VIDEO GAMING / ESPORTS INVESTING 101
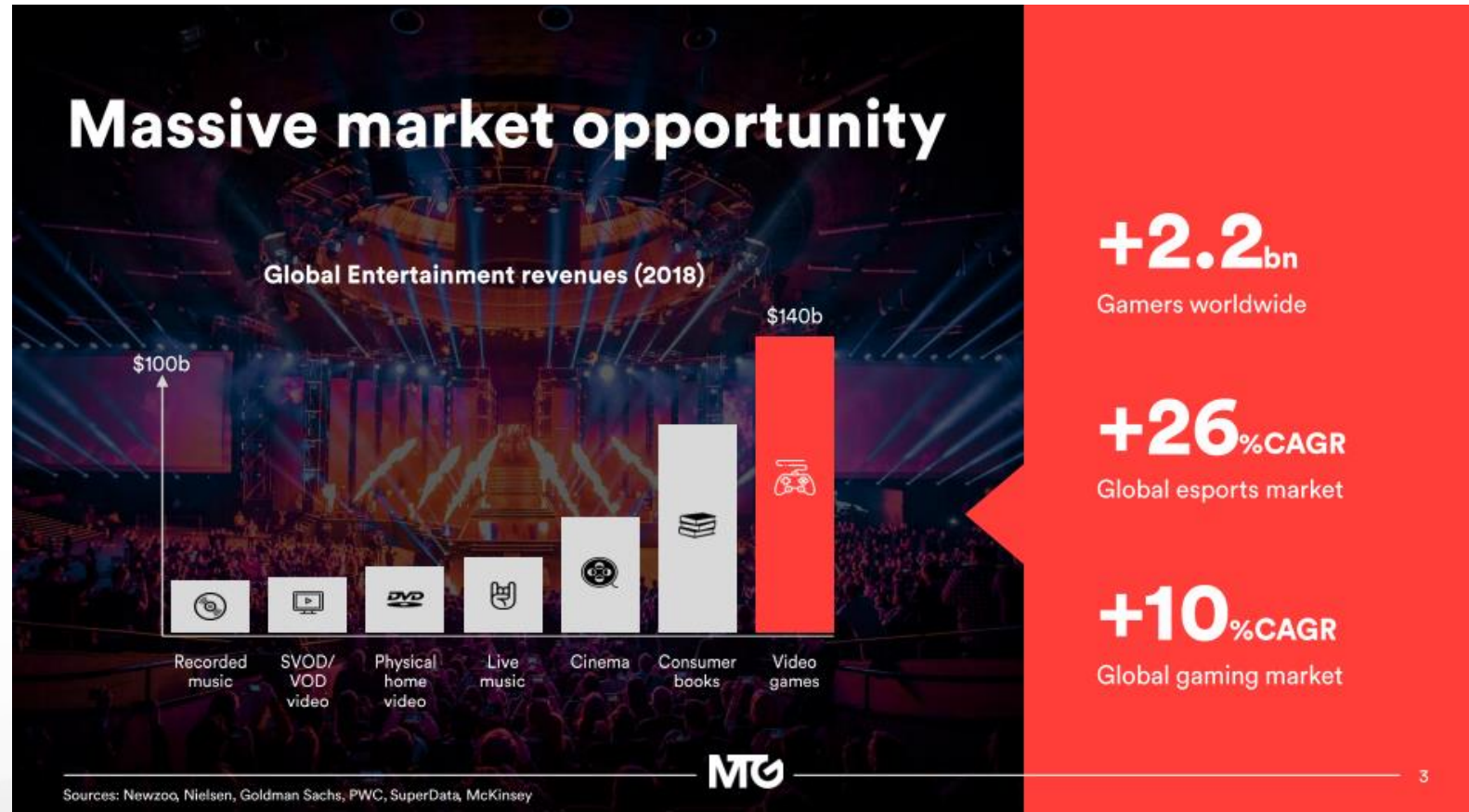
VIDEO GAMING / ESPORTS MARKET (1)

BIGGEST ENTERTAINMENT – 2X BIGGER THAN HOLLYWOOD ($43BN) & MUSIC ($20BN) COMBINED

VIDEO GAMING / ESPORTS MARKET (2)

MOBILE GAMING

Compounding Growth: +26.8%

2012-2021 GLOBAL GAMES MARKET
REVENUES PER SEGMENT 2012-2021 WITH COMPOUND ANNUAL GROWTH RATES

- Mobile Games
- PC Games
- Console Games

©2018 Newzoo

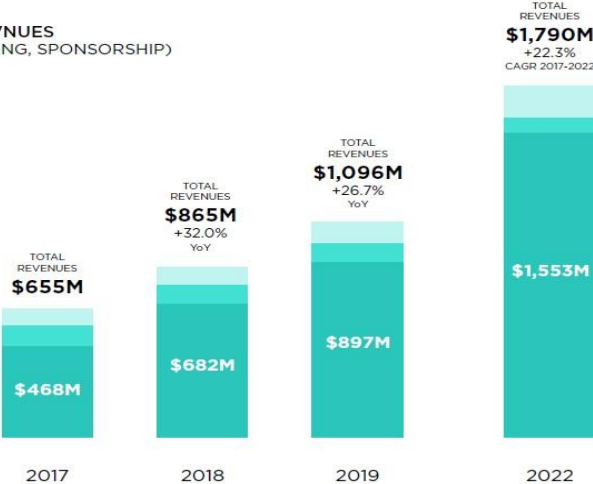| Year	Total	Mobile	PC	Console
2012	$70.6Bn	18%	37%	45%
2013	$76.5Bn	23%	38%	39%
2014	$84.8Bn	29%	36%	35%
2015	$93.1Bn	34%	34%	32%
2016	$106.5Bn	40%	30%	30%
2017	$121.7Bn	46%	27%	27%
2018	$137.9Bn	51%	24%	25%
2019	$151.9Bn	54%	22%	24%
2020	$165.9Bn	57%	21%	23%
2021	$180.1Bn	59%	19%	22%

Source: Newzoo

E-SPORTS

Compounding Growth: +22.3%

ESPORTS REVENUE GROWTH
GLOBAL | 2017, 2018, 2019, 2022

- MERCHANDISE & TICKETS
- GAME PUBLISHER FEES
- BRAND INVESTMENT REVNUES (MEDIA RIGHTS, ADVERTISING, SPONSORSHIP)

Please note that these numbers are from February 2019. We revise our revenue and audience estimates every quarter and update if necessary. You can always find the most up to date numbers at:
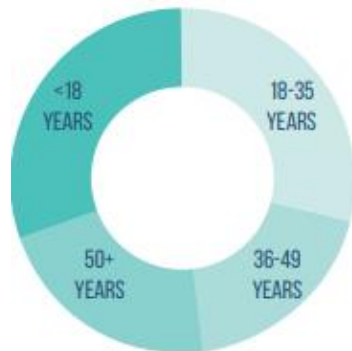
newzoo.com/key-numbers

2017 — TOTAL REVENUES $655M — $468M

2018 — TOTAL REVENUES $865M +32.0% YoY — $682M

2019 — TOTAL REVENUES $1,096M +26.7% YoY — $897M

2022 — TOTAL REVENUES $1,790M +22.3% CAGR 2017-2022 — $1,553M

Source: Newzoo

SAIGA CAPITAL

3

VIDEO GAMING / ESPORTS MARKET (3)
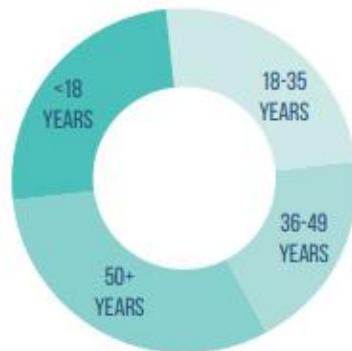
AVERAGE GAMER AGE

The average gamer is 34 years old.

AVERAGE GAMERS BY AGE GROUP

MALE

UNDER 18 YEARS OLD: 17%
18-35: 16%
36-49: 12%
AGE 50+: 11%

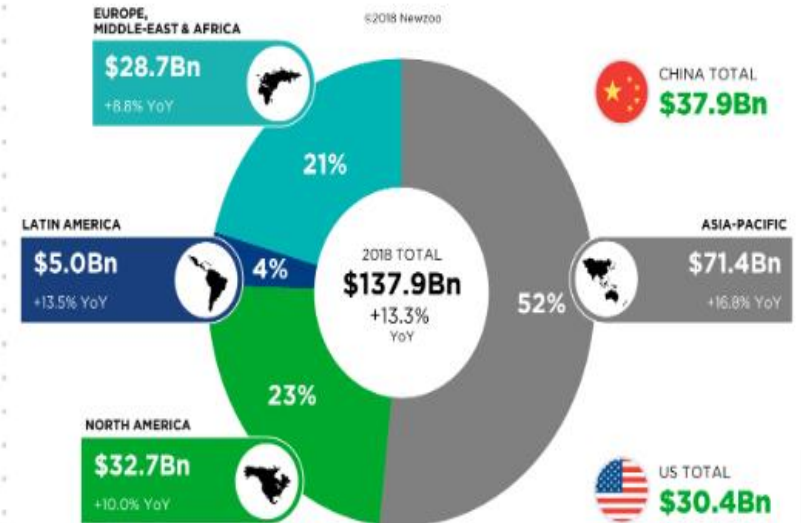**FEMALE**

UNDER 18 YEARS OLD: 11%
18-35: 13%
36-49: 8%
AGE 50+: 12%

Source: The Entertainment Software Association

GLOBAL GAMING MARKET (ASIA LEADING)

newzoo

2018 GLOBAL GAMES MARKET
PER REGION WITH YEAR-ON-YEAR GROWTH RATES

©2018 Newzoo

EUROPE, MIDDLE-EAST & AFRICA
$28.7Bn
+8.8% YoY
21%

LATIN AMERICA
$5.0Bn
+13.5% YoY
4%

2018 TOTAL
$137.9Bn
+13.3% YoY

52%

NORTH AMERICA
$32.7Bn
+10.0% YoY
23%

CHINA TOTAL
$37.9Bn

ASIA-PACIFIC
$71.4Bn
+16.8% YoY

US TOTAL
$30.4Bn

Source: Newzoo

VIDEO GAMING / ESPORTS MARKET (4)

ESPORTS PRIZE MONEY	Top-Earning Video Gamers	Digital Concert

FORTNITE WORLD CUP CHAMP WINS BIG

2019 Fortnite Champ
Kyle Giersdorf
$3,025,900

2019 Wimbledon
Novak Djokovic
$2,983,748

2019 Masters
Tiger Woods
$2,070,000

2019 PGA
Brooks Koepka
$1,980,000

The Ten Highest Paid Video Gamers:	In USD (MM)
1 Ninja (Mixer)	17
2 Felix kjellberg (Youtuber)	15
3 Preston (Mincraft)	14
4 Mark Fischbach	14
5 Shroud	12.5
6 DanTDM (Mincraft)	12
7 VanossGaming	11.5
8 Jacksepticeye	11
9 TimTHeTatman	8
10 Nick Kolcheff	6

More than 12 million players tuned in for Travis Scott's 'Fortnite' event. That's roughly the same size as the average 'Monday Night Football' audience.

Avery Hartmans Apr 24, 2020, 10:27 AM
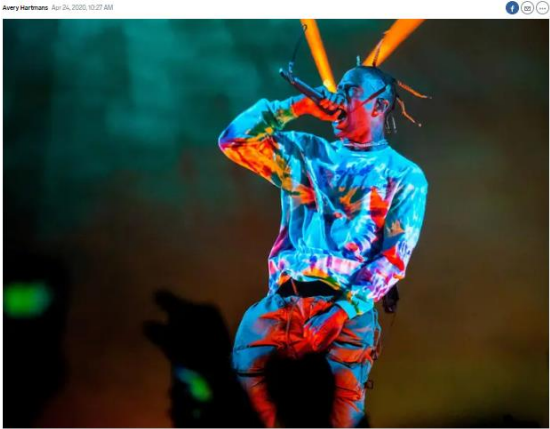
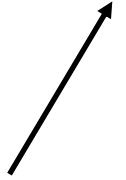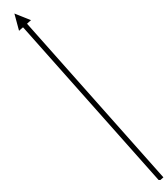Travis Scott. Scott Legato/Getty Images

Source: knowyourmeme.com

Source: Forbes

Source: Business Insider

PRIVATE vs PUBLIC (OVERVIEW)

1. Esports Team
2. Game Studios
3. Esports Infrastructure

~150 Stocks globally
$1.5TN Market cap

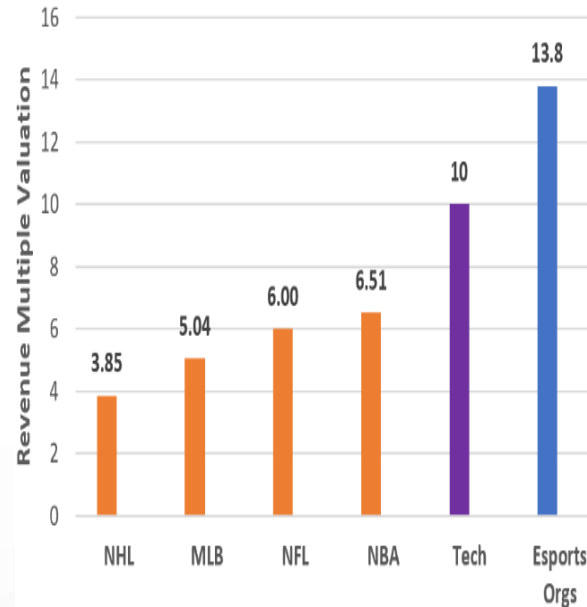

Source: BlackSwan

PRIVATE (1) – Esports Teams Overvalued (~14x)

TEAM VALUATION

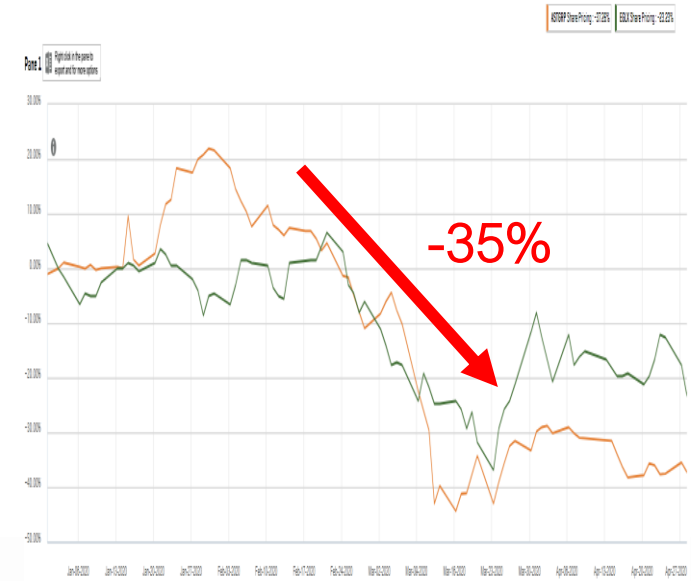| Team	Valuation($M)	Revenue($M)	Rev Multiple
Cloud9	310	22	14.1
TSM	250	25	10.0
Team Liquid	200	17	11.8
Echo Fox	150	11	13.6
OpTic	130	10	13.0
Fnatic	120	11	10.9
Gen G	110	12	9.2
G2 Esports	105	8	13.1
Immortals	100	5	20.0
Envy Gaming	95	5	19.0
100Thieves	90	5	18.0
Counter Logic	50	4	12.5
Average	**142.5**	**11.25**	**13.8**

Source: Forbes (2018)

SALES MULTIPLE

Revenue Multiples

Revenue Multiple Valuation:

- NHL: 3.85
- MLB: 5.04
- NFL: 6.00
- NBA: 6.51
- Tech: 10
- Esports Orgs: 13.8

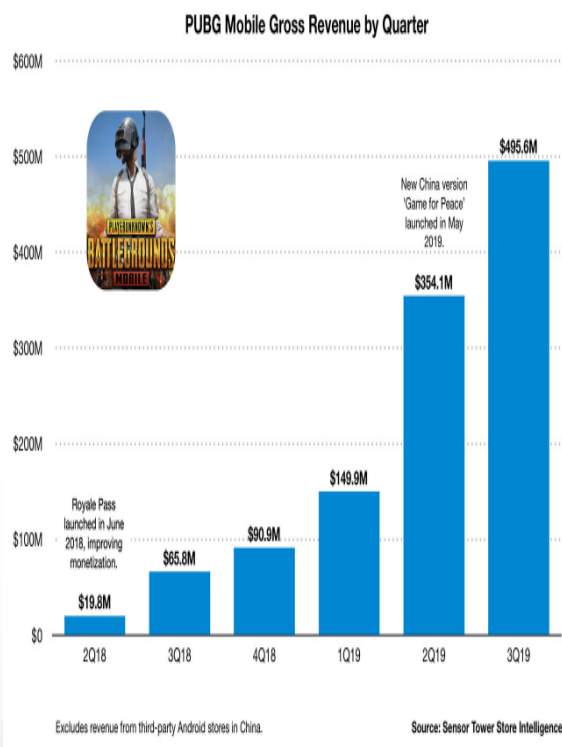Source: Forbes + Pitchbook

IPOs RESULTS

-35%

Source: CapitalIQ

IPOs: Astralis Group (ASTRGRP.CO) & Enthusiast Gaming (EGLX.TSXV)

PRIVATE (2) – Hard To Predict (ART)

CASE 1 – Underdog Team ($4.5BN Valuation)

PUBG Mobile Gross Revenue by Quarter

New China version 'Game for Peace' launched in May 2019.

$495.6M
$354.1M
$149.9M
$90.9M
$65.8M
$19.8M

Royale Pass launched in June 2018, improving monetization.

2Q18 3Q18 4Q18 1Q19 2Q19 3Q19

Excludes revenue from third-party Android stores in China.

Source: Sensor Tower Store Intelligence

CASE 2 – Triple AAA Team (7YRS- FAIL)

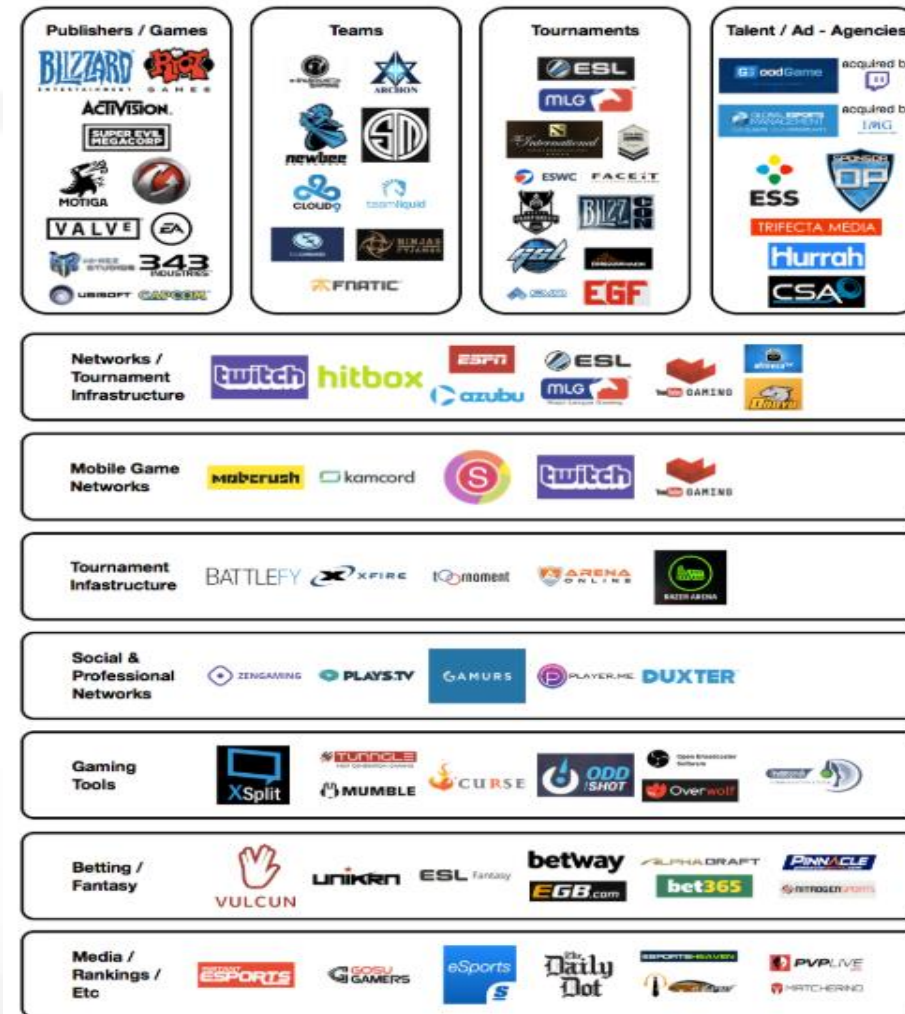**Destination Games**

Formerly	NCSOFT Austin (2001–2009)
Former type	Subsidiary
Industry	Video games
Fate	Dissolved
Successor	Portalarium
Founded	Austin, Texas, United States, April 2000
Founders	Richard Garriott, Robert Garriott, Starr Long

Source: Google Search

PRIVATE (3) - Too Fragmented

Source: medium

SAIGA CAPITAL

PUBLIC (1) – Proven Track Records – Multiple IPs
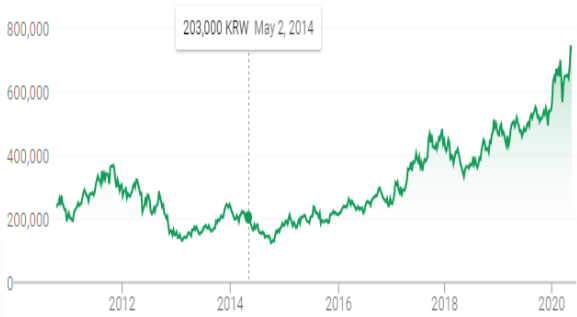
PUBLIC (1) - Compounding Growth

NCSOFT

Market Summary > NCSoft Corp
KRX: 036570

729,000 KRW −16,000 (2.15%) ↓
May 18, 2:21 PM GMT+9 · Disclaimer

1 day 5 days 1 month 6 months YTD 1 year 5 years **Max**

Open	745,000	Div yield	0.72%
High	750,000	Prev close	745,000
Low	725,000	52-wk high	759,000
Mkt cap	16.00T	52-wk low	451,500
P/E ratio	41.94		

Source: Google

TAKE TWO

Market Summary > TAKE-TWO INTERACTIVE SOFTWARE, I
NASDAQ: TTWO

132.54 USD +1.01 (0.77%) ↑
May 15, 4:00 PM EDT · Disclaimer

1 day 5 days 1 month 6 months YTD 1 year 5 years **Max**

Open	129.71	Div yield	-
High	133.54	Prev close	131.53
Low	129.50	52-wk high	135.70
Mkt cap	15.03B	52-wk low	100.00
P/E ratio	44.80		

Source: Google

TENCENT

Market Summary > TENCENT HOLDING/ADR
OTCMKTS: TCEHY

54.01 USD −1.99 (3.55%) ↓
May 15, 4:00 PM EDT · Disclaimer

1 day 5 days 1 month 6 months YTD 1 year 5 years **Max**

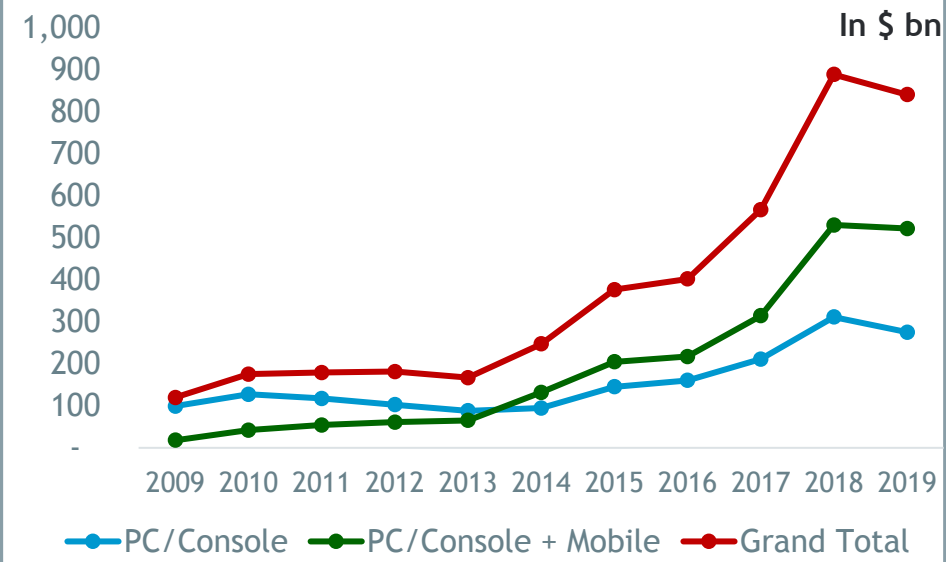| Open | 53.85 | Div yield | 0.18% |
High	54.18	Prev close	56.00
Low	53.60	52-wk high	58.66
Mkt cap	-	52-wk low	40.04
P/E ratio	-		

Source: Google

⬥ SAIGA CAPITAL

PUBLIC (2) – Long/Short Opportunity

~150 Publicly Listed Stock Universe
+600% in Market Cap over 10yrs

" Ripe for **Discretionary** Stock Picking "

Gaming Market Cap

In $ bn

Legend: PC/Console — PC/Console + Mobile — Grand Total

Source: SaigaCap

Dispersion – Best vs. Worst Performer

Year	Best Performer	Worst Performer
2010	355%	-39%
2011	785%	-64%
2012	177%	-89%
2013	1973% (Gungho Online)	-93%
2014	525%	-58%
2015	418%	-64%
2016	226%	-63%
2017	536%	-83%
2018	325% (Gravity)	-69%
2019	238%	-95%

● Worst Performer   ● Best Performer
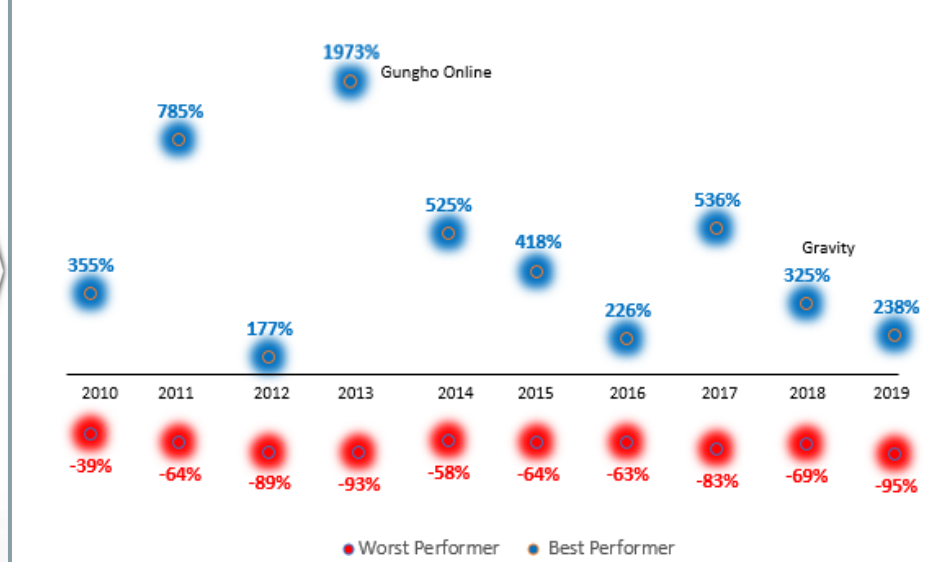
Source: SaigaCap

PUBLIC (3) - Recession Proof Nature

COVID 19 IMPACT

Figure 8: Video games have been the fastest growth category for US consumers

Consumer Spend
Year over Year % Change

	15-Mar-20	22-Mar-20	29-Mar-20
Restaurants	-16%	-63%	-70%
Fast Food Restaurants	-5%	-37%	-44%
Movie Theaters	-52%	-93%	-99%
Amusement Parks	-33%	-82%	-87%
Commercial Sports & Athletic Fields	-9%	-69%	-87%
Tourist Attractions	-27%	-70%	-84%
Drug Stores and Pharmacies	22%	15%	-17%
Wholesale Clubs	54%	13%	-18%
Discount Stores	31%	2%	-13%
Variety Stores	47%	20%	-14%
Grocery Stores & Supermarkets	43%	27%	-9%
Beer, Wine, and Liquor Stores	20%	58%	11%
Video Games	21%	63%	51%
Airlines	-41%	-79%	-88%
United Airlines	-43%	-79%	-88%
Alaska Airlines	-57%	-81%	-89%
Lodging	-23%	-65%	-77%
Holiday Inn	-31%	-58%	-82%

Source: Facteus 2020

HISTORICAL EPIDEMICS

Epidemics and Market Performance		S&P 500		AAA Games Basket	
		6 months	12 months	6 months	12 months
April 2003	SARS	14.6%	20.8%	67.7%	65.9%
June 2006	Avian Flu	11.7%	18.4%	42.0%	66.4%
September 2006	Dengue Fever	6.4%	14.3%	29.2%	43.2%
April 2009	H1N1	18.7%	36.0%	-4.2%	-4.5%
November 2010	Cholera	13.9%	5.6%	26.9%	15.1%
May 2013	MERS	10.7%	18.0%	2.4%	41.4%
December 2014	Measles	0.2%	-0.7%	16.3%	50.6%
March 2014	Ebola	5.3%	10.4%	7.4%	40.6%
January 2016	Zika	12.0%	17.5%	23.6%	29.8%
June 2019	Measles	9.8%	N/A	7.3%	N/A
Average		10.3%	15.6%	21.9%	39.7%

Note: "AAA Games Basket" is an equally-weighted basket of Activision, EA, TakeTwo, and Ubisoft
Source: Roundhill Investment

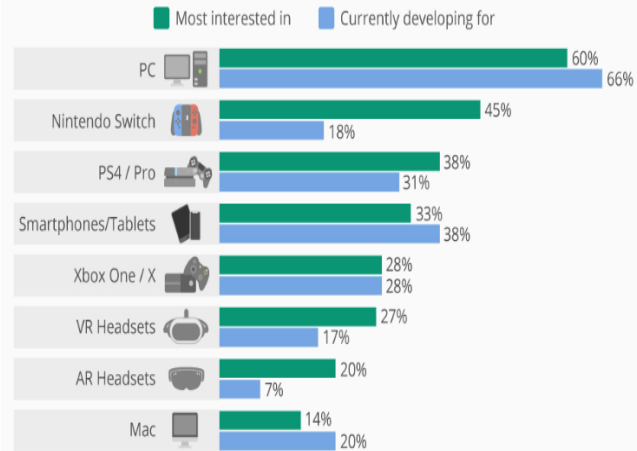## 2008 CREDIT CRISIS

Video Games: Average Hours Played Per Week

legend: 2006, 2007, 2008, 2009
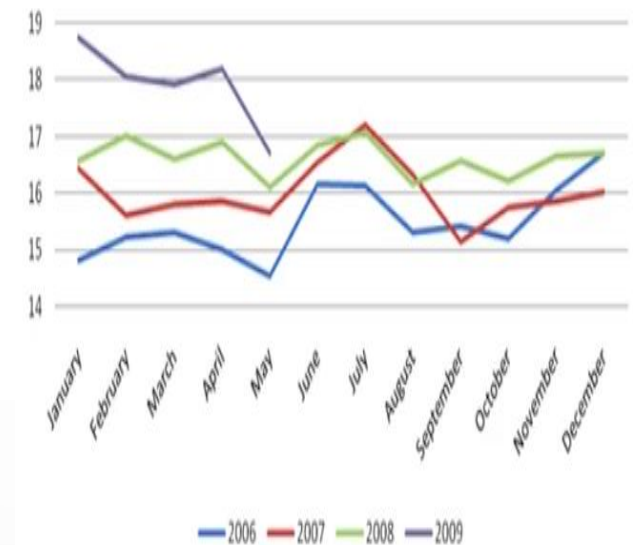
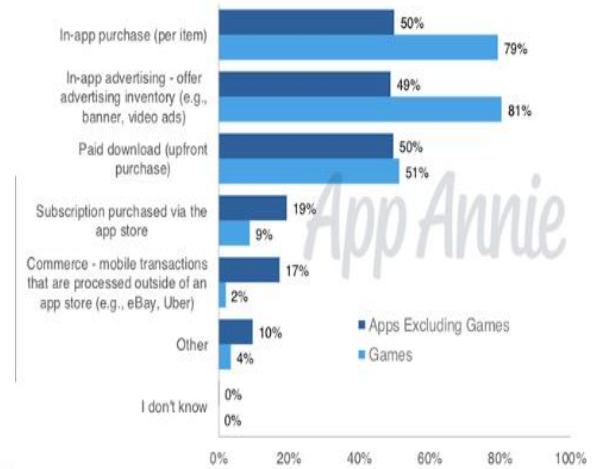Source: The Nielsen Company

Source:, Bloomberg

CHALLENGES (1) – Too Complicated

TYPES OF PLATFORM	DIFFERENT GENRE	MONETIZATION TYPES

The Most Important Gaming Platforms in 2019

% of game developers most interested in/currently developing for the following platforms

- Most interested in
- Currently developing for

Platform	Most interested in	Currently developing for
PC	60%	66%
Nintendo Switch	45%	18%
PS4 / Pro	38%	31%
Smartphones/Tablets	33%	38%
Xbox One / X	28%	28%
VR Headsets	27%	17%
AR Headsets	20%	7%
Mac	14%	20%

Based on a survey of ~4,000 game developers ahead of GDC 2019; multiple answers allowed

@StatistaCharts   Source: Game Developers Conference

statista

Sport   Puzzle   FPS   RPG   Strategy   Simulation   Action   Adventure   Shooter

Monetization Methods: Past or Current

Method	Apps Excluding Games	Games
In-app purchase (per item)	50%	79%
In-app advertising - offer advertising inventory (e.g., banner, video ads)	49%	81%
Paid download (upfront purchase)	50%	51%
Subscription purchased via the app store	19%	9%
Commerce - mobile transactions that are processed outside of an app store (e.g., eBay, Uber)	17%	2%
Other	10%	4%
I don't know	0%	0%

App Annie

CHALLENGES (2) - Differ By Regions

USA

Grossing

	Game	Publisher	
	Coin Master	Moon Active	=
	Candy Crush Saga	King	=
	Pokémon GO	Niantic	=
	Roblox	Roblox	=
	Gardenscapes	Playrix	=
	Slotomania™ Slots Casino: Slot...	Playtika	=
	Homescapes	Playrix	=
	Bingo Blitz™ - Bingo Games	Playtika Santa Monica	=
	RAID: Shadow Legends	Plarium	=
	Township	Playrix	▲ 1

CHINA

Grossing

	Game	Publisher	
	Peace elite	Tencent	=
	King Glory	Tencent	=
	Three Kingdoms · ...	Aligame	=
	Fantasy Westward ...	NetEase	=
	Slam Dunk Genuin...	DeNA	▲ 67
	Sword and Expedit...	Lilith	▼ 1
	Shore of the Land	NetEase	▼ 1
	Asked	Leiting	▼ 1
	Princess Link Re: ...	bilibili	▼ 1
	Westward Journey	NetEase	▼ 1

KOREA

Grossing

	Game	Publisher	
	Lineage M	NCSOFT	=
	Lineage 2M	NCSOFT	=
	AFK Arena	Lilith	=
	A3: Steel Alive	Netmarble	▲ 1
	V4	NEXON	▼ 1
	Rise of Kingdoms	Lilith	▲ 2
	Miracle Sword	4399	▼ 1
	Blade & Soul Revolution	Netmarble	▼ 1
	Lineage 2 Revolution	Netmarble	=
	Random Dice: PvP Defense	111%	=

JAPAN

Grossing

	Game	Publisher	
	Monster strike	XFLAG	▲ 7
	Dragon Quest Walk	SQUARE ENIX	▼ 1
	White cat project	COLOPL	▼ 1
	Pokémon GO	Niantic	▲ 10
	Ensemble Stars! !! ...	Happy Elements	▲ 5
	Professional base...	KONAMI	=
	Puzzle & Dragons	GungHo Online E...	▼ 4
	Fate/Grand Order	Aniplex	▼ 3
	Ark Knights	Yostar	▲ 62
	Disney Twisted Wo...	Aniplex	▼ 6

Source: Appannie

CHALLENGES (3) – Subject Matter Expert

Traditional Portfolio Managers do not understand the industry (Millennial / Gen-Z Industry)

WORLDWIDE TOP GROSSING RANKINGS

Top Grossing Titles by Category
Worldwide, ranked by March 2020 earnings

	PC	CONSOLE	MOBILE
1	Dungeon Fighter Online	Animal Crossing: New Horizons	Honour of Kings
2	League of Legends	FIFA 20	Gardenscapes
3	Crossfire	MLB The Show 20	Candy Crush Saga
4	Fantasy Westward Journey Online II	Doom Eternal	Last Shelter: Survival
5	Doom Eternal	Call of Duty: Modern Warfare	Pokémon GO
6	Counter-Strike: Global Offensive	NBA 2K20	Coin Master
7	Borderlands 3	Grand Theft Auto V	Roblox
8	Half-Life: Alyx	Fortnite	Monster Strike
9	World of Warcraft West	Tom Clancy's Rainbow Six: Siege	Clash of Clans
10	World of Tanks	Madden NFL 20	Mafia City

Source: SuperData Arcade. Please visit: http://bit.ly/sd-arcade for more info.
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★ SUPERDATA
A NIELSEN COMPANY

HISTORICAL TOP GROSSING (IP)

VIDEO GAME FRANCHISES

1	Pokémon	$90,000,000,000
2	Mario	$30,250,000,000
3	Call of Duty	$17,000,000,000
4	Wii	$14,808,000,000
5	Pac-Man	$14,107,000,000
6	Space Invaders	$13,930,000,000
7	Dungeon Fighter Online	$11,800,000,000
8	Street Fighter	$11,279,000,000
9	Final Fantasy	$10,656,000,000
10	Warcraft	$10,627,000,000

Source: Visual Capitalist

WHY SAIGA CAPITAL (1) ?

Outstanding Gaming Investment Track-records

Monthly Returns: pro-forma net of fees (Inception: January 23, 2019)

SAIGA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG*	SEP*	OCT*	NOV*	DEC*	YTD*
2019*	0.9%	8.3%	10.3%	-0.3%	9.0%	3.8%	3.2%	-7.4%	-0.4%	-0.5%	2.9%	2.3%	35.7%
2020	1.4%	2.6%	-0.3%	4.9%	14.3%								24.4%
											SINCE INCEPTION:		68.7%

S&P 500	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
2019	2.7%	3.0%	1.8%	3.9%	-6.6%	6.9%	1.3%	-1.8%	1.7%	2.0%	3.4%	2.9%	22.7%
2020	-0.2%	-8.4%	-12.5%	12.7%	4.5%								-5.8%

GAMR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
2019	2.8%	-1.0%	5.6%	1.3%	-6.7%	2.2%	-4.5%	-0.9%	3.0%	-0.1%	3.0%	4.4%	8.9%
2020	0.0%	-1.6%	-3.2%	10.3%	11.6%								17.2%

MSCI AC ASIA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
2019	2.6%	1.3%	0.7%	1.6%	-6.2%	5.0%	-2.7%	-3.4%	2.1%	4.3%	0.4%	7.7%	13.5%
2020	-2.9%	-6.1%	-12.1%	8.1%	1.8%								-11.8%

[1] Our benchmarks are GAMR (ETFMG Video Game Tech ETF comprised of about 90 names), MSCI AC Asia Pacific (MSCI All Country Asia Pacific Index) and S&P 500. For equal comparison, the benchmark performances shown are from January 23, 2019.

* After audit performance review, our auditor adjusted our initial estimate of +34.6% to +35.7% for 2019 resulting in a net increase of 1.1%. We have made adjustments accordingly to the table above (please see *).

WHY SAIGA CAPITAL (2) ?

Fund Type	Opportunistic long-short equity
Sector Mandate	**Global video and online gaming**
Investment Method	Primary research and bottom-up stock pick
Experience	Team training via Tiger cub/grand cub shops
	Combined 50+ years of first-hand gaming
	Combined 20+ years of gaming investment
Investible Universe	150+ stocks spanning across Asia (mainly China, Korea, Japan and SE Asia) and North America/Europe
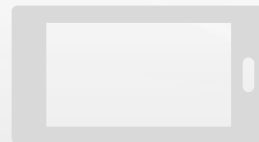
WHY SAIGA CAPITAL (3)?

We understand both Western and Eastern Markets

Asia 52% > NA/Europe 42%

EUROPE, MIDDLE EAST & AFRICA
$28.7Bn
+8.8% YoY

21%

LATIN AMERICA
$5.0Bn
+13.5% YoY

4%

2018 TOTAL
$137.9Bn
+13.3% YoY

52%

ASIA-PACIFIC
$71.4Bn
+16.8% YoY

23%

NORTH AMERICA
$32.7Bn
+10.0% YoY
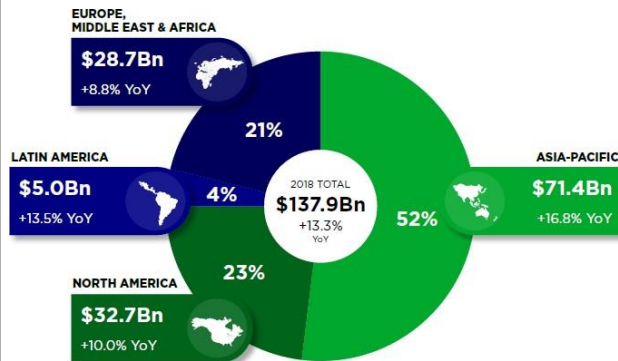
Source: Newzoo

6 out of 10 are Non-US

The Companies Making The Most From Video Games
Public companies by video game revenue in 2017

Company	Revenue
Tencent 腾讯	$18.1b
SONY	$10.5b
Apple	$8.0b
Microsoft	$7.1b
ACTIVISION BLIZZARD	$6.5b
NetEase	$5.6b
Google	$5.3b
EA	$5.1b
Nintendo	$3.6b
BANDAI NAMCO	$2.4b

Source: Statista

Family vs. Commuters

Source: The Rocky Mountain Collegian

Source: China Daily

Netflix: ~"We compete with (and lose to) Fortnite more than HBO"

12 East 49th Street, 15th floor New York, NY 10017
www.saigacap.com
Contact: Info@saigacap.com

SAIGA CAPITAL

PORTFOLIO CONSTRUCTION

SECTOR MANDATE: GLOBAL VIDEO/ONLINE GAMING

Gross Exposure:	Target 40 – 160%
Net Exposure:	No target, purely opportunity driven
Number of Positions:	Target 10 – 30
Position Sizing:	Maximum 30% for long and 10% for short (Not applies to Index ETFs)
Geographic:	China, Korea, Japan, North America, ROW
Holding Period:	Generally average of 6-12 months
Liquidity limit:	Target of 3 X average daily trading volume

These are normal market condition illustration

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INVESTMENT STRATEGY

Two Pillars of Investment Strategy

Strategy	1) EARNINGS CATALYST	2) COMPOUNDING GROWTH
Duration	< 1yr	1yr ~ 10yrs
Method	Long / Short	Long
Description	Short horizon alpha	Multi year compounder
Example	Earning surprise or shock	Platform / industry evolution

STOCK RISK

1. Investible universe discipline
2. Rigorous primary research as best tool to mitigate stock risk
3. Proper risk/reward, conviction level analysis
4. Team approach to avoid errors

PORTFOLIO RISK

1. Gross exposure limit to take measured risk
2. Maximum position size limits
3. Liquidity limit by position
4. Global exposure to mitigate country risk
5. Low correlation to markets

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RESEARCH AND INVESTMENT PROCESS

Proprietary Research

- Primary Research
- Expert Knowledge
- Data Collection
- Network
- Benchmarking

~150 Stock Universe → Proprietary Gaming Analysis → Idea Generation → Sizing: Risk/Reward, Conviction → Monitor, Revisit → Harvest

SAIGA CAPITAL
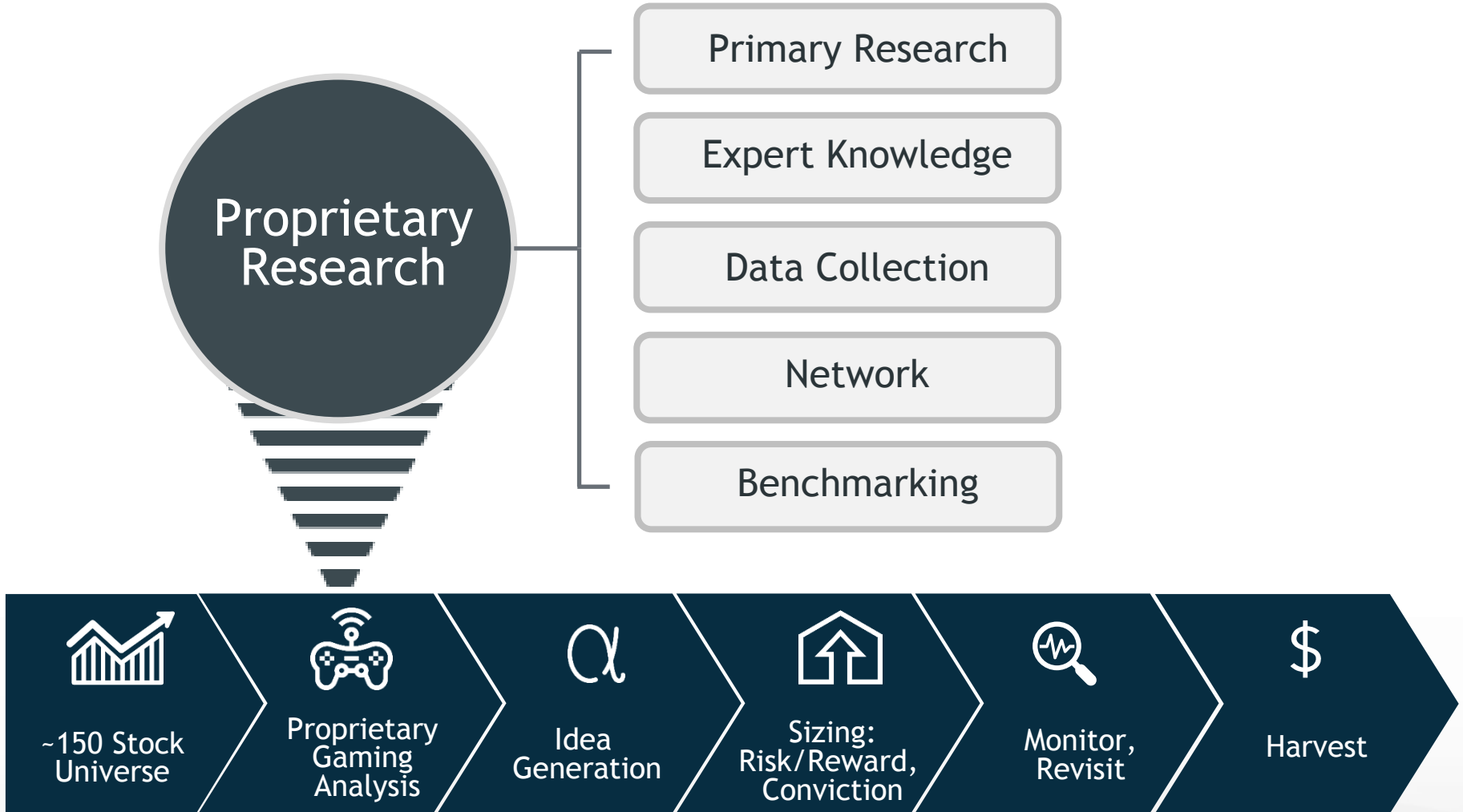
INVESTMENT CASES

CASE (1) EARNINGS CATALYST : GUNGHO (TYO:3765) & GRAVITY (Nasdaq:GRVY)

Stock price 52weeks low (Q4 2018)

Mispricing
- ✓ Sell-side's pessimism
- ✓ Lack of understanding on its Subsidiary
- ✓ Cross-country information Gap

Our Edge
- ✓ Unique Sales Prediction
- ✓ Bottom-up approach on its subsidiary (Gravity)
- ✓ Solid understanding of Global markets

Thesis
Earning Catalyst: Its Q4 18 earnings will be BTE vs. market consensus

Market vs. Saiga Estimate

Consensus	Q4 2018	2019	2020	Our Own	Q4 2018	2019	2020	DIFF	Q4 2018	2019	2020
REV	19,582	77,733	72,752	REV	24,856	103,391	103,127	REV	27%	33%	42%
OP	4,564	19,752	17,215	OP	6,138	26,339	22,866	OP	34%	33%	33%
OPM	23%	25%	24%		25%	25%	22%				
NP	2,850	12,801	11,170	NP	3,865	16,145	13,863	NP	36%	26%	24%

* Saiga Estimate was based on precise local game sales and its revenue from a consolidated subsidiary, of both which sellside overlooked

Valuation & Memo

Date: Jan 7th, 2019

Long Gungho Online Entertainment (TYO: 3765)

I recommend a long on Gungho with a target price of JPY313.50 and +50% upside (Target Fwd 2019 PE of 13.8x) from current price levels within one-year investment horizon. Its stock has suffered (down -73%; see exhibit 1) from continuous sale decline over the last 4 years (-16% CAGR), yet it now expects to grow its revenue again (+19% in 2019) from its two main products: Puzzle & Dragon (Mobile game – accounts for 70% of the recent total sales) & Ragnarok Mobile (Mobile game – accounts for 20% of the recent total sales).

Exhibit (1) 5yr Historical Stock Chart

Most importantly, market consensus (sell-side analysts) has not noticed its substantial growth potential and continue to provide a dismal outlook (6 sell-sides rated as either "Hold" or "Sell"). As a result, a huge pricing gap (opportunity) exists whereas our own net-profit estimates are +36% higher for Q4 2018, +22% for 2019 and +17% for 2020, respectively (see Exhibit 2).

Exhibit (2) Market Consensus vs. Our Own Estimates

Consensus	Q4 2018	2019	2020	Our Own	Q4 2018	2019	2020	DIFF	Q4 2018	2019	2020
REV	19,582	77,733	72,752	REV	24,856	103,391	103,127	REV	27%	33%	42%
OP	4,564	19,752	17,215	OP	6,138	26,339	22,866	OP	34%	33%	33%
OPM	25%	25%	24%		25%	25%	22%				
NP	2,850	12,801	11,170	NP	3,865	16,145	13,863	NP	36%	26%	24%

The substantial gap (opportunity) is stemmed from (1) Analysts' tendency to believe the past trend will repeat itself as its P&D (Puzzle & Dragon) sales had decreased for several quarters. (2) Local Analysts' lack of understanding of Ragnarok M's prospect as the game is created/ran by a Korean company called Gravity listed in Nasdaq (Gungho owns 59.3% of the Gravity and reported it in a consolidated basis). Given Gravity's sales have not been the major driver for Gungho, analysts have not paid attention to it (it expects to grow +47% YoY in 2019 & accounts for "40% of the total sales) in that, it gives us great opportunity to capture its perception/pricing gap. Below explains in more details:

INVESTMENT CASES

📅 CASE STUDY (2) COMPOUNDING GROWTH : SEA Ltd (NYSE:SE)

Low Fwd P/S (Q1 2019)

Mispricing
- ✓ Cross-country information Gap
- ✓ No data on S.E.A Gaming market
- ✓ Lack of understanding of S.E.A market's potential

Our Edge
- ✓ Gaming Sales data
- ✓ Accurate prediction on its revenue
- ✓ Sound understanding of the game's life

Thesis
Its gaming and e-commerce flywheel engines will generate compounding growth over time (Tencent + Alibaba)

FreeFire Sales (1)
" Gravity (Nasdaq: GRVY) generated ~$Xmm a day when ranked #1 in S.E.Asia"

" NCSoft (036570 KS) generated ~$Xmm a day when ranked #1 in Taiwan"

FreeFire Sales (2)
" If DAU is more than 50m, its game tend to demonstrate upward sales YoY – historical data."

" Consistently monitor its free-fire, Moba, Speed-drifter sales"

Valuation & Memo

Date: April 29th, 2019

Long SEA Ltd (Nasdaq: SE)

I recommend a long on SEA Ltd with a target price of USD30 and +15% Upside (Target P/S 2019 of 6x) from current levels within one-year investment horizon. Its stock had a great run (Up +50%: see exhibit 1) on the earning surprise on Q4 18 with the optimistic 2019 guidance, yet it expects to grow better than expected on Q1 19 and further from its gaming (63% of the total sales) & E-commerce business (28% of the total sales).

Exhibit (1) 2yr Historical Chart
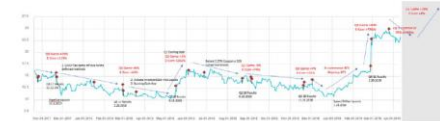
(Its stocks have moved up Q1 18 – due to BTE e-commerce growth (+262% QoQ) and up Q4 18 – due to BTE game and e-commerce growth (60% and +78% QoQ), its Q1 19 expects to have +25% Game and +8% E-commerce, which results should drive the stock up.

Most importantly, market consensus has not noticed its substantial growth in Gaming business as Free-Fire hit #1 in 7 different regions (Thailand, Indonesia, Brazil, Mexico...), which results in its OPM expansion as Free-Fire has the highest OPM (~55%). Please note below are my conservative estimates.

Exhibit (2) Estimates vs Market Consensus

Market	Q1 19	2019	US	Q1 19	2019	DIFF	Q1 19	2019
REV	435	2,075	REV	455	2,115	REV	5%	2%
OP	(266)	(887)	OP	(195)	(749)	OP	-27%	-16%
OPM	-161%	-143%	OPM	-43%	-35%			
NP	(265)	(873)	NP	(219)	(839)	NP	-17%	-4%

APPENDIX (2): GRAVITY MODEL

Gravity (GRVY in NASDA

(US$ in millions, KRW in billions and all other units are in millions, except per share

			Y	Z	AA	AB	AC	AD
3	Latest Actual Q							
11	CASH		29.6	44.4	42.3	95.5	127.3	111.1
12			Q1 18A	Q2 18A	Q3 18A	Q4 18A	Q1 19A	Q2 19E
14	**Revenue**		**66.3**	**63.0**	**44.2**	**113.2**	**133.6**	**78.2**
15	**1. Mobile Game**		**51.4**	**51.8**	**33.4**	**102.9**	**121.1**	**66.4**
16	**I) Ragnarok R (Developer: Dream Square]**	Dream Squar	**5.8**	**4.6**	**3.7**	**4.2**	**3.3**	**3.0**
33	**II) RO: Idle Poring (Developed by Dream S**	Dream Squar	**1.1**	**0.9**	**0.7**	**1.4**	**1.3**	**1.1**
44	**III) Ragnarok M**	Dream Square	**40.7**	**50.1**	**28.6**	**90.5**	**116.5**	**62.3**
45	A. China (Jan.18.2017)		1.2	1.1	0.9	1.0	1.0	0.9
46	Gross Rev	10%	11.8	10.6	8.5	10.1	9.6	8.6
47	Avg. daily revenue		0.13	0.12	0.09	0.11	0.11	0.09
48	Seq Chg %		-10%	-10%	-20%	-5%	-5%	-10%
49	B. Taiwan / Hongkong / Macau (10/12 2017)		31.0	21.4	18.7	9.1	5.2	3.3
50	Avg. daily revenue		0.34	0.23	0.20	0.10	0.06	0.04
51	Seq Chg %		-39%	-31%	-13%	-51%	-43%	-37%
52	C. Korea (3/14/2018)		8.5	27.6	9.1	7.2	4.6	2.8
53	Avg. daily revenue	Direct publishing	0.47	0.30	0.10	0.08	0.05	0.03
54	Seq Chg %			-36%	-67%	-21%	-36%	-38%
55	D. Japan	6.5.2019						–
56	Gross Rev	30%						–
57	Avg. daily revenue							–
58	Seq (%)							
59	E. S.E.Asia (Oct/2018)	10.31.2019				73.2	80.6	40.1
60	Avg. daily revenue					1.20	0.82	0.44
61	Seq (%)						-33.0%	-46.3%
62	F. ROW (Jan.9.2019) + EU						25.1	15.3
63	Avg. daily revenue						0.31	0.17
64	Seq (%)							-45.2%
65	**IV) Raganrok 3M by Tencent**	Hulan Enterta						
66	A. China (Q2 2019)							
67	Gross Rev	10%						
68	Avg. daily revenue							
69	Seq Chg %							
70	B. Taiwan / Hongkong / Macau (Q4 2020)							
71	Avg. daily revenue							
72	Seq Chg %							
73	C. Korea (Q3 2020)							
74	Avg. daily revenue	Direct publishing						
75	Seq Chg %							
76	D. Japan							
77	Gross Rev	30%						
78	Avg. daily revenue							
79	Seq (%)							
80	E. S.E.Asia (Oct/2018)							
81	Avg. daily revenue							
82	Seq (%)							

TEAM BIOS

Brian Oh

Managing Partner, Portfolio Manager

Brian Oh is the founder and portfolio manager of Saiga Capital. Previously, he was the investment director at the hedge/VC fund Skycatcher LLC, where he took a fundamentalist approach to high-tech consumer opportunities in emerging markets. Between 2016 and 2018, Brian was an investment analyst at Saola Capital, equity long-short hedge fund founded by former Tiger Cub, focusing in Korean equities. Before 2016, he was Vice President at Bank of America Merrill Lynch in New York and London, where he worked as a portfolio risk manager. Brian is a seasoned Wall Street veteran with active involvement in the Korea Finance Society. Brian graduated Magna Cum Laude and obtained his B.S. in Business Administration with a Finance Concentration from Boston University.

John Jahng — Senior Advisor (Investment)

John Jahng was a managing director at Tiger Asia Management, and was there from 2003 and 2011. Post Tiger Asia, he co-founded Extolia Management in 2011 and was a co-portfolio manager until 2012. After Extolia, he served as an advisor for Teng Yue Partners until early 2016 and founded Eastfront Management afterwards. Before joining Tiger Asia, he was with Ernst & Young for six years. He received B.A in Economics in 1996 and M.B.A. from New York University in 2013.

Kevin Liu — Investment Analyst (Investment)

Kevin Liu was the investment analyst at Saola Capital looking at China TMT industry, especially video/online gaming companies. Before Saola, he has worked as investment analyst intern at Huber Capital Management, a LA based long only mutual fund and sales & trading analyst intern at China Galaxy Securities. Kevin received B.S. with double major in Applied Mathematics and Business at California Institute of Technology and graduated with honor.

Dae Kim — Tech Advisor (Operation)

Paul Kim is a seasoned veteran in trading. He was a quantitative analyst at Merrill Lynch. Paul holds BS in Computer Science and is expecting his MS degree in Financial Mathematics from Courant Institute of Mathematical Sciences.

FUND TERMS & SERVICE PROVIDERS

" **100% of Founder's liquid asset is invested in the Fund** "

Type	Terms
AUM Capacity	$200mm
Management Fee	**0.6% (Founder), 1.5% (General)**
Performance	**20%**
Redemptions / Notice	Quarterly / 30 days
High Water Mark	Yes
Minimum Subscription	$100k

Type	Providers
Auditor	Spicer Jeffries
Admin	NAV Consulting
Prime Broker	Interactive Brokers
Legal Counsel	Investment Law Group

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PRIVATE (1) – Esports Teams Cont.

Astralis Group A/S (12.9.2019)

Astralis Group A/S (ASTGRP.CO)
Copenhagen - Copenhagen Real Time Price. Currency in DKK

5.22 -0.14 (-2.61%)
At close: May 15 4:59PM CEST

Summary | Chart | Conversations | Statistics | Historical Data | Profile | Financials | Analysis | Options | Holders | Sustainability

Previous Close	5.36	Market Cap	296.286M
Open	5.40	Beta (5Y Monthly)	N/A
Bid	5.20 x N/A	PE Ratio (TTM)	N/A
Ask	5.22 x N/A	EPS (TTM)	-0.55
Day's Range	5.20 - 5.40	Earnings Date	N/A
52 Week Range	3.60 - 9.50	Forward Dividend & Yield	N/A (N/A)
Volume	27,454	Ex-Dividend Date	N/A
Avg. Volume	87,892	1y Target Est	N/A

Fair Value ⓘ 🔒
XX.XX   N/A

Related Research ⓘ 🔒
View more

View details

Chart Events ⓘ 🔒
Neutral *pattern detected*
View all chart patterns

Performance Outlook
Short Term 2W - 6W	Mid Term 6W - 9M	Long Term 9M+

Enthusiast Gaming Holdings (10.19.2017)

Enthusiast Gaming Holdings Inc. (EGLX.TO)
Toronto - Toronto Delayed Price. Currency in CAD

1.2800 -0.0300 (-2.29%)
At close: May 15 3:59PM EDT

Summary | Chart | Conversations | Statistics | Historical Data | Profile | Financials | Analysis | Options | Holders | Sustainability

Previous Close	1.3100	Market Cap	92.277M
Open	1.3500	Beta (5Y Monthly)	N/A
Bid	1.2700 x N/A	PE Ratio (TTM)	N/A
Ask	1.3500 x N/A	EPS (TTM)	-2.0740
Day's Range	1.2800 - 1.3700	Earnings Date	May 14, 2020
52 Week Range	1.1500 - 2.1800	Forward Dividend & Yield	N/A (N/A)
Volume	131,764	Ex-Dividend Date	N/A
Avg. Volume	184,736	1y Target Est	3.06

Fair Value ⓘ 🔒
XX.XX   N/A

Related Research ⓘ 🔒
View more

View details

Chart Events ⓘ 🔒
Neutral *pattern detected*
View all chart patterns

Performance Outlook
Short Term 2W - 6W	Mid Term 6W - 9M	Long Term 9M+

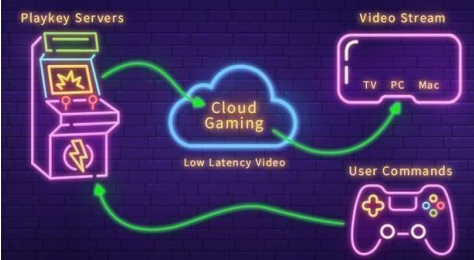# FUTURE TRENDS

SMARTPHONE
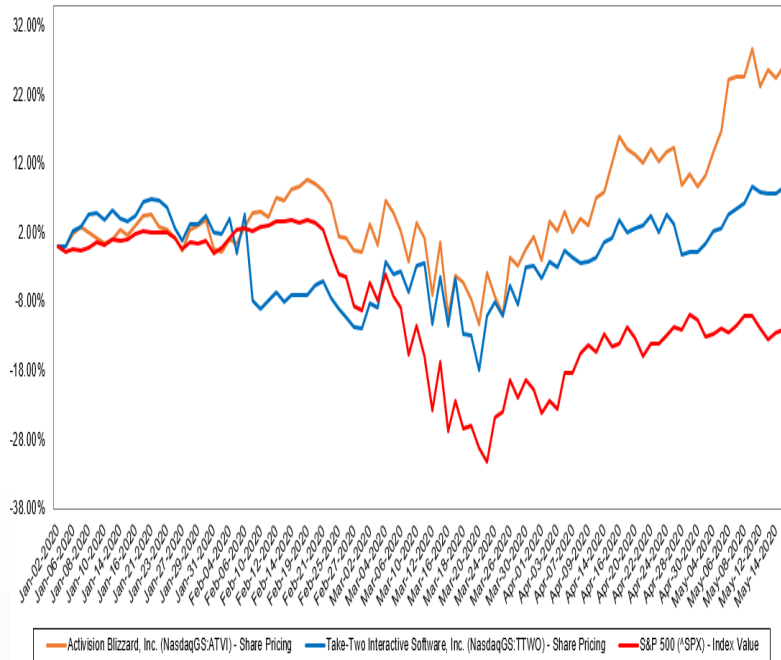
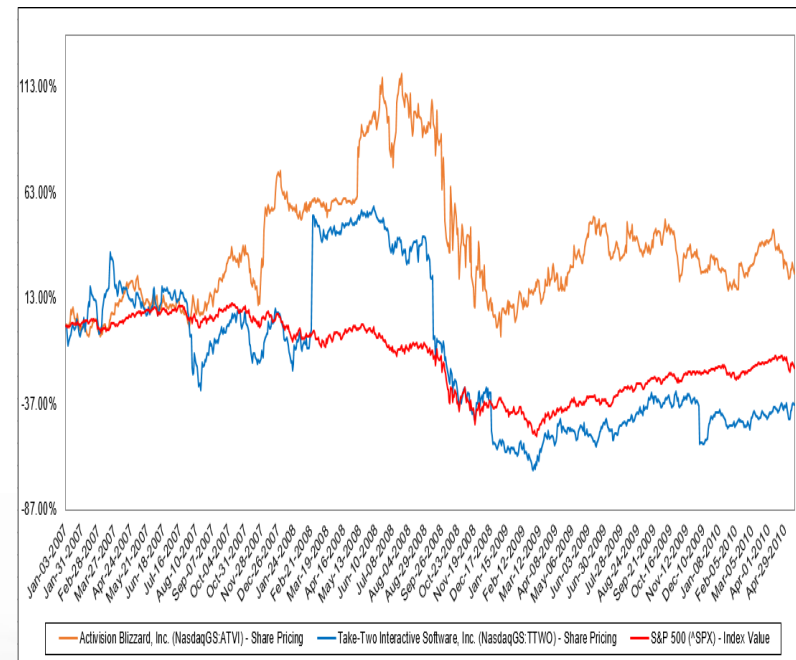**CROSS PLATFORM**

5G Cloud Streaming

VR/AR

INVESTORS

PUBLIC (4) - Recession Proof Nature Cont.

2020 COVID 19 — Source: CapitalIQ

2008 CREDIT CRISIS (2008) — Source: CapitalIQ

Name the Funds who invest in this space? →


Consistent Pure Alpha Opportunity

PUBLIC (1) – Proven Track Records – Multiple IPs Cont.

LIST OF THE GAMES

Title	Sales	Platform(s)	Initial release date	Developer(s)[a]
Minecraft	176,000,000	Multi-platform	November 18, 2011[b]	Mojang
Grand Theft Auto V	120,000,000	Multi-platform	September 17, 2013	Rockstar North
Tetris (EA Mobile)	100,000,000	Mobile	September 12, 2006	EA Mobile
Wii Sports	82,880,000	Wii	November 19, 2006	Nintendo EAD
PlayerUnknown's Battlegrounds	60,000,000	Multi-platform	December 20, 2017	PUBG Corporation
Super Mario Bros.	48,240,000	Multi-platform	September 13, 1985	Nintendo
Pokémon Red / Green / Blue / Yellow	47,520,000	Game Boy / 3DS VC	February 27, 1996	Game Freak

Source: Wikipedia

HISTORICAL SALES

Korea MapleStory

Revenue

2003 — 2019 — Year
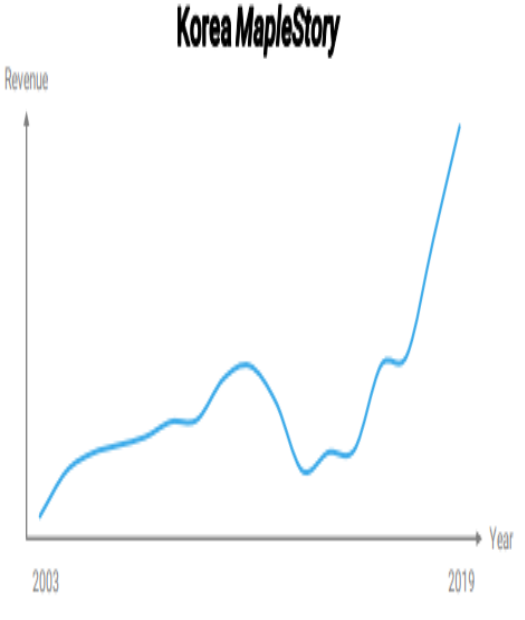
Source: Nexon IR

CoD Series

The Best-Selling Call Of Duty Titles
All-time unit sales of titles in the Call of Duty franchise as of October 2019*

Title	Year	Sales
Black Ops	2010	30.72m
Modern Warfare 3	2011	30.71m
Black Ops II	2012	29.59m
Ghosts	2013	28.98m
Black Ops 3	2015	26.72m
Modern Warfare 2	2009	25.02m
Advanced Warfare	2014	21.78m
WWII	2017	19.82m
Modern Warfare	2007	18.91m
World at War	2008	15.94m
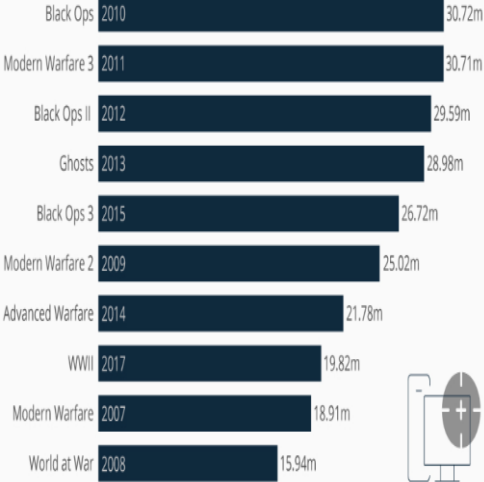
@StatistaCharts   * Across PC and all major consoles   Source: VGChartz

statista

Source: Statista

PRIVATE (1) – Esports Teams Cont.

1.Esports Business Model

Esports Revenue Streams

Global | 2020

Please note: these numbers are from February 2020. We revise our audience and revenue estimates every quarter and update when necessary. You can find the most up to date numbers at:

newzoo.com/key-numbers

Revenue Stream	Amount	YoY
Sponsorship	$636.9M	+17.2%
Media Rights	$185.4M	+17.3%
Merchandise & Tickets	$121.7M	+15.2%
Publisher Fees	$116.3M	0.0%
Digital	$21.5M	+60.9%
Streaming	$18.2M	+33.0%

Source: NewZoo

2.List of the Games watched

Game	Main Device Competed on	Hours Watched
League of Legends	PC	348.8M
Counter-Strike: Global Offensive	PC	215.0M
Dota 2	PC	198.9M
Overwatch	PC	109.9M
Hearthstone	PC	37.0M
Tom Clancy's Rainbow Six: Siege	PC	32.4M
Arena of Valor	Mobile	31.6M
PUBG Mobile	Mobile	27.9M
Fortnite	PC	27.5M
PLAYERUNKNOWN'S BATTLEGROUNDS	PC	26.8M
Starcraft II	PC	22.8M
Rocket League	PC	20.4M
Super Smash Bros. Ultimate	Console	18.6M
Garena Free Fire	Mobile	17.8M
Call of Duty: Black Ops 4	Console	13.3M
Magic: The Gathering	PC	12.9M
World of Warcraft	PC	10.3M
FIFA 19	Console	7.7M
Street Fighter V	Console	7.0M
Super Smash Bros. Melee	Console	5.2M
Mobile Legends: Bang Bang	Mobile	4.0M
Tekken 7	Console	3.8M
Clash Royale	Mobile	3.8M
Teamfight Tactics	PC	3.4M
FIFA 20	Console	3.0M
Total Top 25		**1209.6M**

Source: NewZoo