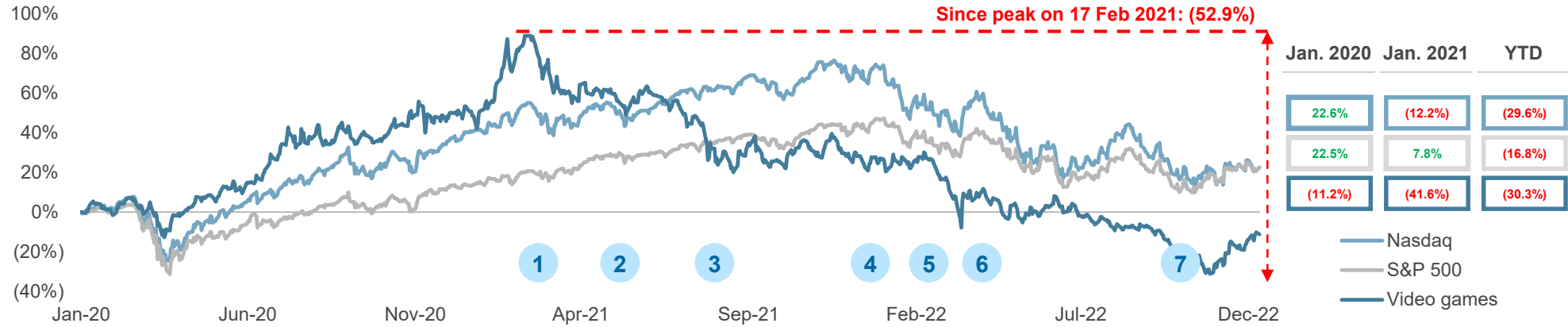


Sources: Goldman Sachs, “Music Is in the Air”; Morgan Stanley, “Mic’d Up: Is Podcasting the Next Big Thing?” July 2021, MPA Theme Report, Grand View Research, Statista.

(1) PayTV consist of cable, satellite and IPTV; (2) Video streaming consists of SVoD.

# Industry Under Pressure as Video Game Companies Face Near-Term Headwinds

## Relative Stock Performance



## Industry Headwinds

- 1 Post-pandemic pull back:** Slower growth, as the industry is not able to sustain pandemic-driven growth seen during the past couple of years.
- 2 Privacy:** Privacy changes like IDFA's removal make user acquisition more challenging for mobile games across the board and in response, mobile developers are acquiring advertising technology platforms.
- 3 China:** Challenging regulatory environment, as video games companies need regulatory approval to monetize new games. Additionally, Beijing froze all game licensing last year but now the government is signaling a limited easing of its tough stance on video games.
- 4 Inflation:** Risk that rising inflation will continue weighing on consumers and ultimately impact discretionary spending driving reduction in gaming sales.
- 5 Supply chain disruption:** Supply constraints of new-generation consoles are leading large gaming publishers to delay the releases of major titles.
- 6 Ukraine and labor shortages:** The war in Ukraine has been challenging to many video game companies with talent in the region; this is exacerbating what is already a very tight market for video game developer talent, alongside wider public markets and the tech sell-off in particular.
- 7 Recessionary fears:** There are growing fears that a combination of inflationary pressures leading to rising interest rates, market volatility, and war could potentially tip major market economies into recession.

### Select companies in video games index



# Lower Market Valuations Driven by Deteriorating Outlook for Revenue Growth and Profitability...

Company	Consensus Est. 2022E Revenue (as of)			Consensus Est. 2022E YoY Revenue Growth % (as of)			Consensus Est. 2022E EBITDA (as of)			Consensus Est. 2022E EBITDA Margin (as of)		
	12/31/2021	12/12/2022	% Change	12/31/2021	12/12/2022	% Change	12/31/2021	12/12/2022	% Change	12/31/2021	12/12/2022	% Change
Tencent	\$104,061	\$79,589	(23.5%)	18.0%	(9.7%)	(154.0%)	\$34,092	\$25,729	(24.5%)	32.8%	32.3%	(1.3%)
Activision Blizzard	\$9,130	\$8,129	(11.0%)	3.7%	(7.7%)	(306.3%)	\$3,924	\$3,029	(22.8%)	43.0%	37.3%	(13.3%)
NetEase	\$16,062	\$13,923	(13.3%)	16.5%	1.0%	(94.2%)	\$3,577	\$3,409	(4.7%)	22.3%	24.5%	9.9%
Nintendo Co.	\$15,149	\$12,599	(16.8%)	4.2%	(13.4%)	(421.8%)	\$4,946	\$4,393	(11.2%)	32.6%	34.9%	6.8%
Electronic Arts	\$8,001	\$7,291	(8.9%)	22.9%	12.0%	(47.6%)	\$2,954	\$2,696	(8.7%)	36.9%	37.0%	0.1%
Roblox	\$3,360	\$2,815	(16.2%)	75.1%	46.7%	(37.9%)	\$771	\$270	(65.0%)	22.9%	9.6%	(58.2%)
Take-Two <sup>(1)</sup>	\$4,082	\$4,822	18.1%	19.6%	41.2%	110.9%	\$1,032	\$903	(12.5%)	25.3%	18.7%	(26.0%)
NEXON Co.	\$2,979	\$2,545	(14.6%)	25.0%	6.8%	(72.9%)	\$1,266	\$803	(36.5%)	42.5%	31.6%	(25.7%)
Embracer Group <sup>(2)</sup>	\$2,097	\$3,216	53.4%	16.1%	78.0%	385.4%	\$967	\$933	(3.6%)	46.1%	29.0%	(37.1%)
Krafton	\$2,852	\$1,455	(49.0%)	80.1%	(8.1%)	(110.2%)	\$1,343	\$644	(52.0%)	47.1%	44.3%	(5.9%)
Playtika	\$2,869	\$2,613	(8.9%)	11.1%	1.2%	(89.5%)	\$1,070	\$907	(15.2%)	24.1%	22.9%	(5.0%)
Konami	\$2,781	\$2,310	(16.9%)	8.3%	(10.1%)	(221.7%)	\$816	\$647	(20.7%)	29.3%	28.0%	(4.5%)
Ubisoft Entertainment	\$2,986	\$2,320	(22.3%)	20.9%	(6.1%)	(129.1%)	\$1,291	\$1,086	(15.8%)	43.2%	46.8%	8.3%
Netmarble Corp.	\$2,690	\$2,053	(23.7%)	27.8%	(2.4%)	(108.7%)	\$440	\$115	(73.9%)	16.3%	5.6%	(65.9%)
Capcom Co.	\$1,024	\$743	(27.4%)	-0.6%	(27.8%)	4348.2%	\$434	\$388	(10.5%)	42.4%	52.2%	23.3%
Square Enix	\$3,239	\$2,513	(22.4%)	5.8%	(17.9%)	(410.1%)	\$577	\$458	(20.6%)	17.8%	18.2%	2.3%
Ncsoft Corp.	\$2,818	\$1,985	(29.6%)	45.4%	2.4%	(94.7%)	\$972	\$556	(42.8%)	34.5%	28.0%	(18.7%)
Sega Sammy	\$2,915	\$2,508	(14.0%)	10.3%	(5.1%)	(149.8%)	\$399	\$376	(5.8%)	13.7%	15.0%	9.5%
CD Projekt	\$302	\$195	(35.4%)	37.1%	(11.4%)	(130.7%)	\$177	\$99	(44.1%)	58.6%	50.6%	(13.5%)
Paradox Interactive	\$221	\$191	(13.6%)	38.3%	19.5%	(49.1%)	\$137	\$132	(3.4%)	61.7%	69.0%	11.8%
Stillfront Group	\$692	\$692	0.1%	5.4%	5.5%	1.8%	\$274	\$223	(18.5%)	39.5%	32.2%	(18.6%)
Wemade Co.	\$316	\$353	11.8%	12.4%	25.7%	107.1%	\$136	(\$56)	(141.0%)	43.0%	(15.8%)	(136.7%)
DeNa Co.	\$1,355	\$979	(27.8%)	17.1%	(15.4%)	(189.7%)	\$255	\$113	(55.5%)	18.8%	11.6%	(38.4%)
Com2uS	\$599	\$551	(8.0%)	27.7%	17.4%	(37.1%)	\$124	\$23	(81.2%)	20.7%	4.2%	(79.5%)
GREE, Inc.	\$484	\$551	13.9%	-8.7%	3.9%	(145.1%)	\$44	\$82	86.3%	9.1%	14.9%	63.6%
Team17 Group <sup>(3)</sup>	\$134	\$156	16.3%	9.2%	27.1%	193.3%	\$50	\$53	7.4%	37.2%	34.3%	(7.7%)
Modern Times Group	\$785	\$542	(30.9%)	33.7%	(7.6%)	(122.6%)	\$156	\$125	(20.0%)	19.9%	23.1%	15.8%
NHN Corp.	\$1,814	\$1,625	(10.4%)	12.3%	0.6%	(94.9%)	\$188	\$93	(50.6%)	10.3%	5.7%	(44.9%)
<b>Top Quartile</b>			(8.7%)	27.7%	13.3%	(37.7%)			(10.0%)	42.6%	35.4%	7.2%
<b>Mean<sup>(4)</sup></b>			(11.8%)	21.2%	5.2%	(89.6%)			(27.4%)	31.8%	26.6%	(16.1%)
<b>Median</b>			(14.3%)	16.8%	0.8%	(94.8%)			(20.3%)	32.7%	28.0%	(6.8%)
<b>First Quartile</b>			(23.6%)	9.0%	(8.5%)	(146.3%)			(45.7%)	20.5%	15.0%	(28.8%)

Source: S&P Capital IQ as of 12/12/2022.

(1) Increase is attributed to Take-Two acquiring Zynga; (2) Increase is attributed to Embracer Group's significant M&A activity, however, estimates are coming down as Embracer lowered guidance;

(3) Increase is attributed to Team17 Group's significant M&A activity; (4) Capcom is excluded from calculation of the % change of revenue mean.

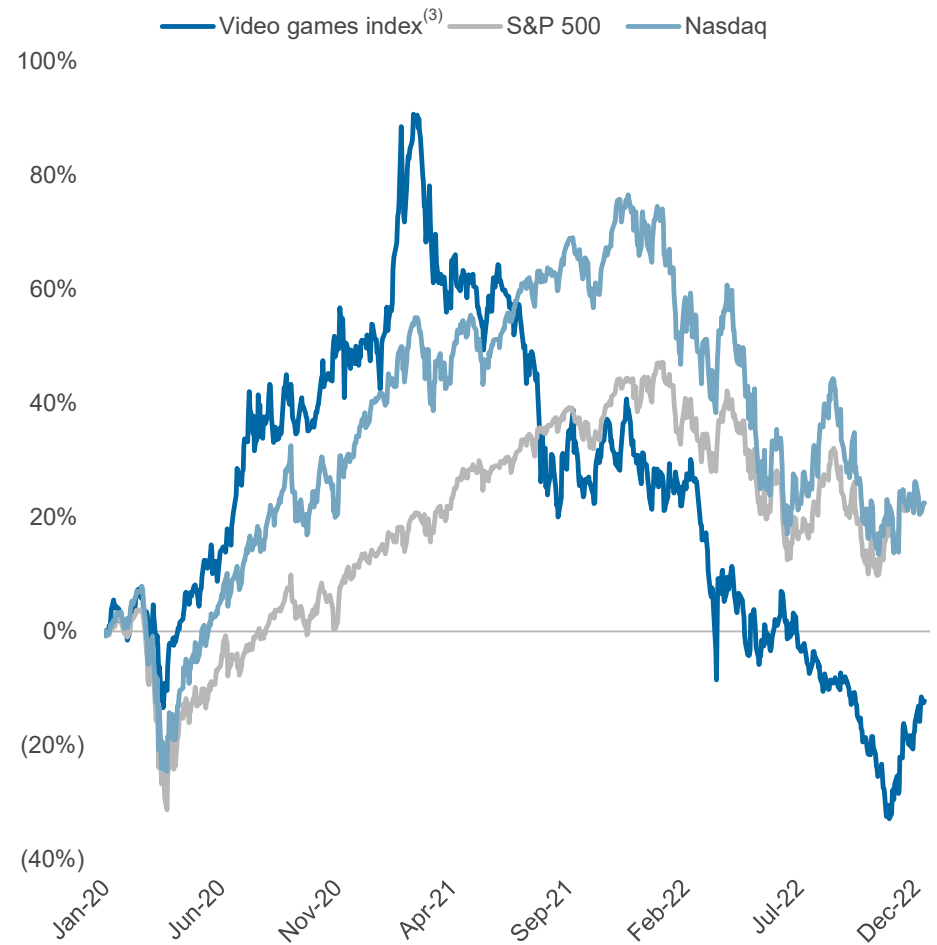
# ... And Multiple Compression

Multiple compression (most notably among mobile publishers) is putting pressure on public market valuations.

## Video Games Enterprise Value to NTM EBITDA



## Public Market Performance



Source: S&P Capital IQ as of 12/12/2022.

(1) Refer to page 25 for list of large integrated publishers; (2) Refer to page 24 for list of casual / mobile publishers; (3) Refer to page 24 and 25 for video games index company list.

# Q3 Earnings Announcements Reflect Both Near Challenges and Longer-Term Optimism



Full game net revenue for Q2 FY23 was \$602 million, representing a 2.4% drop from the same period in 2021.

“As we look ahead, our talented teams are focused on building extraordinary experiences that drive deep engagement to grow our communities and reach new audiences, particularly Gen Z and Gen Alpha, who are turning to games as their preferred choice for entertainment and social connection. Games continue to be one of the fastest-growing forms of entertainment and the social networks of the future.”

CY2022E Revenue Consensus Est.

12/31/2021	12/12/2022
\$8.0bn +11.4% YoY	\$7.2bn +0.2% YoY



The digital user acquisition environment continues to evolve and costs per install have increased in the third quarter. As we look out to our plans for 2023, we will continue to increase marketing investment in our growth franchises while being disciplined and data-driven in how we allocate marketing capital.

“We are encouraged by the success we saw with our casual games and the continued innovation and creativity of all our teams as they strive to provide our players with the best-quality entertainment.”

CY2022E Revenue Consensus Est.

12/31/2021	12/12/2022
\$2.9bn +12.2% YoY	\$2.6bn +1.8% YoY



Net bookings reached €699 million in 1H 2022-2023, down 2.7% from the comparable period last year.

“We just announced a partnership with Netflix to produce multiple different series on the Assassin’s Creed brand, demonstrating once again the growing strength of video game brands.” Netflix and Ubisoft are joining forces to bring a trio of Ubisoft games—including a new Assassin’s Creed title—exclusively to Netflix members.

CY2022E Revenue Consensus Est.

12/31/2021	12/12/2022
\$2.5bn +17.9% YoY	\$2.3bn +6.6% YoY



In-app purchases continued to be under some pressure due to current macroeconomic conditions ... Our reduced forecast reflects shifts in our pipeline, fluctuations in FX rates, and a more cautious view of the current macroeconomic backdrop, particularly in mobile.

“We remain highly optimistic about the vast, long-term growth potential for the mobile industry, which is expected to reach more than \$160 billion in gross bookings within the next four years ... We have great confidence that over the long term, our portfolio is poised to benefit from the significant expected growth in mobile gaming.”

CY2022E Revenue Consensus Est.

12/31/2021	12/12/2022
\$4.1bn +19.0% YoY	\$4.8bn +39.3% YoY <sup>(1)</sup>



“The second quarter is the strongest quarter so far in terms of net sales and Adjusted EBIT for the Group, supported by a solid organic growth of 35 percent.”

“Current and future investments, both organic and inorganic, [will have] to have a higher minimum hurdle with a safety margin to justify the capital allocation... The Board of Directors decided on November 16 to launch a special review of our business to navigate the new market conditions... The outcome of this review may, for example, lead to board recommendations to make spin-off/s.”

CY2022E Revenue Consensus Est.

12/31/2021	12/12/2022
\$2.1bn +31.3% YoY	\$3.2bn +120.1% YoY <sup>(2)</sup>

Sources: Refinitiv, company earnings reports, company earnings call transcript, press releases, equity research.

(1) Increase is attributed to Take-Two acquiring Zynga; (2) Increase is attributed to Embracer Group’s significant M&A activity, however estimates are coming down as Embracer lowered guidance.

# 2022 Has Been a Historic Year for M&A, Punctuated by 3 Mega-Deals

## Summary of Blockbuster Transactions



### Microsoft acquires Activision Blizzard

Exemplifies how content and IP is key to building critical mass in the video games industry

#### Transaction Highlights

- **Announced: January 2022**
- **Completed: Transaction has not yet closed<sup>(1)</sup>**
- **Enterprise value: \$69.0 billion**
- For Microsoft, gaming is a relatively small part of the business (9% of total revenue) but as Microsoft says, gaming is the fastest-growing sector in entertainment and Activision brings PC, mobile and console games, covering all bases.

*"Every one of these companies knows gaming is going to be a growth area and it ties into their metaverse ambitions more broadly. Everything you do in the real world, you will be able to do inside games."* **Michael Wolf**, Founder of Activate Consulting



### Take-Two acquires Zynga

Demonstrates importance of increasing exposure to the mobile segment

#### Transaction Highlights

- **Announced: January 2022**
- **Completed: May 2022**
- **Enterprise value: \$12.7 billion**
- The deal for Zynga, which owns FarmVille among other games, establishes Take-Two as a top 10 mobile gaming developer, the fastest-growing segment of the video games industry.

*"Although Take-Two already has a number of mobile games titles and has expanded its franchises into mobile, this will give the company a significantly larger holding in the space."* **TechCrunch**



### Sony acquires Bungie

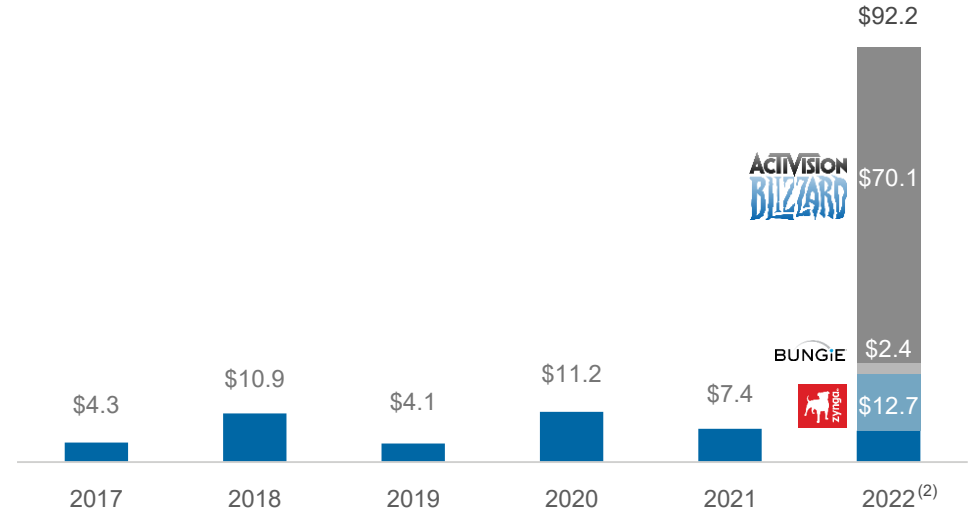
Illustrates experience required to effectively build out live service games

#### Transaction highlights

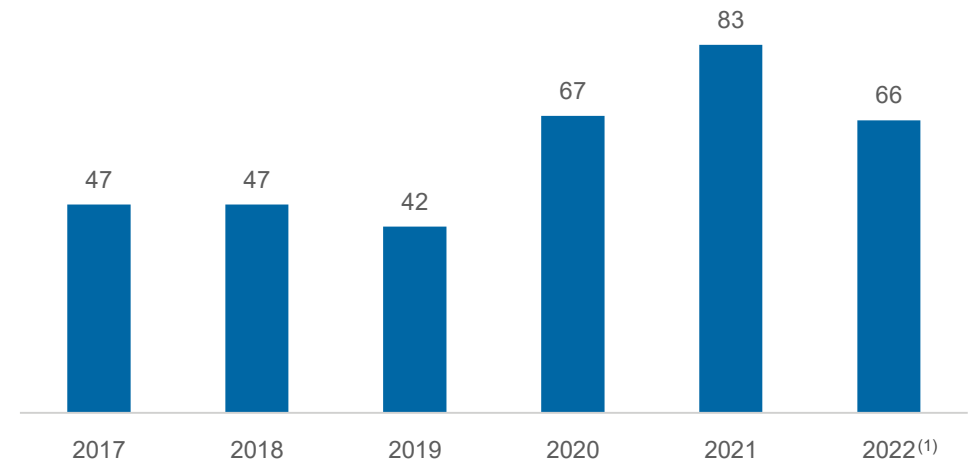
- **Announced: January 2022**
- **Completed: July 2022**
- **Enterprise value: \$2.4 billion**
- Some analysts have called the acquisition a defensive move that would give Sony leverage should Microsoft ever try to make Activision titles such as *Call of Duty* exclusive to Xbox. In that event, Sony could threaten to make *Destiny 3* a PlayStation-only game

*"Our original universes have immense potential and, with SIE's support, we will propel Bungie into becoming a global multimedia entertainment company."* **Pete Parsons**, Chief Executive Officer of Bungie

## Total Transaction Value of Video Gaming M&A deals (\$bn)



## Number of Video Gaming M&A Deals Announced









































Sources: S&P 451 Research, PitchBook, S&P Capital IQ as of 12/12/2022.

(1) The US Federal Trade Commission is currently attempting to block the acquisition and is also being further scrutinized by the UK Competition and Markets Authority and the European Commission; (2) 2022 is YTD as of 12/12/2022.

# 2022 Has Been a Historic Year for M&A, Punctuated by 3 Mega-Deals

(cont.)

M&A activity remains robust and private market valuations have held up when compared to public market valuations.

Date	Target	Acquiror	Deal Size (\$m)	LTM Revenue Multiple	LTM EBITDA Multiple
Oct-22	 MY.GAMES	 LETN CAPITAL	\$642	1.1x	-
Sep-22	 STUNNED GUYS	 SCOPELY	-	-	-
Jul-22	 ironSource	 Unity	\$4,400	6.5x <sup>(1)</sup>	36.8x <sup>(1)</sup>
Jul-22	 REPEAT	 Sony Interactive Entertainment	-	-	-
Jul-22	 BUNGIE	 Sony Interactive Entertainment	\$2,400 <sup>(2)</sup>	-	-
May-22	 SQUARE ENIX	 EMBRACER GROUP	\$300	-	-
Mar-22	 NEXT GAMES	 NETFLIX	\$74 <sup>(3)</sup>	2.5x	-
Jan-22	 6W GAMES	 STILLFRONT GROUP	\$200 <sup>(4)</sup>	3.5x	10.9x
Jan-22	 ACTIVISION BILZARD	 Microsoft	\$68,987	7.8x	19.4x
Jan-22	 ESL FACET	 SAVVY GAMING GROUP	\$1,500	7.3x <sup>(5)</sup>	-
Jan-22	 BLACK SHARK	 Tencent 腾讯	\$470	-	-
Jan-22	 Zing!	 T2	\$12,700	4.6x	25.2x
Sep-21	 PARSEC	 Unity	\$320 <sup>(6)</sup>	-	-
Aug-21	 reworks	 Playtika	\$400	3.5x	-
Aug-21	 Playdemic	 EA	\$1,400	-	-
Aug-21	 STAR ARK	 Zing!	\$525	-	-
Jul-21	 SUMO DIGITAL	 Tencent 腾讯	\$1,270 <sup>(7)</sup>	13.5x	-
Jul-21	 PLAYSIMPLE	 MTG	\$360	4.3x	-
Apr-21	 glu	 EA	\$2,100	3.9x	-
			<b>Mean</b>	<b>5.3x</b>	<b>18.5x</b>
			<b>Median</b>	<b>4.3x</b>	<b>19.4x</b>

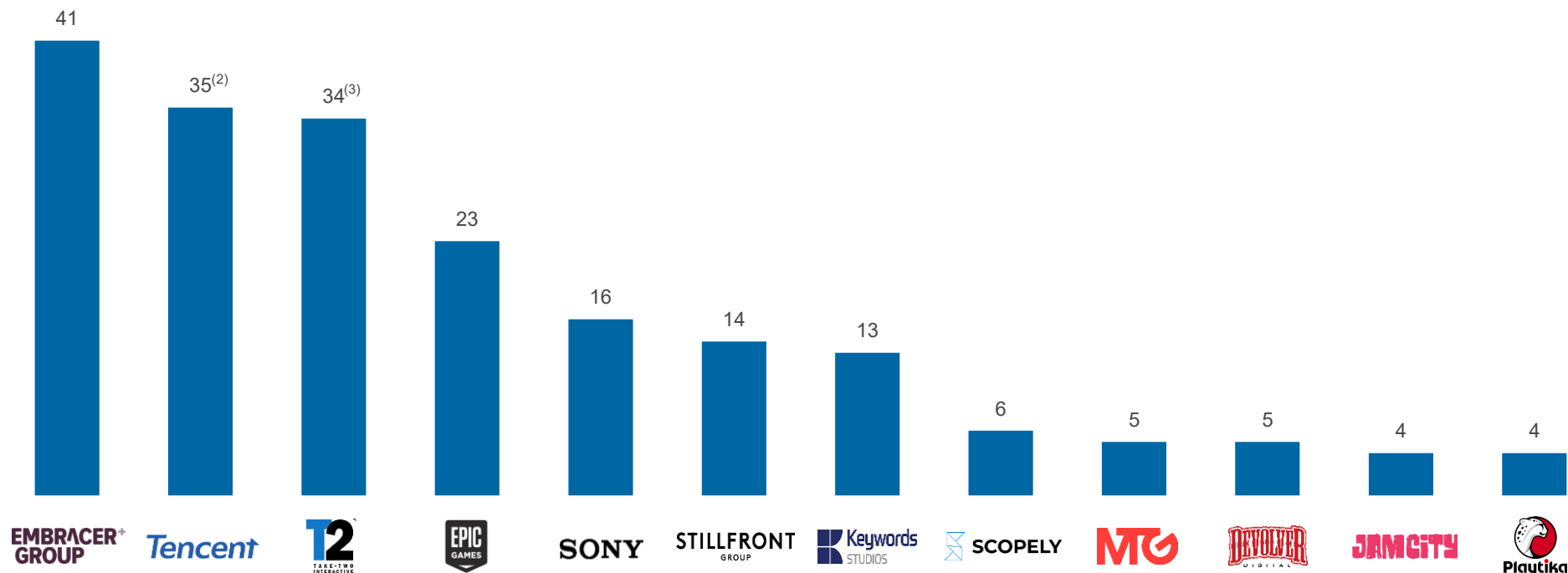
Sources: PitchBook, S&P Capital IQ as of 12/12/2022.

(1) IronSource / Unity deal multiples excluded from averages; (2) Earnout of \$1,200m; (3) Earnout of \$97m; (4) Earnout of \$100m; (5) LTM revenue multiple is for ESL component of deal; (6) Earnout of \$200m; (7) Earnout of \$150m.



# M&A Has Been a Core Growth Strategy for Leading Game Companies

Number of Transactions by Buyer<sup>(1)</sup>



Notable Gaming Transactions by Company

Date	Target Size <sup>(4)</sup>	Target
Dec-21	\$3,090	asmodee
Jun-16	\$10,200	SUPERCILL
Jan-22	\$12,700	zynga
Mar-21	N/A	Tonic Games Group
Jul-22	\$2,400 <sup>(5)</sup>	BUNGIE
Dec-17	\$418	GOOD GAME
Apr-21	\$59	CLIMAX A KEYWORDS STUDIO
Oct-21	\$1,000	GSIN games
Jul-21	\$360	PLAYSIMPLE
Jan-21	\$41	Good Shepherd ENTERTAINMENT
Sep-21	\$165	ludia
Aug-21	\$430	reworks

Sources: PitchBook, S&P Capital IQ as of 12/12/2022.

(1) Represents transactions since investors' inception; (2) Includes acquisitions under Miniclip; (3) Includes acquisitions under Zynga; (4) In millions; (5) Earnout of \$1,200m.

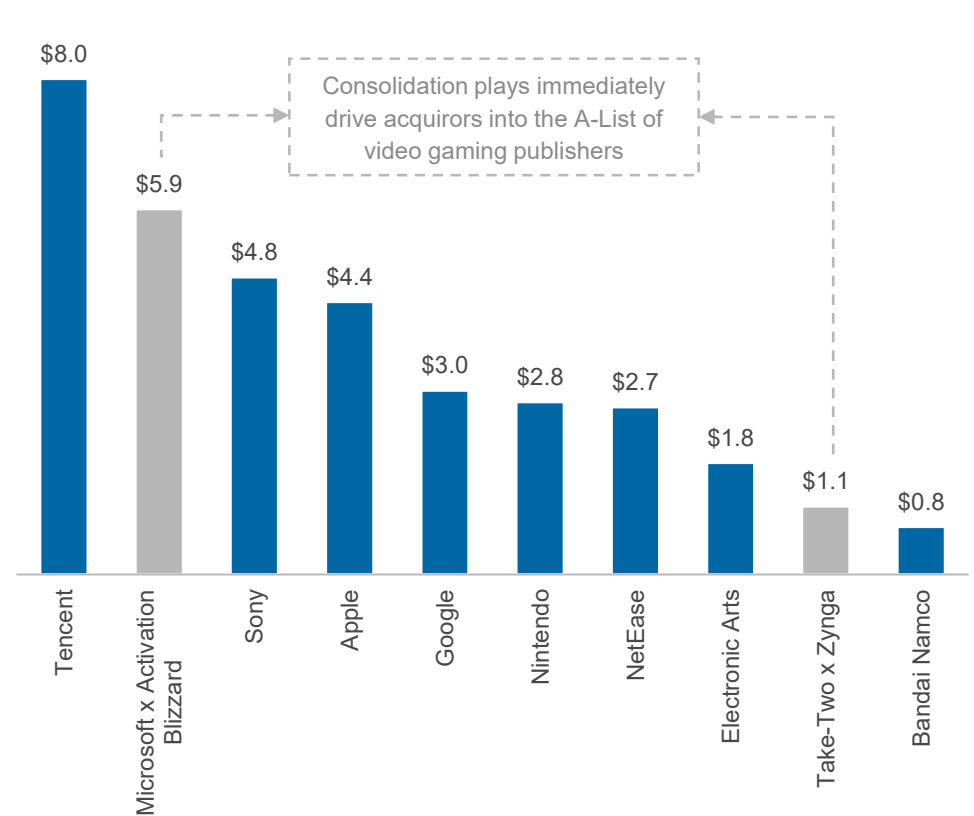
# Consolidation Is Being Driven by a Variety of Factors

We expect further consolidation over the next 12 to 24 months.

## Structural Conditions are Driving Consolidation

	<p><b>Large, diversified game publishers looking for scale via new IP and capabilities</b></p>	<ul style="list-style-type: none"> <li>Publishers are looking to consolidate to maintain brand and franchise strength. This will also help Microsoft and Sony improve the competitiveness of subscription services, such as Xbox Game Pass and PlayStation Now.</li> </ul>
	<p><b>Developers increasing exposure to mobile and cross platform gaming</b></p>	<ul style="list-style-type: none"> <li>Companies can further leverage their existing PC/console franchises onto the mobile platform, the largest and fastest-growing sub-segment. This enables for cross-play gaming across mobile, PC, and console games.</li> </ul>
	<p><b>High demand for talent</b></p>	<ul style="list-style-type: none"> <li>Demand has outpaced supply for developers, as there are more job postings for tech jobs compared to the broader market. This has been further exacerbated by the Ukraine war, as several large developers had consolidated their operations in Eastern Europe, as they sought to reduce development cost.</li> </ul>
	<p><b>Cash-rich balance sheets</b></p>	<ul style="list-style-type: none"> <li>Both incumbents and potential incoming competitors have cash-rich balance sheets with relatively low leverage providing them the fire power to grow their exposure to the video games industry via M&amp;A.</li> </ul>
	<p><b>Video games represent new frontier for digital and media titans</b></p>	<ul style="list-style-type: none"> <li>Large media players, such as Netflix, Meta, Amazon, and Google are looking to “buy in” as the video games sector remains one of the largest and most attractive growth opportunities at the nexus of consumer products and technology.</li> </ul>

## Video Gaming Revenue in Q2 '22 (\$bn)



“ Gaming companies are looking to snap up new content and talent to feed their pandemic-heightened user base and protect recent gains. The size of the gaming market has also attracted big tech companies. ”



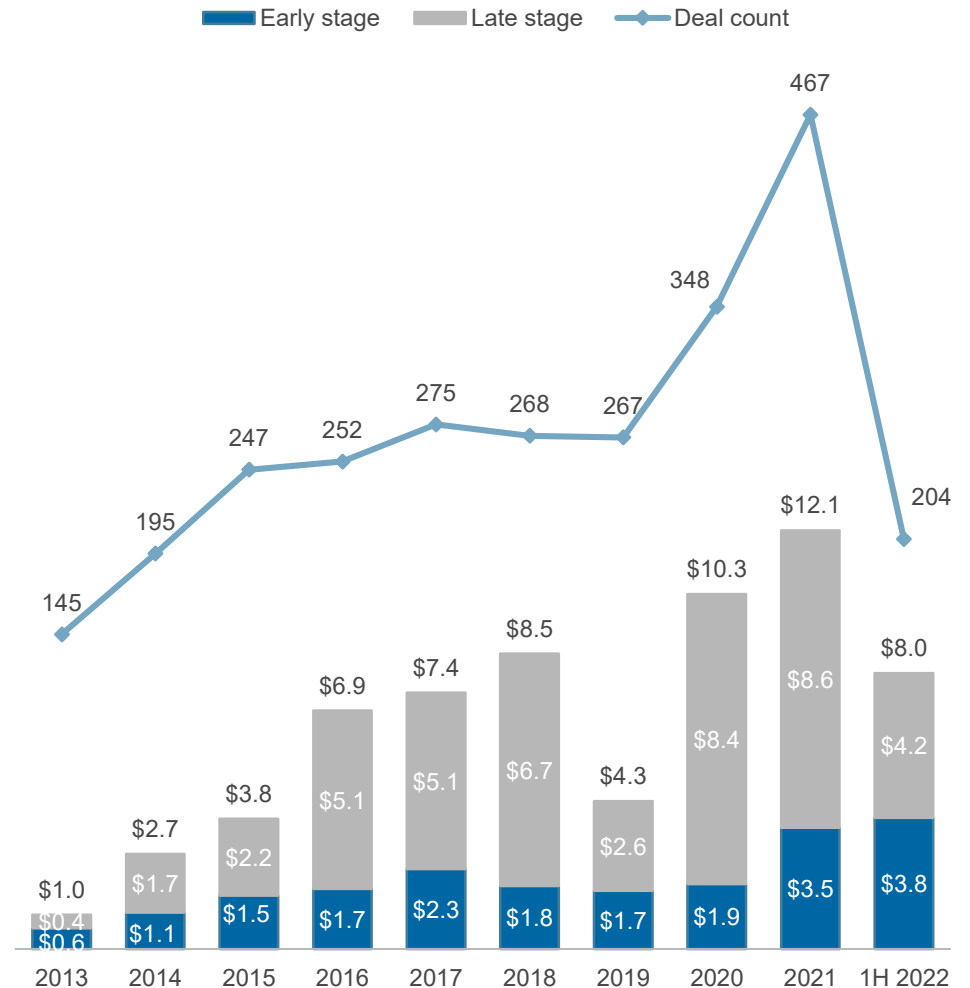
# Video Games Industry Saw Record Investment Levels Through 1H 2022

Strong market tailwinds, market size, company fundamentals, and robust M&A activity have resulted in successful investments across the sector.

## Investments in Video Gaming by Financial Investors

Investor	Video Game Deals <sup>(1)</sup>	Key Investments
andreessen horowitz	67	IMPROBABLE, ROBLOX
MAKERS FUND	64	dream+, AviaGames
SEQUOIA	51	MPL MOBILE PREMIER LEAGUE, streamlabs, QuizUp
GALAXY INTERACTIVE	49	ACCELBYTE, genvid, PIXOWL
GRIFFIN	34	REC ROOM, SPYKE, GUNZILLA
Lightspeed	31	EPIC GAMES, tripledot, Playdom
CARLYLE	27	pixelworks®, PIPEWORKS STUDIOS, JAGEX
vgames	24	MPL MOBILE PREMIER LEAGUE, 1047 GAMES, CANDIVORE
TPG	23	DREAM SPORTS, Fandom, thatgamecompany
IEQT	11	SMALL GIANT, reworks, Playsome

## Global Gaming Investment at Record Levels in 1H '22 (\$bn)





Sources: PitchBook, S&P Capital IQ as of 12/12/2022.

(1) Represents transactions since inception.

# Video Games Industry Saw Record Investment Levels Through 1H 2022 (cont.)

Growing number of growth equity and private equity firms are investing in the video gaming sector.

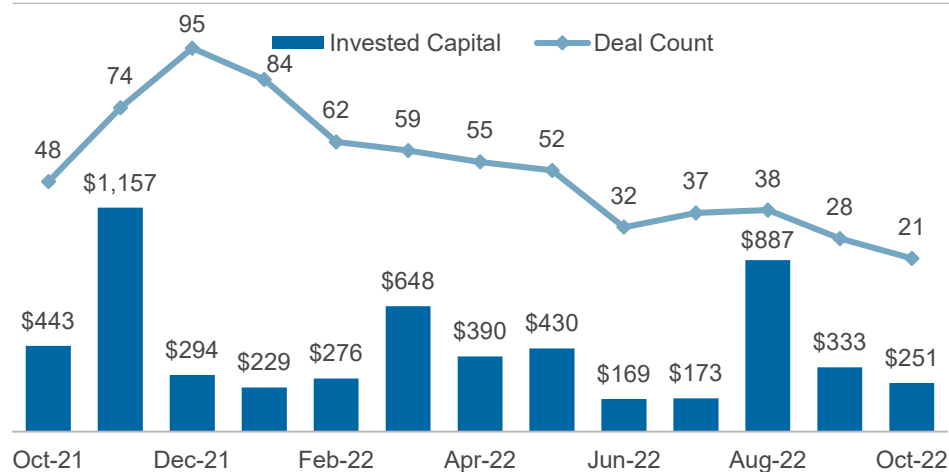
Date	Target	Investor	Segment	Deal Size (\$m)	Raised to Date	Pre-Money Valuation
Aug-22	<b>FROM SOFTWARE</b>	 Tencent 腾讯	PC/Console	\$260	-	-
Apr-22	 probably MONSTERS	 LKCM HEADWATER	PC/Console	\$250	\$250	\$750
Apr-22	 EPIC GAMES	 KIRKBI	PC/Console	\$2,000	\$6,300	\$29,500
Apr-22	 GAMES 24 SEVEN	 TIGER GLOBAL RAIN	Mobile	\$75	\$103	\$2,420
Apr-22	 IMPROBABLE	 andreesen.horowitz	VR/AR	\$150	\$754	-
Mar-22	 EVERYWHERE	 GALAXY	PC/Console	\$126	\$190	\$269
Mar-22	 thatgamecompany	 SEQUOIA TPG	PC/Console	\$160	\$187	-
Feb-22	 triple dot	 20VC	Mobile	\$180	\$272	\$838
Feb-22	 NEXON	 Index Ventures	Mobile	\$883	-	-
Jan-22	 dream	 Index Ventures	Mobile	\$255	\$468	\$2,500
Jan-22	 zupree	 WESTCAP	Mobile	\$102	\$121	\$498
Dec-21	 Chess.com	 GENERAL ATLANTIC	PC/Mobile	-	-	-
Dec-21	 REC ROOM	 COATUE SEQUOIA	Platform	\$145	\$294	\$3,360
Nov-21	 NIANTIC	 COATUE	VR/AR	\$300	\$780	\$8,700
Sep-21	 MPL MOBILE PREMIER LEAGUE	 LEGATUM	E-sports	\$150	\$441	\$2,300
Sep-21	 JAMCITY	 FORTRESS	Mobile	\$350	\$628	-
Sep-21	 VIRTUOS	 BPEA Baring Private Equity Asia	Mobile	\$150	\$165	-
Sep-21	 DREAM SPORTS	 DST	Platform	\$840	\$1,180	\$7,160
Jul-21	 ULTIMAPPOINT	 GENERAL ATLANTIC RED VENTURES	Mobile	\$235	\$243	-
Jan-21	 ROBLOX	 ALTIMETER DRAGONFLY	PC/Console	\$520	\$856	\$29,500

# Investment Into Web3/Blockchain Gaming at Historic Levels, Although Investment Has Slowed in Recent Months

## Commentary

- Web3/blockchain gaming has attracted significant attention over the past two-plus years; offering new and potentially disruptive revenue models and exciting new game play dynamics. It enables developers to build in-game economies utilising blockchain technologies to allow players to buy, sell, or trade items (including NFTs).
- Given the potential of this new frontier, the subsector attracted significant investment from both established financial sponsors as well as new funds focused exclusively on blockchain-related investments. Animcoa Brands, Master Ventures, Yield Guild, and Andreessen Horowitz have been among the most active investors in the space, participating in large capital raises.
- Given the current economic climate, both the level of invested capital and number of deals has steadily declined month-on-month over the course of 2022.
- Despite the significant investment to date in the subsector and future investment from undeplayed capital, revenues remain nascent.

## Web3 Gaming Capital Raised (\$m)



Sources: PitchBook, Precision Reports – Global play to Earn NFT Games Market Research Report (2022).

(1) Represents transactions since inception.

## Web3 gaming capital raised (\$m)

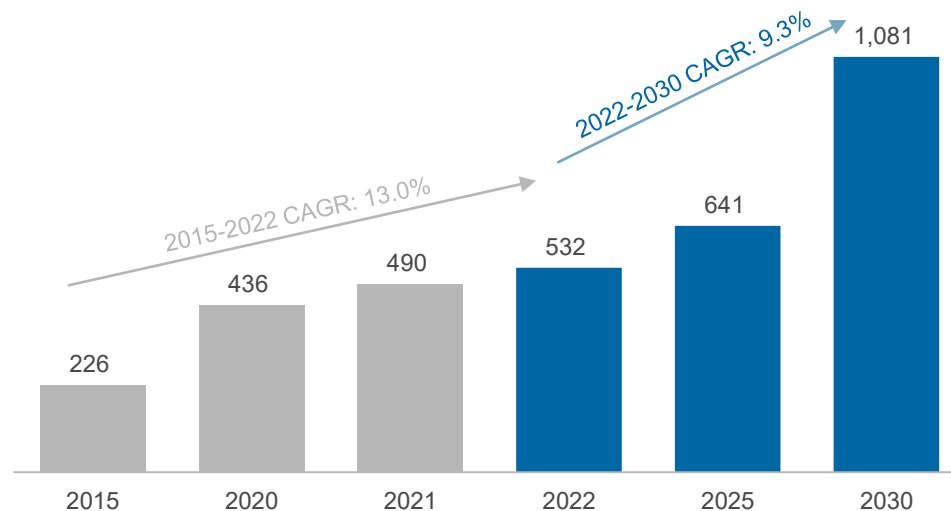
Investor	Video Game Deals <sup>(1)</sup>	Key Investments	Fund Focus
ANIMCOA BRANDS	117	IMMUTABLE joyride AZARUS	Seed to late
MASTER VENTURES	50	SOLCHICKS ENJIN	Seed to late
YIELD GUILD	36	MAVIA R KYOKO CRYPTO RAIDERS	Early to late
ANDREESSEN HOROWITZ	33	FORTE AXIE INFINITY Dapper	Early to late
BINANCE LABS	32	AXIE INFINITY MYTHICAL™	Seed to late
INFINITY VENTURES	32	xterio C2X YIELD GUILD	Early to late
POLYGON STUDIOS	32	FORTE SANDBOX AVOCADO DAO	Seed to late
GALAXY INTERACTIVE	24	SANDBOX FORTE MYTHICAL™	Seed to late
GRIFFIN	19	FORTE COMMUNITY GAMING N3TWORK™	Seed to late

# Other Notable Trends in the Video Games Sector

## E-sports Market is Expected to Surpass \$9 billion in 2030

- The e-sports market is currently projected to increase at a 24.1% CAGR to reach \$9.6 billion by 2030.
- This growth is primarily driven by a pick-up in the number of e-sports fans; e-sports fans are expected to double between 2022 and 2030, reaching 1 billion fans and growing at a 9.3% CAGR.
- Faze Clan's IPO (via its \$725 million SPAC merger in July 2022) was a notable event for the e-sports industry, highlighting the growth and interest in e-sports and popular e-sports teams. However, since being priced, the stock has struggled and is down 78% from the initial public trading date due to share dilution concerns, with Faze Clan filing to sell 70 million shares to raise additional capital.

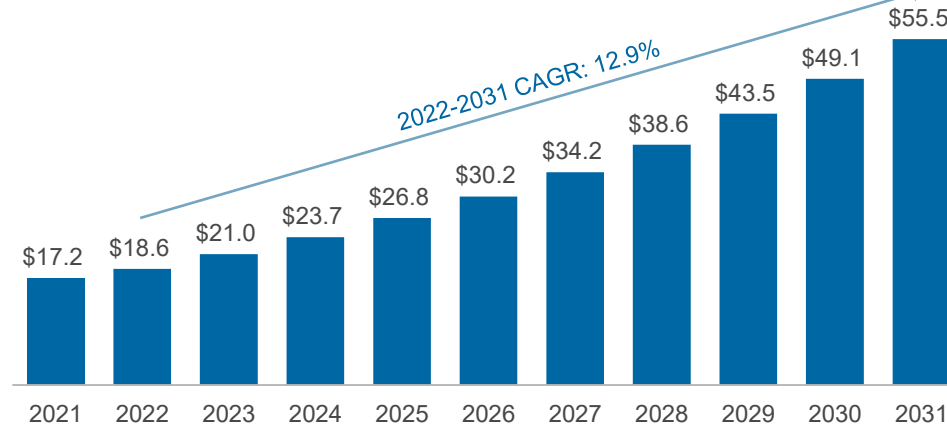
*E-sports fans expected to reach 1 billion by 2030 (m)*



## Subscription Models Expected to Gain Momentum

- Global subscription-based gaming revenue is projected to reach more than \$55 billion by 2031 and grow at a CAGR of 12.9% between 2022 and 2031.
- Video game companies are attempting to increase the predictability of revenues by introducing subscription models, leading to acquisitions in an attempt to expand IP, which they can put on their subscription services i.e. Microsoft acquiring Activision Blizzard.
- Subscription-based models have seen a steady uptick, partially attributed to the 20% increase in player game time and 40% increase in number of games played.

*Global subscription-based gaming revenue (\$bn)*



# Conclusion

## After two years of extraordinary growth, the global video games industry is facing near-term headwinds.

- Industry revenues are forecast to decline by 4.3% in 2022, marking the first decline in market history.
- However, the long-term outlook for the industry remains positive; the video games industry is clearly a force to be reckoned with.

## 2022 has been a historic year for M&A, punctuated by three mega deals.

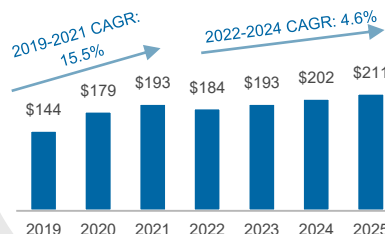
- We expect further consolidation as leading game, tech, and media companies look for greater scale, premium IP, talent, and cross-platform capabilities.
- Choppy markets and lower valuations will create opportunities for both strategic and financial buyers.

## The video games industry has seen a record level of investment over the past two-and-a-half years.

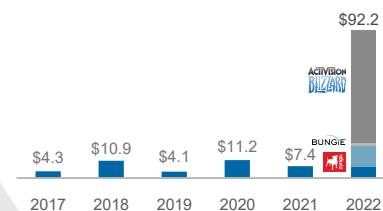
- Web3 / blockchain gaming has attracted significant investment, but this has slowed over the course of 2022, due in part to macro and crypto market concerns.

We remain bullish on the long-term outlook for the video games industry and would welcome the opportunity to share our thoughts/perspectives on the industry with you.

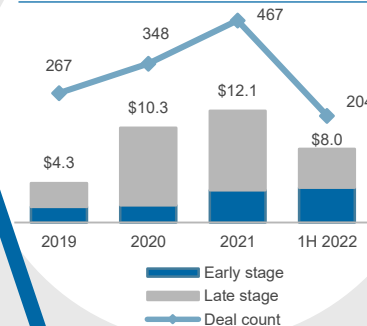
Video Games Market (\$bn)



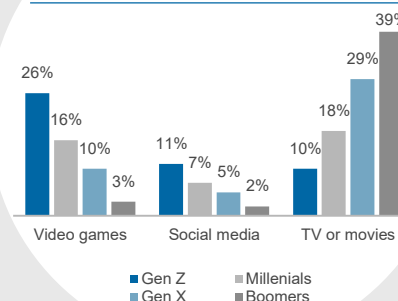
M&A Transaction Volume (\$bn)



Gaming Investments (\$bn)



Preferred Entertainment





**Houlihan Lokey**

# **APPENDIX**

---



# Gaming Public Comparable Companies (Online, Social, and Mobile Developers)

(\$ in millions, except stock price)

Company	Stock Price	% of 52-wk High	Cash & ST			Enterprise			EV / Revenue			EV / EBITDA		
			Inv	Equity Value	Enterprise Value	CY 2021A	CY 2022E	CY 2023E	CY 2021A	CY 2022E	CY 2023E			
NetEase	\$69.35	64%	\$16,338	\$46,504	\$31,355	2.3x	2.3x	2.1x	10.7x	9.2x	8.7x			
Roblox	\$33.32	29%	\$3,022	\$19,682	\$18,478	6.8x	6.6x	5.6x	26.9x	NM	NM			
NEXON Co.	\$22.04	92%	\$4,164	\$19,655	\$14,885	6.2x	5.8x	5.1x	16.3x	18.5x	14.5x			
Aristocrat	\$22.71	74%	\$1,962	\$15,132	\$14,762	4.1x	3.9x	3.7x	12.5x	11.5x	11.1x			
Embracer Group	\$4.94	50%	\$800	\$5,528	\$7,453	5.1x	2.3x	1.9x	11.6x	8.0x	6.9x			
AppLovin	\$10.70	11%	\$944	\$3,976	\$6,319	2.3x	2.2x	2.2x	8.7x	6.0x	5.6x			
Ncsoft Corp.	\$358.00	64%	\$1,759	\$7,277	\$5,826	2.9x	2.9x	2.8x	12.2x	10.5x	10.1x			
Netmarble Corp.	\$39.01	39%	\$628	\$3,319	\$4,586	2.2x	2.2x	2.0x	17.0x	40.0x	20.4x			
Playtika	\$8.48	40%	\$1,272	\$3,496	\$4,322	1.7x	1.7x	1.6x	5.0x	5.0x	4.5x			
Krafton	\$138.84	36%	\$2,326	\$6,571	\$4,123	2.4x	2.8x	2.7x	5.5x	6.4x	6.3x			
CD Projekt	\$30.20	65%	\$182	\$3,042	\$2,854	12.6x	14.6x	13.1x	29.6x	28.9x	23.2x			
Paradox Interactive	\$18.97	93%	\$60	\$2,006	\$1,954	11.5x	10.2x	8.8x	18.9x	14.8x	12.5x			
Stillfront Group	\$1.82	35%	\$122	\$826	\$1,309	2.2x	1.9x	1.7x	6.0x	5.9x	5.2x			
DeNA Co.	\$13.07	90%	\$771	\$1,596	\$1,043	0.9x	1.1x	1.0x	4.8x	9.2x	8.3x			
Wemade Co.	\$27.46	19%	\$165	\$1,029	\$982	3.7x	2.8x	1.7x	10.0x	NM	10.8x			
Team17 Group	\$5.40	54%	\$62	\$725	\$716	5.8x	4.6x	4.2x	15.7x	13.4x	12.0x			
GREE, Inc.	\$5.41	58%	\$321	\$968	\$714	1.5x	1.3x	1.4x	9.4x	8.7x	9.2x			
Modern Times Group	\$8.76	63%	\$423	\$993	\$700	1.2x	1.3x	1.2x	8.0x	5.6x	5.0x			
Com2uS	\$48.73	37%	\$318	\$728	\$647	1.4x	1.2x	1.0x	10.1x	27.8x	11.2x			
SciPlay	\$15.66	97%	\$299	\$860	\$532	0.9x	0.8x	0.8x	2.9x	2.8x	2.5x			
PlayWay	\$77.11	77%	\$27	\$526	\$499	8.1x	8.9x	7.4x	12.2x	15.3x	10.9x			
Frontier Developments	\$13.20	55%	\$49	\$536	\$492	3.6x	3.3x	2.7x	10.2x	9.2x	7.4x			
NHN Corp.	\$19.35	50%	\$519	\$907	\$429	0.3x	0.3x	0.2x	2.8x	4.6x	3.3x			
Digital Bros	\$24.87	75%	\$9	\$359	\$391	2.4x	2.7x	2.2x	6.3x	6.4x	5.2x			
PLAYSTUDIOS	\$4.10	62%	\$212	\$522	\$320	1.1x	1.1x	1.1x	8.9x	9.5x	8.0x			
GAMEVIL Inc.	\$32.78	18%	\$22	\$211	\$320	2.8x	3.6x	2.4x	8.8x	26.6x	8.9x			
Rovio Entertainment	\$6.47	63%	\$188	\$488	\$298	0.9x	0.9x	0.9x	5.1x	5.5x	5.1x			
JOYCITY Corp.	\$3.24	36%	\$23	\$221	\$284	1.6x	2.3x	1.6x	13.0x	43.1x	10.9x			
Remedy Entertainment	\$23.79	56%	\$56	\$341	\$268	5.4x	5.8x	6.2x	14.9x	NM	NM			
tinyBuild	\$1.42	57%	\$43	\$287	\$247	4.9x	3.7x	3.4x	12.0x	9.6x	8.4x			
GungHo Online	\$15.49	74%	\$801	\$1,072	\$212	0.2x	0.3x	0.3x	0.7x	1.1x	1.2x			
Ten Square Games	\$30.98	35%	\$23	\$226	\$202	1.2x	1.7x	1.7x	4.4x	7.8x	7.2x			
HUUUGE	\$5.03	79%	\$193	\$410	\$196	0.5x	0.6x	0.6x	3.3x	2.8x	3.1x			
DoubleDown Interactive	\$9.37	59%	\$310	\$464	\$194	0.5x	0.6x	0.6x	1.6x	1.9x	1.9x			
G5 Entertainment	\$21.02	54%	\$17	\$176	\$166	1.1x	1.2x	1.2x	4.2x	6.0x	4.7x			
Atari	\$0.22	49%	\$1	\$66	\$90	4.7x	NA	NA	NA	NA	NA			
Skillz	\$0.84	10%	\$465	\$343	\$85	0.2x	0.3x	0.3x	NM	NM	NM			
East Side Games	\$0.63	20%	\$4	\$50	\$48	0.7x	0.5x	0.5x	7.3x	22.7x	6.2x			
<b>Top Quartile</b>		65%	\$793	\$3,250	\$3,806	4.5x	3.6x	2.8x	12.3x	14.8x	10.9x			
<b>Mean</b>		54%	\$1,024	\$3,977	\$3,376	3.1x	3.0x	2.6x	9.9x	12.3x	8.3x			
<b>Median</b>		55%	\$256	\$843	\$589	2.2x	2.2x	1.7x	9.1x	9.2x	7.7x			
<b>First Quartile</b>		37%	\$51	\$372	\$272	1.1x	1.1x	1.0x	5.1x	5.9x	5.1x			

Source: S&P Capital IQ.

Note: Stock price last updated on 12/12/2022; NM in EV/EBITDA if multiple is greater than 50 or EBITDA is negative; NA means information is not available or not applicable.

# Gaming Public Comparable Companies (Large Integrated Publishers)

(\$ in millions, except stock price)

Company	Stock Price	% of 52-wk High	Cash & ST	Equity	Enterprise	EV / Revenue			EV / EBITDA		
			Inv	Value	Value	CY 2021A	CY 2022E	CY 2023E	CY 2021A	CY 2022E	CY 2023E
Tencent	\$40.85	65%	\$41,104	\$403,925	\$403,880	4.5x	5.1x	4.6x	12.8x	15.7x	14.0x
Activision Blizzard	77.36	89%	10,908	60,882	53,246	6.1x	6.6x	5.5x	14.4x	17.6x	13.5x
Nintendo Co.	41.34	85%	11,436	48,362	36,100	2.6x	2.9x	2.9x	6.7x	8.2x	8.5x
Electronic Arts	125.60	88%	1,874	35,419	35,026	4.8x	4.8x	4.1x	12.6x	13.0x	10.3x
Take-Two	102.61	56%	1,304	13,702	19,587	5.8x	4.1x	3.0x	24.9x	21.7x	13.5x
Capcom Co.	31.79	97%	727	6,753	5,915	5.6x	8.0x	5.9x	15.5x	15.2x	13.4x
Konami Holdings	45.24	69%	1,578	6,129	5,076	2.0x	2.2x	2.0x	7.0x	7.8x	7.2x
Ubisoft Entertainment	28.27	49%	1,500	3,807	4,214	1.4x	1.8x	1.5x	3.4x	3.9x	3.5x
Square Enix	45.75	88%	1,311	5,484	4,099	1.4x	1.6x	1.5x	7.6x	8.9x	7.5x
Sega Sammy	13.32	75%	936	3,024	2,335	0.9x	0.9x	0.8x	9.4x	6.2x	5.4x
<b>Top Quartile</b>		88%	\$8,650	\$45,126	\$35,832	5.4x	5.0x	4.4x	14.0x	15.6x	13.5x
<b>Mean</b>		76%	\$7,268	\$58,749	\$56,948	3.5x	3.8x	3.2x	11.4x	11.8x	9.7x
<b>Median</b>		80%	\$1,539	\$10,227	\$12,751	3.6x	3.5x	2.9x	11.0x	11.0x	9.4x
<b>First Quartile</b>		66%	\$1,306	\$5,645	\$4,430	1.6x	1.9x	1.6x	7.1x	7.9x	7.2x

Source: S&P Capital IQ

Note: Stock price last updated on 12/12/2022; NM in EV/EBITDA if multiple is greater than 50 or EBITDA is negative; NA means information is not available or not applicable.

# Disclaimer

---

© 2022 Houlihan Lokey. All rights reserved. This material may not be reproduced in any format by any means or redistributed without the prior written consent of Houlihan Lokey.

Houlihan Lokey is a trade name for Houlihan Lokey, Inc., and its subsidiaries and affiliates, which include the following licensed (or, in the case of Singapore, exempt) entities: in (i) the United States: Houlihan Lokey Capital, Inc., and Houlihan Lokey Advisors, LLC, each an SEC-registered broker-dealer and member of FINRA ([www.finra.org](http://www.finra.org)) and SIPC ([www.sipc.org](http://www.sipc.org)) (investment banking services); (ii) Europe: Houlihan Lokey EMEA, LLP, Houlihan Lokey (Corporate Finance) Limited, and Houlihan Lokey UK Limited, authorised and regulated by the U.K. Financial Conduct Authority; Houlihan Lokey (Europe) GmbH, authorised and regulated by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht); (iii) the United Arab Emirates, Dubai International Financial Centre (Dubai): Houlihan Lokey (MEA Financial Advisory) Limited, regulated by the Dubai Financial Services Authority for the provision of advising on financial products, arranging deals in investments, and arranging credit and advising on credit to professional clients only; (iv) Singapore: Houlihan Lokey (Singapore) Private Limited and Houlihan Lokey Advisers Singapore Private Limited, each an “exempt corporate finance adviser” able to provide exempt corporate finance advisory services to accredited investors only; (v) Hong Kong SAR: Houlihan Lokey (China) Limited, licensed in Hong Kong by the Securities and Futures Commission to conduct Type 1, 4, and 6 regulated activities to professional investors only; (vi) India: Houlihan Lokey Advisory (India) Private Limited, registered as an investment adviser with the Securities and Exchange Board of India (registration number INA000001217); and (vii) Australia: Houlihan Lokey (Australia) Pty Limited (ABN 74 601 825 227), a company incorporated in Australia and licensed by the [Australian Securities and Investments Commission](#) (AFSL number 474953) in respect of financial services provided to wholesale clients only. In the United Kingdom, European Economic Area (EEA), Dubai, Singapore, Hong Kong, India, and Australia, this communication is directed to intended recipients, including actual or potential professional clients (UK, EEA, and Dubai), accredited investors (Singapore), professional investors (Hong Kong), and wholesale clients (Australia), respectively. Other persons, such as retail clients, are NOT the intended recipients of our communications or services and should not act upon this communication.

Houlihan Lokey gathers its data from sources it considers reliable; however, it does not guarantee the accuracy or completeness of the information provided within this presentation. The material presented reflects information known to the authors at the time this presentation was written, and this information is subject to change. Houlihan Lokey makes no representations or warranties, expressed or implied, regarding the accuracy of this material. The views expressed in this material accurately reflect the personal views of the authors regarding the subject securities and issuers and do not necessarily coincide with those of Houlihan Lokey. Officers, directors, and partners in the Houlihan Lokey group of companies may have positions in the securities of the companies discussed. This presentation does not constitute advice or a recommendation, offer, or solicitation with respect to the securities of any company discussed herein, is not intended to provide information upon which to base an investment decision, and should not be construed as such. Houlihan Lokey or its affiliates may from time to time provide investment banking or related services to these companies. Like all Houlihan Lokey employees, the authors of this presentation receive compensation that is affected by overall firm profitability.



Houlihan Lokey

CORPORATE FINANCE  
FINANCIAL RESTRUCTURING  
FINANCIAL AND VALUATION ADVISORY

[HL.com](https://www.hl.com)