



# The State of Mobile Gaming 2021

—  
An Analysis of Mobile Gaming Market Trends  
and Top Titles in the U.S., Europe, and Asia



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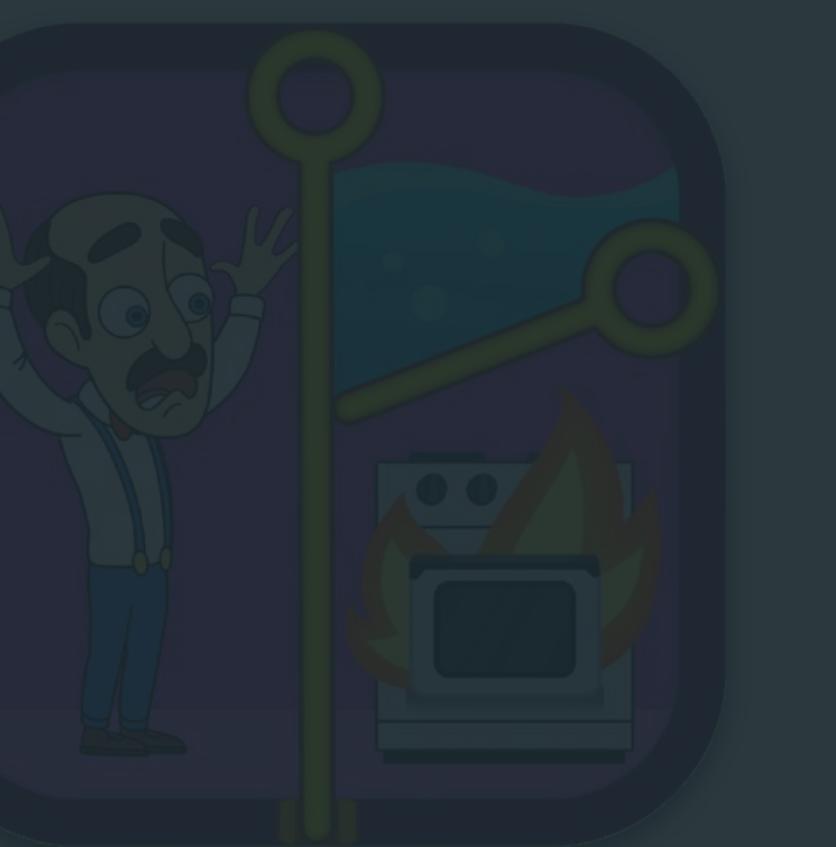
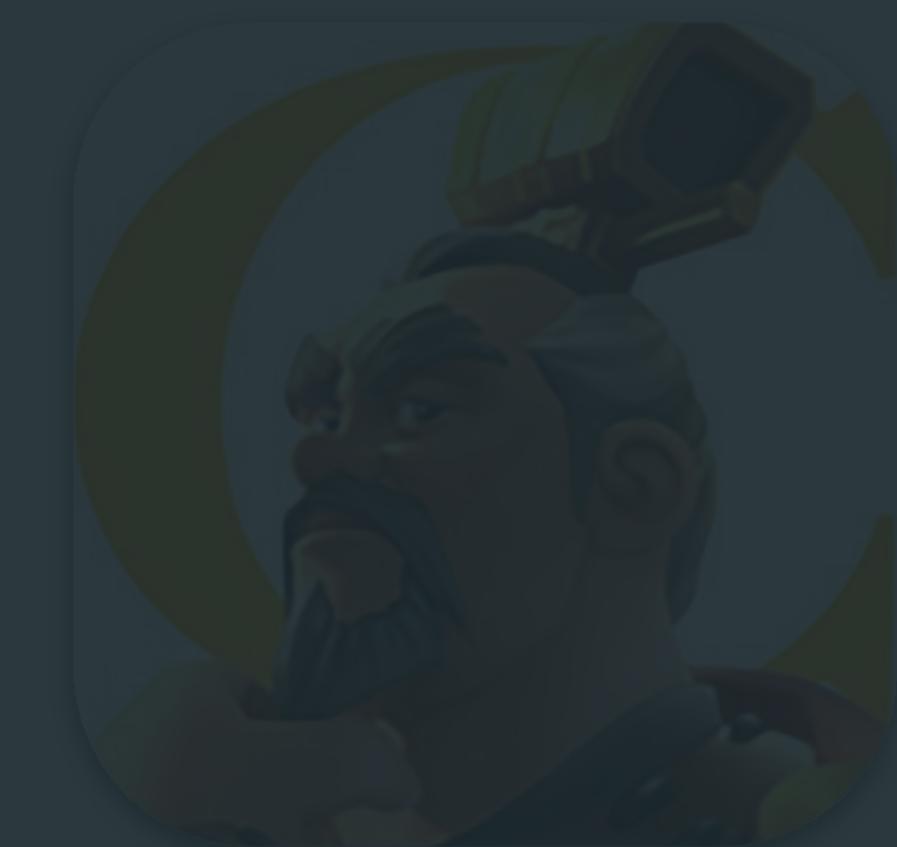
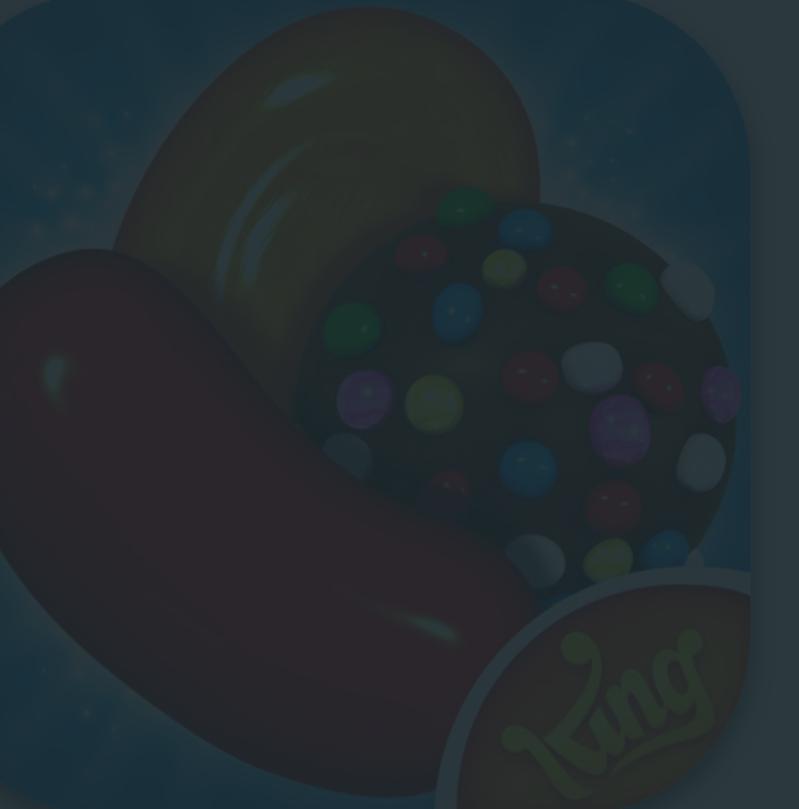
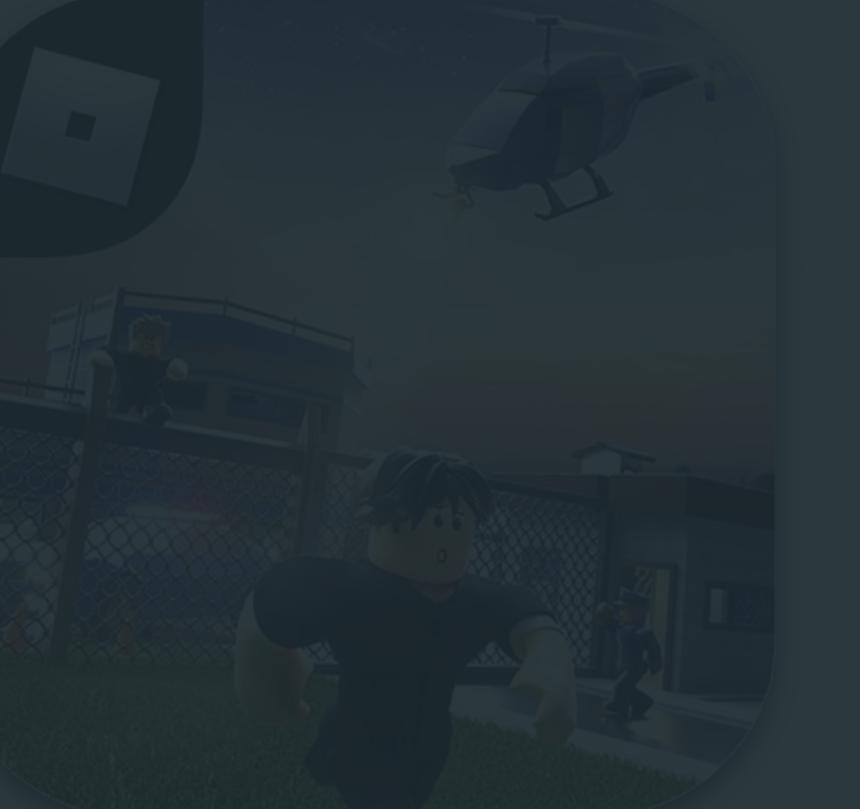
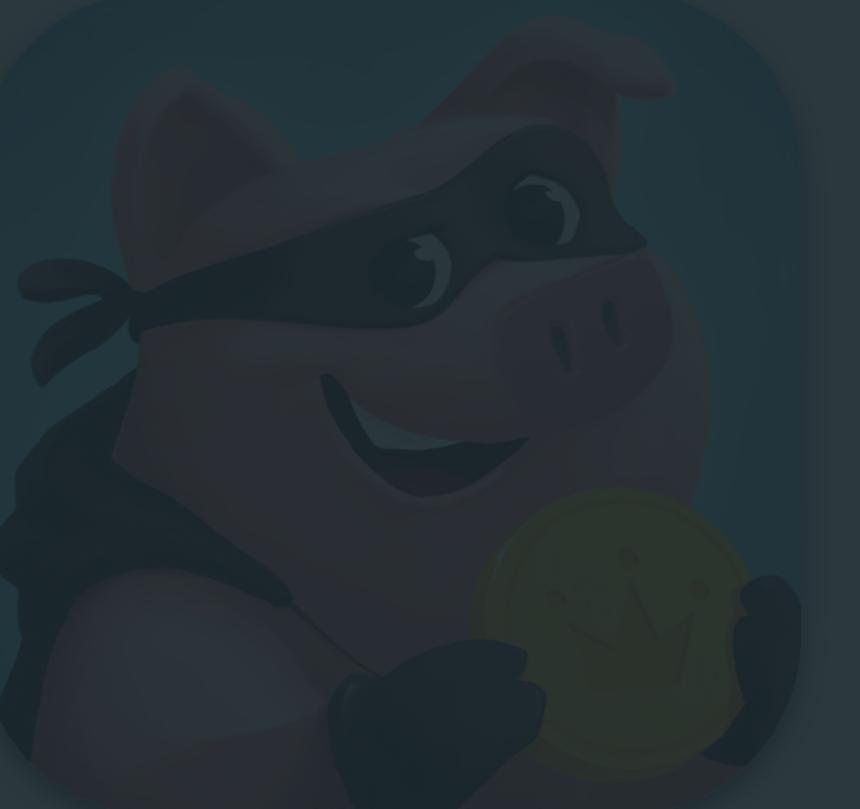
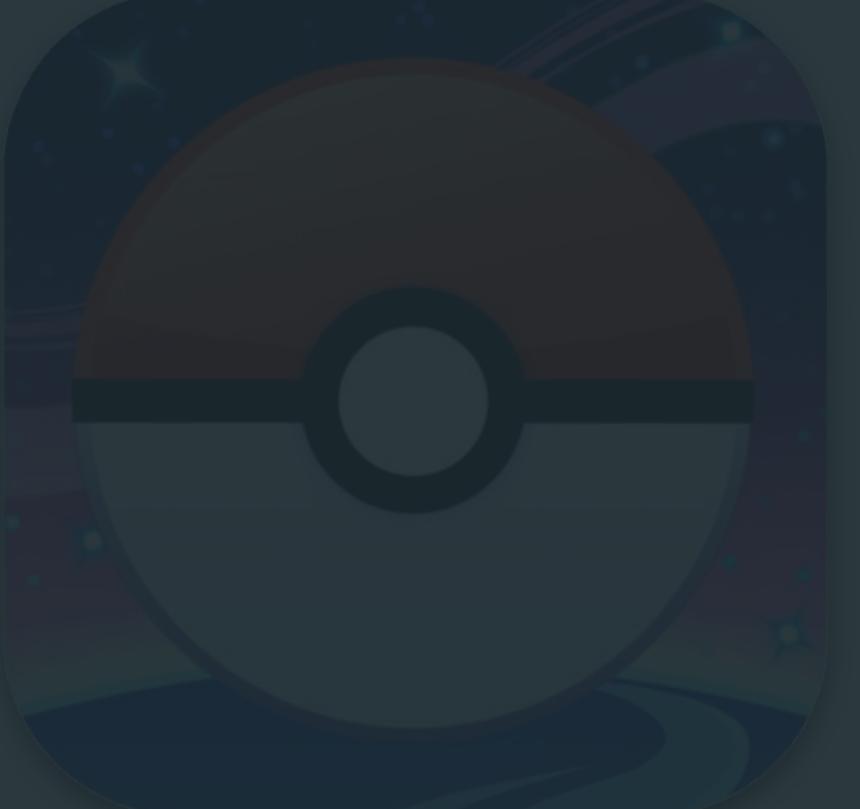
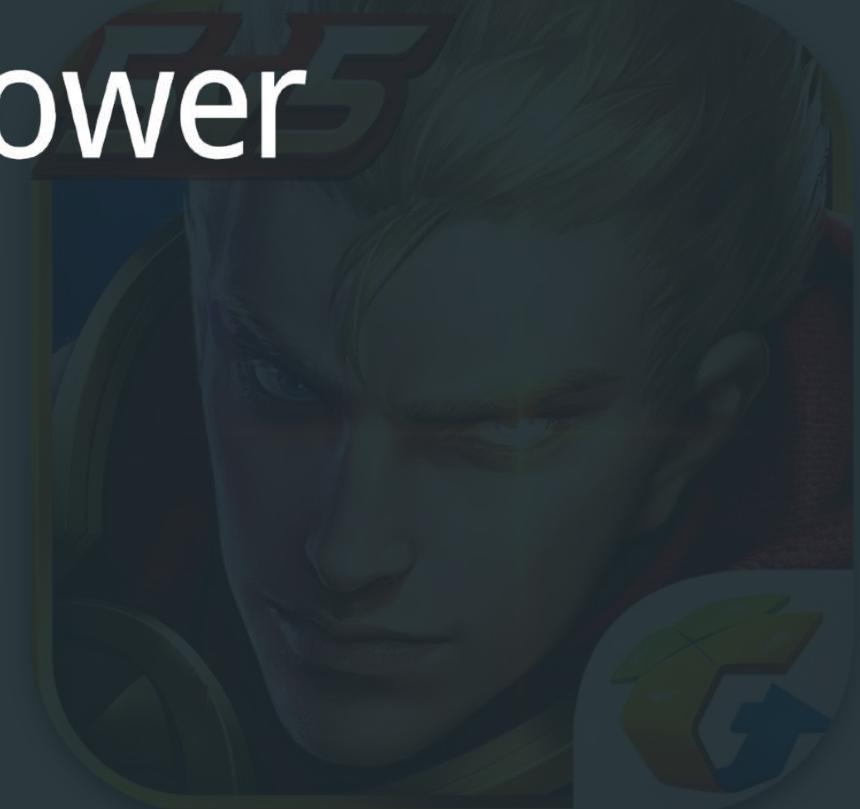
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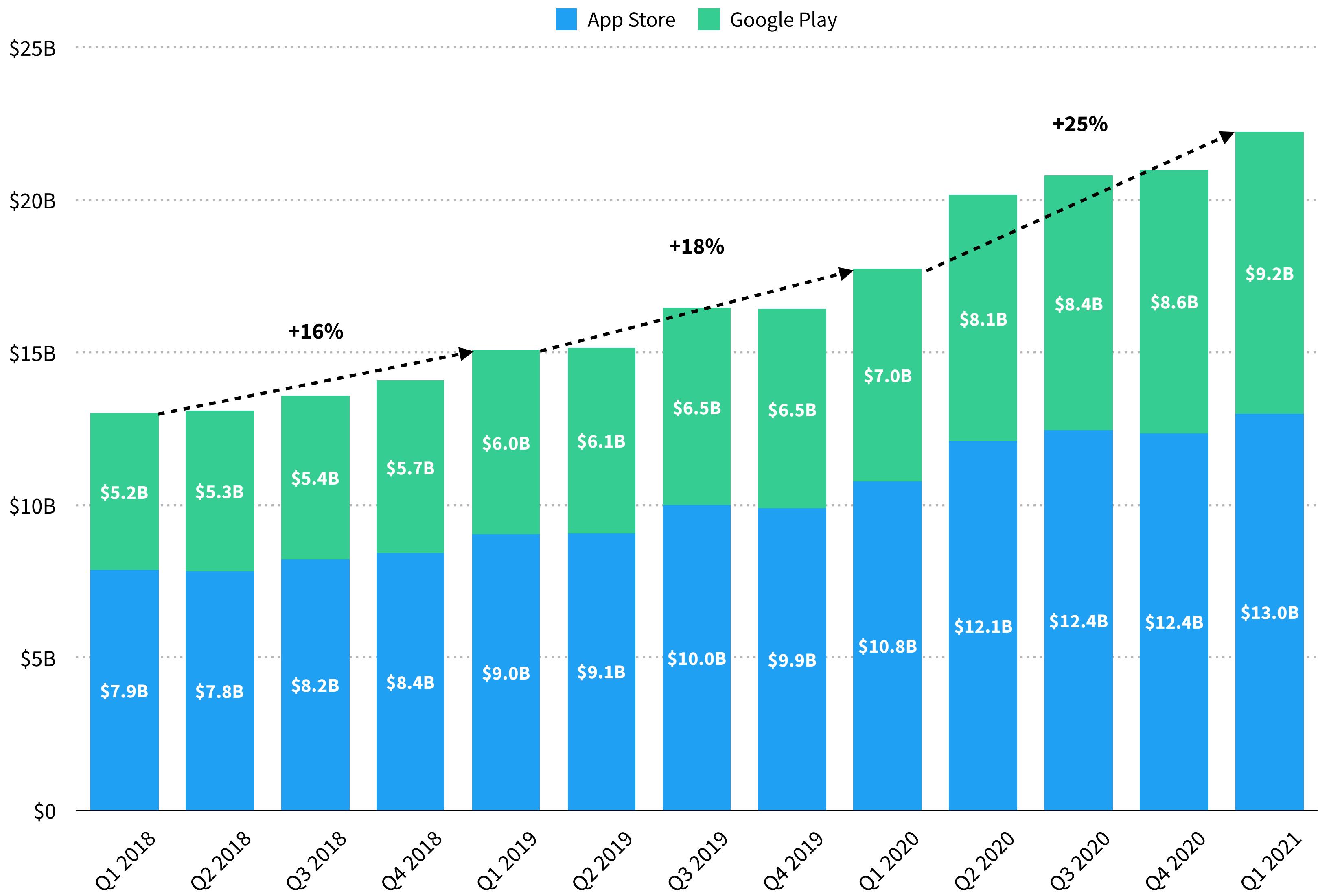


# Market Overview: Worldwide

An Overview of Mobile Gaming Worldwide

# Global Game Revenue Surged During the Pandemic

*Worldwide quarterly consumer spending in mobile games on the App Store and Google Play*



Mobile game revenue spiked during the start of the COVID-19 pandemic, seeing its largest year-over-year growth in Q2 2020 at 33 percent. Games earned more than \$20 billion globally for the first time that quarter.

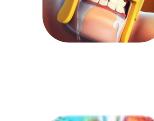
Strong revenue growth continued in the following quarters. The 25 percent Y/Y growth in Q1 2021 easily outpaced the growth during the prior two years.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

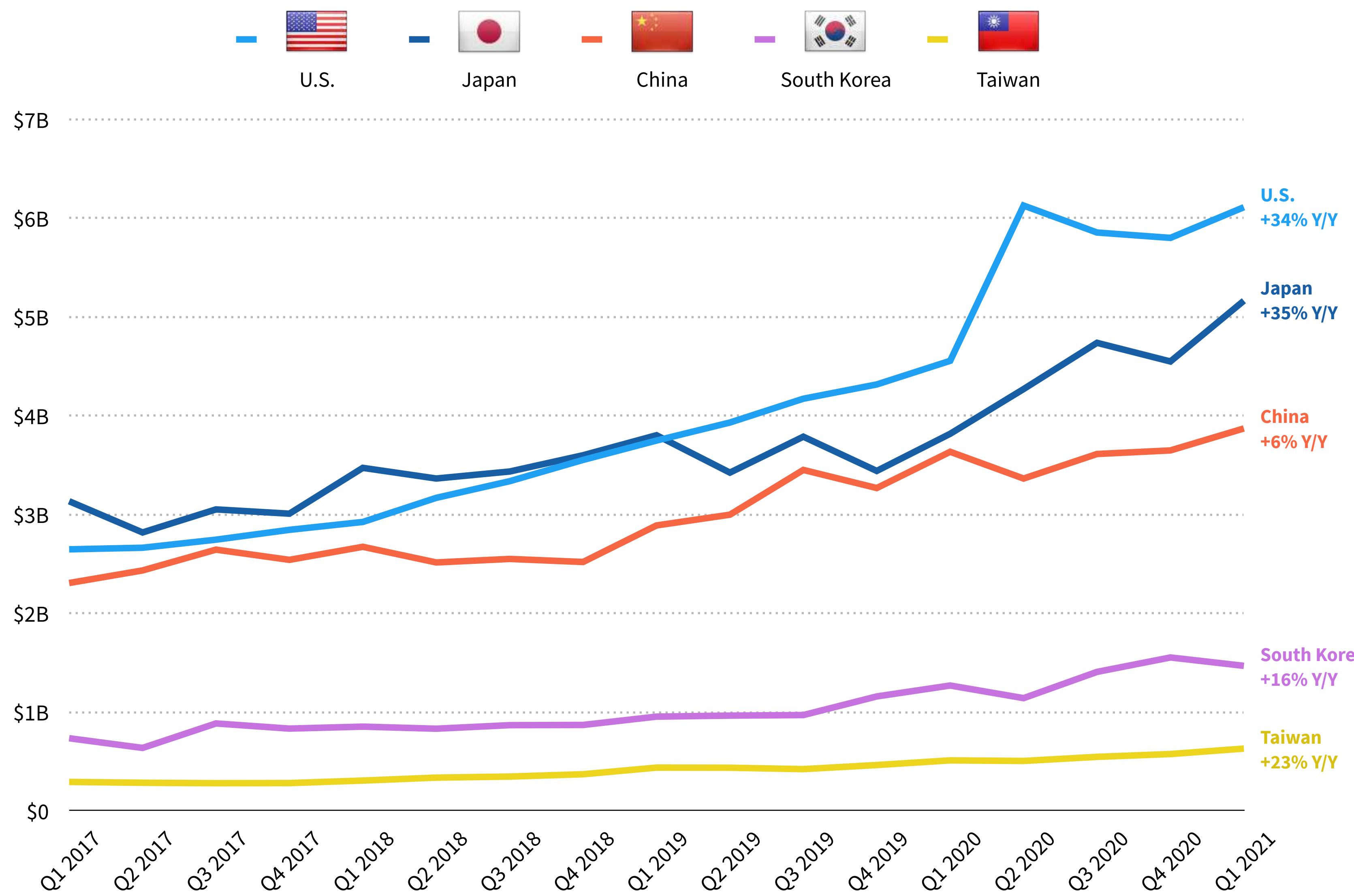
# Genshin Impact Shakes Up the Global Revenue Ranking and Eyes Tencent's Top Titles

*Top mobile games by worldwide revenue on the App Store and Google Play*

2018		2019		2020		1Q21	
1	 Honor of Kings Tencent	1	 Honor of Kings Tencent	-	1	 PUBG Mobile Tencent	+1
2	 Monster Strike Mixi	2	 PUBG Mobile Tencent	NEW	2	 Honor of Kings Tencent	-1
3	 Fate/Grand Order Sony	3	 Fate/Grand Order Sony	-	3	 Pokémon GO Niantic	+3
4	 Candy Crush Saga King	4	 Candy Crush Saga King	-	4	 Coin Master Moon Active	NEW
5	 LineageM NCSOFT	5	 Monster Strike Mixi	-3	5	 Roblox Roblox	NEW
6	 Pokémon GO Niantic	6	 Pokémon GO Niantic	-	6	 Candy Crush Saga King	-2
7	 Fantasy WW Journey NetEase	7	 Fantasy WW Journey NetEase	-	7	 Monster Strike Mixi	-2
8	 DBZ Dokkan Battle BANDAI NAMCO	8	 LineageM NCSOFT	-3	8	 Rise of Kingdoms Lilith Games	NEW
9	 Clash of Clans Supercell	9	 Clash of Clans Supercell	-	9	 Gardenscapes Playrix	NEW
10	 Clash Royale Supercell	10	 Homescapes Playrix	NEW	10	 Fate/Grand Order Sony	-7

# The U.S. Remains the Top Market for Mobile Game Spending

*Top countries by mobile game spending, App Store and Google Play*



The U.S. remains the top market for mobile games having outpaced Japan in Q2 2019, and surpassed \$6 billion in revenue during Q1 2021. COVID-19 boosted player spending 35 percent Q/Q in Q2 2020. Although revenue fell slightly over the next two quarters, growth picked back up again in Q1 2021.

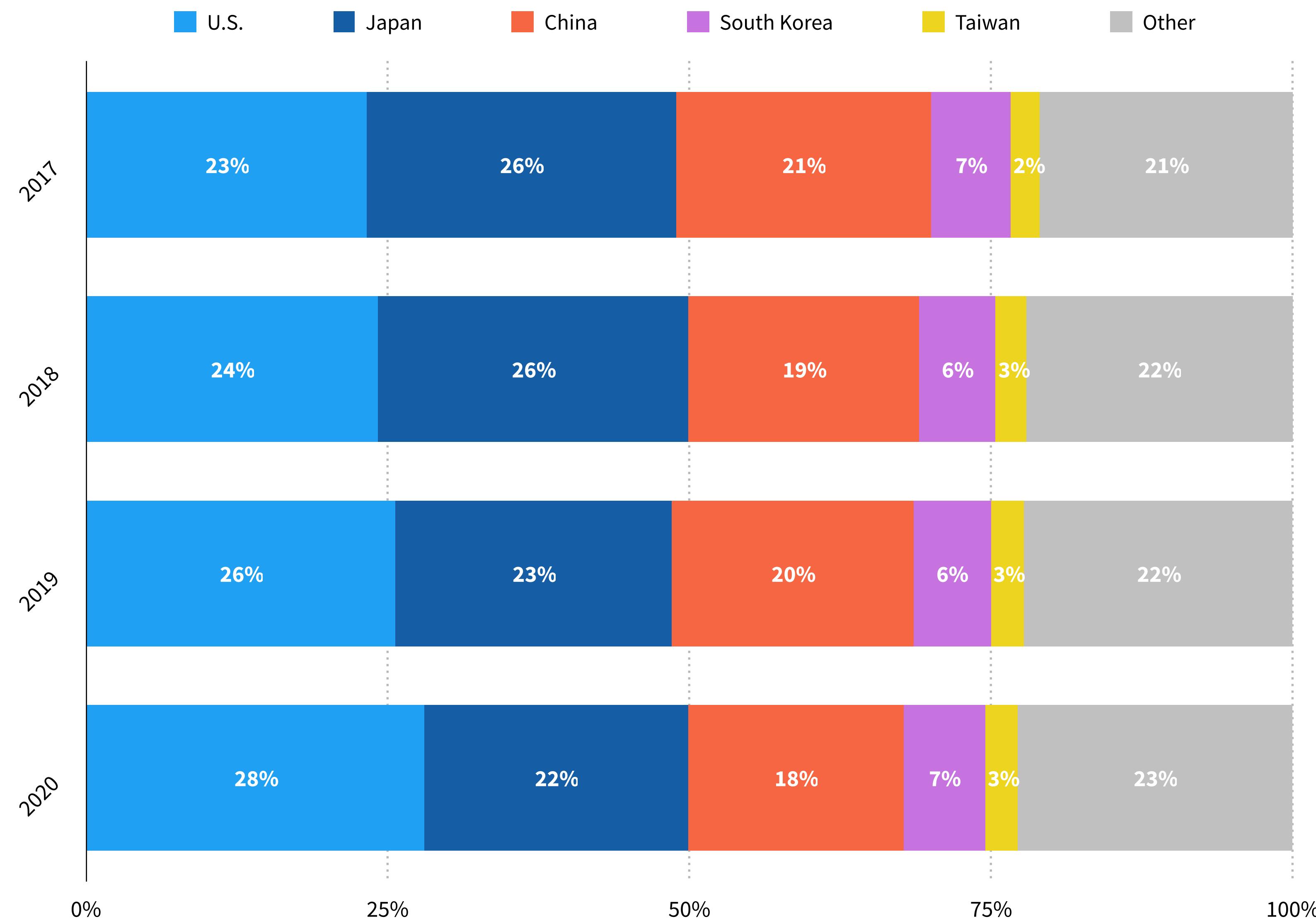
Japan and China were the next largest markets, well ahead of any other countries. Japan's revenue climbed 35 percent Y/Y in Q1 2021, while China's total is particularly impressive considering Google Play is not available in the country.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google). China numbers only include the App Store as Google Play is not available there.

# The U.S. is Also Gaining Market Share for Revenue

*Market share for top countries by mobile game spending, App Store and Google Play*



The U.S. passed Japan to become the largest mobile games market in 2019. Its market share has continued to grow since, reaching 28 percent in 2020.

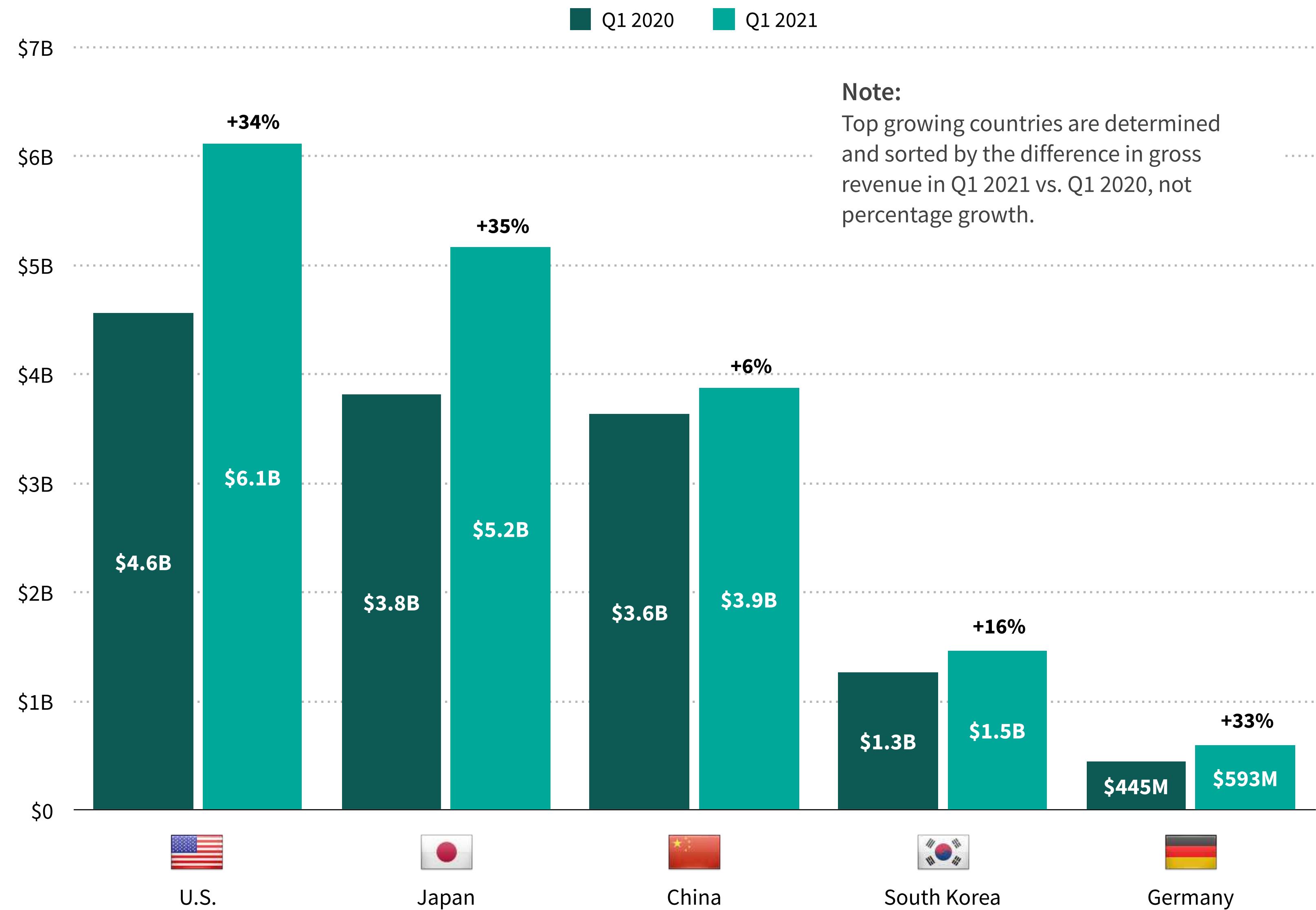
Countries outside of the top five have also slowly gained market share, suggesting that mobile game publishers have turned to less-tapped markets with higher growth potential.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google). China numbers only include the App Store as Google Play is not available there.

# Spending Grew by More than \$1 Billion in the U.S. and Japan

*Top countries by Y/Y mobile game spending growth in Q1 2021, App Store and Google Play*



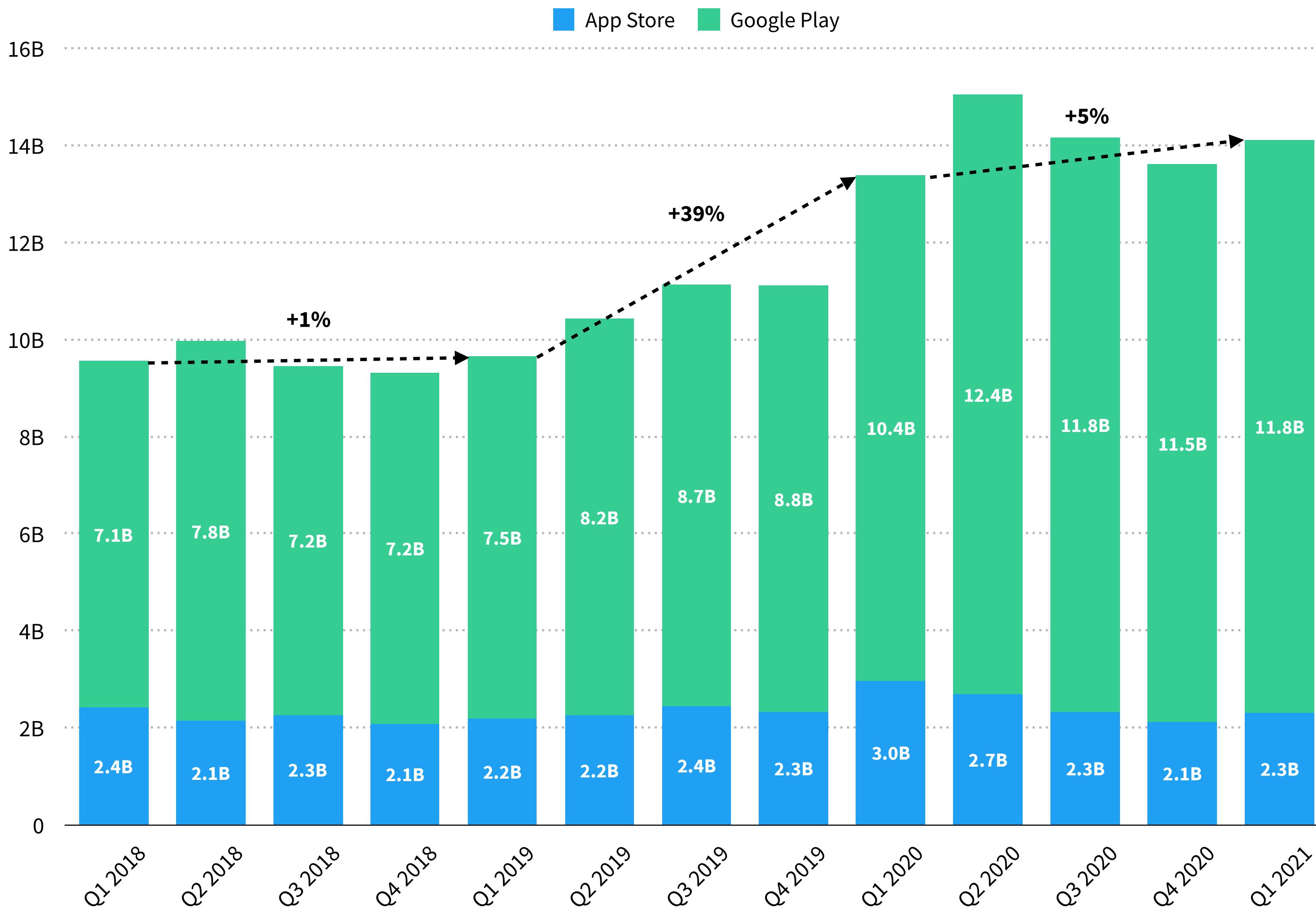
Consumer spending in mobile games in the U.S. grew by more than \$1.5 billion Y/Y in Q1 2021. This growth was more than all but Japan and China earned in total during the quarter.

The top countries by growth included four of the top five countries by overall revenue. **The one exception was Germany, the top country in Europe, with 33 percent Y/Y growth to nearly \$600 million.**

**Note:**  
Revenue figures are gross revenue (including the cut taken by Apple or Google). China numbers only include the App Store as Google Play is not available there.

# Mobile Game Adoption Soared 39% Amid the Pandemic

*Worldwide quarterly downloads of mobile games on the App Store and Google Play*



The surge in mobile game downloads preceded that for revenue, with big gains starting in Q1 2020 right at the beginning of the pandemic. Consumers turned to mobile games for entertainment during office and school closures.

Although mobile game adoption has slowed since the peak in Q2 2020, it remained well above pre-pandemic levels. This suggests that some of the gains may persist even as countries begin to re-open in 2021.

# Hypercasual and Shooter Titles Frequent the Top 10 for Downloads

Top mobile games by worldwide downloads on the App Store and Google Play

 Hypercasual  Shooter

2018			
1		Helix Jump Voodoo	
2		PUBG Mobile Tencent	
3		Subway Surfers Sybo Games	
4		Garena Free Fire Garena	
5		Rise Up Serkan Ozyilmaz	
6		Love Balls Lion Studios	
7		Candy Crush Saga King	
8		Sniper 3D Wildlife Studios	
9		Kick the Buddy Playgendarry	
10		My Talking Tom Outfit7	

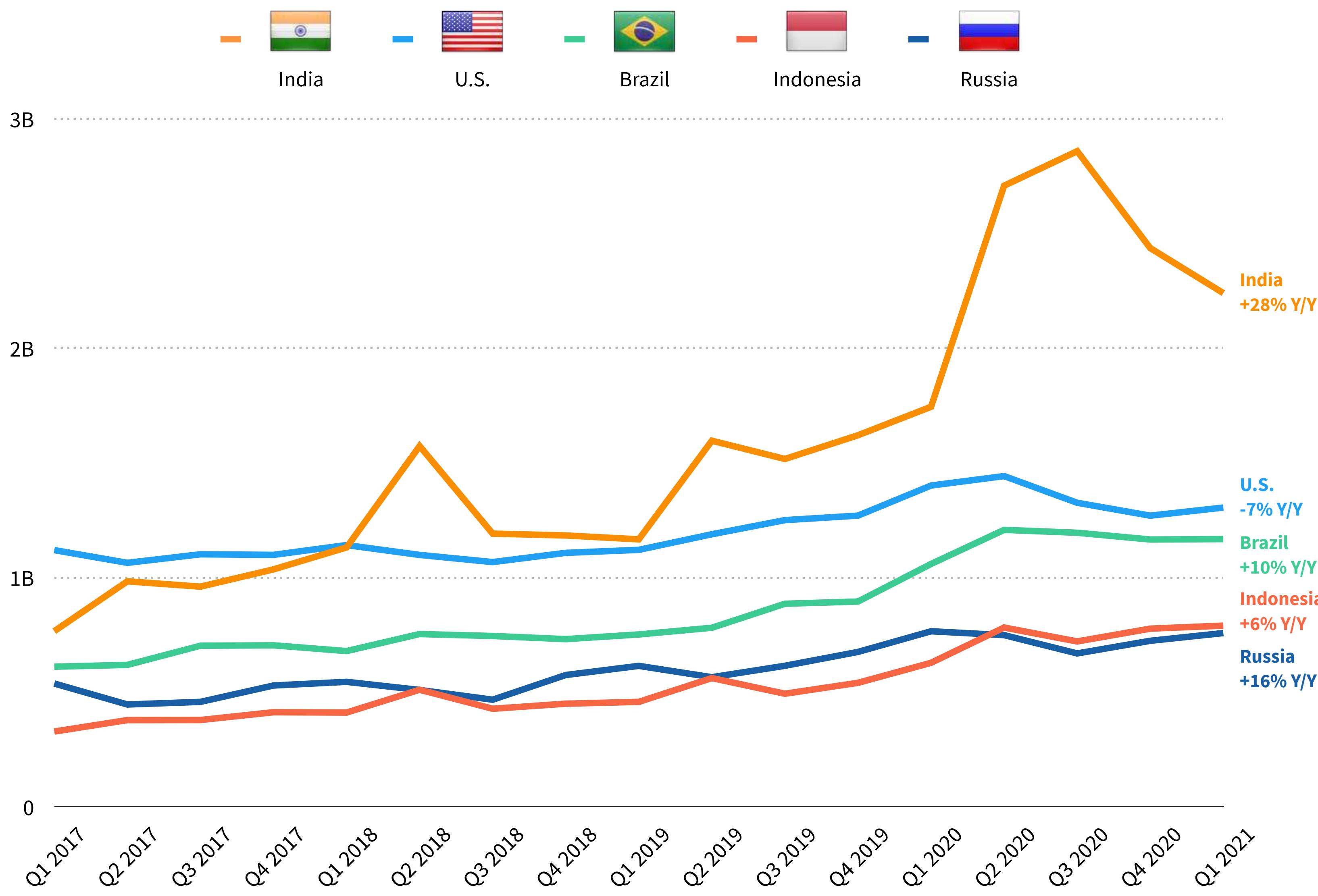
2019			
1		PUBG Mobile Tencent	+1
2		Garena Free Fire Garena	NEW
3		Subway Surfers Sybo Games	-
4		Fun Race 3D Good Job Games	NEW
5		Color Bump 3D Good Job Games	NEW
6		Call of Duty: Mobile Activision Blizzard	NEW
7		My Talking Tom 2 Outfit7	NEW
8		Run Race 3D Good Job Games	NEW
9		Sand Balls SayGames	NEW
10		Homescapes Playrix	NEW

2020			
1		Among Us InnerSloth	NEW
2		Garena Free Fire Garena	-
3		Subway Surfers Sybo Games	-
4		PUBG Mobile Tencent	-3
5		Hunter Assassin Ruby Game Studio	NEW
6		Gardenscapes Playrix	NEW
7		Brain Out Focus Apps	NEW
8		Ludo King Gametion	NEW
9		Tiles Hop Amanotes	NEW
10		Homescapes Playrix	-

1Q21			
1		Join Clash 3D Supersonic Studios	NEW
2		Among Us InnerSloth	-1
3		DOP 2 SayGames	NEW
4		Phone Case DIY Crazy Labs	NEW
5		Garena Free Fire Garena	-3
6		High Heels Zynga	NEW
7		Subway Surfers Sybo Games	-4
8		Water Sort Puzzle Ice Global	NEW
9		Project Makeover Magic Tavern	NEW
10		Giant Rush Tapnation	NEW

# India's Mobile Games Market Pulled Away from the Pack

*Top countries by mobile game downloads, App Store and Google Play*

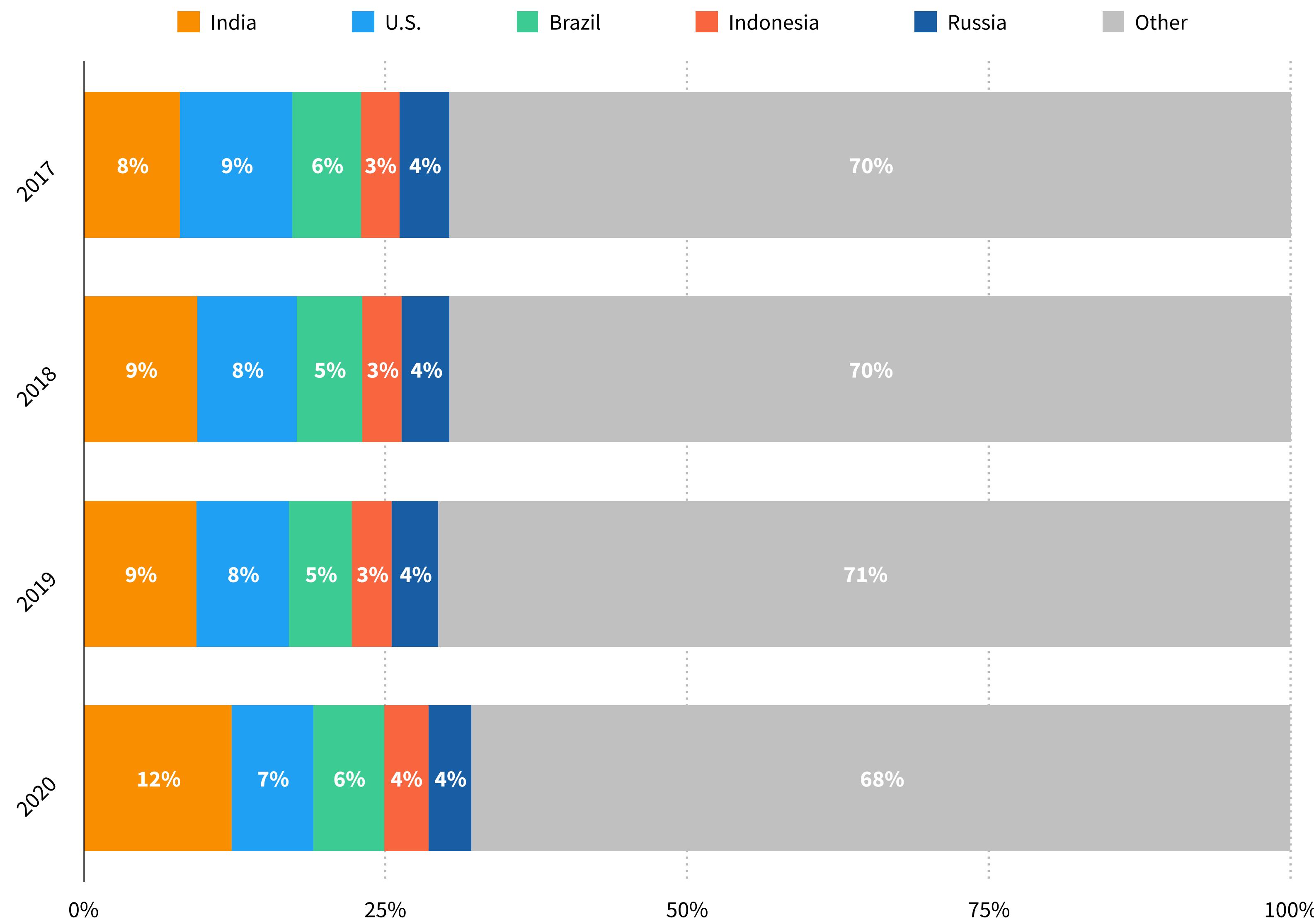


As smartphone penetration in India increased in recent years, it has become the largest market for mobile game downloads. COVID-19 boosted game adoption in the market by 64 percent from 1.7 billion in Q1 2020 to 2.9 billion in Q3 2020.

Emerging markets such as India, Brazil, and Russia achieved double-digit year-over-year download growth in Q1 2021. Meanwhile, relatively mature mobile markets like the U.S. had lower growth.

# India Accounted for 12 Percent of Game Downloads in 2020

*Market share for top countries by mobile game downloads, App Store and Google Play*

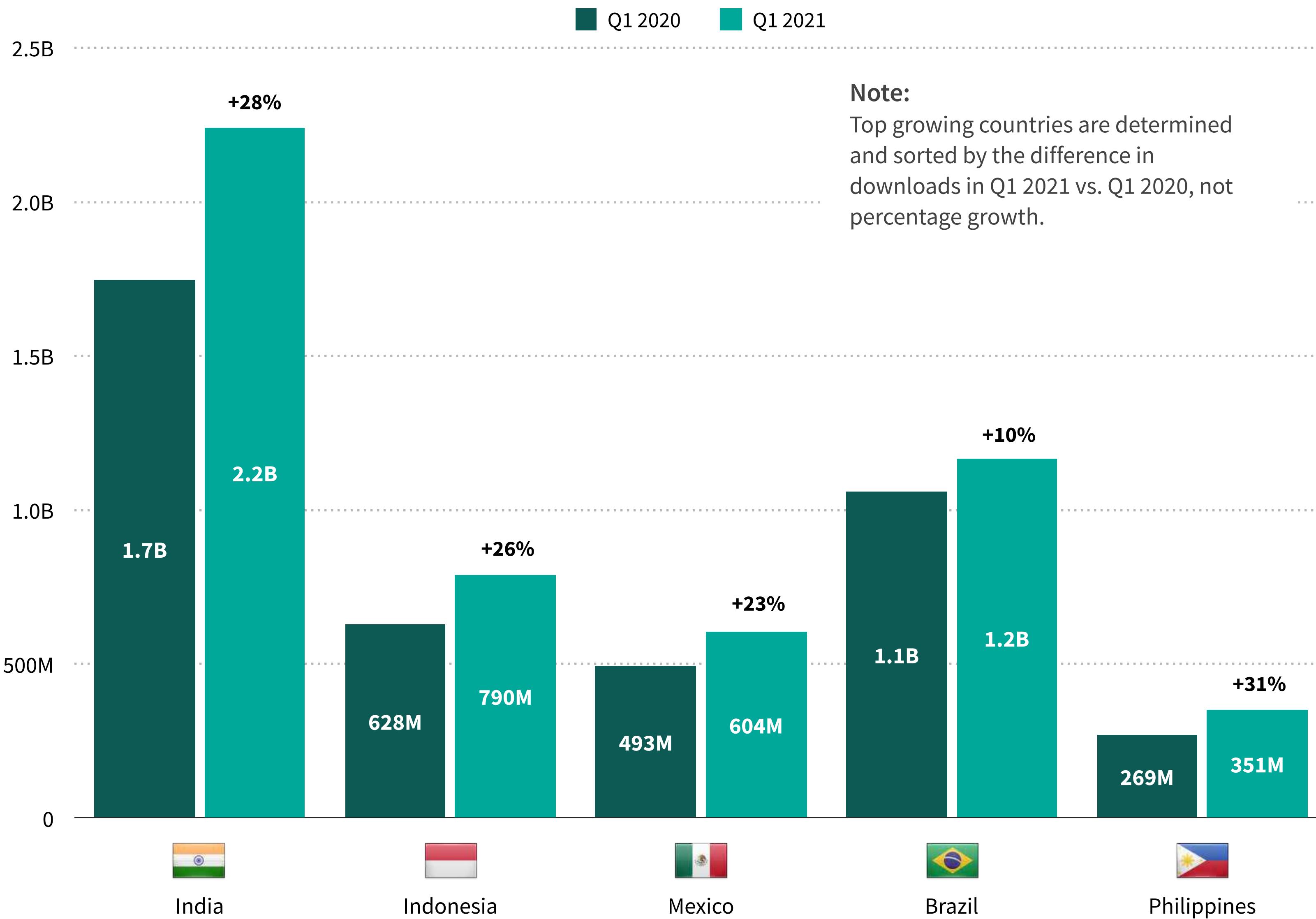


India became the only country to gain more than 10 percent of the global game install market since 2017 in 2020, reaching 12 percent of downloads. The U.S. was next with 7 percent, followed by Brazil at 6 percent.

While 77 percent of mobile game revenue in 2020 was concentrated among the five largest markets, the top five countries by downloads combined for only 32 percent of the installs. This demonstrates how getting users to spend in mobile games remains more challenging than new user adoption in most markets.

# Google Play Drove Download Growth in Top Markets

*Top countries by Y/Y mobile game download growth in Q1 2021, App Store and Google Play*

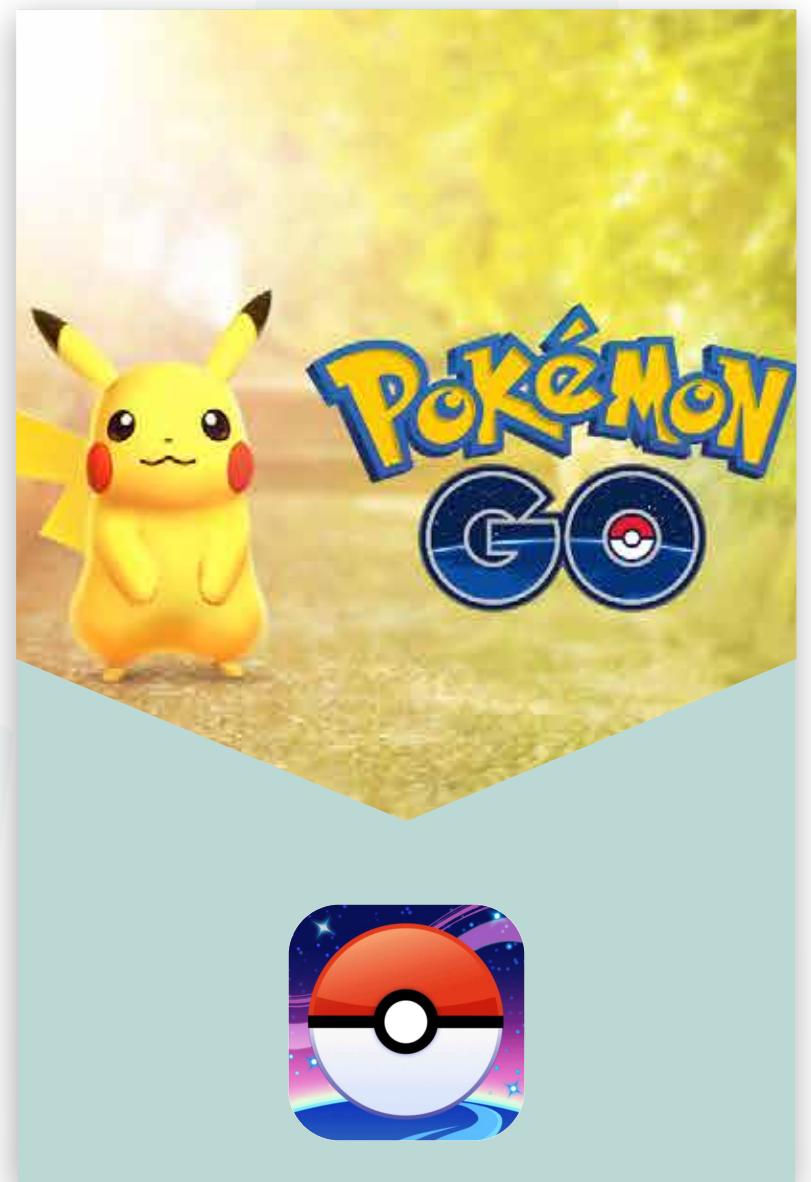
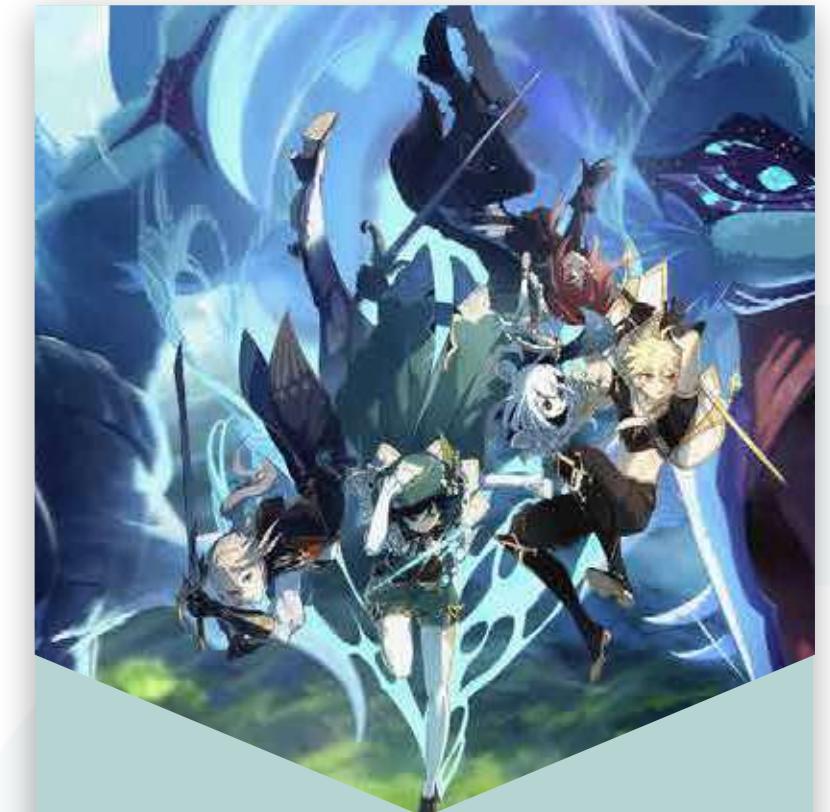


Game downloads in India climbed by nearly half a billion year-over-year in Q1 2021. Indonesia, Mexico, and Brazil also saw downloads grow by more than 100 million.

Each of the top five countries by download growth had at least 90 percent of their installs from Google Play, with less than 10 percent from the App Store. This reflected the trends on each platform, as Google Play installs climbed 66 percent between Q1 2018 and Q1 2021, while App Store download growth was flat over this period.

# Key Takeaways: Worldwide

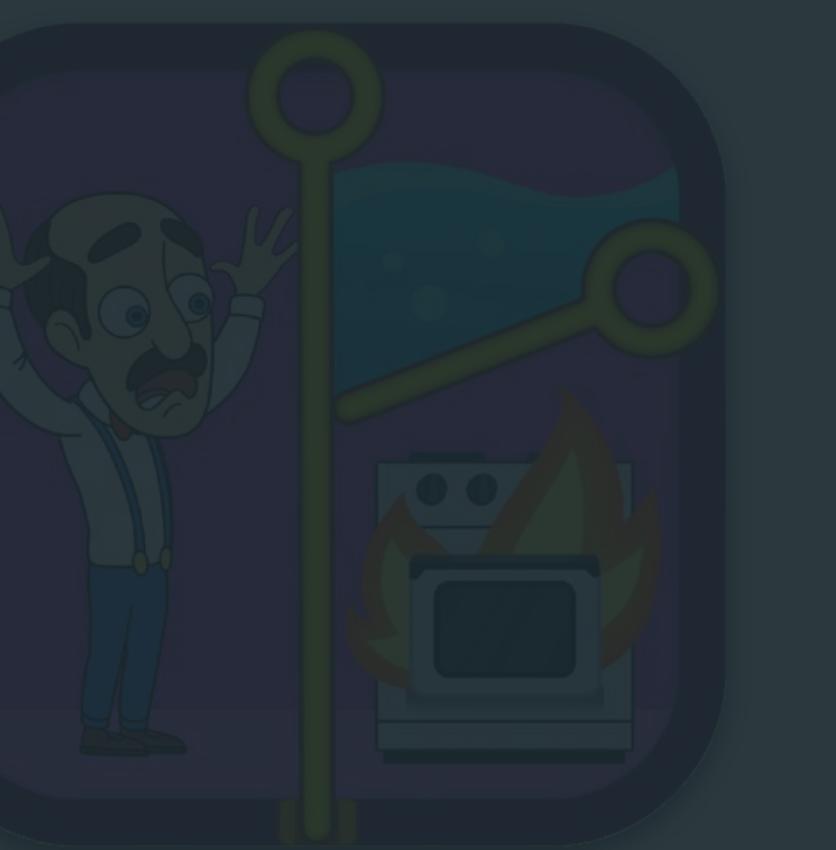
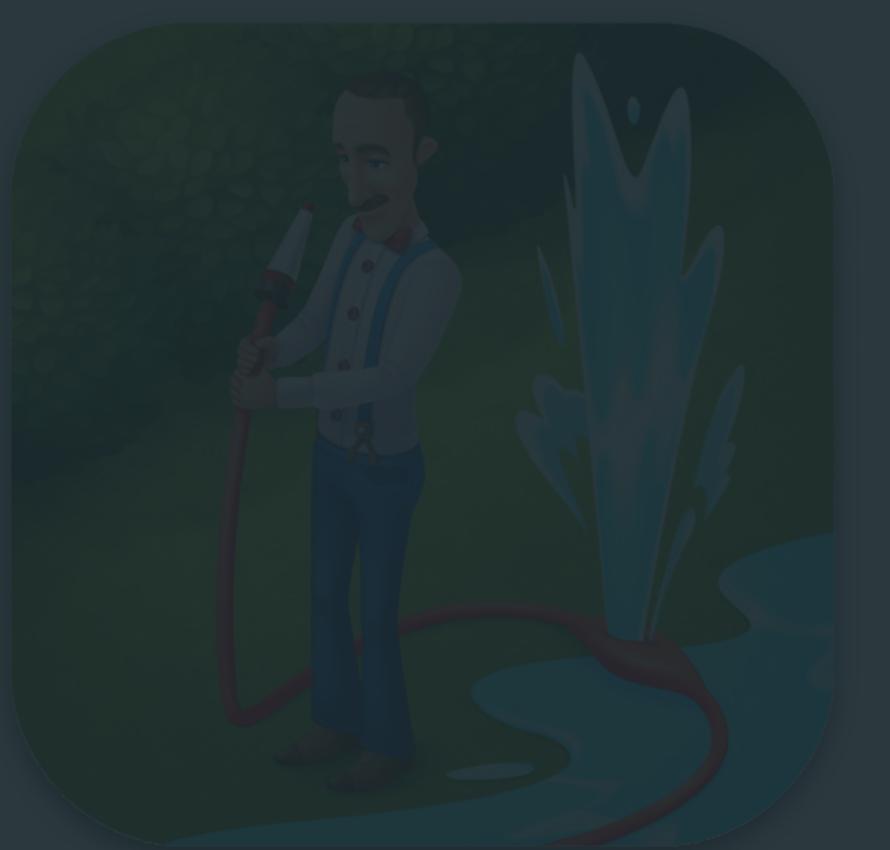
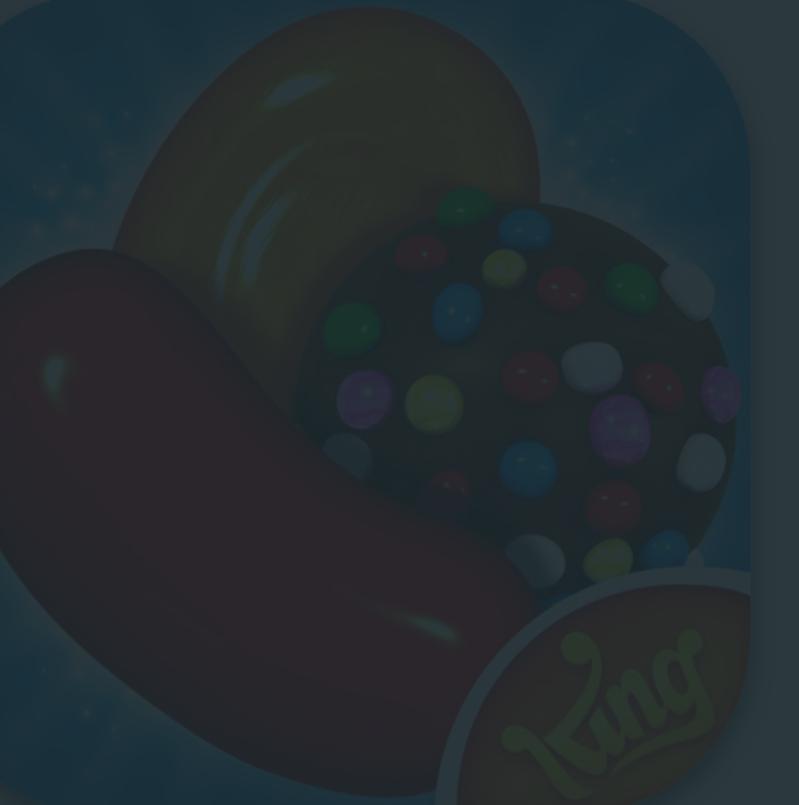
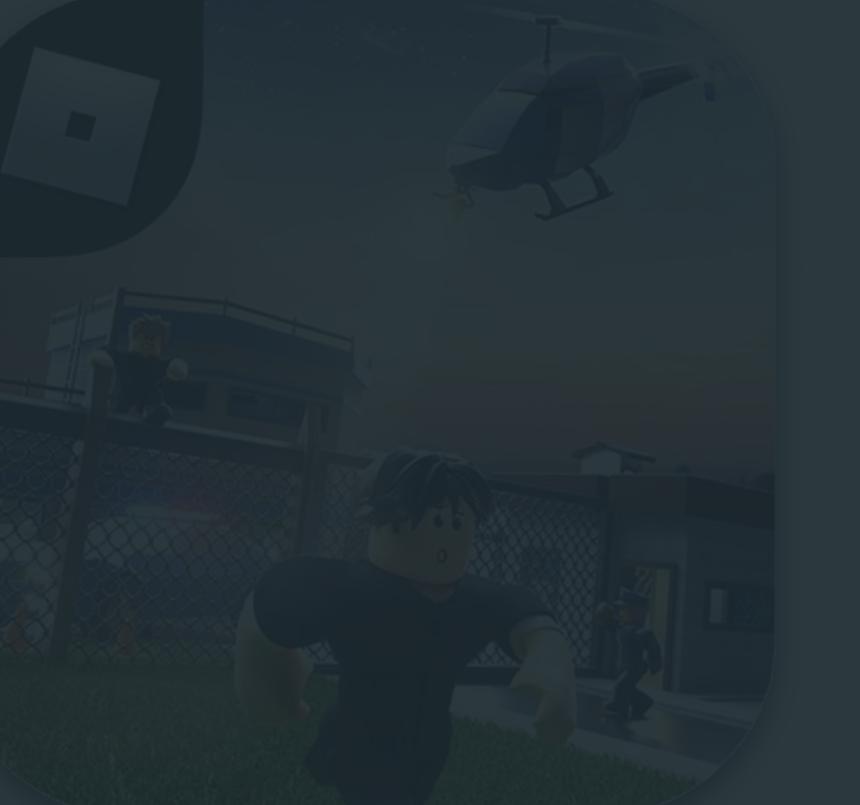
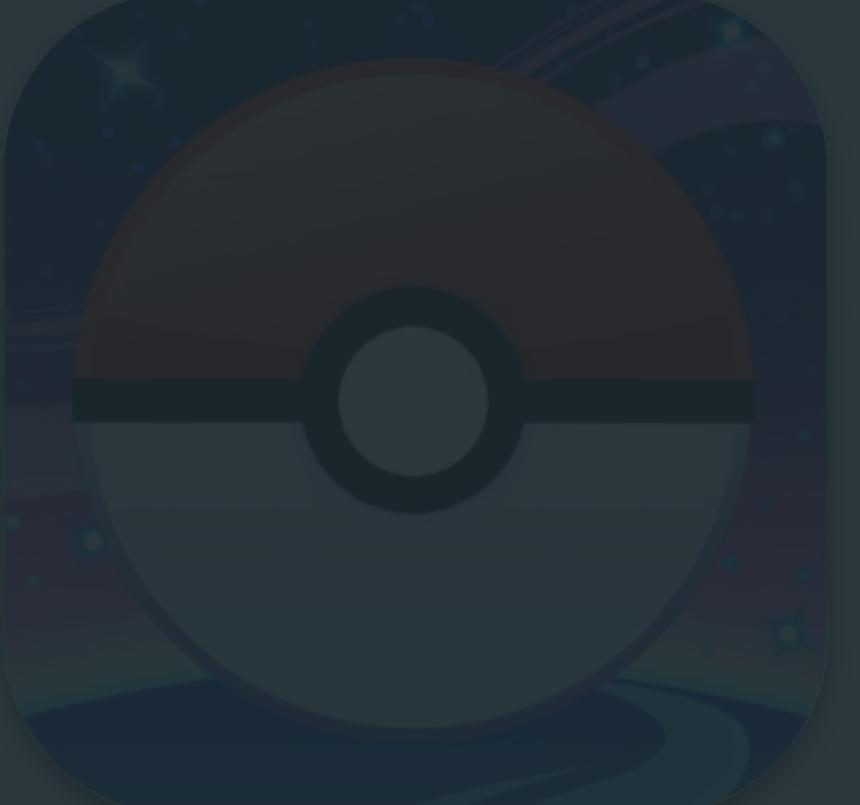
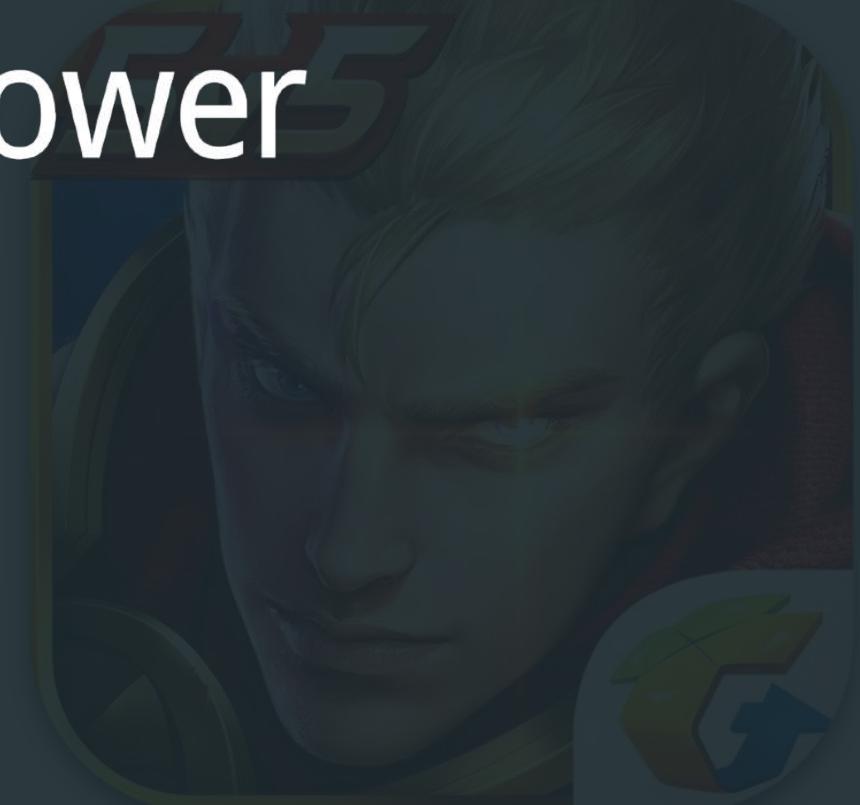
1. **The mobile games market is booming, as game revenue growth accelerated during the pandemic.** Consumer spending surpassed \$22 billion in Q1 2021, representing an all-time high and 25 percent year-over-year growth.
2. **Mobile game downloads also surged during the pandemic.** This was primarily led by developing markets like India and Brazil.
3. **While more than two-thirds of mobile game revenue comes from just three countries (the U.S., Japan, and China), growth in some smaller markets in Europe and Southeast Asia have exceeded that in these largest markets.** It is unlikely that any other country will compete with the top three anytime soon. However, these fast-growing alternatives will provide opportunities for game developers looking to expand to new regions.





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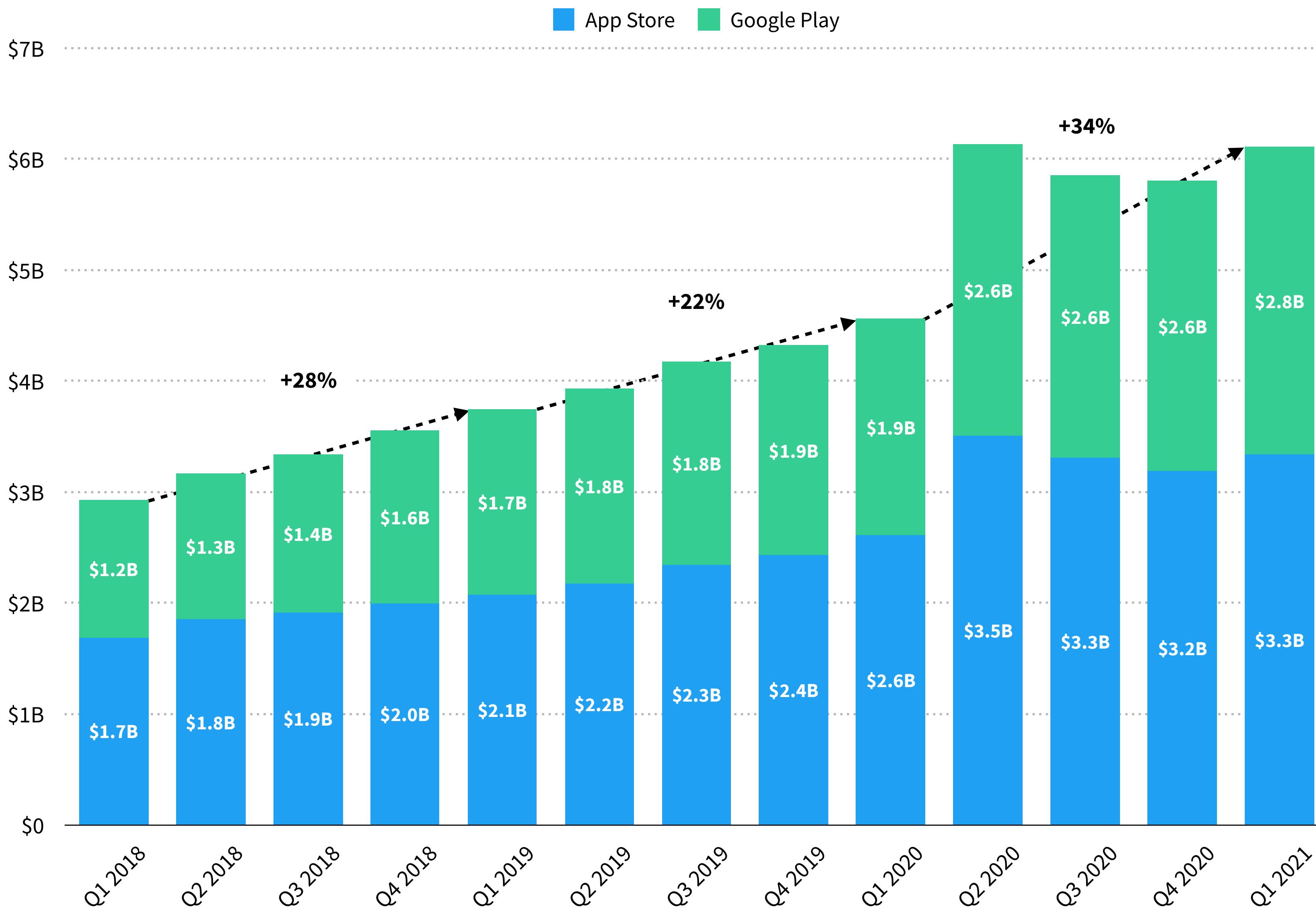


# Market Overview: United States

An Overview of Mobile Gaming in the U.S.

# U.S. Game Revenue Growth Outpaced the Global Rate

*U.S. quarterly gross revenue from mobile games on the App Store and Google Play*



U.S. mobile game consumer spending surpassed \$6 billion for only the second time in Q1 2021, just below the \$6.1 billion spent in Q2 2020. There was a notable increase at the start of the pandemic that persisted into 2021.

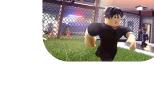
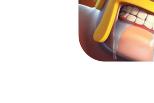
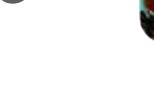
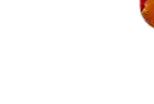
The U.S. is still the top market for mobile gaming. Its revenue has more than doubled since the start of 2018, higher growth than the worldwide rate.

## Note:

Revenue figures are gross revenue (including the cut taken by Apple or Google).

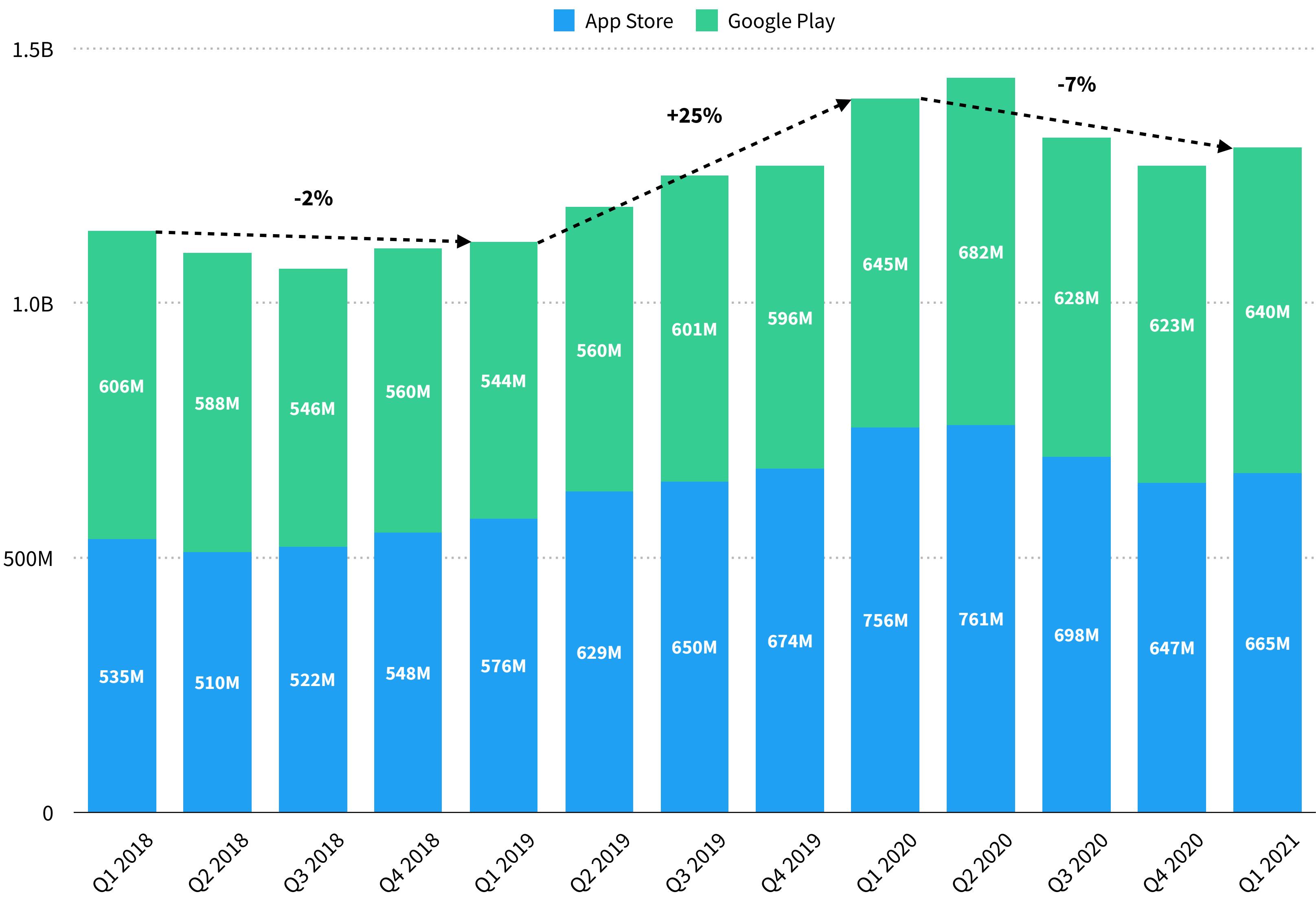
# Roblox Became the Top Grossing Mobile Game in the U.S. in 2020

*Top mobile games by U.S. revenue on the App Store and Google Play*

2018		2019		2020		1Q21	
1	 Candy Crush Saga King	1	 Candy Crush Saga King	-	1	 Roblox Roblox	+1
2	 Fortnite Epic Games	2	 Roblox Roblox	+5	2	 Candy Crush Saga King	-1
3	 Pokémons GO Niantic	3	 Clash of Clans Supercell	+1	3	 Coin Master Moon Active	+2
4	 Clash of Clans Supercell	4	 Pokémons GO Niantic	-1	4	 Pokémons GO Niantic	-
5	 Slotomania Playtika	5	 Coin Master Moon Active	NEW	5	 Gardenscapes Playrix	NEW
6	 Candy Crush Soda Saga King	6	 Homescapes Playrix	+4	6	 Homescapes Playrix	-
7	 Roblox Roblox	7	 Slotomania Playtika	-2	7	 Clash of Clans Supercell	-4
8	 Toon Blast Peak Games	8	 PUBG Mobile Tencent	NEW	8	 Slotomania Playtika	-1
9	 Final Fantasy XV Epic Action	9	 Fortnite Epic Games	-7	9	 PUBG Mobile Tencent	-1
10	 Homescapes Playrix	10	 Toon Blast Peak Games	-2	10	 Call of Duty: Mobile Activision Blizzard	NEW

# U.S. Game Installs Fell Slightly From a Mid-Pandemic Peak

*U.S. quarterly downloads from mobile games on the App Store and Google Play*



While U.S. mobile game revenue remained high each quarter during the pandemic, downloads fell off from their peak in the first few quarters of the pandemic. Q1 2021 downloads were still slightly higher than the pre-pandemic quarters.

Download growth had started to pick up in 2019 even before the spread of COVID-19. Quarter-over-quarter growth in Q1 2021 also shows promise for the upcoming quarters.

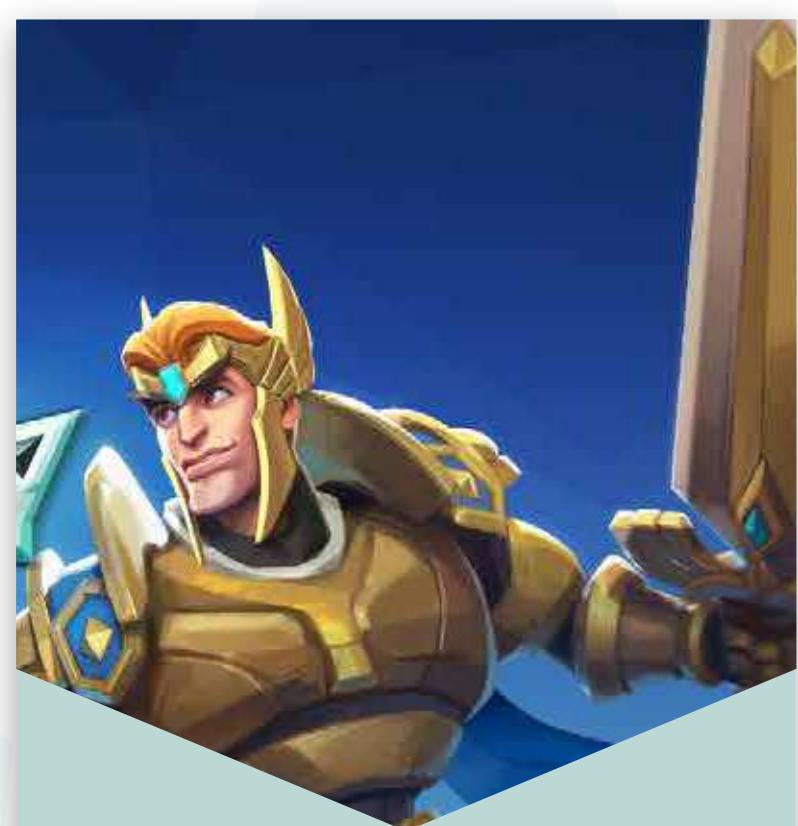
# Top Apps by U.S. Downloads Included Many New Launches

*Top mobile games by U.S. downloads on the App Store and Google Play*

Top Apps by U.S. Downloads Included Many New Launches			
<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>1Q21</b>
1 Helix Jump Voodoo	1 Call of Duty: Mobile Activision Blizzard <span style="float: right;">NEW</span>	1 Among Us InnerSloth <span style="float: right;">NEW</span>	1 Project Makeover Magic Tavern <span style="float: right;">NEW</span>
2 Fortnite Epic Games	2 Color Bump 3D Good Job Games <span style="float: right;">NEW</span>	2 Roblox Roblox <span style="float: right;">+3</span>	2 High Heels Zynga <span style="float: right;">NEW</span>
3 PUBG Mobile Tencent	3 Aquapark.io Voodoo <span style="float: right;">NEW</span>	3 Call of Duty: Mobile Activision Blizzard <span style="float: right;">-2</span>	3 Among Us InnerSloth <span style="float: right;">-2</span>
4 Rise Up Serkan Ozyilmaz	4 Mario Kart Tour Nintendo <span style="float: right;">NEW</span>	4 Subway Surfers Sybo Games <span style="float: right;">NEW</span>	4 Roblox Roblox <span style="float: right;">-2</span>
5 Hole.io Voodoo	5 Roblox Roblox <span style="float: right;">+1</span>	5 Brain Test Unico Studios <span style="float: right;">NEW</span>	5 Crash Bandicoot: OTR King <span style="float: right;">NEW</span>
6 Roblox Roblox	6 Wordscapes PeopleFun <span style="float: right;">NEW</span>	6 Coin Master Moon Active <span style="float: right;">NEW</span>	6 Blob Runner 3D Zynga <span style="float: right;">NEW</span>
7 Love Balls Lion Studios	7 Fun Race 3D Good Job Games <span style="float: right;">NEW</span>	7 Magic Tiles 3 Amanotes <span style="float: right;">NEW</span>	7 Giant Rush Tapnation <span style="float: right;">NEW</span>
8 Happy Glass Lion Studios	8 Run Race 3D Good Job Games <span style="float: right;">NEW</span>	8 Fishdom Playrix <span style="float: right;">NEW</span>	8 Sushi Roll 3D SayGames <span style="float: right;">NEW</span>
9 Granny DVloper	9 Mr Bullet Lion Studios <span style="float: right;">NEW</span>	9 Woodturning Voodoo <span style="float: right;">NEW</span>	9 Oh God Alictus <span style="float: right;">NEW</span>
10 Hello Stars Fastone Games	10 Polysphere Playgendaray <span style="float: right;">NEW</span>	10 Tangle Master 3D Zynga <span style="float: right;">NEW</span>	10 Call of Duty: Mobile Activision Blizzard <span style="float: right;">-7</span>

# Key Takeaways: U.S.

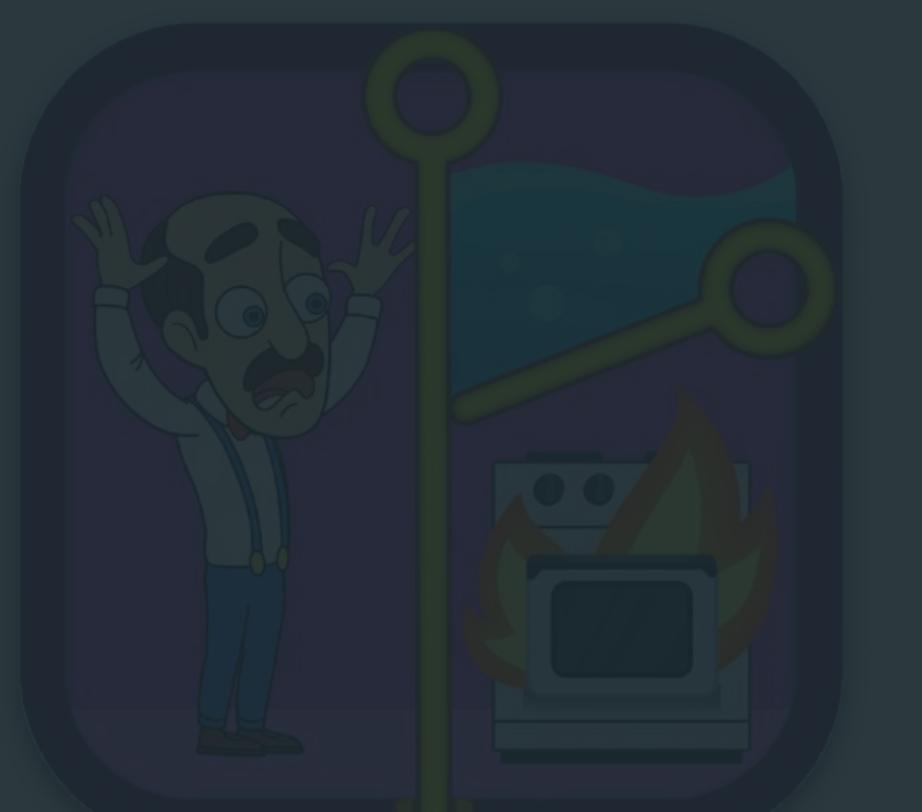
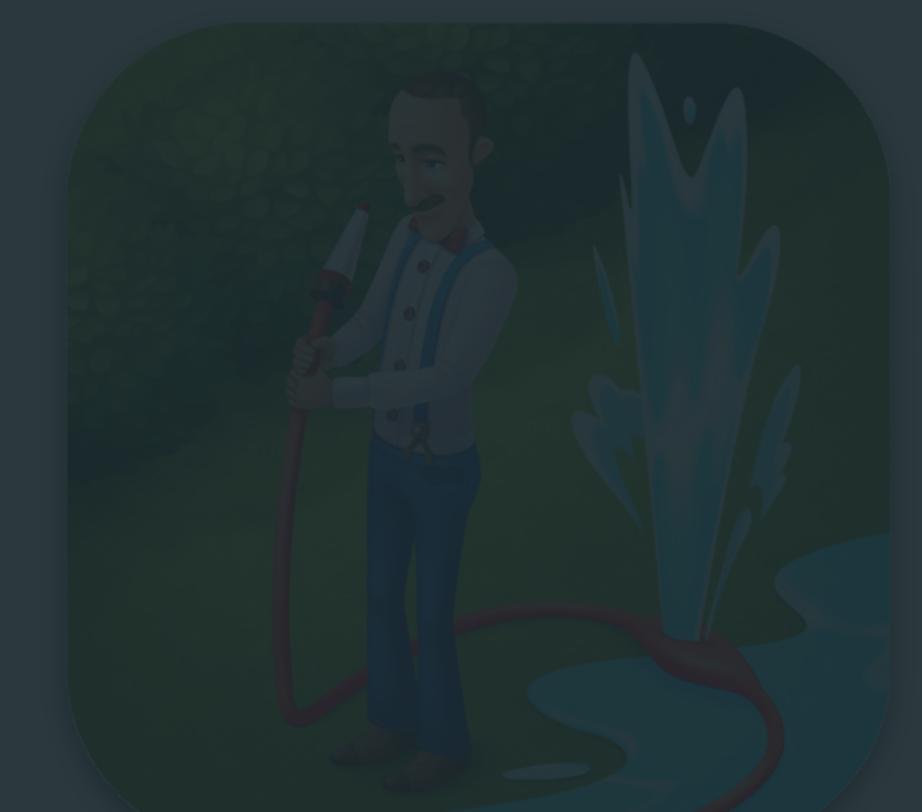
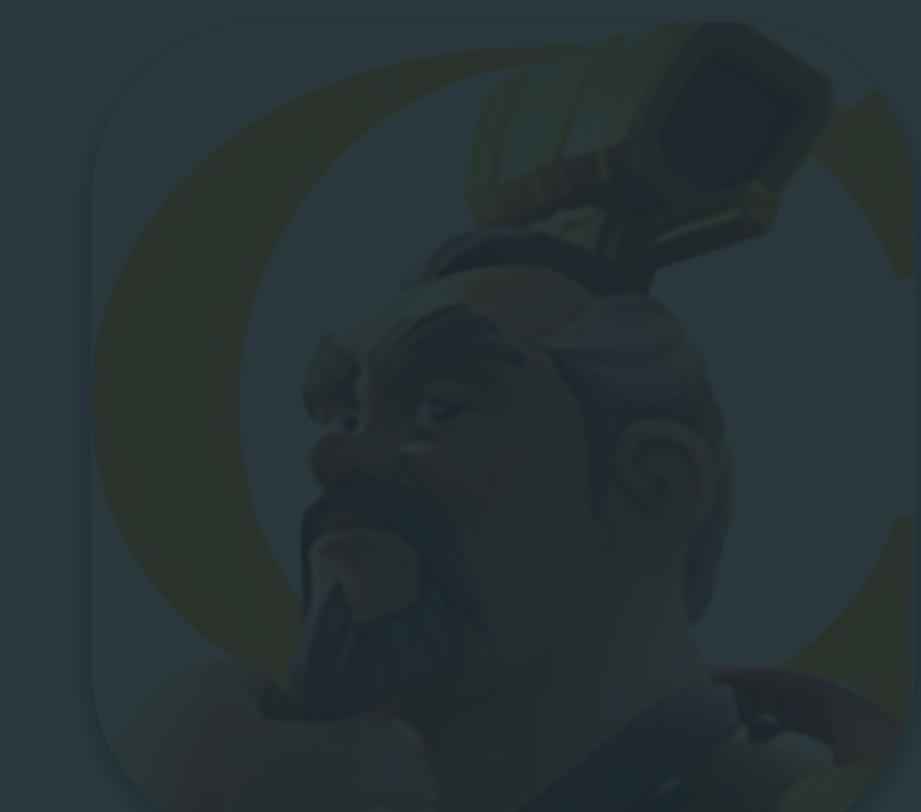
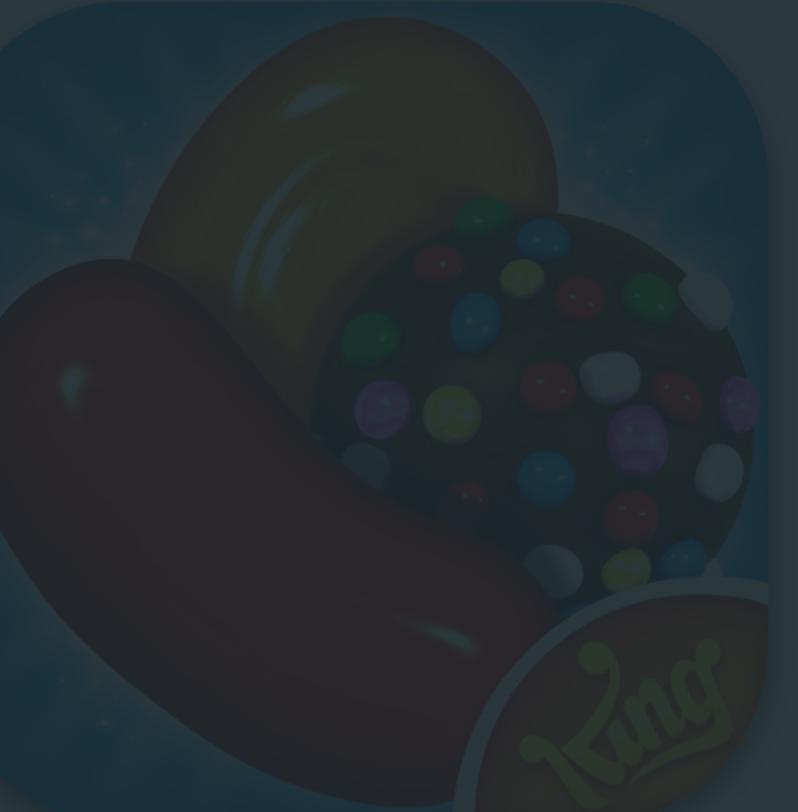
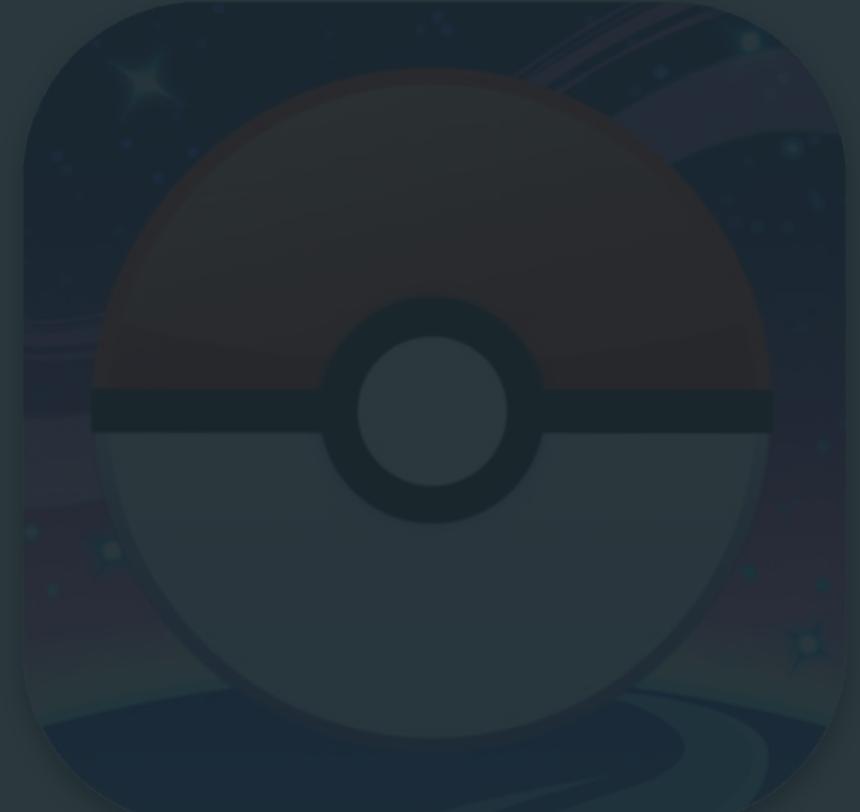
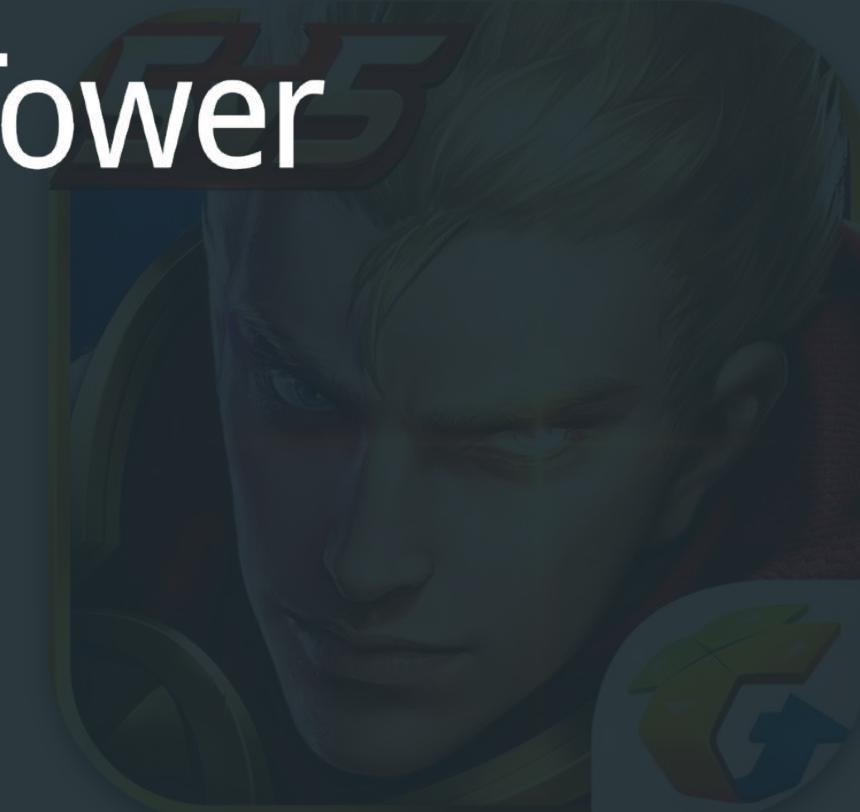
1. **The U.S. was already the largest market for mobile games revenue and looks to likely hold this position for the foreseeable future.** U.S. game revenue growth has exceeded the worldwide rate for each of the past three years, reaching 34 percent Y/Y growth in Q1 2021.
2. **While game revenue continues to climb, expect more modest growth for U.S. mobile game adoption.** U.S. game installs have mostly fallen off from the spike seen early in the pandemic. However, steady growth in 2019 plus a strong Q1 2021 suggests that the market may still see steady growth in the coming quarters.
3. **The COVID-19 pandemic revealed how games can benefit from having a strong social component.** Many multiplayer games like Roblox and Among Us had a breakthrough year in 2020.





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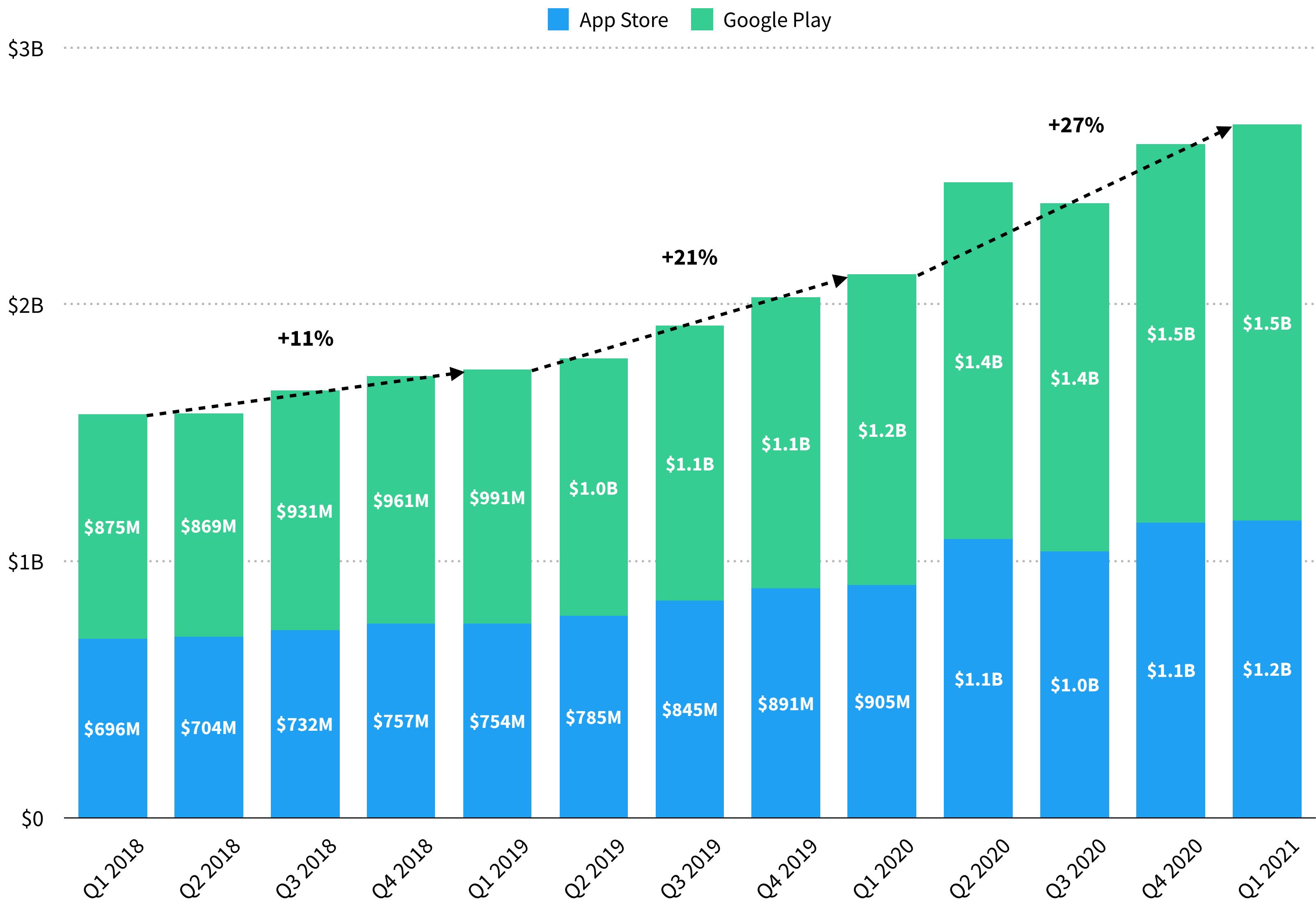


# Market Overview: Europe

An Overview of Mobile Gaming in Europe

# The Pandemic Accelerated Europe's Game Revenue Growth

*Europe quarterly gross revenue from mobile games on the App Store and Google Play*



Mobile game consumer spending in Europe reached \$2.7 billion in Q1 2021, an all-time high and up 27 percent year-over-year. Revenue was boosted during the pandemic, though to a lesser extent than in the U.S.

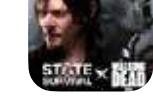
Growth was similar on both platforms, with App Store revenue up 28 percent Y/Y in Q1 2021 compared to 27 percent Y/Y growth on Google Play. Google Play still took the majority of spending between the two platforms.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

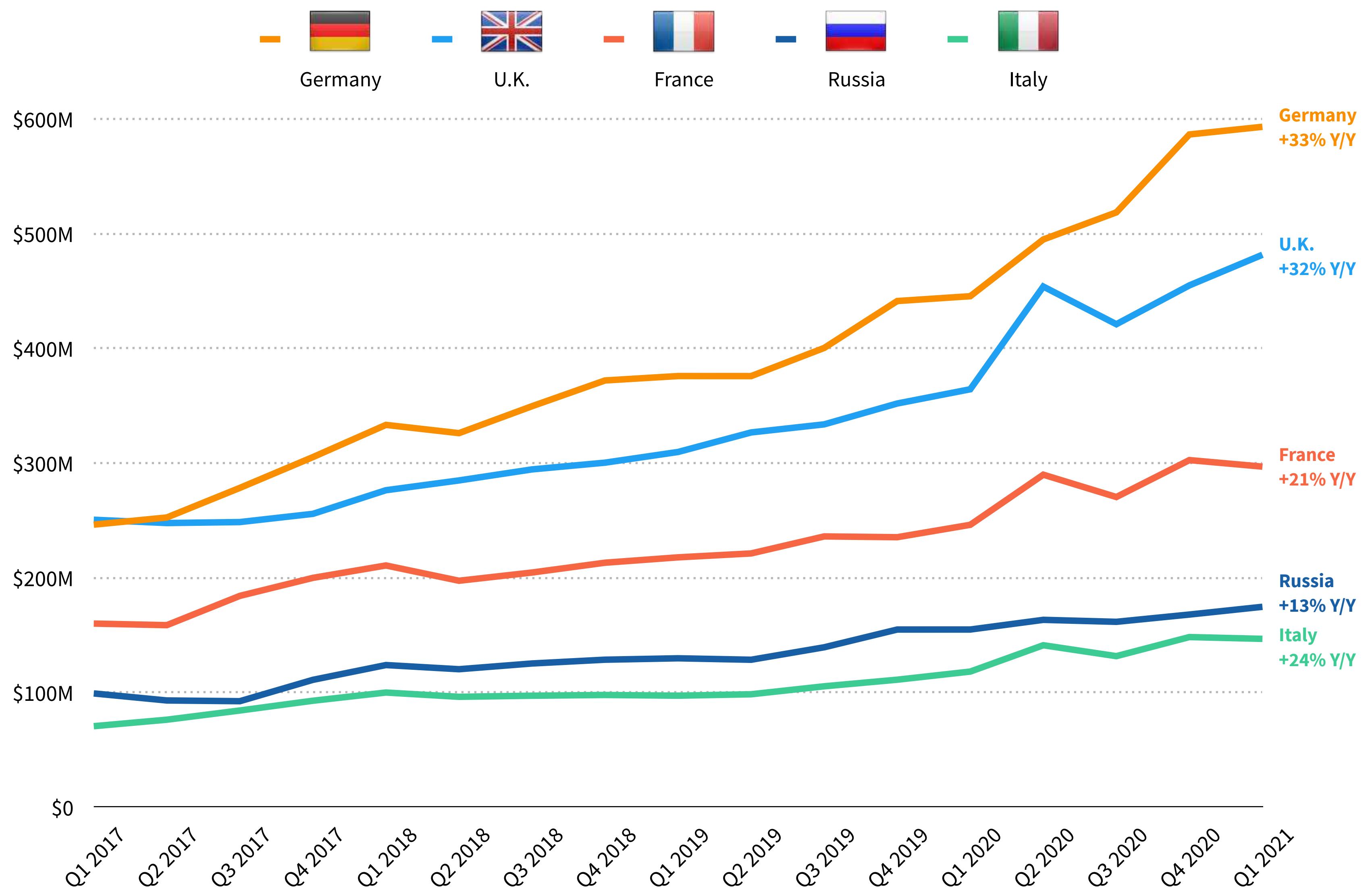
# Coin Master Led All Mobile Games In Europe

*Top mobile games by Europe revenue on the App Store and Google Play*

2018				2019				2020				1Q21				
1		Candy Crush Saga	King	1		Coin Master	Moon Active	1		Coin Master	Moon Active	-	1		Coin Master	Moon Active
2		Clash Royale	Supercell	2		Candy Crush Saga	King	2		Brawl Stars	Supercell	+2	2		PUBG Mobile	Tencent
3		Gardenscapes	Playrix	3		Clash of Clans	Supercell	3		PUBG Mobile	Tencent	NEW	3		Roblox	Roblox
4		Pokémon GO	Niantic	4		Brawl Stars	Supercell	4		Gardenscapes	Playrix	+1	4		State of Survival	FunPlus
5		Clash of Clans	Supercell	5		Gardenscapes	Playrix	5		Pokémon GO	Niantic	+2	5		Brawl Stars	Supercell
6		Lords Mobile	IGG	6		Homescapes	Playrix	6		Roblox	Roblox	NEW	6		Gardenscapes	Playrix
7		Homescapes	Playrix	7		Pokémon GO	Niantic	7		Candy Crush Saga	King	-5	7		Homescapes	Playrix
8		Empires & Puzzles	Small Giant Games	8		Empires & Puzzles	Small Giant Games	8		Homescapes	Playrix	-2	8		Pokémon GO	Niantic
9		Candy Crush Soda Saga	King	9		Guns of Glory	FunPlus	9		Clash of Clans	Supercell	-6	9		Candy Crush Saga	King
10		Guns of Glory	FunPlus	10		Clash Royale	Supercell	10		State of Survival	FunPlus	NEW	10		Lords Mobile	IGG

# Germany Led Strong Revenue Growth in Europe

*Top European countries by mobile game revenue, App Store and Google Play*



The mobile games market in Germany is booming, with user spending climbing from less than \$250 million in Q1 2017 to nearly \$600 million in Q1 2021. It had a compound annual growth rate (CAGR) of 25 percent over that period, higher growth than any of the other top countries in Europe.

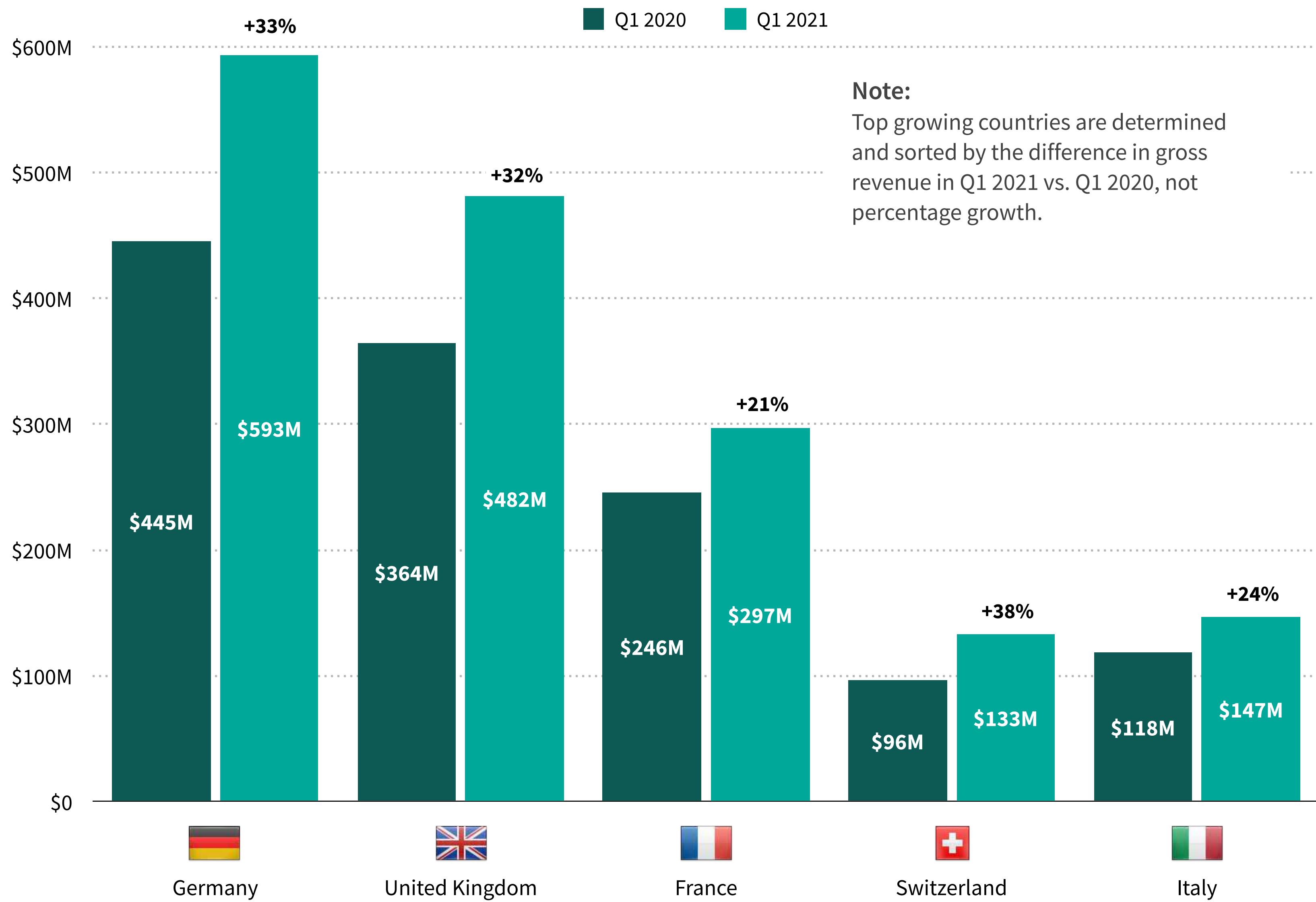
The spikes in revenue during early lockdowns in response to COVID-19 were particularly evident in the U.K., France, and Italy. All three of these markets saw revenue dip after a strong Q2 2020 before climbing again in Q3.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

# Germany and the U.K. Saw Substantial Y/Y Revenue Growth

*Top European countries by Y/Y game revenue growth in Q1 2021, App Store and Google Play*



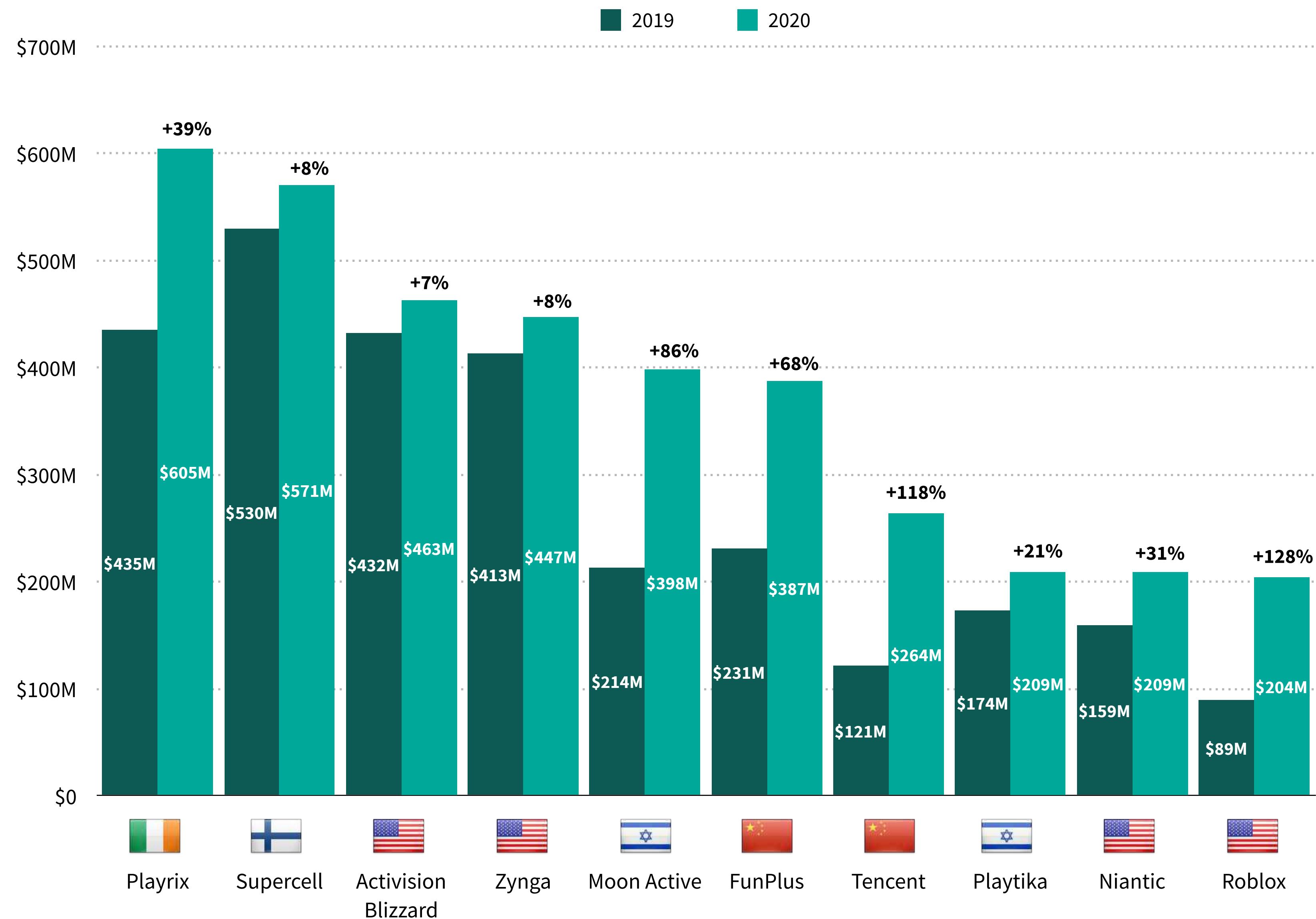
Germany's mobile game revenue grew by nearly \$150 million Y/Y in Q1 2021, followed by the U.K. at \$118 million and France at \$51 million. No other country in Europe had Y/Y/ growth of more than \$40 million.

Switzerland, a smaller market in Europe, was among the top five by revenue growth with 38 percent Y/Y growth. Netherlands just missed the top five with revenue climbing by \$26 million Y/Y, or 39 percent.

**Note:**  
Revenue figures are gross revenue (including the cut taken by Apple or Google).

# Top Publishers by European Revenue are Based in the Region

*Top games publishers by European revenue in 2020 on the App Store and Google Play*



Two Europe-based publishers had the most revenue in Europe in 2020, with the popular puzzle and decorate developer Playrix and strategy game publisher Supercell leading the way. There were also two Israel-based publishers among the top 10.

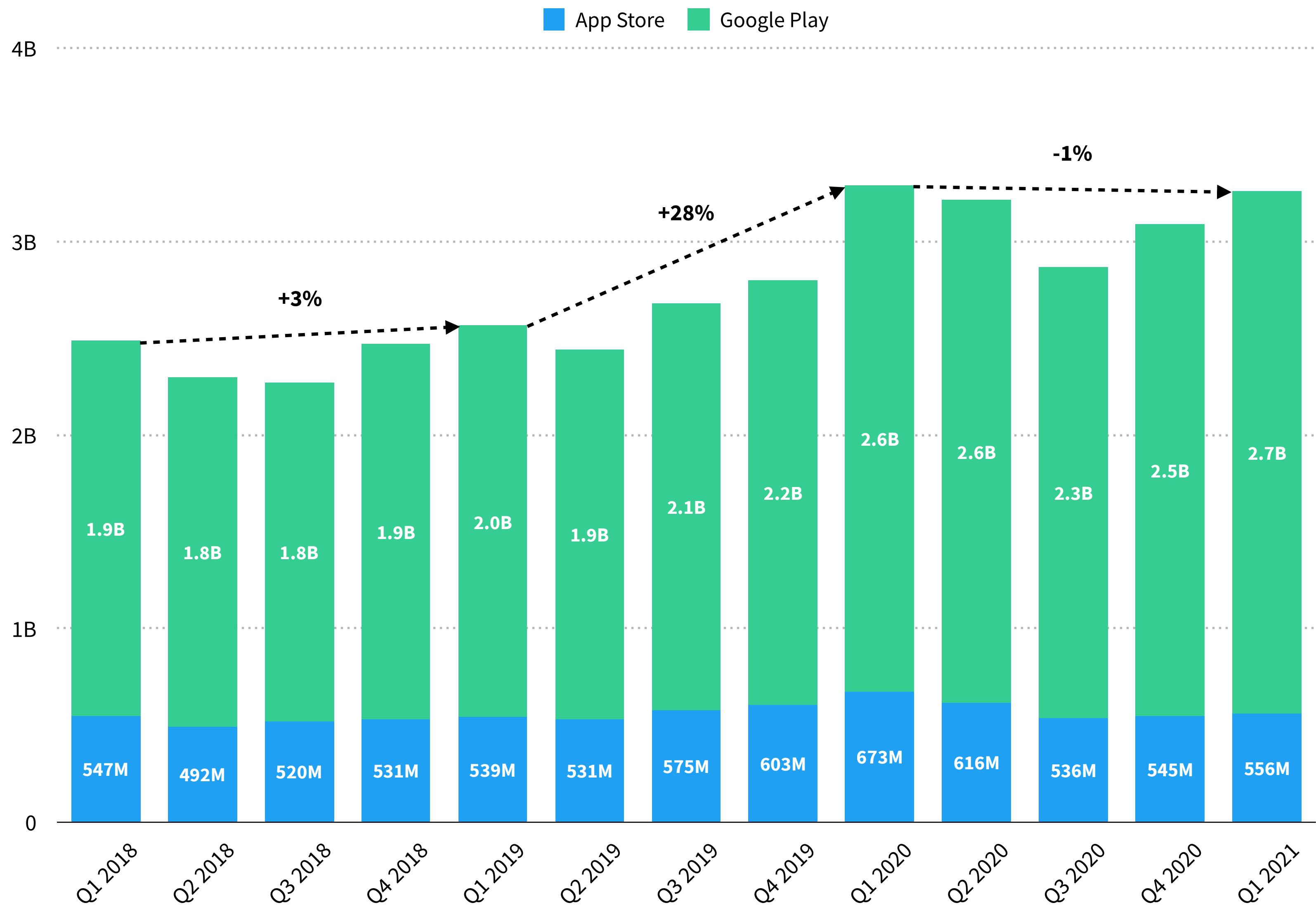
Outside of Europe, publishers from the U.S. and China found the most success. Tencent and Roblox revenue in the region each grew by more than 100 percent.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

# European Game Installs Approached the Early Pandemic Peak

*European quarterly downloads from mobile games on the App Store and Google Play*

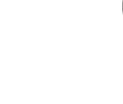
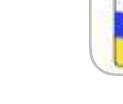
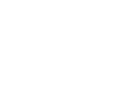
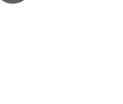
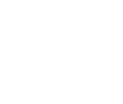


Q1 2021 mobile game installs in Europe were down just one percent from their peak in Q1 2020 at the start of the coronavirus pandemic. Downloads were above the pre-pandemic high for the past five quarters, suggesting that a portion of the pandemic boost will likely persist.

The majority of game installs in Europe were from Google Play. Mobile game adoption on Google Play reached a new high in Q1 2021, while App Store downloads fell 17 percent Y/Y.

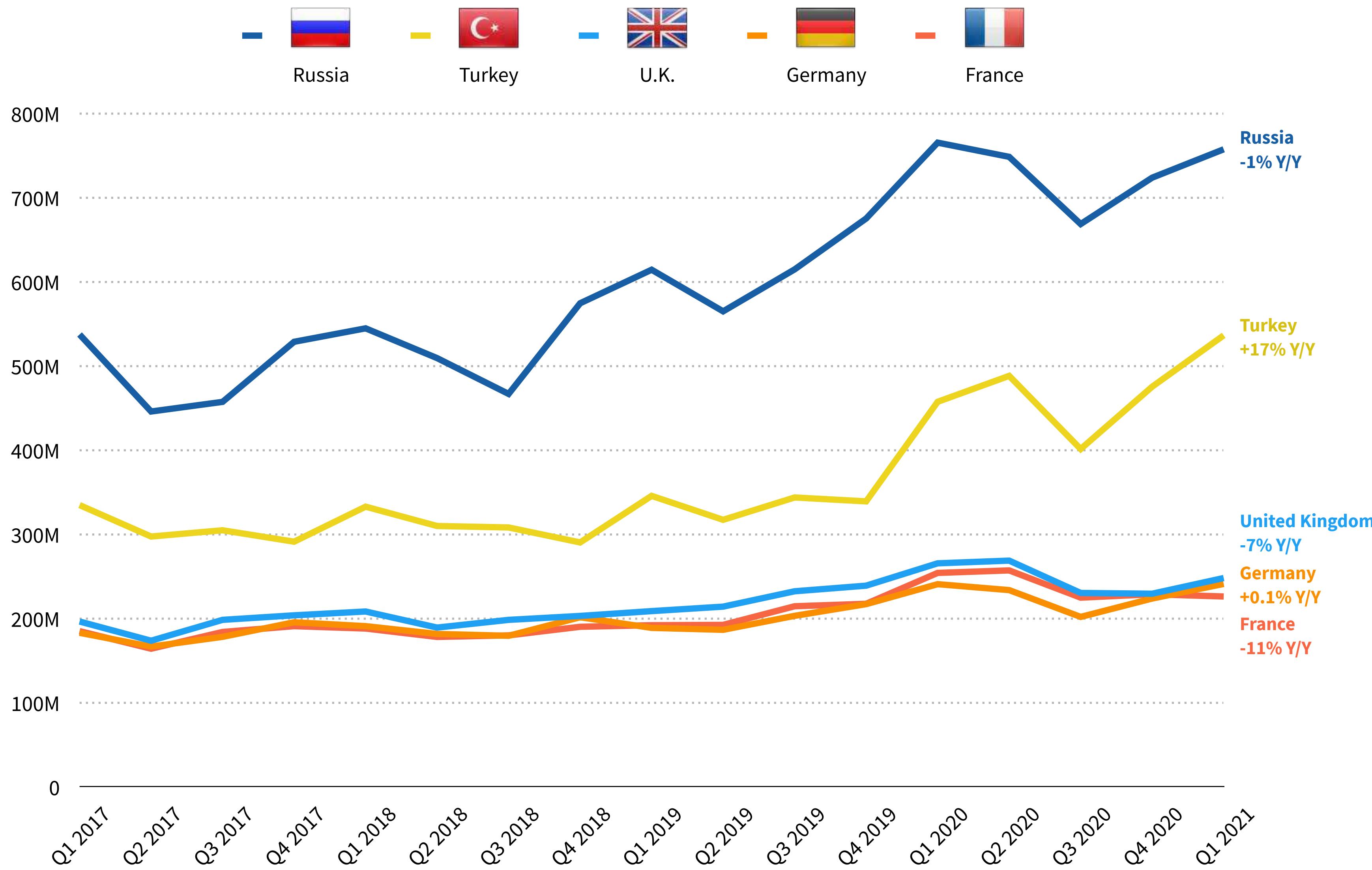
# Many Hypercasual and Puzzle Titles Were Among the Top Games in Europe

*Top mobile games by Europe downloads on the App Store and Google Play*

2018				2019				2020				1Q21						
1		Helix Jump	Voodoo	1		Brawl Stars	Supercell	NEW	1		Among Us	InnerSloth	NEW	1		DOP 2	SayGames	NEW
2		Subway Surfers	Sybo Games	2		Color Bump 3D	Good Job Games	NEW	2		Brawl Stars	Supercell	-1	2		Among Us	InnerSloth	-1
3		Love Balls	Lion Studios	3		Fun Race 3D	Good Job Games	NEW	3		Gardenscapes	Playrix	NEW	3		Phone Case DIY	Crazy Labs	NEW
4		Rise Up	Serkan Ozilma	4		Call of Duty: Mobile	Activision Blizzard	NEW	4		Brain Test	Unico Studios	NEW	4		Join Clash 3D	Supersonic Studios	NEW
5		PUBG Mobile	Tencent	5		Homescapes	Playrix	NEW	5		Subway Surfers	Sybo Games	+5	5		Project Makeover	Magic Tavern	NEW
6		Paper.io 2	Voodoo	6		Run Race 3D	Good Job Games	NEW	6		Roblox	Roblox	NEW	6		Water Sort Puzzle	Ice Global	NEW
7		Knife Hit	Ubisoft	7		Sand Balls	SayGames	NEW	7		PUBG Mobile	Tencent	+2	7		Giant Rush	Tapnation	NEW
8		Kick the Buddy	Playgendar	8		Aquapark.io	Voodoo	NEW	8		Brain Out	Focus Apps	NEW	8		Homescapes	Playrix	+5
9		Happy Glass	Lion Studios	9		PUBG Mobile	Tencent	-4	9		Woodturning	Voodoo	NEW	9		Brawl Stars	Supercell	-7
10		Granny	DVloper	10		Subway Surfers	Sybo Games	-8	10		Tiles Hop	Amanotes	NEW	10		Stacky Dash	Supersonic Studios	NEW

# Russia and Turkey Drove European Game Downloads

*Top European countries by mobile game downloads, App Store and Google Play*

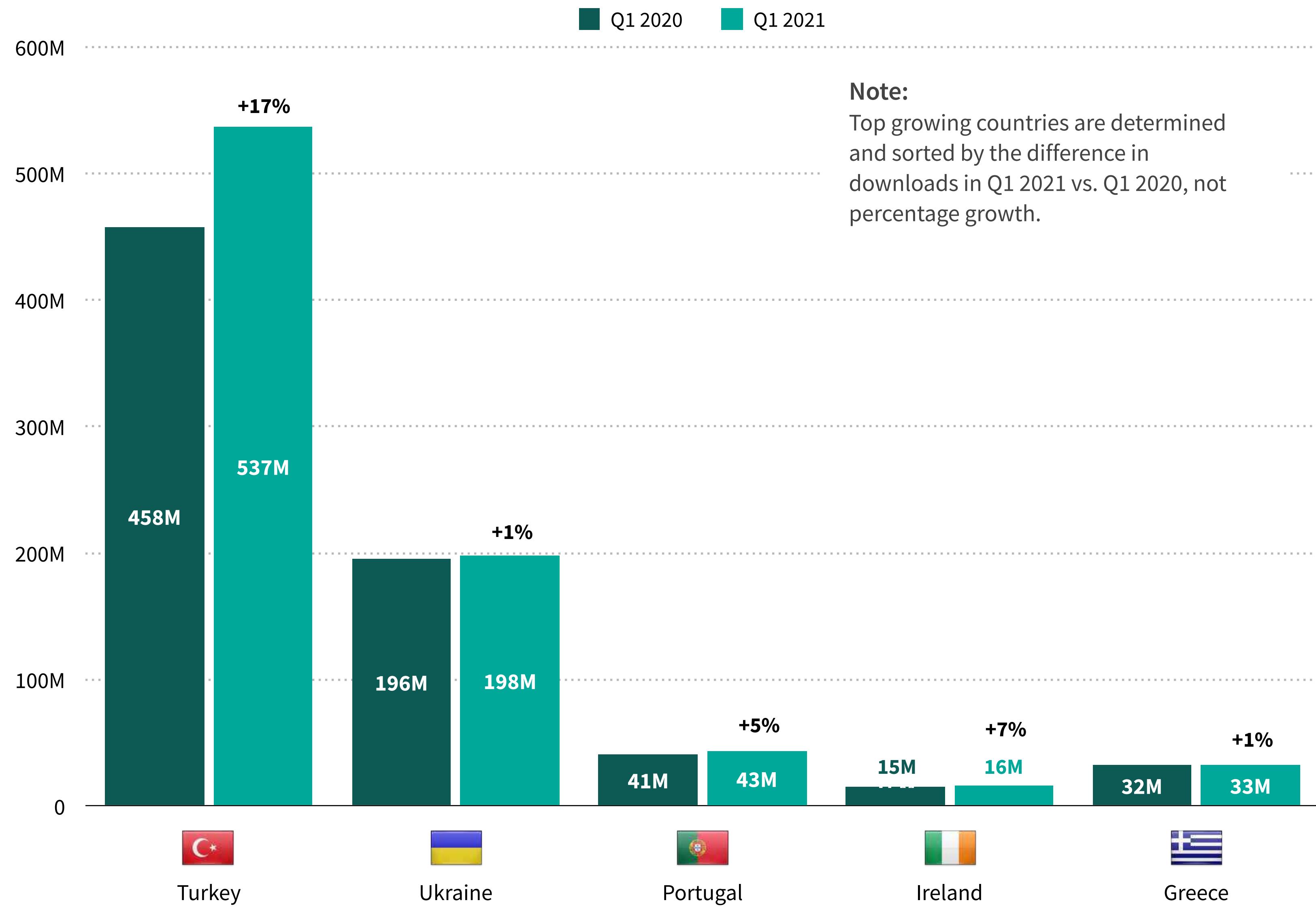


Russia was the top European market in Q1 2021 with 758 million downloads, followed by Turkey at 537 million installs. This was more than double the No. 3 market, the U.K., which had 248 million downloads in the quarter.

Many of the top countries in Europe saw downloads decline year-over-year from the early pandemic highs in Q1 2020. Turkey was a notable exception with 17 percent Y/Y growth, and Germany also managed to experience slightly positive growth.

# Turkey Led Download Growth in Europe

*Top European countries by Y/Y game download growth in 1Q21, App Store and Google Play*



**Note:**

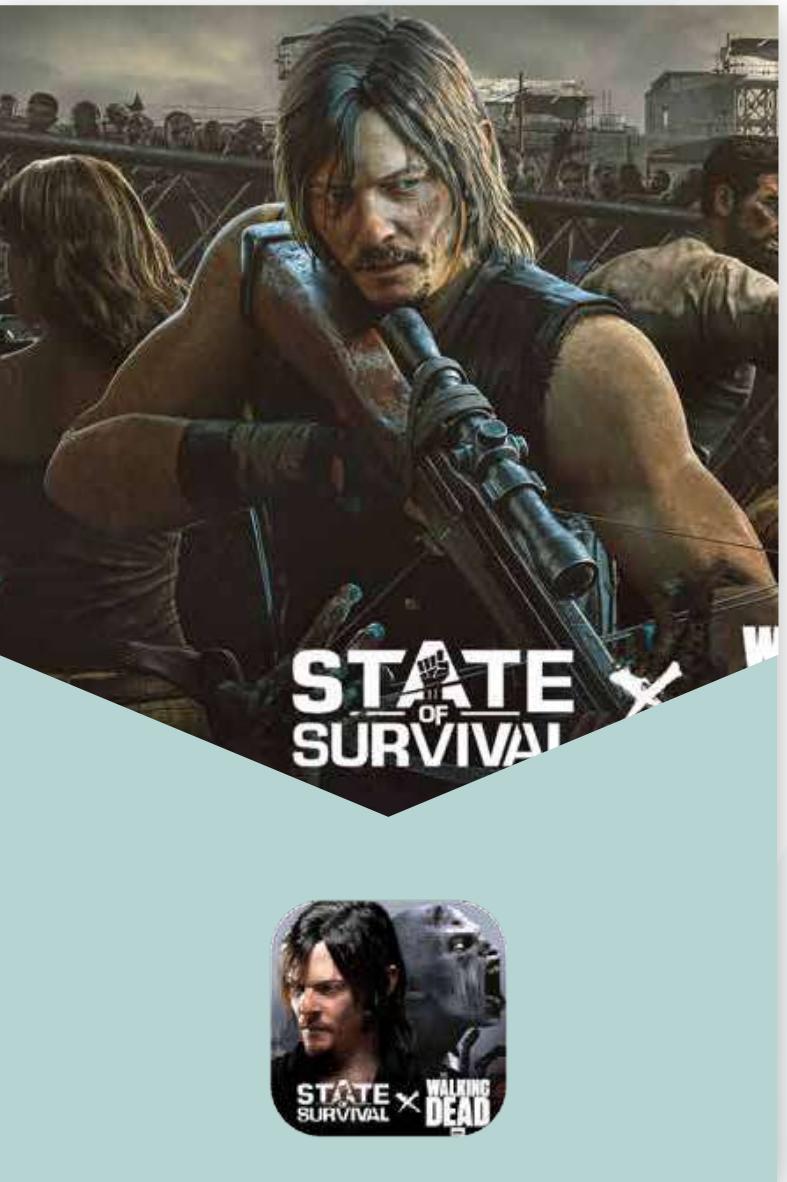
Top growing countries are determined and sorted by the difference in downloads in Q1 2021 vs. Q1 2020, not percentage growth.

As overall downloads in Europe decreased one percent year-over-year in Q1 2021, most countries saw little to no growth. **Turkey was the exception, with downloads up by nearly 80 million.**

The rest of the top countries by growth were smaller markets such as Ukraine, Portugal, and Ireland. Only eight countries in Europe had positive Y/Y growth in Q1 2021.

# Key Takeaways: Europe

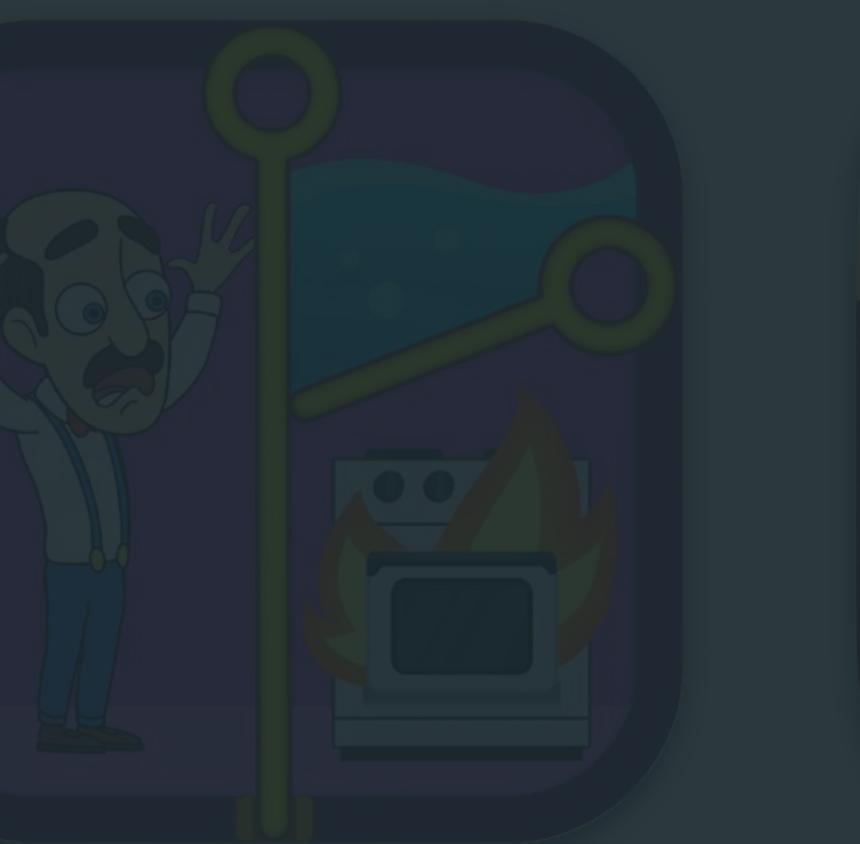
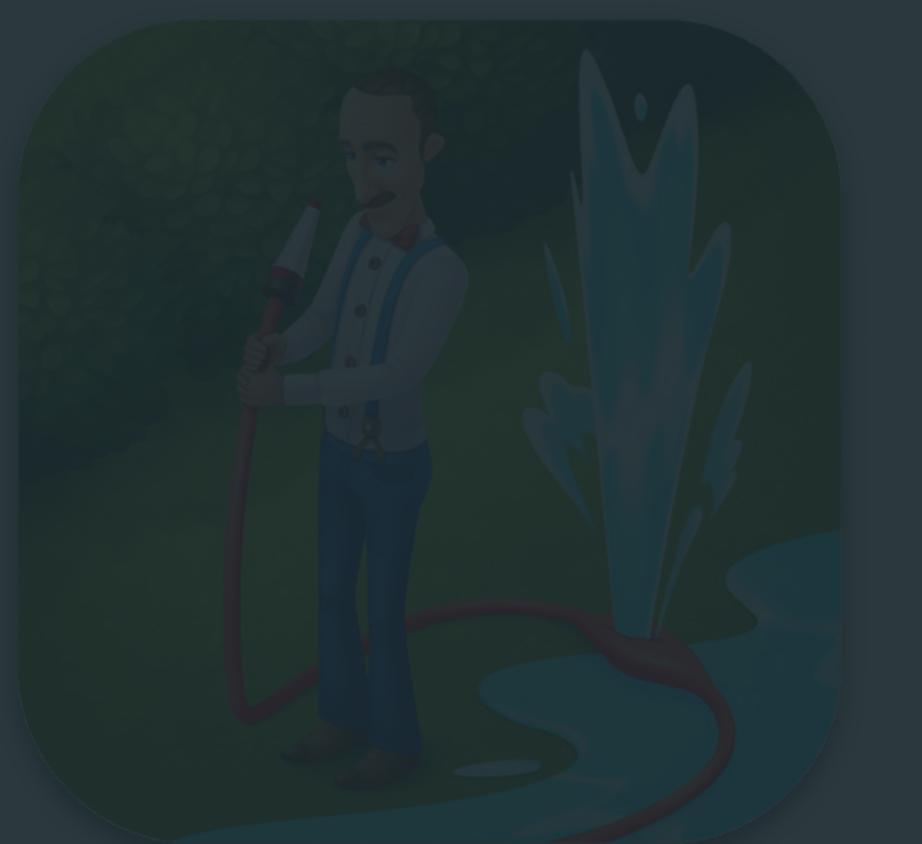
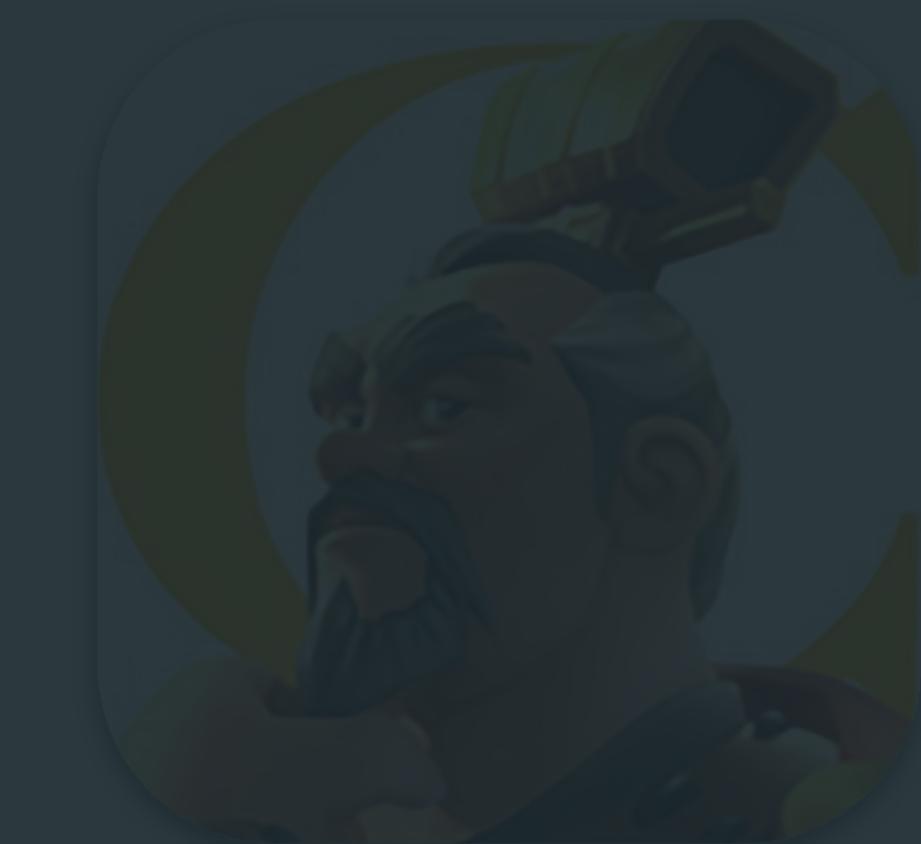
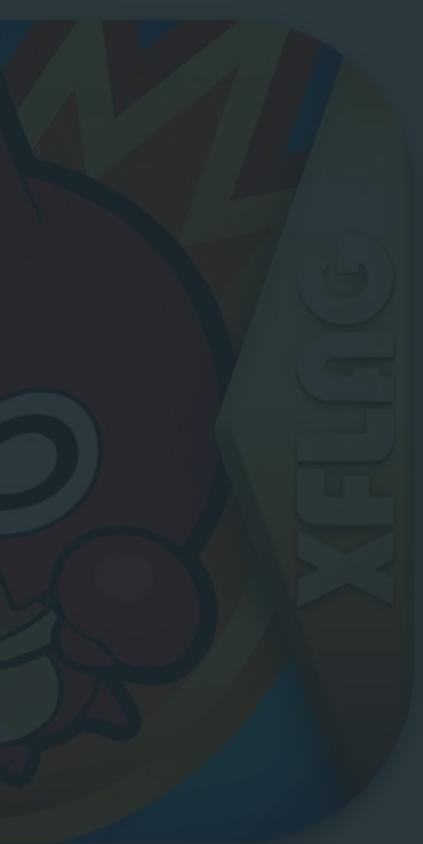
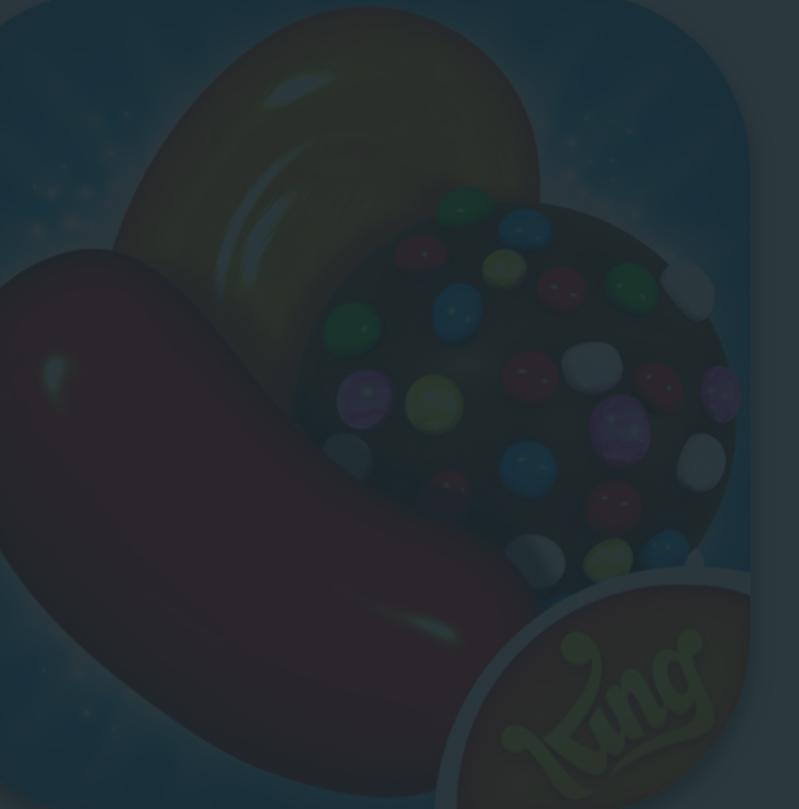
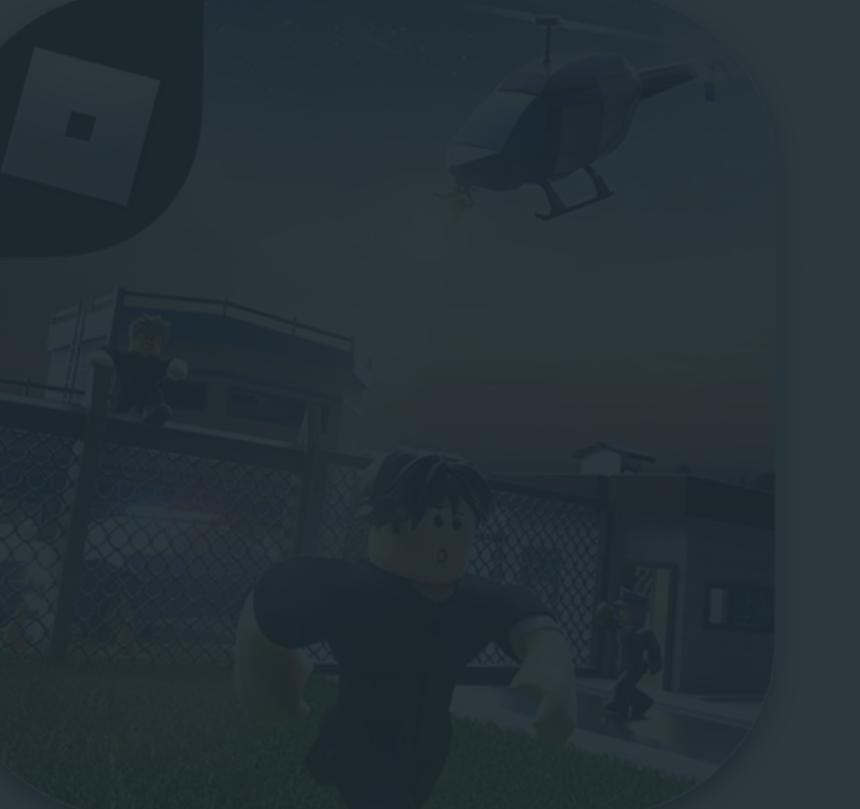
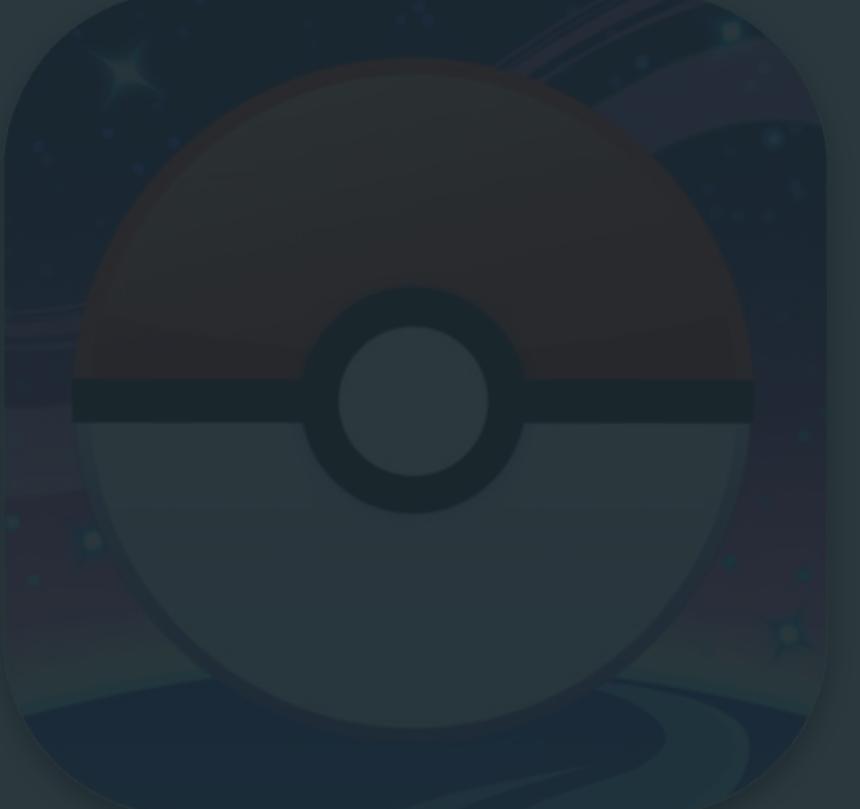
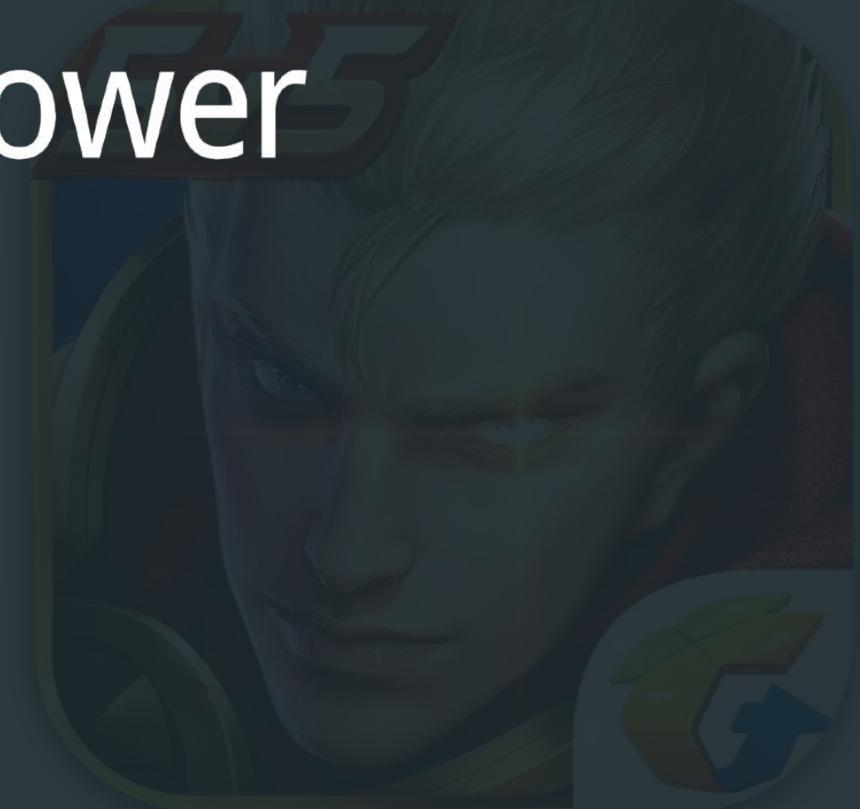
- 1. Mobile game revenue also accelerated in Europe in 2020, reaching a record \$2.7 billion in Q1 2021 with 27 percent year-over-year growth.** While this Y/Y growth was lower than in the U.S. (which saw a particularly pronounced boost from COVID-19), it was still slightly higher than the global growth rate.
- 2. Germany, the top European country by mobile game revenue, reached nearly \$600 million in consumer spending in Q1 2021.** Revenue growth was strong across top European markets, with the U.K., France, and Italy joining Germany with more than 20 percent Y/Y revenue growth in Q1 2021.
- 3. Mobile game installs in Q1 2021 were just 1 percent lower than their peak from Q1 2020.** However, most countries have seen installs decline from this pandemic-fueled peak, with Turkey as a notable exception.





# SensorTower

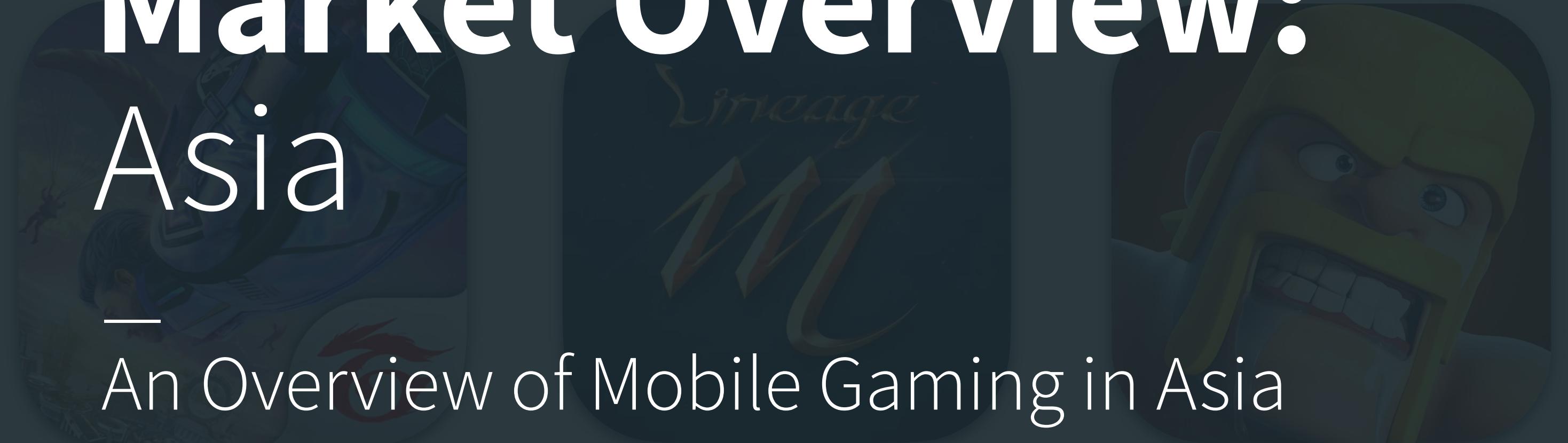
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# Market Overview:

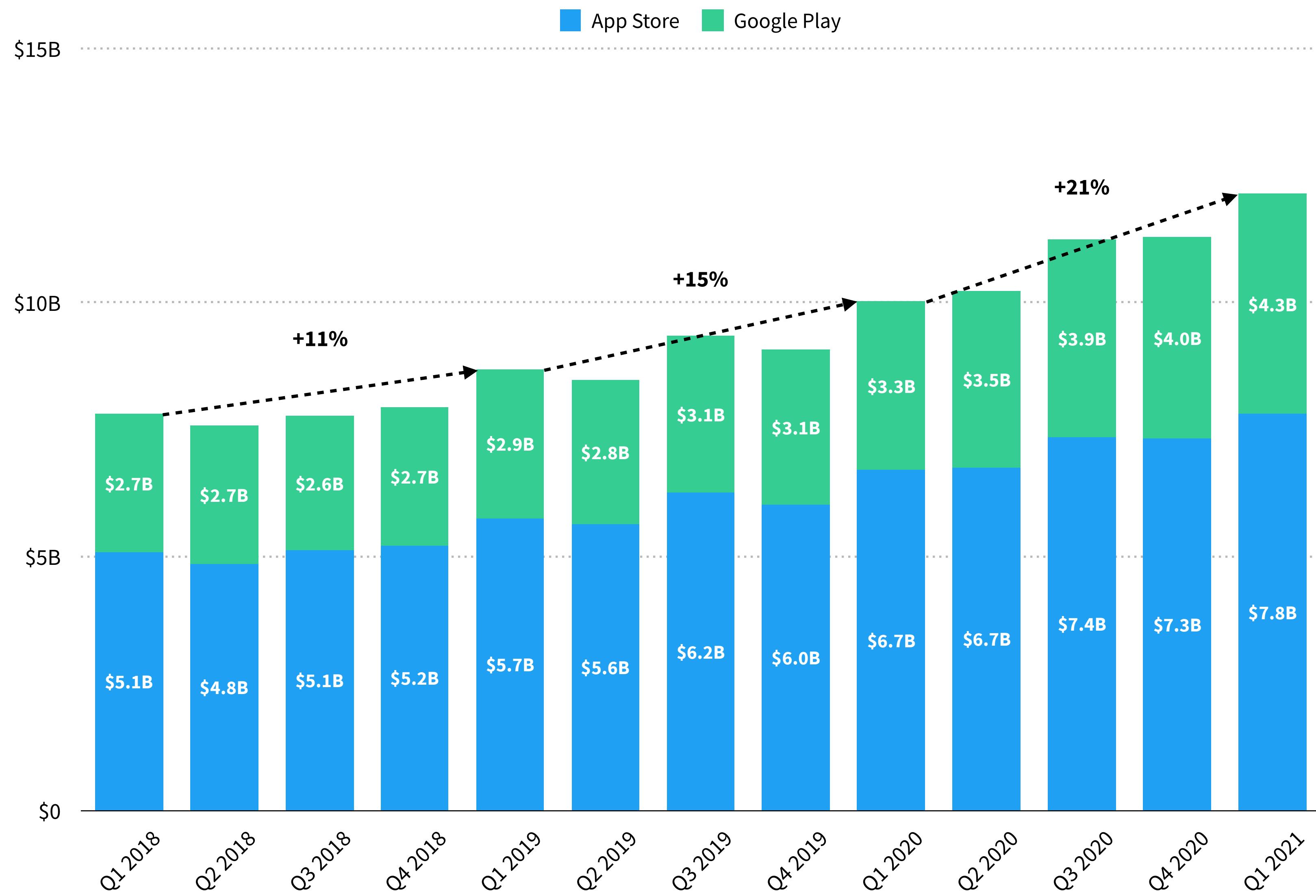
## Asia

An Overview of Mobile Gaming in Asia



# Asia's Game Revenue Growth is Picking Up

*Asia's quarterly gross revenue from mobile games on the App Store and Google Play*



Asia's mobile game revenue surpassed \$12 billion for the first time in Q1 2021, up 21 percent year-over-year. Growth has only accelerated in recent years.

Mobile game revenue growth in Asia lagged behind that seen in the U.S. and Europe. Still, it remains by far the largest region for mobile game revenue, led by China and Japan.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

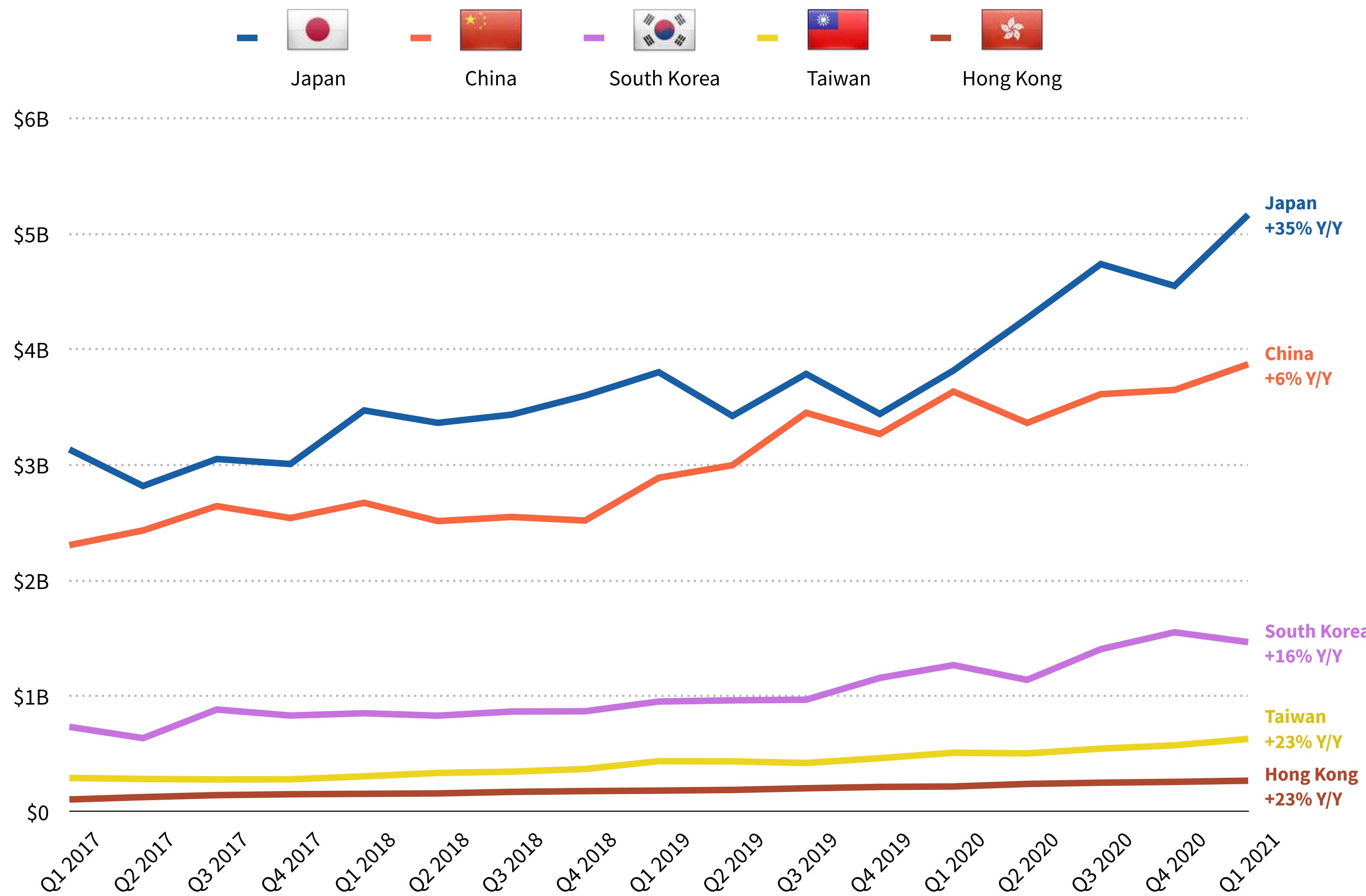
# Genshin Impact Emerged as a Top Game in Asia with a Strong Q1 2021

*Top mobile games by Asia revenue on the App Store and Google Play*

2018		2019		2020		1Q21	
1	 Honor of Kings Tencent	1	 Honor of Kings Tencent	-		1	 Honor of Kings Tencent
2	 Monster Strike Mixi	2	 Fate/Grand Order Sony	+1		2	 PUBG Mobile Tencent
3	 Fate/Grand Order Sony	3	 PUBG Mobile Tencent	NEW		3	 Monster Strike Mixi
4	 LineageM NCSOFT	4	 Monster Strike Mixi	-2		4	 Fate/Grand Order Sony
5	 Fantasy WW Journey NetEase	5	 Fantasy WW Journey NetEase	-		5	 3 Kingdoms Tactics Alibaba
6	 Puzzle & Dragons GungHo	6	 LineageM NCSOFT	-2		6	 LineageM NCSOFT
7	 Knives Out NetEase	7	 Puzzle & Dragons GungHo	-1		7	 Lineage2M NCSOFT
8	 QQ Speed Tencent	8	 Perfect World Tencent	NEW		8	 Fantasy WW Journey NetEase
9	 Lineage2 Revolution Netmarble	9	 Knives Out NetEase	-2		9	 Knives Out NetEase
10	 DBZ Dokkan Battle Bandai Namco	10	 DBZ Dokkan Battle Bandai Namco	-		10	 AFK Arena Lilith Games

# Japan's Game Revenue Surpassed \$5 Billion in Q1 2021

*Top Asian countries by mobile game revenue, App Store and Google Play*



Four of the top five countries globally by mobile game revenue are in Asia, with the U.S. as the only exception. Japan surpassed \$5 billion in Q1 2021, followed by China at \$3.9 billion and South Korea at \$1.5 billion.

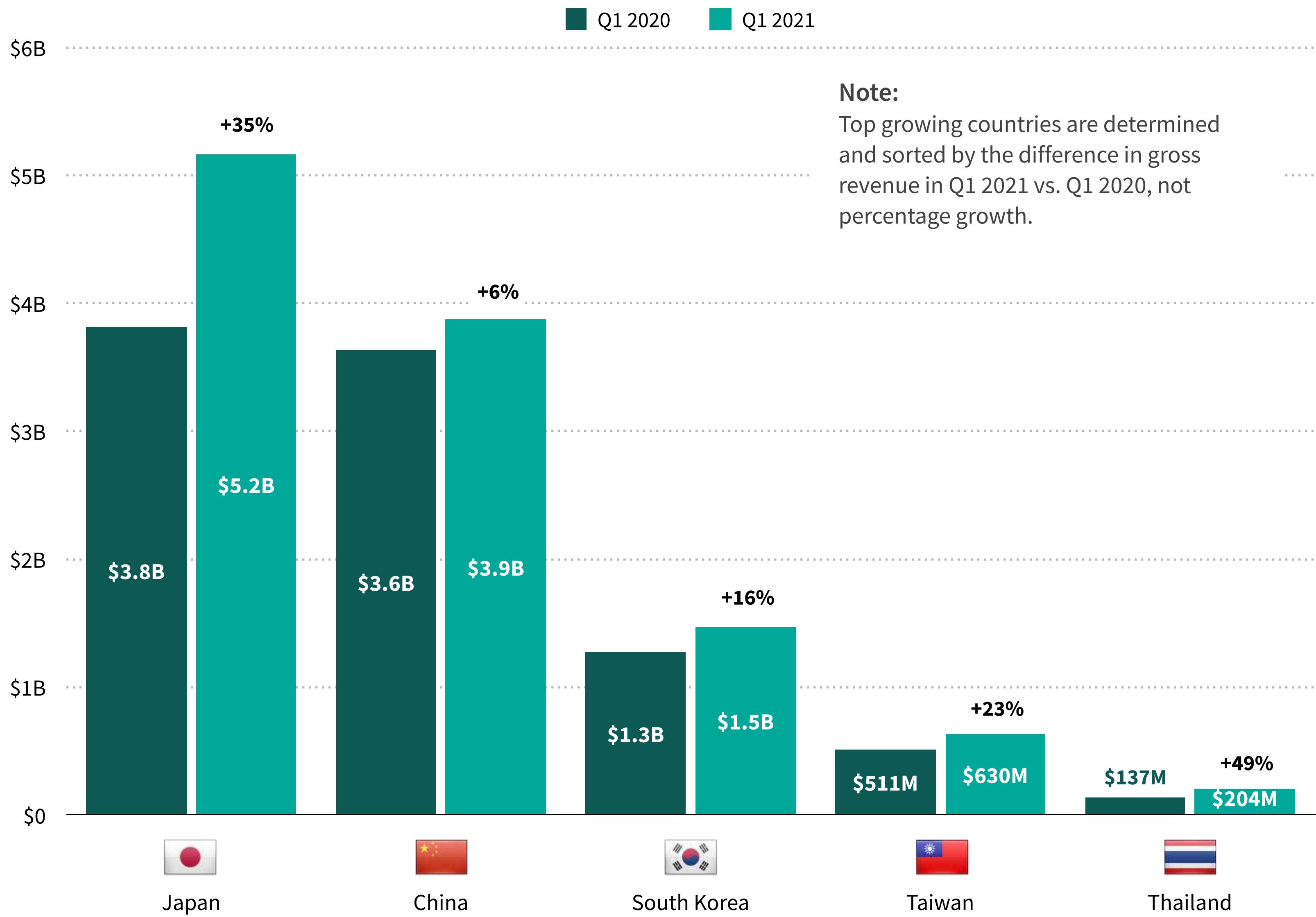
While China's mobile game adoption has decreased in recent years, revenue has continued to grow. Note that China's revenue also only includes the App Store, as Google Play is not available in the country.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google). China numbers only include the App Store as Google Play is not available there.

# Japan Saw 35 Percent Y/Y Revenue Growth in Q1 2021

*Top Asian countries by Y/Y game revenue growth in Q1 2021, App Store and Google Play*



**Note:**

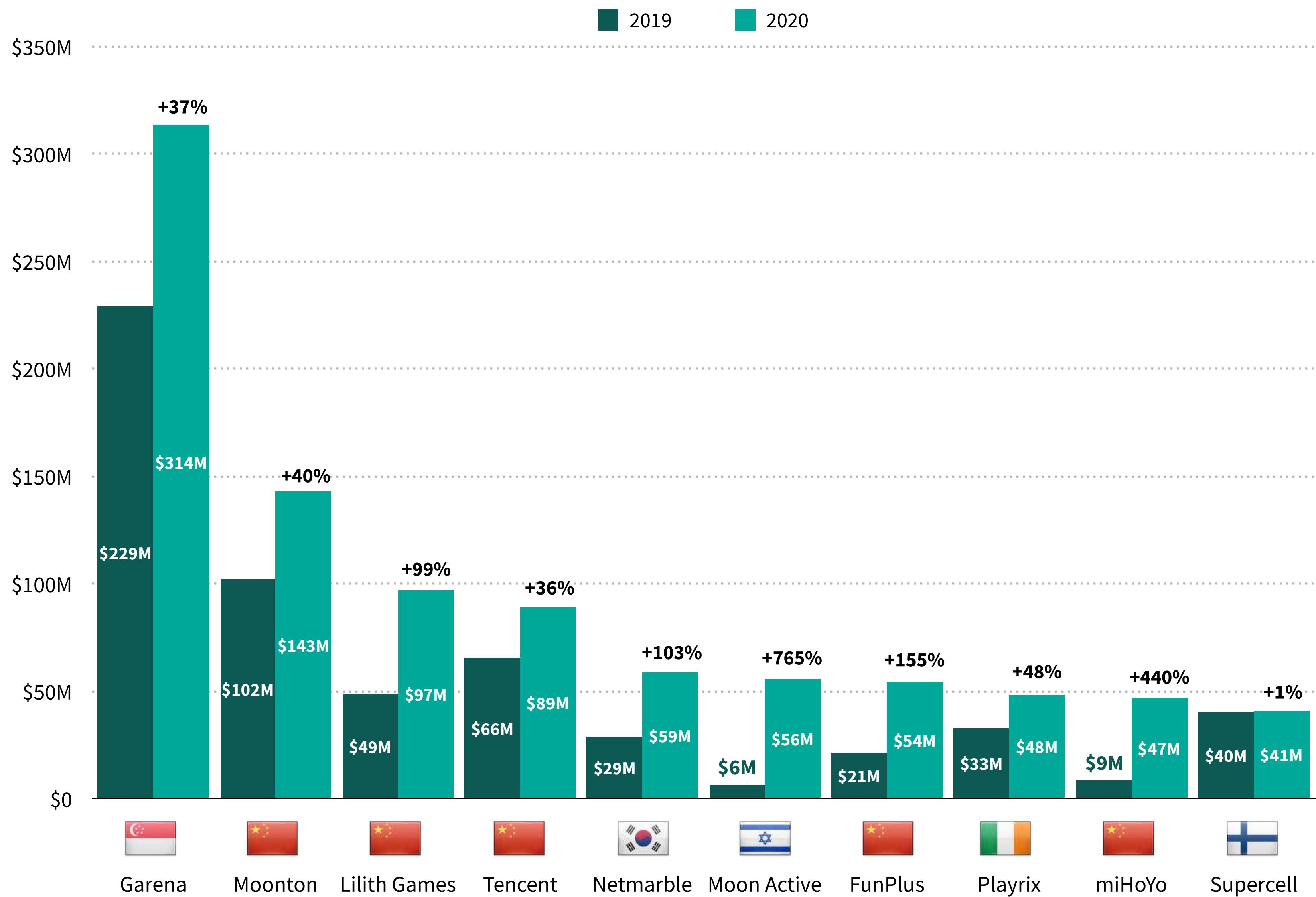
Top growing countries are determined and sorted by the difference in gross revenue in Q1 2021 vs. Q1 2020, not percentage growth.

Japan's game revenue increased by more than \$1.3 billion in Q1 2021 vs. Q1 2020, an increase of 35 percent. China, the No. 2 country by growth, was well behind with year-over-year growth of \$236 million.

Thailand was the No. 5 country in Asia by growth, with user spending up nearly 50 percent Y/Y. Spending surpassed \$200 million in the country for the first time, more than double the total from just two years prior in Q1 2019.

# Half of the Top SEA Publishers are Based in China

*Top games publishers by SEA revenue in 2020 on the App Store and Google Play*



Singapore-based Garena remained the dominant publisher in Southeast Asia (SEA) with more than double the revenue of the next closest publisher (Moonton). It had strong revenue growth at 37 percent year-over-year.

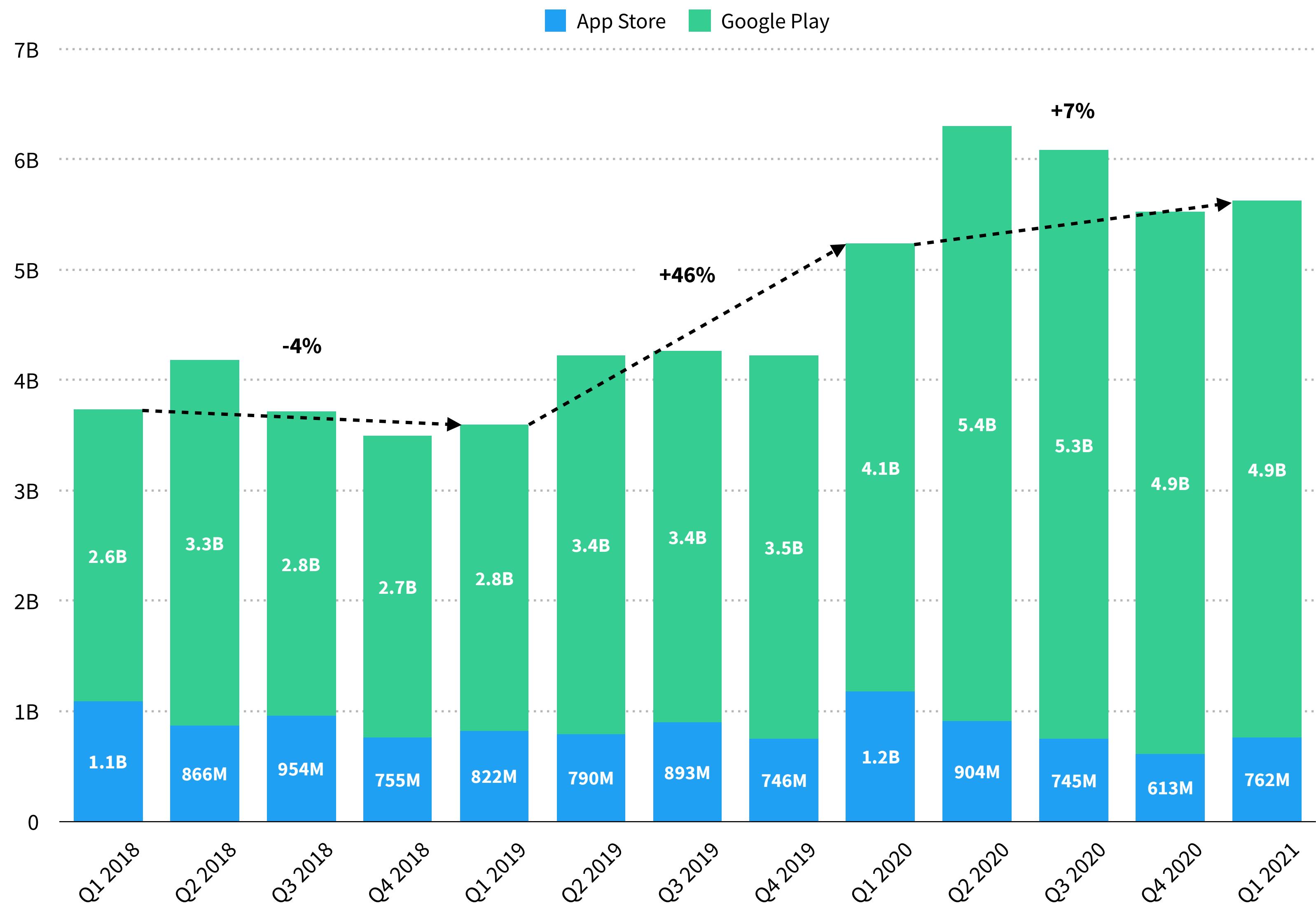
China represented half of the top 10 publishers by revenue in SEA in 2020. Interestingly, half of the top 10 publishers in SEA were also among the top 10 in Europe: Tencent, Moon Active, FunPlus, Playrix, and Supercell.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

# Asia's Mobile Game Adoption Surged in 2020

Asia's quarterly downloads from mobile games on the App Store and Google Play

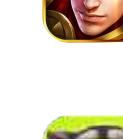
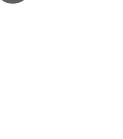
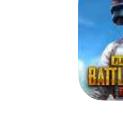
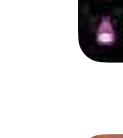
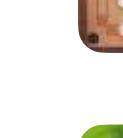


Quarterly mobile game downloads in Asia surpassed 5 billion for the first time in Q1 2020, and then climbed to 6.3 billion in Q2 2020. Although installs dropped off a bit from this peak, they still surpassed 5.5 billion for each of the next three quarters.

The vast majority of game installs in Asia came from Google Play, driven largely by countries like India and Indonesia where Android phones are much more popular than iPhones. About 86 percent of the downloads in Q1 2021 were from Google Play, up from 71 percent in Q1 2018.

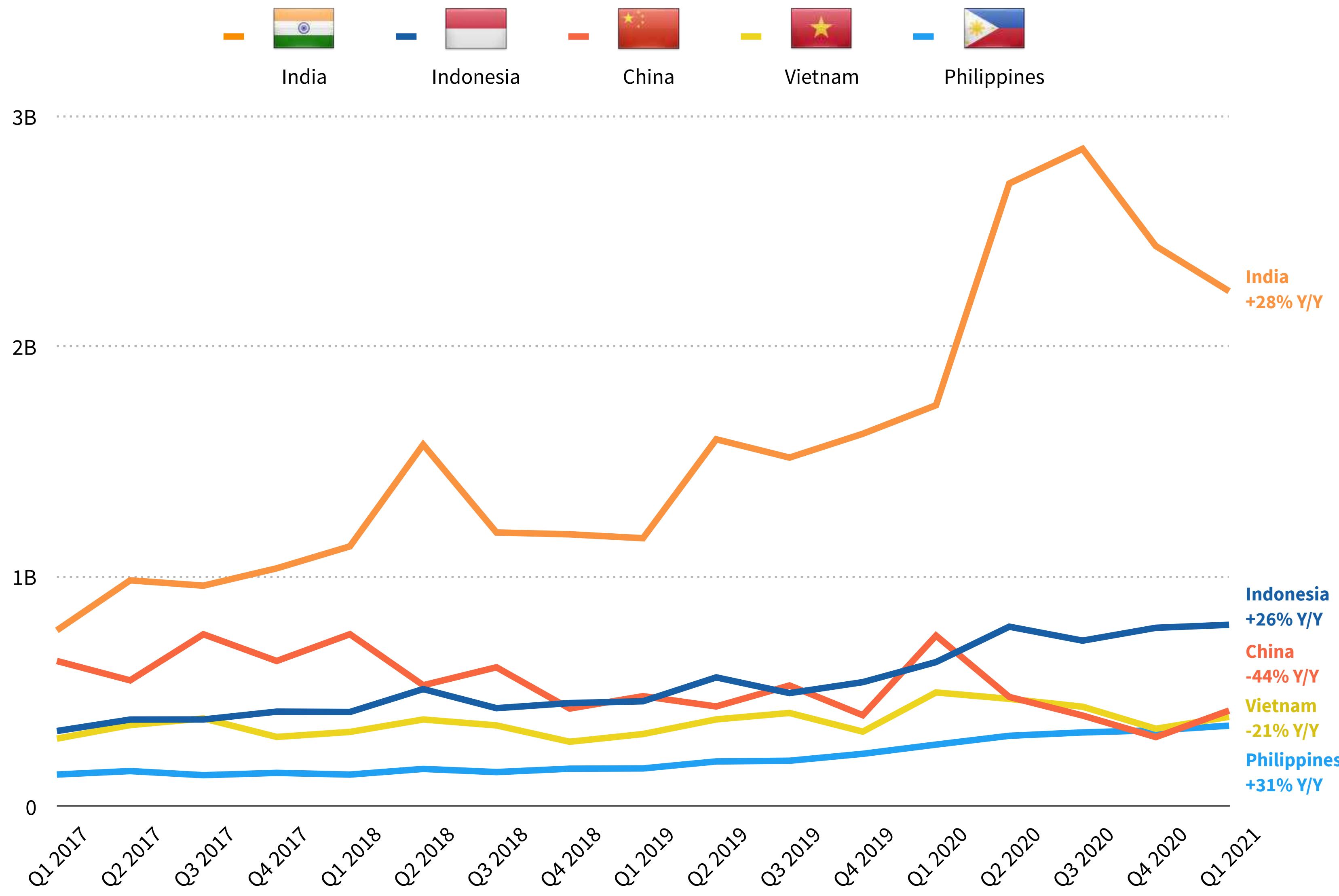
# Top Battle Royale Games Were Popular in Asia

*Top mobile games by Asia downloads on the App Store and Google Play*

		2018		2019		2020		1Q21	
1		PUBG Mobile	Tencent	1		PUBG Mobile	Gametion	-	
2		Ludo King	Gametion	2		Garena Free Fire	Garena	+3	
3		Subway Surfers	Sybo Games	3		Ludo King	Gametion	-1	
4		Helix Jump	Voodoo	4		Subway Surfers	Sybo Games	-1	
5		Garena Free Fire	Garena	5		Mobile Legends: Bang Bang	Moonton	+1	
6		Mobile Legends: Bang Bang	Moonton	6		Fun Race 3D	Good Job Games	NEW	
7		Temple Run 2	Imangi Studios	7		My Talking Tom 2	Outfit7	NEW	
8		Candy Crush Saga	King	8		Temple Run 2	Imangi Studios	-1	
9		Honor of Kings	Tencent	9		Carrom Pool	Miniclip	NEW	
10		My Talking Tom	Outfit7	10		Candy Crush Saga	King	-2	
1		Ludo King	Gametion	+2					
2		Garena Free Fire	Garena	-					
3		PUBG Mobile	Tencent	-2					
4		Hunter Assassin	Ruby Games	NEW					
5		Subway Surfers	Sybo Games	-1					
6		Brain Out	Focus Apps	NEW					
7		Worms Zone.io	Azur Interactive	NEW					
8		Carrom Pool	Miniclip	+1					
9		Gardenscapes	Playrix	NEW					
10		Among Us	InnerSloth	NEW					
1		Join Clash 3D	Supersonic Studios	NEW					
2		Ludo King	Gametion	-1					
3		Garena Free Fire	Garena	-1					
4		Bubble Shooter	Miniclip	NEW					
5		Subway Princess Runner	Ivy	NEW					
6		Subway Surfers	Sybo Games	-1					
7		Worms Zone.io	Azur Interactive	-					
8		Candy Crush Saga	King	+4					
9		Phone Case DIY	Crazy Labs	NEW					
10		PUBG Mobile	Tencent	-7					

# India's Game Installs Dwarfed All Other Markets

*Top Asian countries by mobile game downloads, App Store and Google Play*



**India is the largest mobile games market by downloads in the world.** It has seen rapid growth since the start of 2019, climbing from 1.2 billion in Q1 2019 to nearly 2.9 billion in Q3 2020.

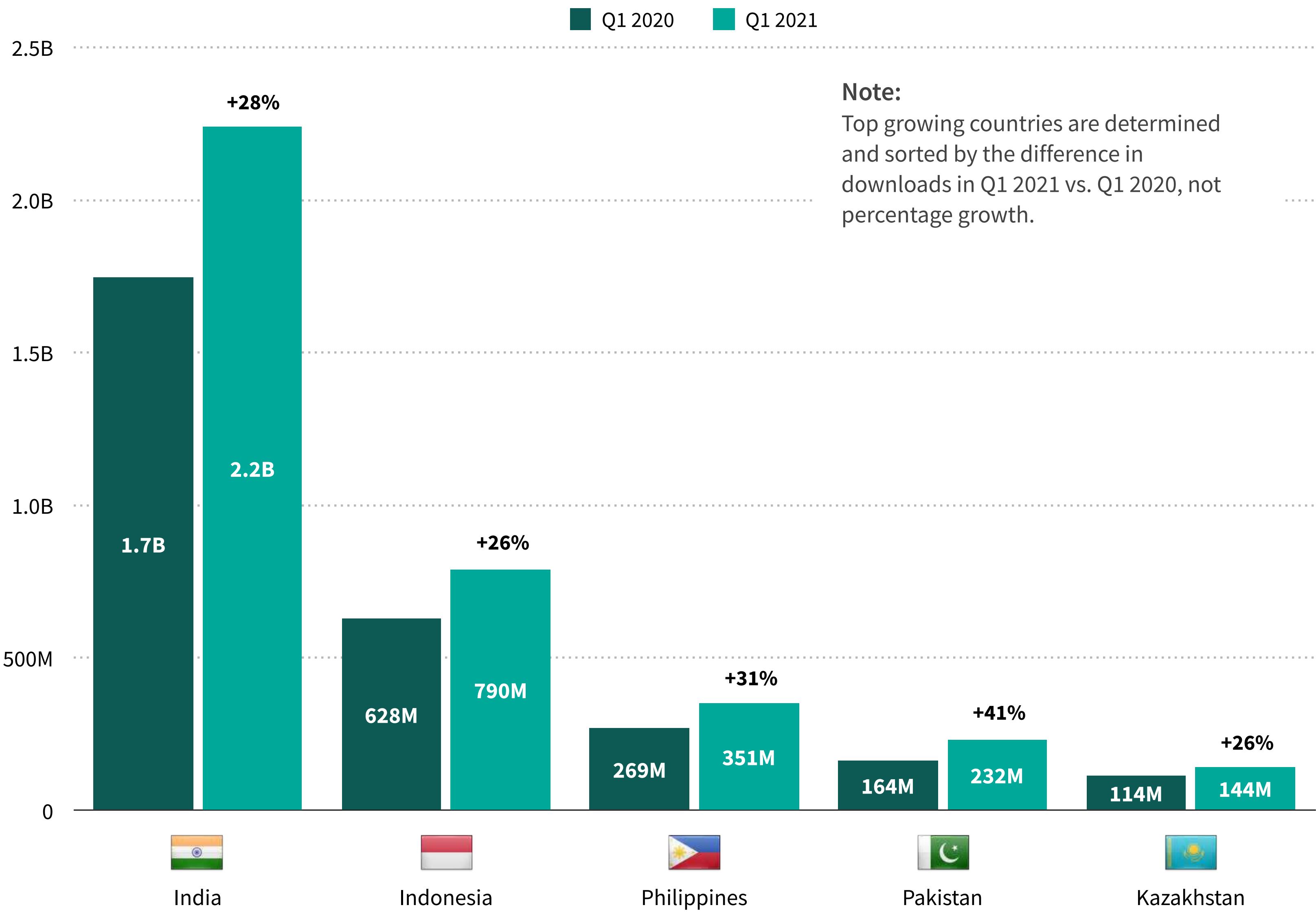
Indonesia has also experienced strong growth of 26 percent year-over-year in Q1 2021. China's installs have declined since 2017, with a surge at the start of COVID-19 in Q1 2020 as an exception. However, China's mobile game user spending has continued to climb despite its decline in adoption.

**Note:**

China numbers only include the App Store as Google Play is not available there.

# India and Indonesia Top Install Growth in Asia

Top Asian countries by Y/Y game download growth in Q1 2021, App Store and Google Play



**Note:**

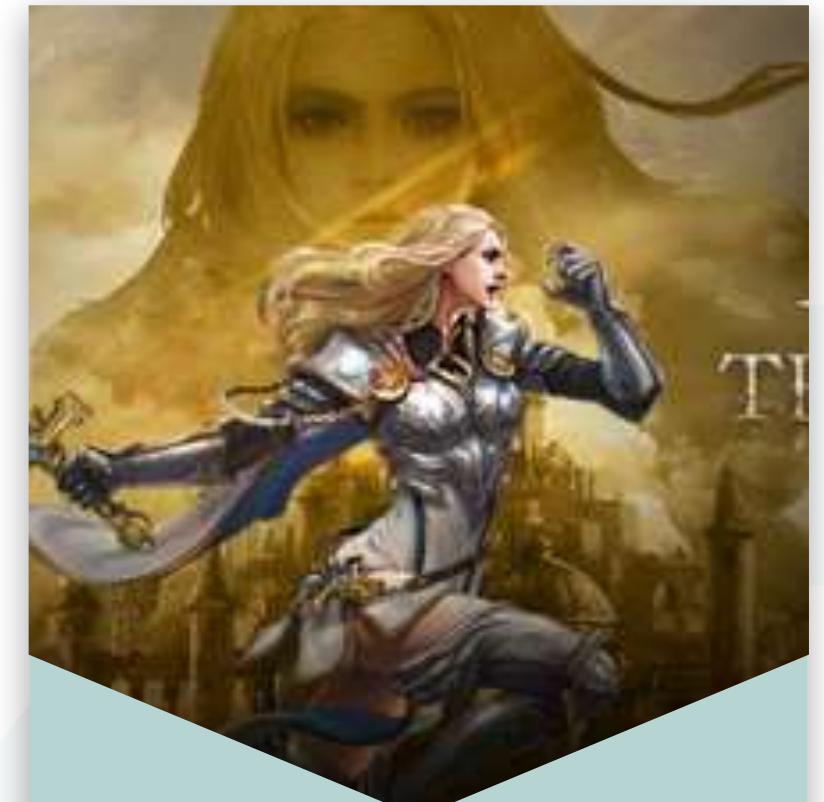
Top growing countries are determined and sorted by the difference in downloads in Q1 2021 vs. Q1 2020, not percentage growth.

Mobile game installs in India have grown by roughly half a billion year-over-year in Q1 2021. Indonesia was the only other country with growth of more than 100 million downloads.

Pakistan, the No. 7 country in Asia by downloads in Q1 2021, was No. 4 by Y/Y growth that quarter. Kazakhstan, the 10th largest market in Asia by downloads, was another notable country with strong Y/Y growth.

# Key Takeaways: Asia

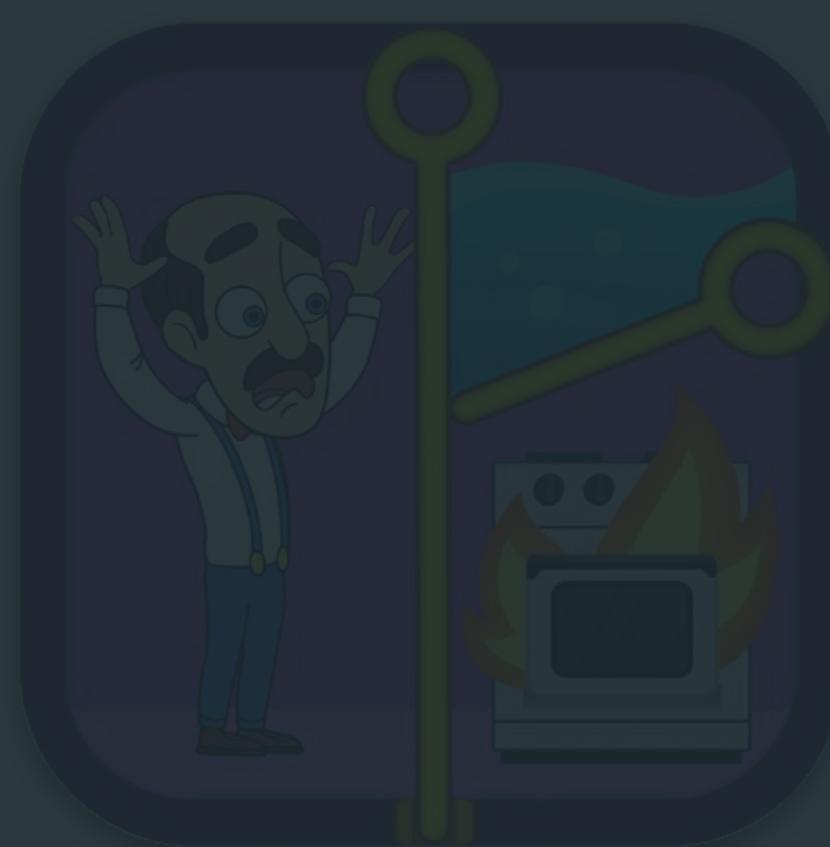
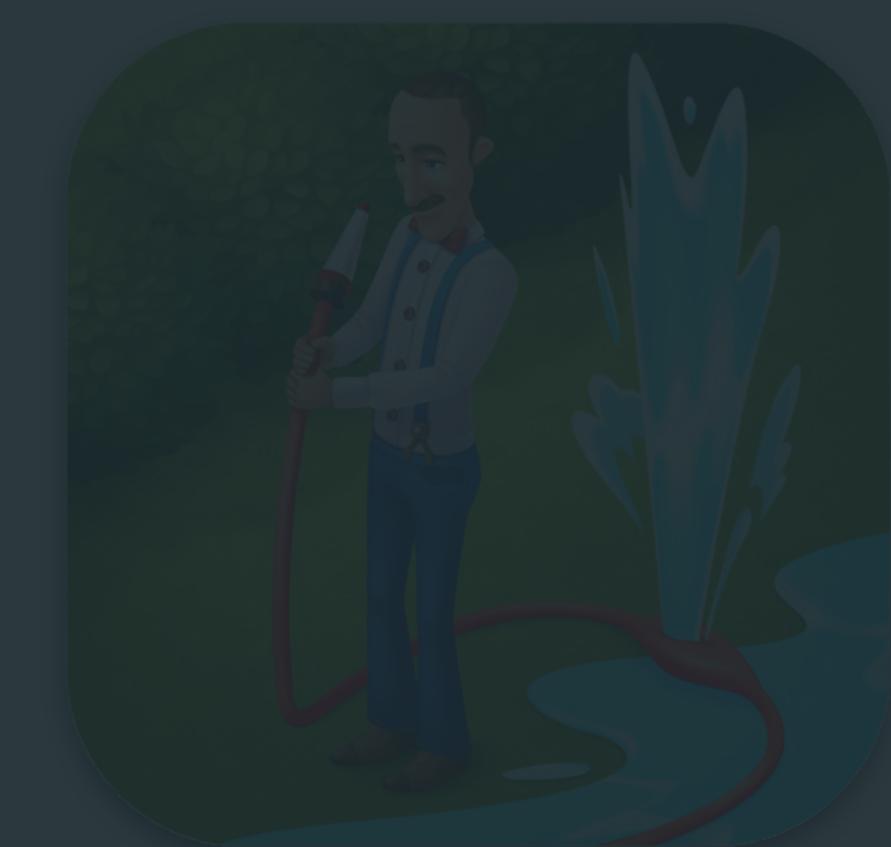
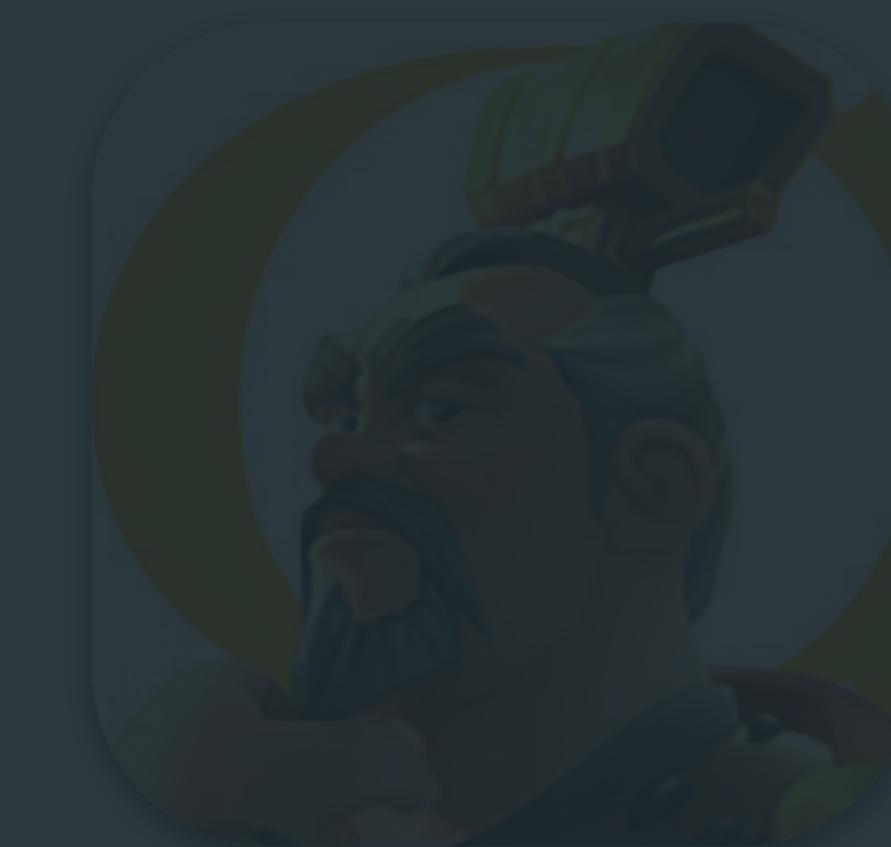
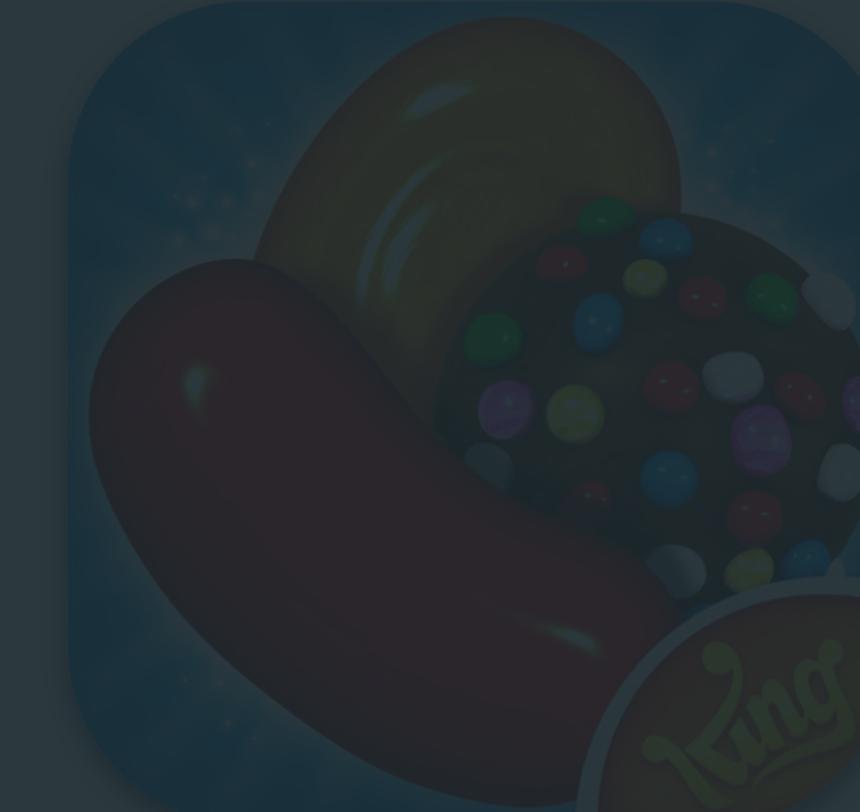
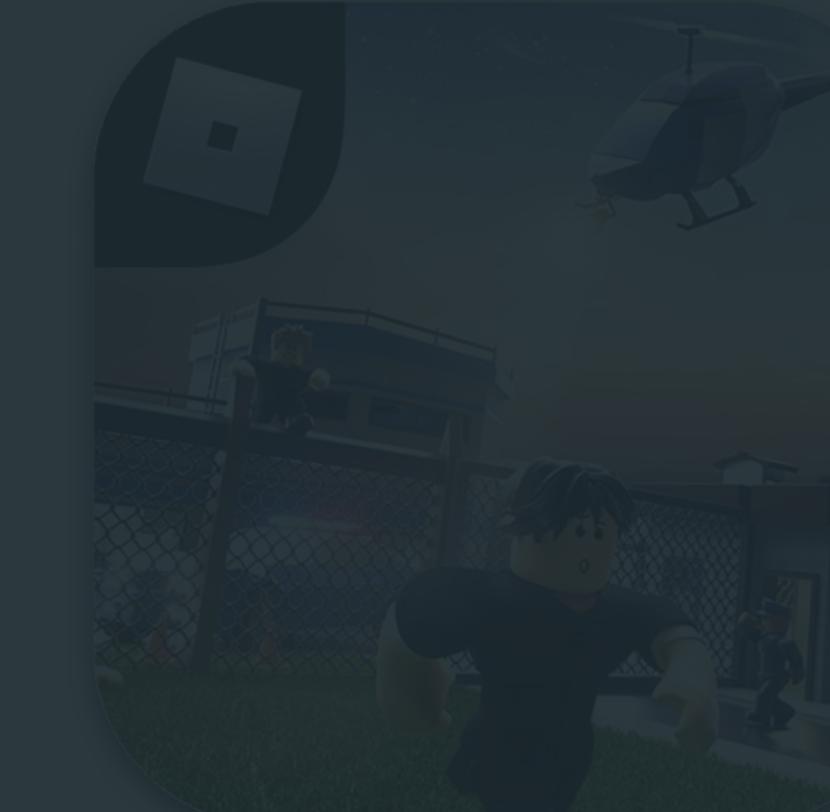
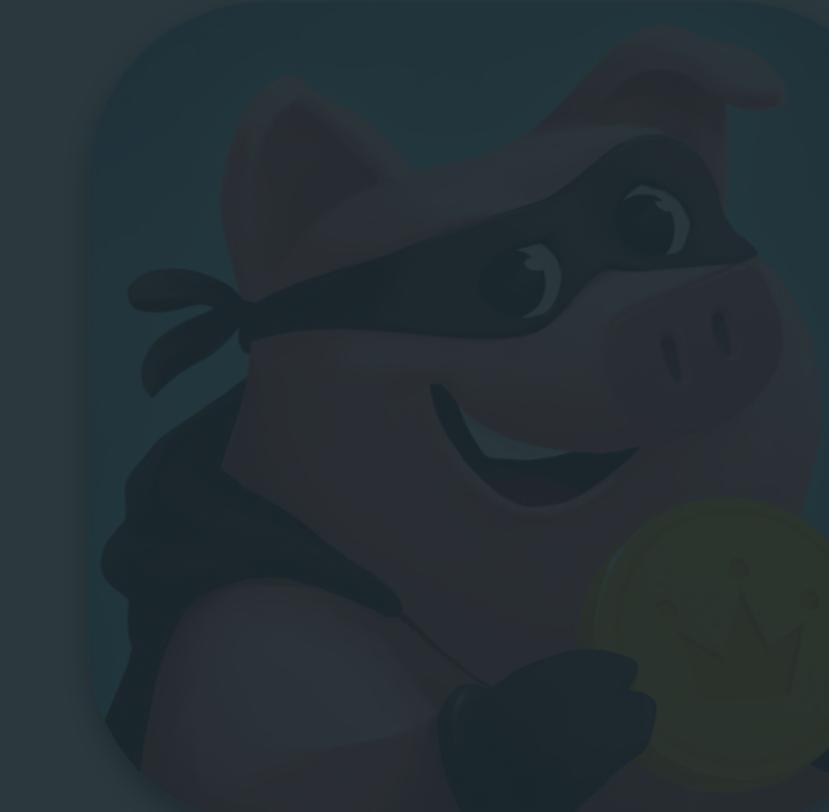
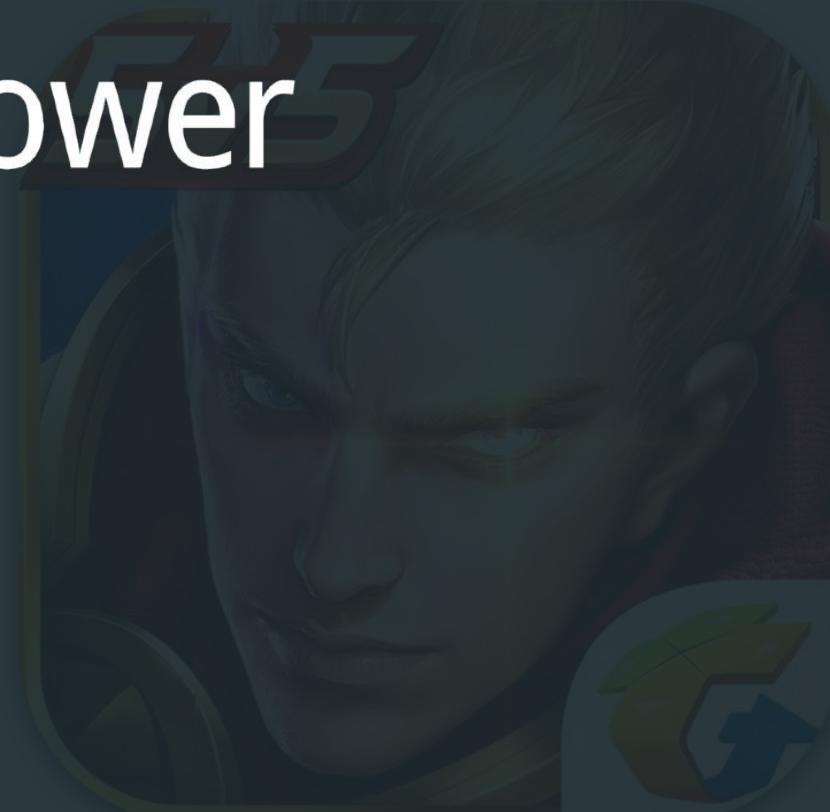
- 1. Asia is the top region for mobile games.** Mobile game consumer spending surpassed \$12 billion there for the first time in Q1 2021, an increase of 21 percent year-over-year. Asia's mobile game revenue growth accelerated during COVID-19, similar to the pattern seen in other regions.
- 2. Four of the top five countries by mobile game revenue are in Asia, including Japan, China, and South Korea.** Japan has seen particularly strong growth in recent quarters, as its revenue has climbed 35 percent Y/Y in Q1 2021.
- 3. India is the primary driver of mobile game download trends in Asia, reaching nearly 3 billion installs in Q3 2020.** Some other countries including Indonesia, Philippines, and Pakistan have also seen really strong download growth.





SensorTower

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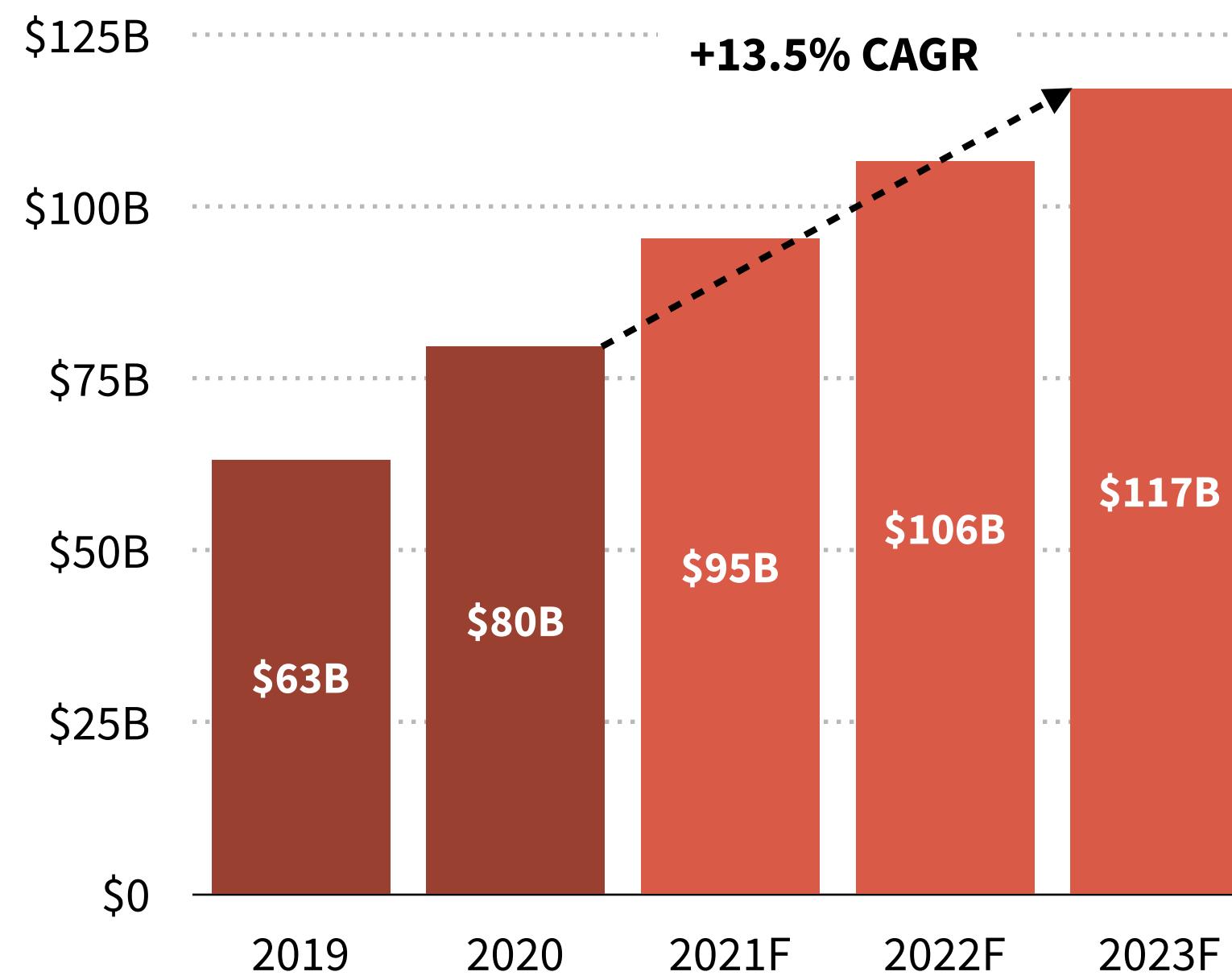
# Market Forecast:

—  
3-Year Revenue and Download Forecast

# Consumer Spending in Mobile Games Will Reach \$117 Billion by 2023

*Three-year consumer spending forecast for the Games category on the App Store and Google Play*

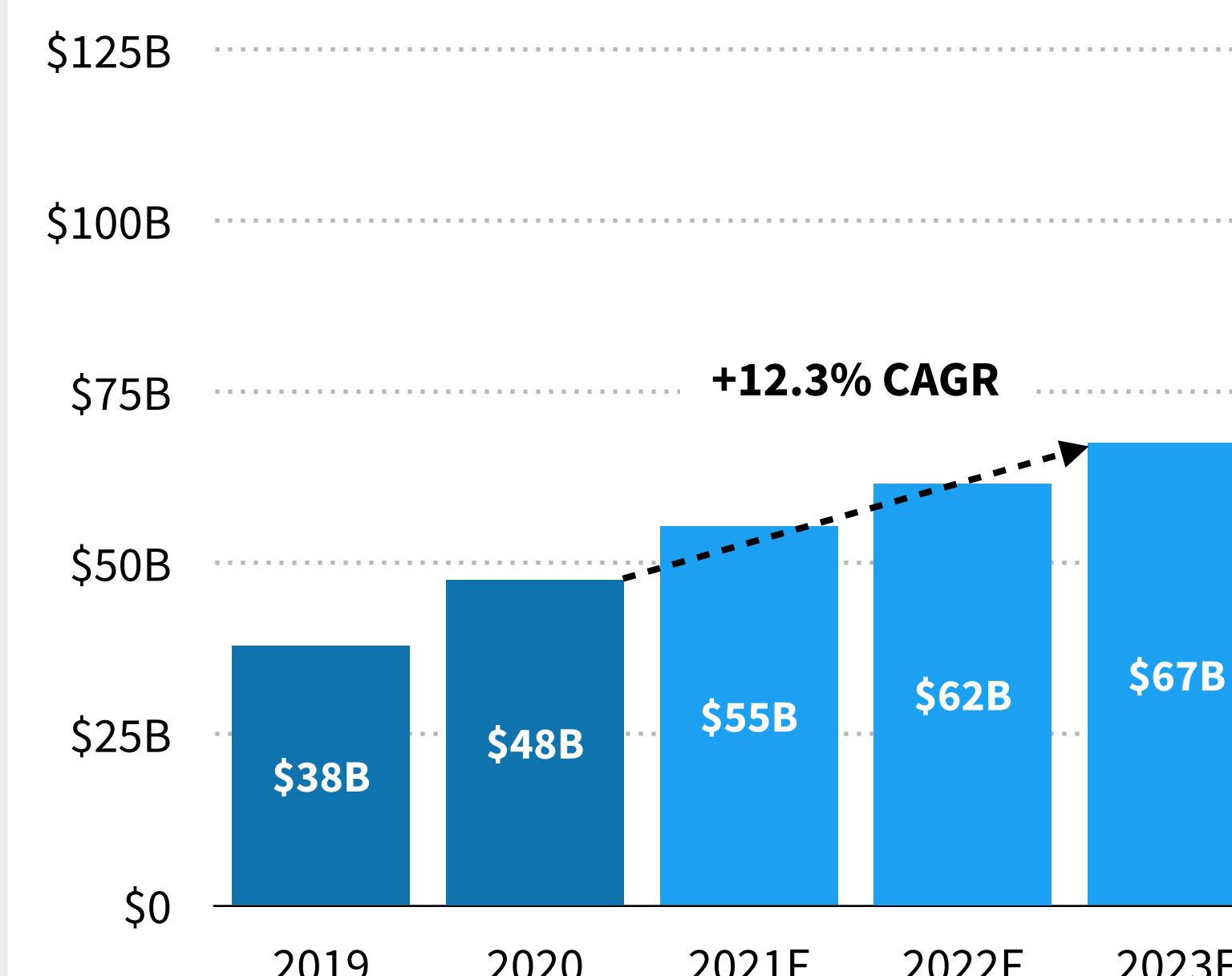
**Worldwide App Store and Google Play Spending**



**\$117 Billion**

App Store + Google Play Revenue  
By 2023

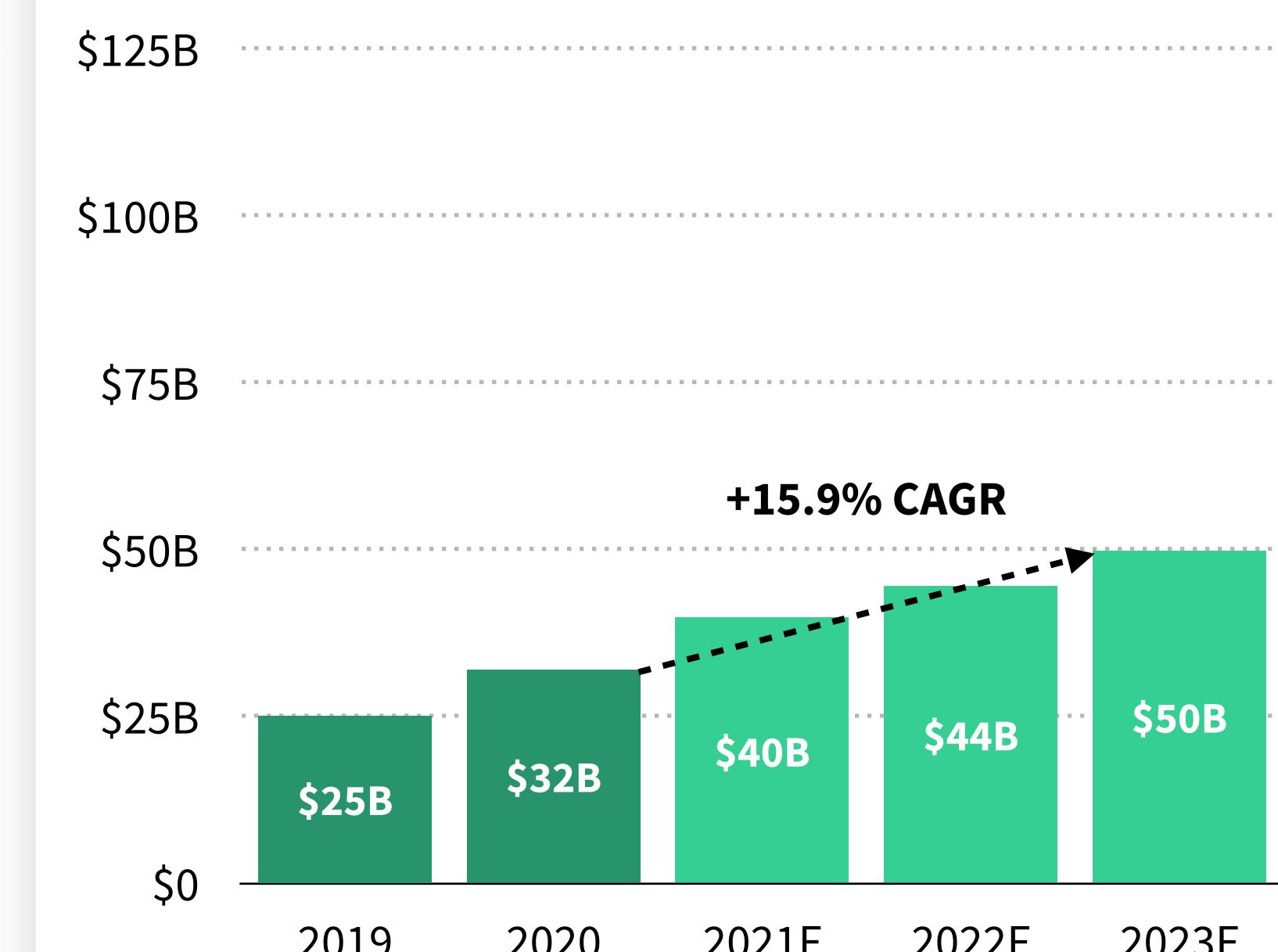
**Worldwide App Store Spending**



**\$67 Billion**

App Store Revenue  
By 2023

**Worldwide Google Play Spending**



**\$50 Billion**

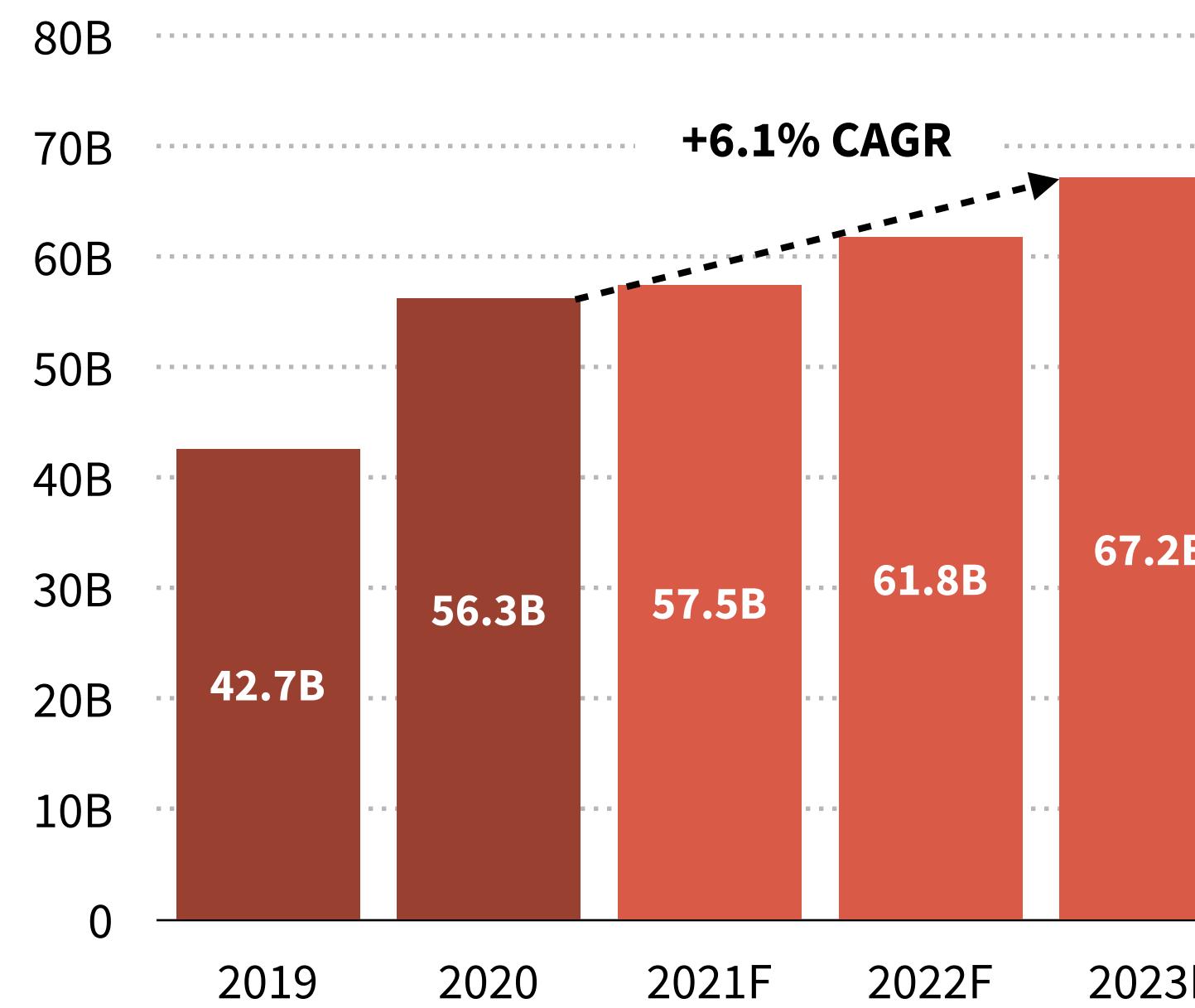
Google Play Revenue  
By 2023

Note: Revenue figures are gross revenue (including the cut taken by Apple or Google).

# Mobile Game Installs are Projected to Rise Steadily to 67.2 Billion by 2023

*Three-year download forecast for the Games category on the App Store and Google Play*

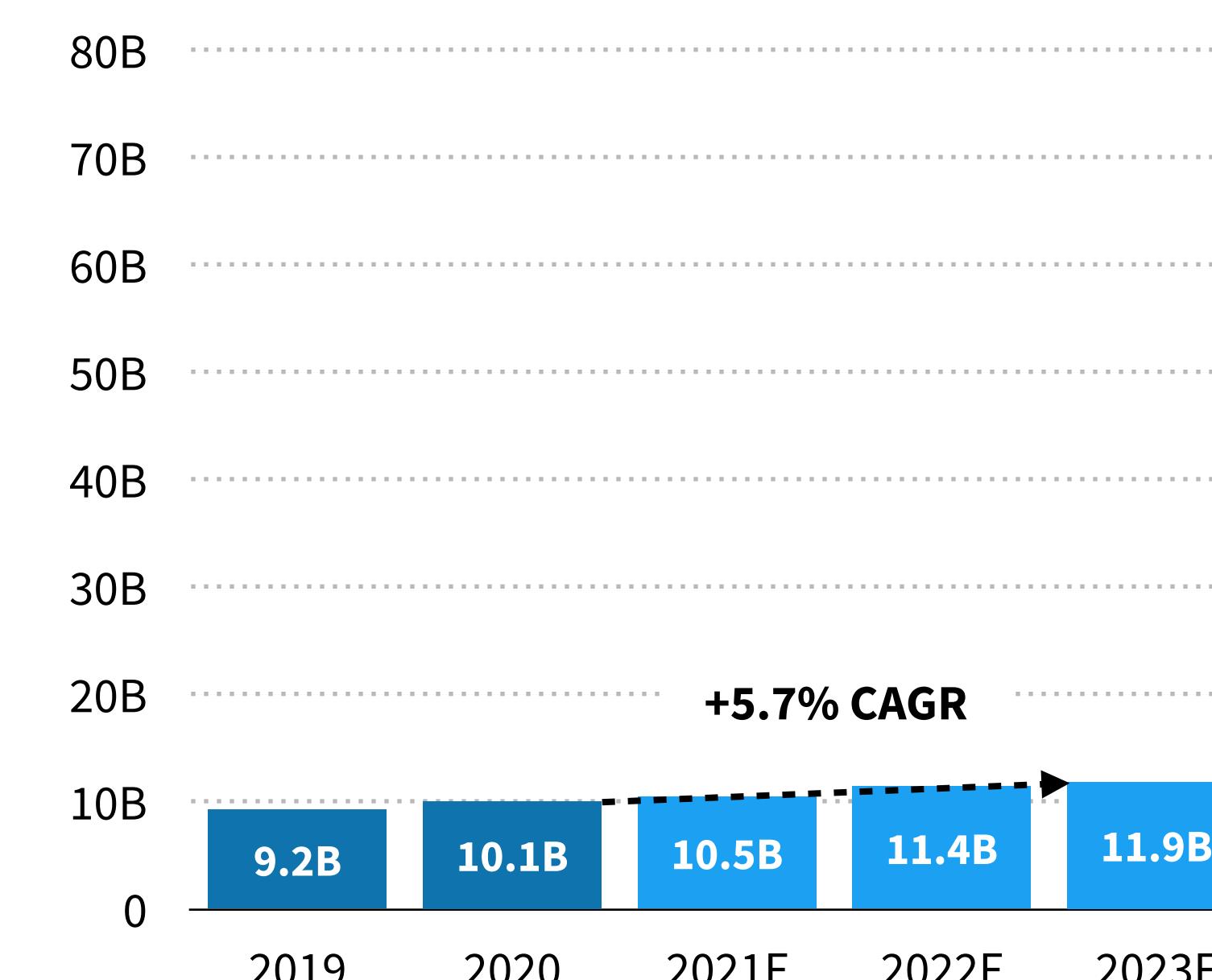
Worldwide App Store and  
Google Play Downloads



**67.2 Billion**

App Store + Google Play Downloads  
By 2023

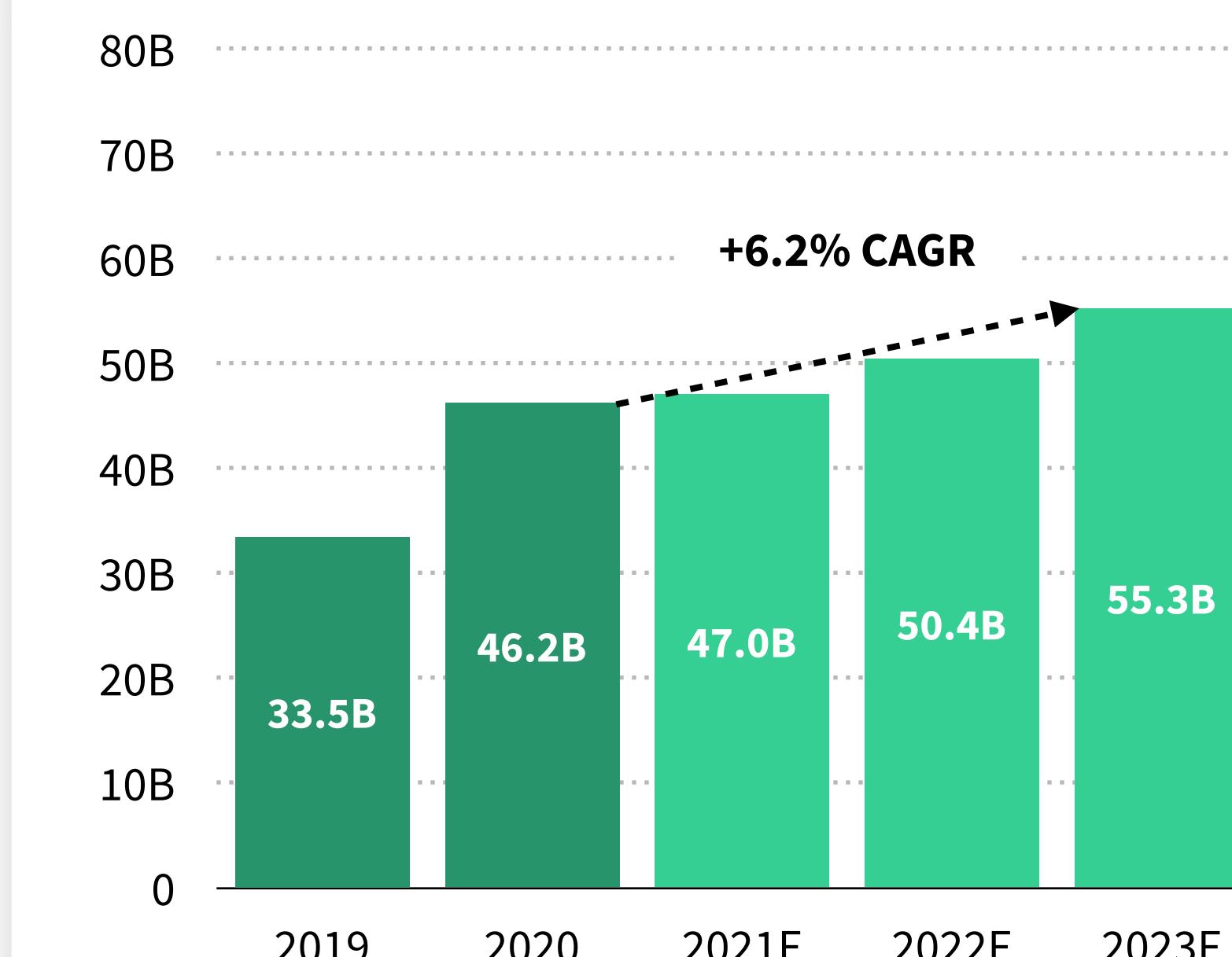
Worldwide App Store  
Downloads



**11.9 Billion**

App Store Downloads  
By 2023

Worldwide Google Play  
Downloads

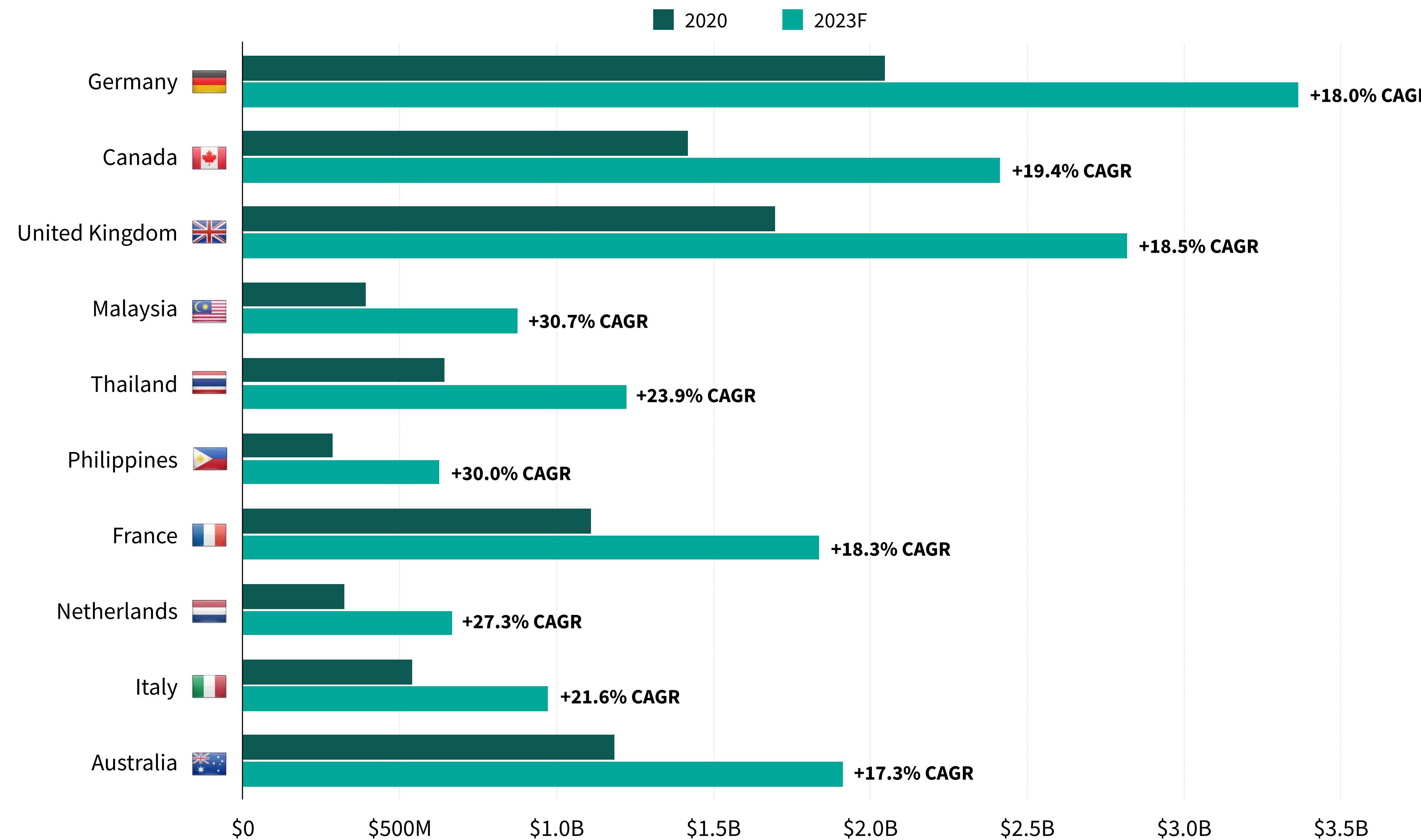


**55.3 Billion**

Google Play Downloads  
By 2023

# European and Asian Markets Projected for Strong Growth

*Top 10 countries by projected market share growth between 2020 - 2023*



Germany is projected to gain the most market share for mobile game revenue by 2023 with annual growth of 18 percent. Four other European countries will join Germany among the top 10, including the U.K., France, Netherlands, and Italy.

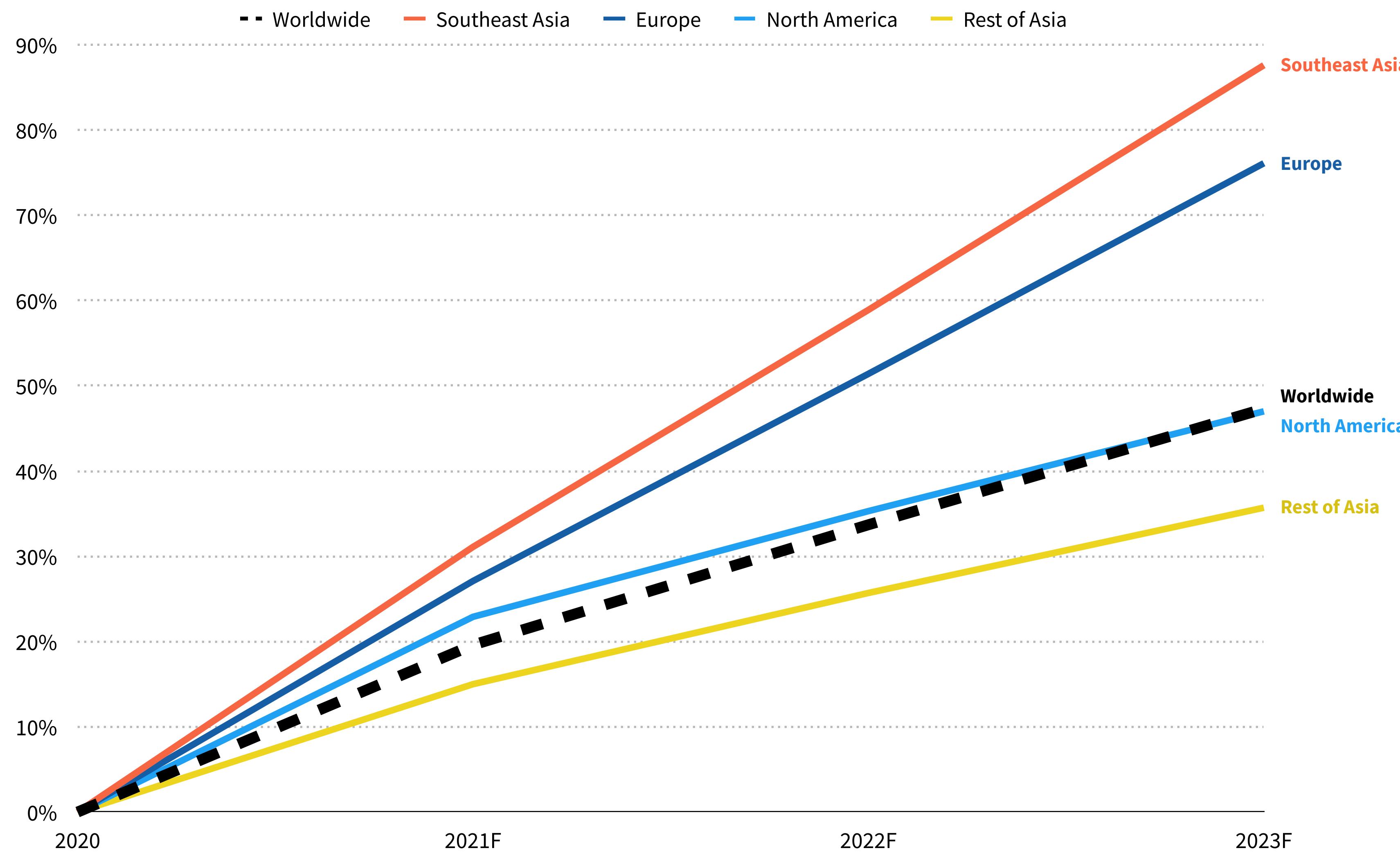
Southeast Asia has three countries among the top 10 by market share growth. Malaysia and Philippines are projected for a compound annual growth rate (CAGR) of 30 percent or higher, while Thailand is projected for a CAGR of 24 percent.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

# Southeast Asia Game Revenue to Rise 90% by 2023

*Revenue growth by region, App Store and Google Play*

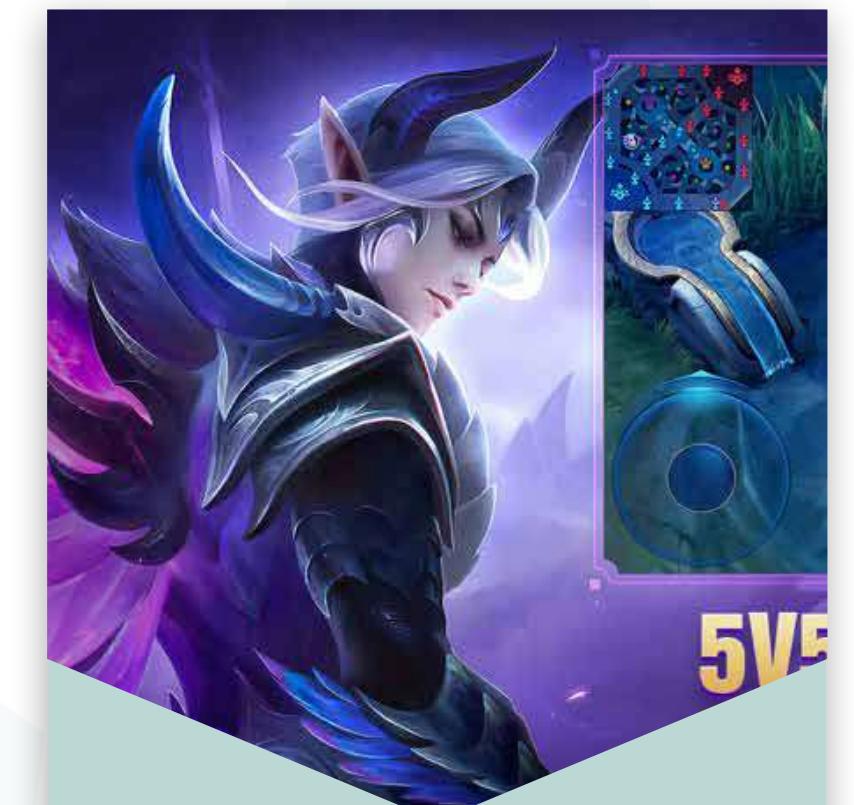
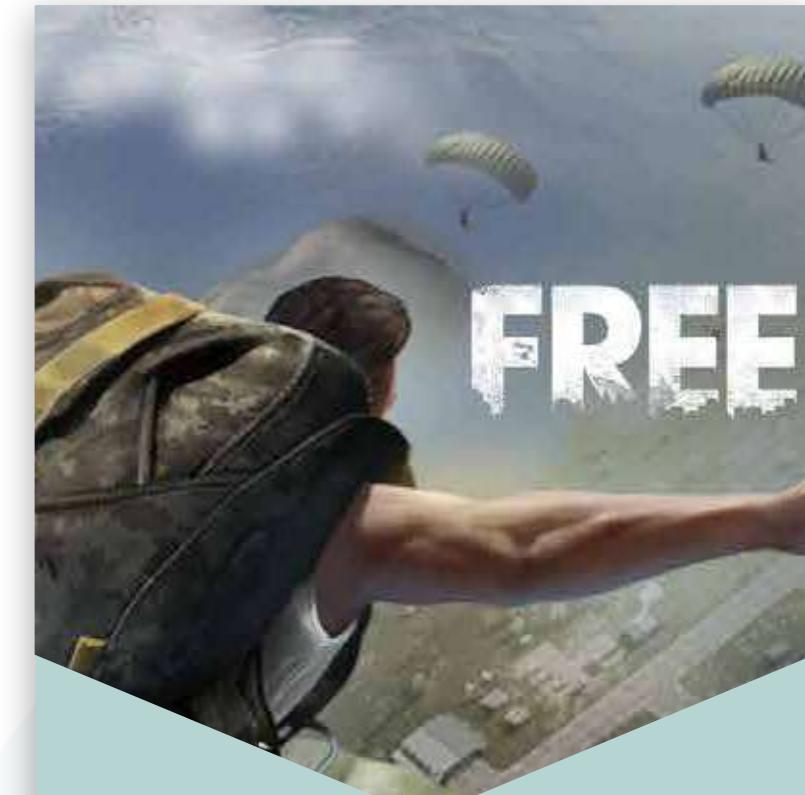


When looking at projected mobile game revenue growth by region, Southeast Asia and Europe are expected to far exceed the worldwide rate. Southeast Asia revenue will grow by 88 percent between 2020 and 2023, while Europe is projected for 76 percent growth over the same period.

North America revenue growth will be similar to the worldwide rate. Meanwhile, slower growth in mature gaming markets like China and Japan will result in a slightly lower growth rate in the rest of Asia (excluding Southeast Asia).

# Key Takeaways: Market Forecast

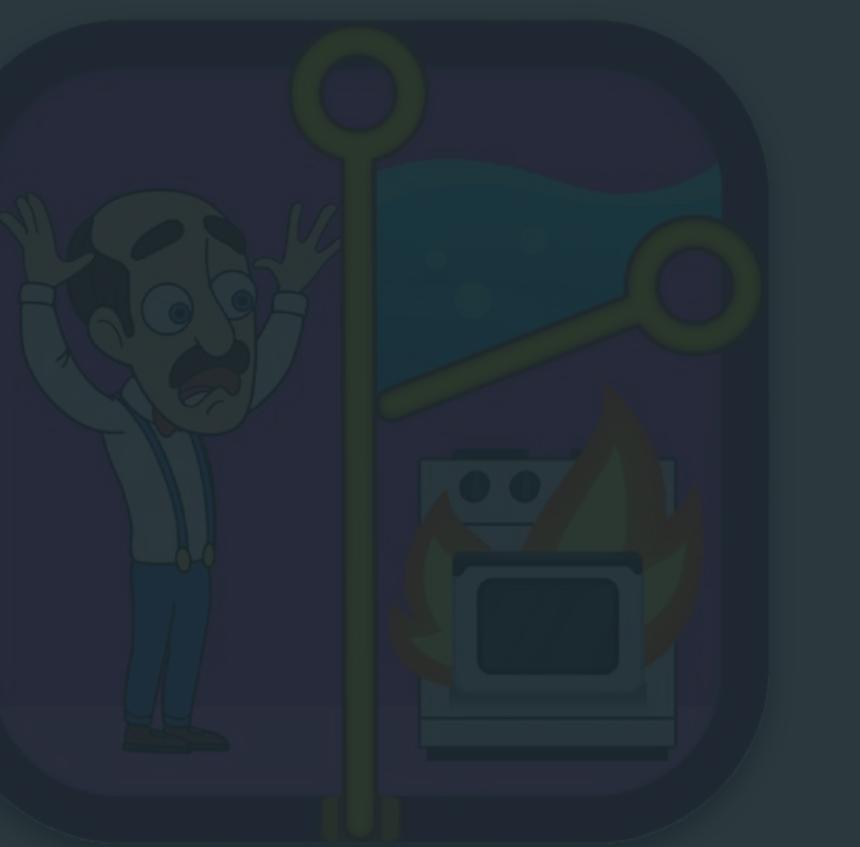
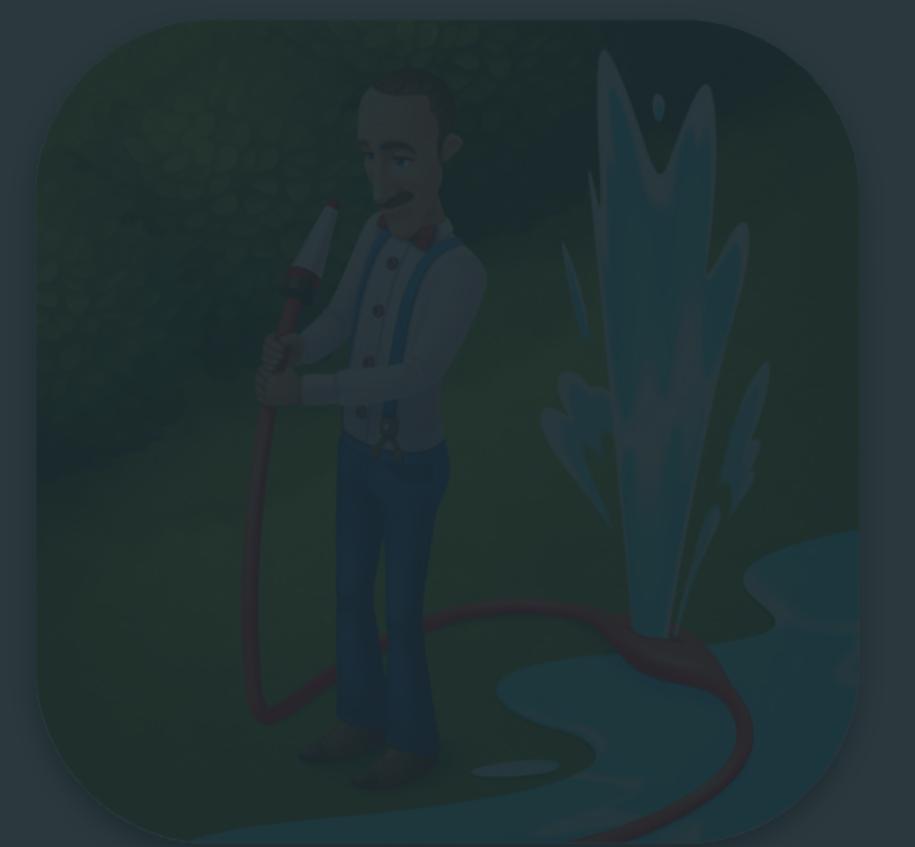
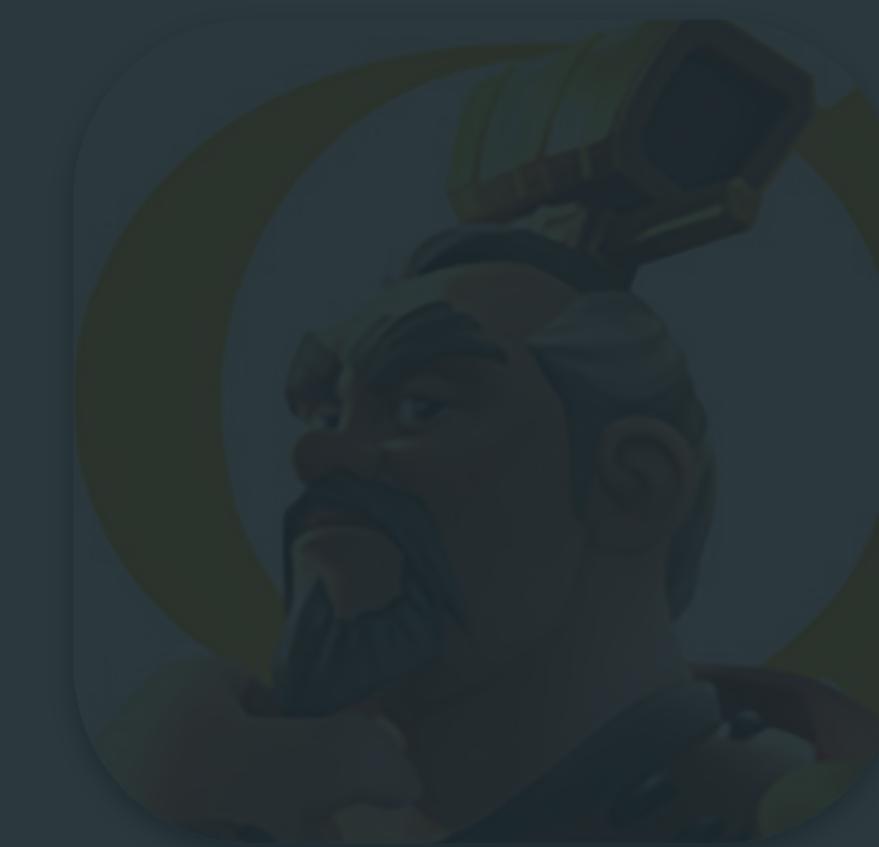
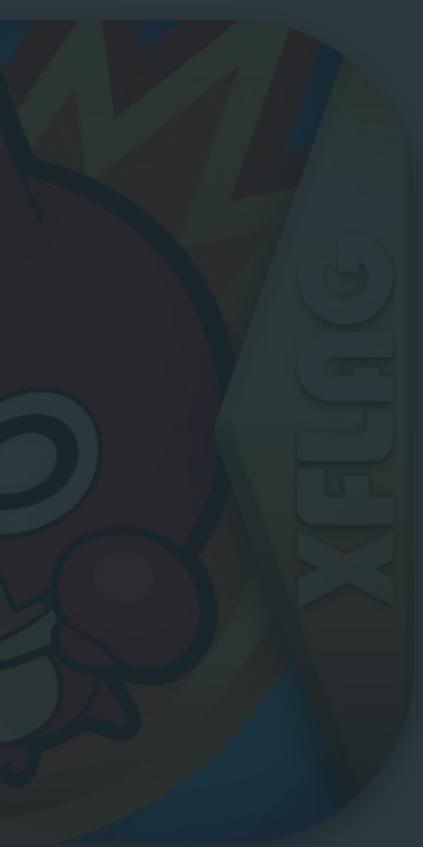
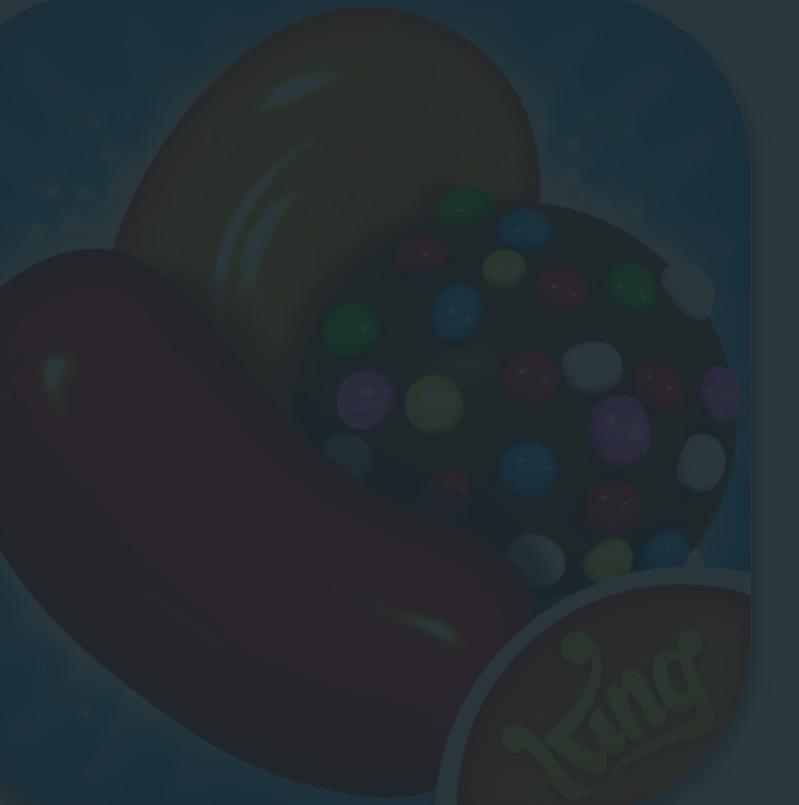
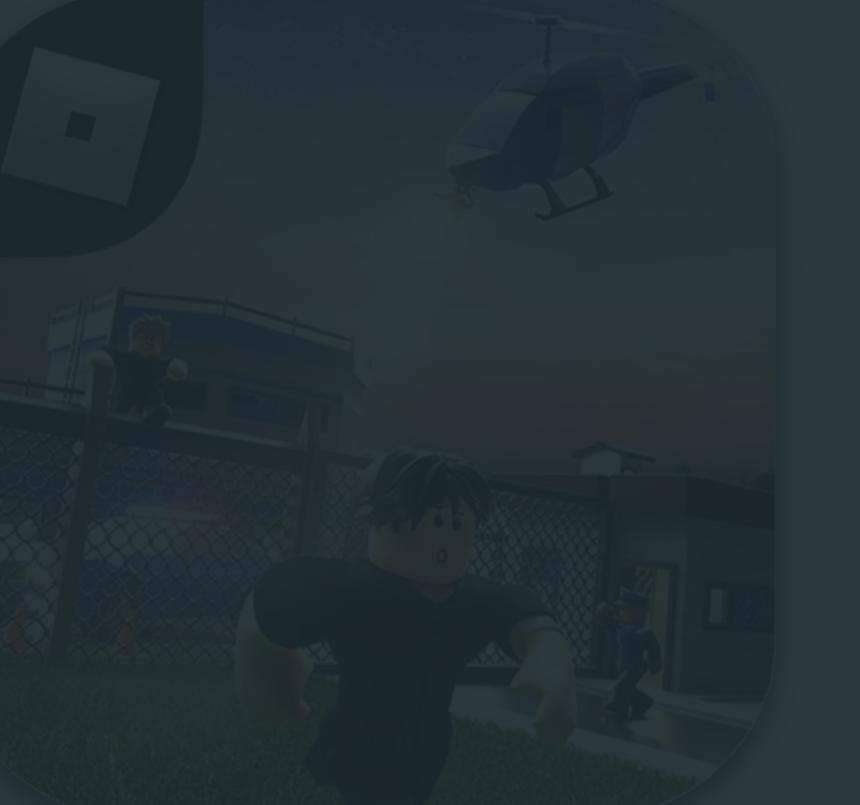
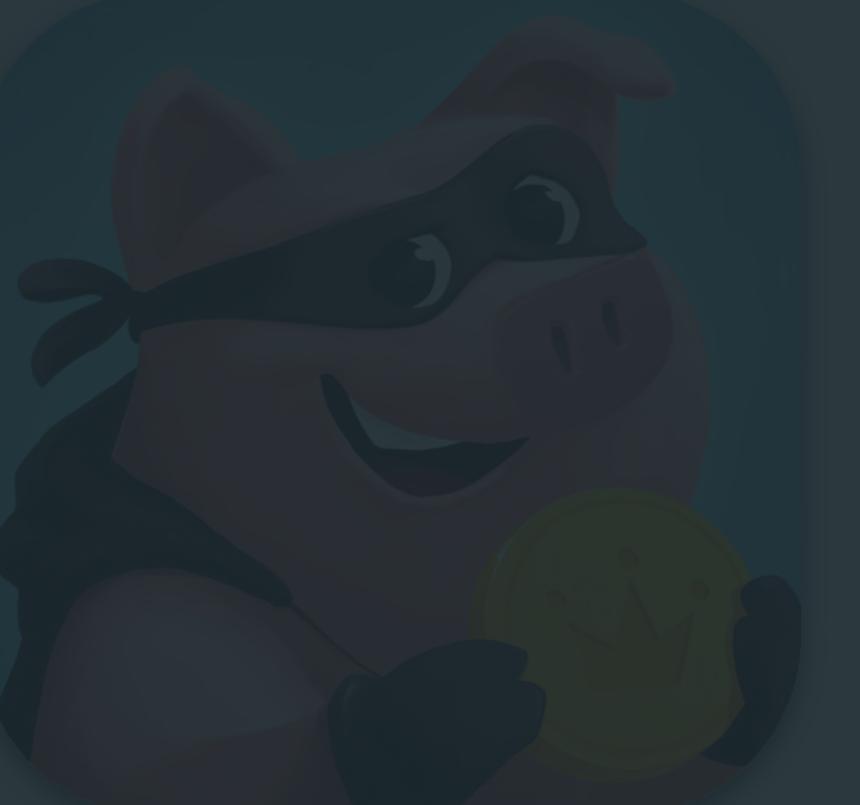
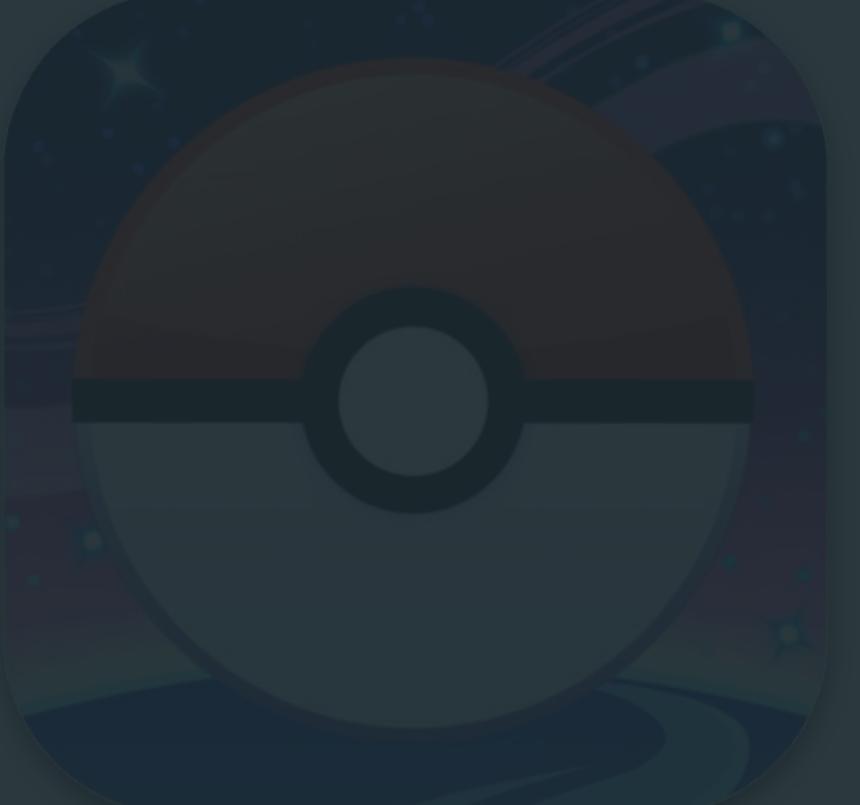
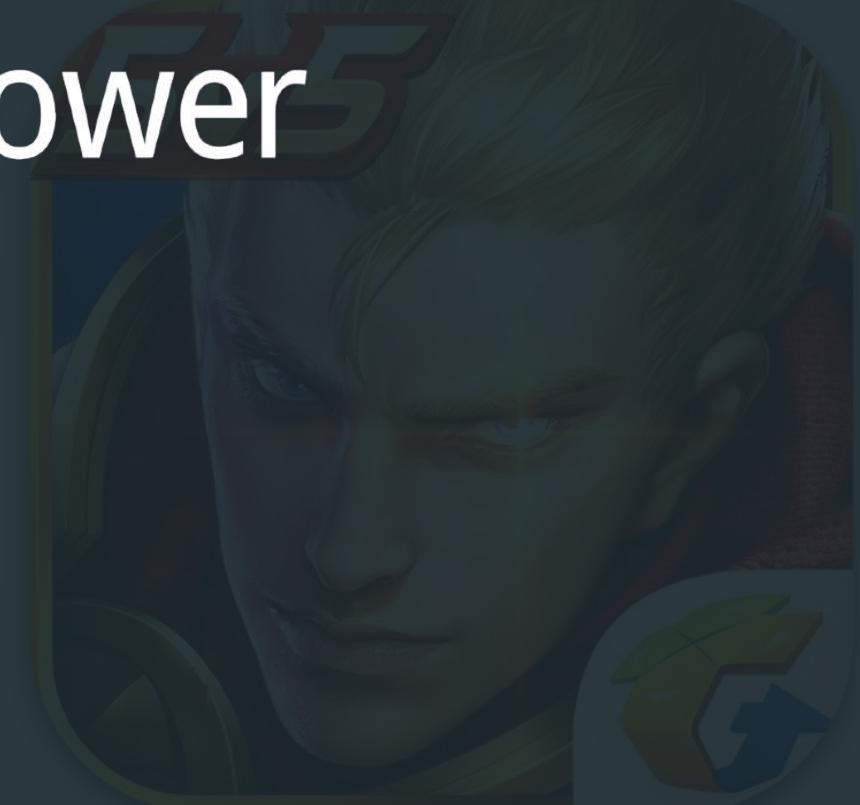
- 1. Mobile game revenue will reach \$117 billion by 2023, a CAGR of 13.5 percent.**  
The App Store will contribute \$67 billion with a 12.3 percent CAGR, while Google Play will reach \$50 billion with a 15.9 percent CAGR.
- 2. Mobile game downloads will surpass 67 billion by 2023, or an annual growth rate of 6.1 percent.** More than 55 billion of these installs will be from Google Play, with the App Store contributing around 12 billion.
- 3. Europe and Southeast Asia are key markets for mobile game developers, as revenue growth in these regions are expected to easily outpace the worldwide rate over the next three years.** Currently, Europe-based publishers have found the most success in Europe, while some top China-based publishers have emerged as key players in Southeast Asia.





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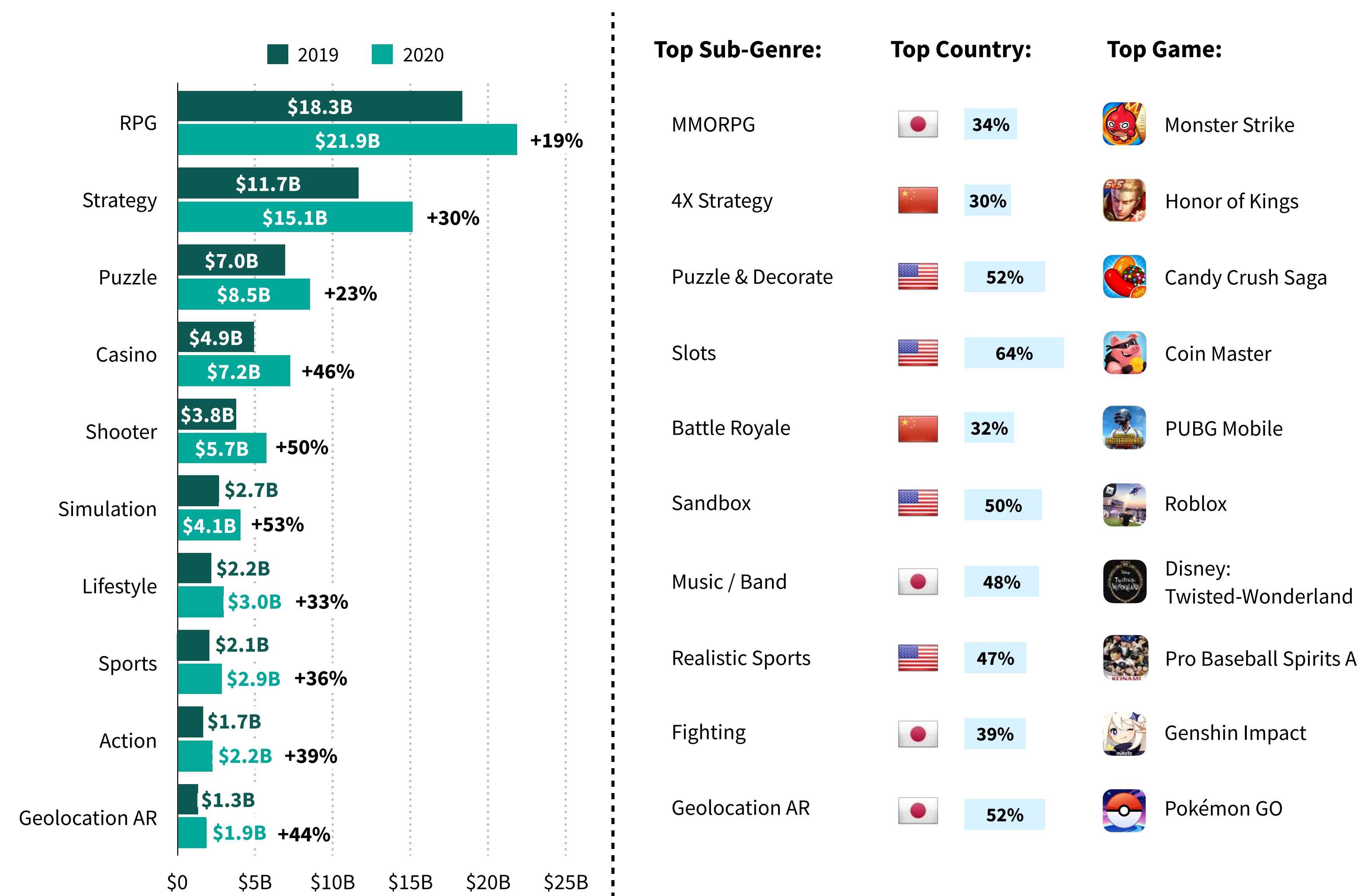
# Game Genre Trends

Worldwide Trends by Mobile Game Genre



# RPG Was the Top Game Genre by Revenue in 2020

Top 10 game genres by worldwide gross revenue, App Store and Google Play



Top Sub-Genre:	Top Country:	Top Game:
MMORPG	Japan 34%	Monster Strike
4X Strategy	China 30%	Honor of Kings
Puzzle & Decorate	USA 52%	Candy Crush Saga
Slots	USA 64%	Coin Master
Battle Royale	China 32%	PUBG Mobile
Sandbox	USA 50%	Roblox
Music / Band	Japan 48%	Disney: Twisted-Wonderland
Realistic Sports	USA 47%	Pro Baseball Spirits A
Fighting	Japan 39%	Genshin Impact
Geolocation AR	Japan 52%	Pokémon GO

RPG led all genres by mobile game revenue in 2020, followed by Strategy and Puzzle. RPG revenue grew by \$3.6B year-over-year, while Strategy was close behind with growth of \$3.4B.

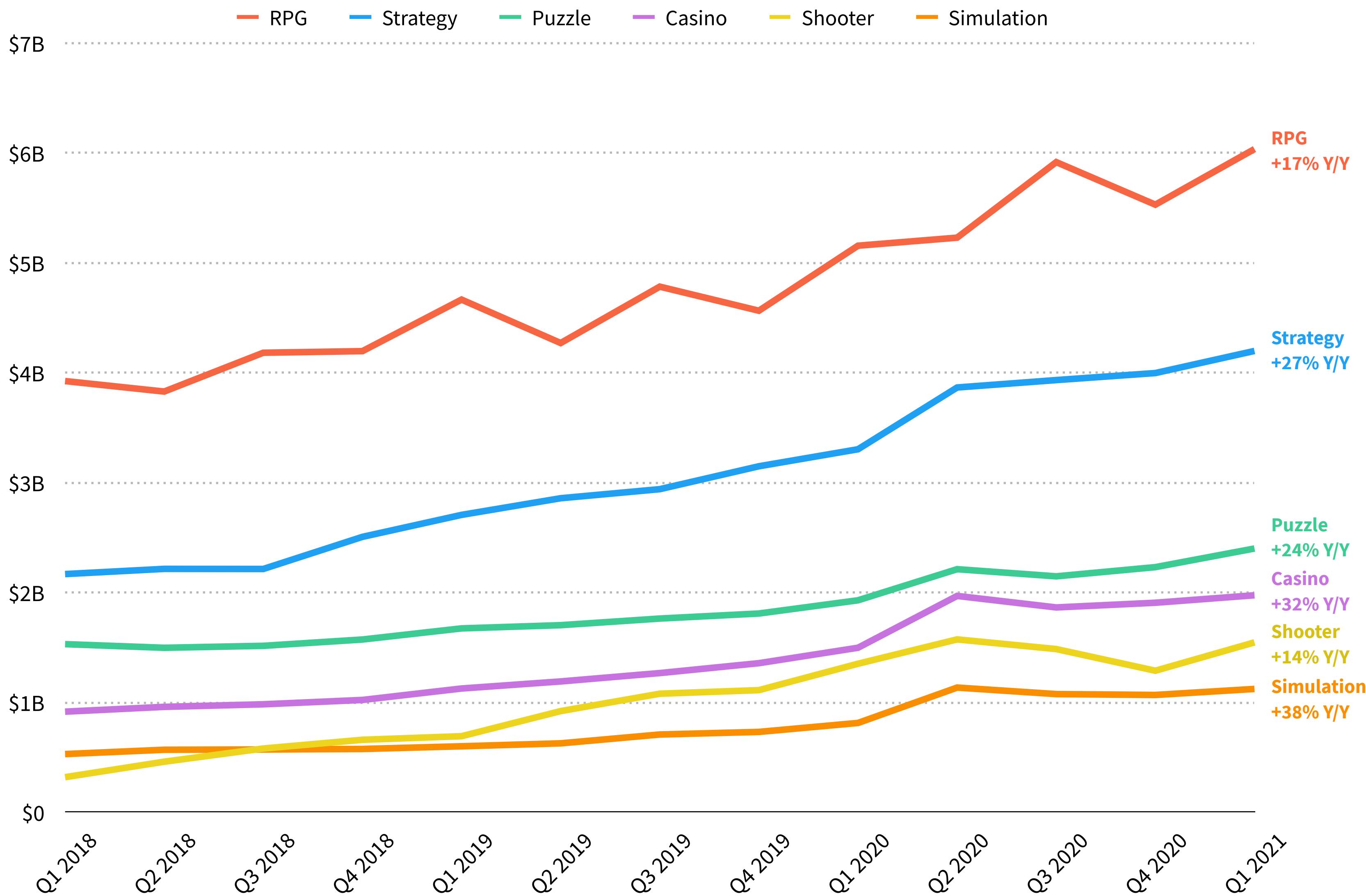
Among top genres, Simulation led the way by Y/Y growth at 53 percent, followed by Shooter with 50 percent and Casino at 46 percent. Each of these genres had one of the top five games by revenue in 2020, with PUBG Mobile (Shooter), Coin Master (Casino), and Roblox (Simulation).

## Note:

Revenue figures are gross revenue (including the cut taken by Apple or Google).

# Strategy's Growth Has Kept Pace with RPG Since 2018

Worldwide revenue by game genre, App Store and Google Play



Strategy has been able to stay within \$1.4 billion of RPG gross revenue each quarter since 2018. Strategy has a CAGR of 25 percent since Q1 2018 vs. RPG's CAGR of 15 percent.

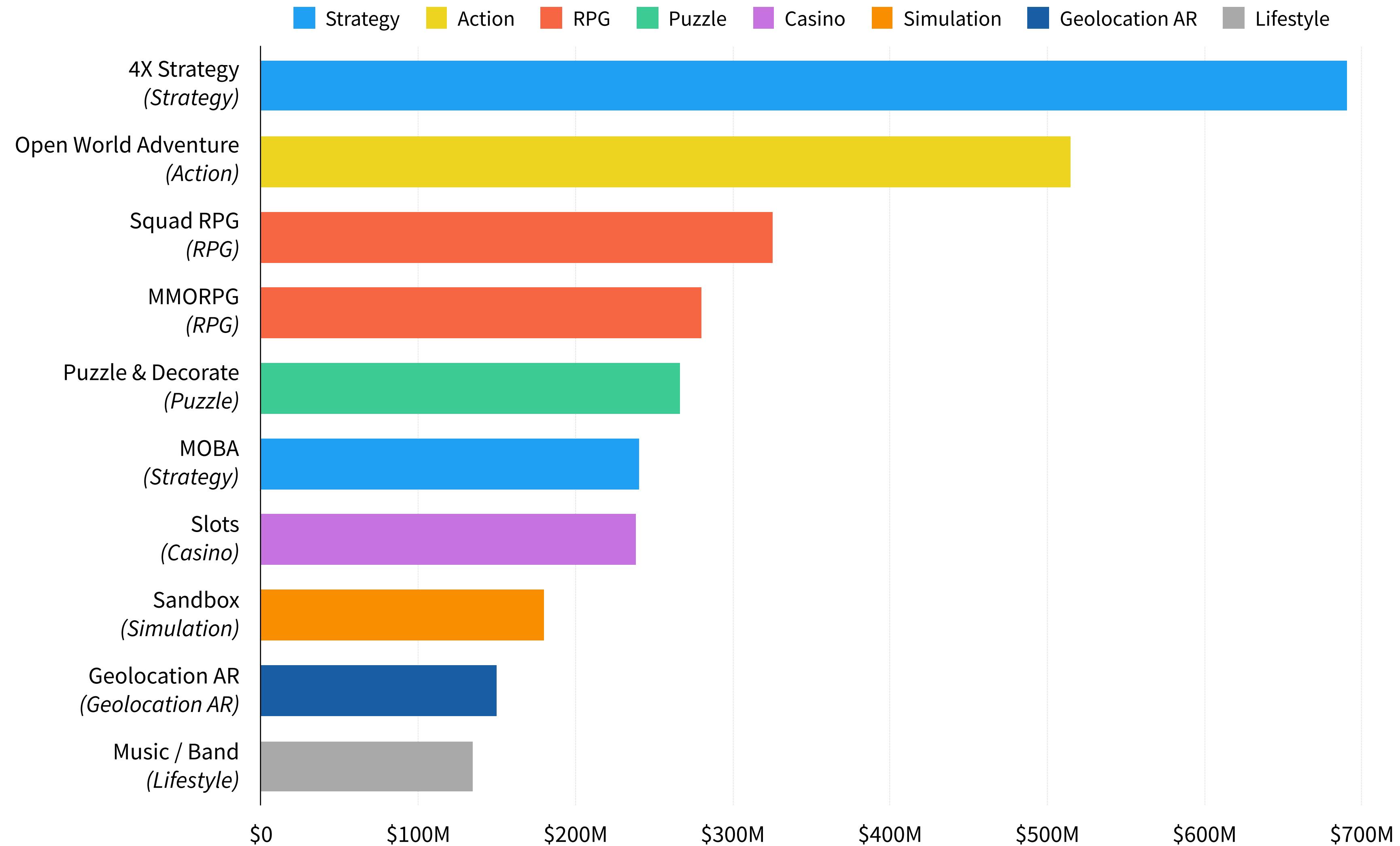
Casino and Simulation benefited from a few hit titles gaining traction during the pandemic. Coin Master contributed to much of Casino's revenue gains in 2020, while Roblox was responsible for a large portion of Simulation's growth.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

# 4X Strategy is the Fastest Growing Sub-Genre

*Top 10 game sub-genres by year-over-year revenue growth in Q1 2021*



**4X Strategy is the fastest growing sub-genre by revenue, followed by Open World Adventure.** Six different 4X Strategy games earned at least \$100 million in Q1 2021, while Open World Adventure was boosted by the hugely successful launch of Genshin Impact.

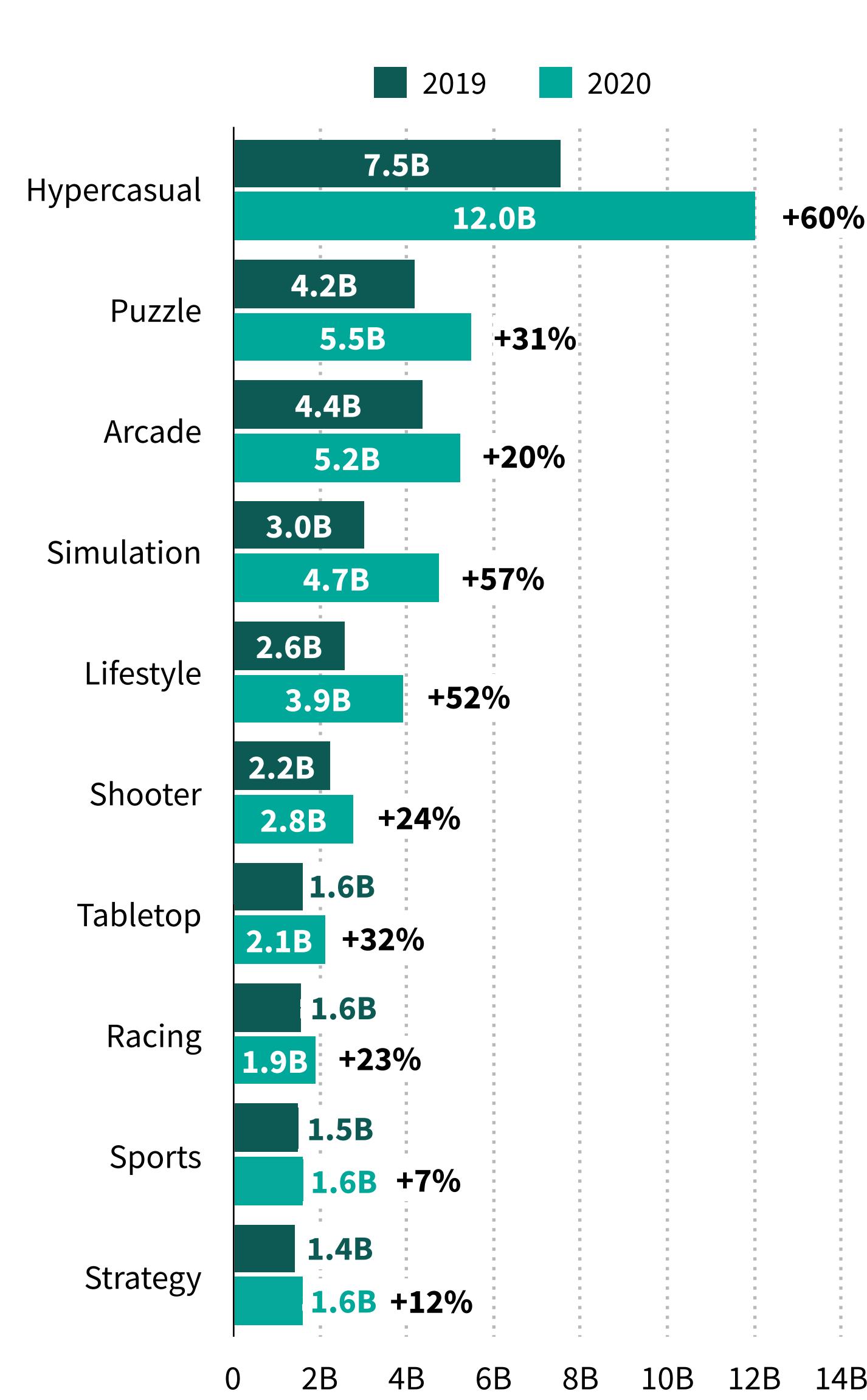
**Top growing sub-genres were spread across many different genres.** Sub-genres from eight different genres were among the top 10 by growth, with Strategy and RPG as the only two genres with multiple sub-genres.

**Note:**

Revenue figures are gross revenue (including the cut taken by Apple or Google).

# The Assent of Hypercasual Continued in 2020

Top 10 game genres by worldwide downloads, App Store and Google Play



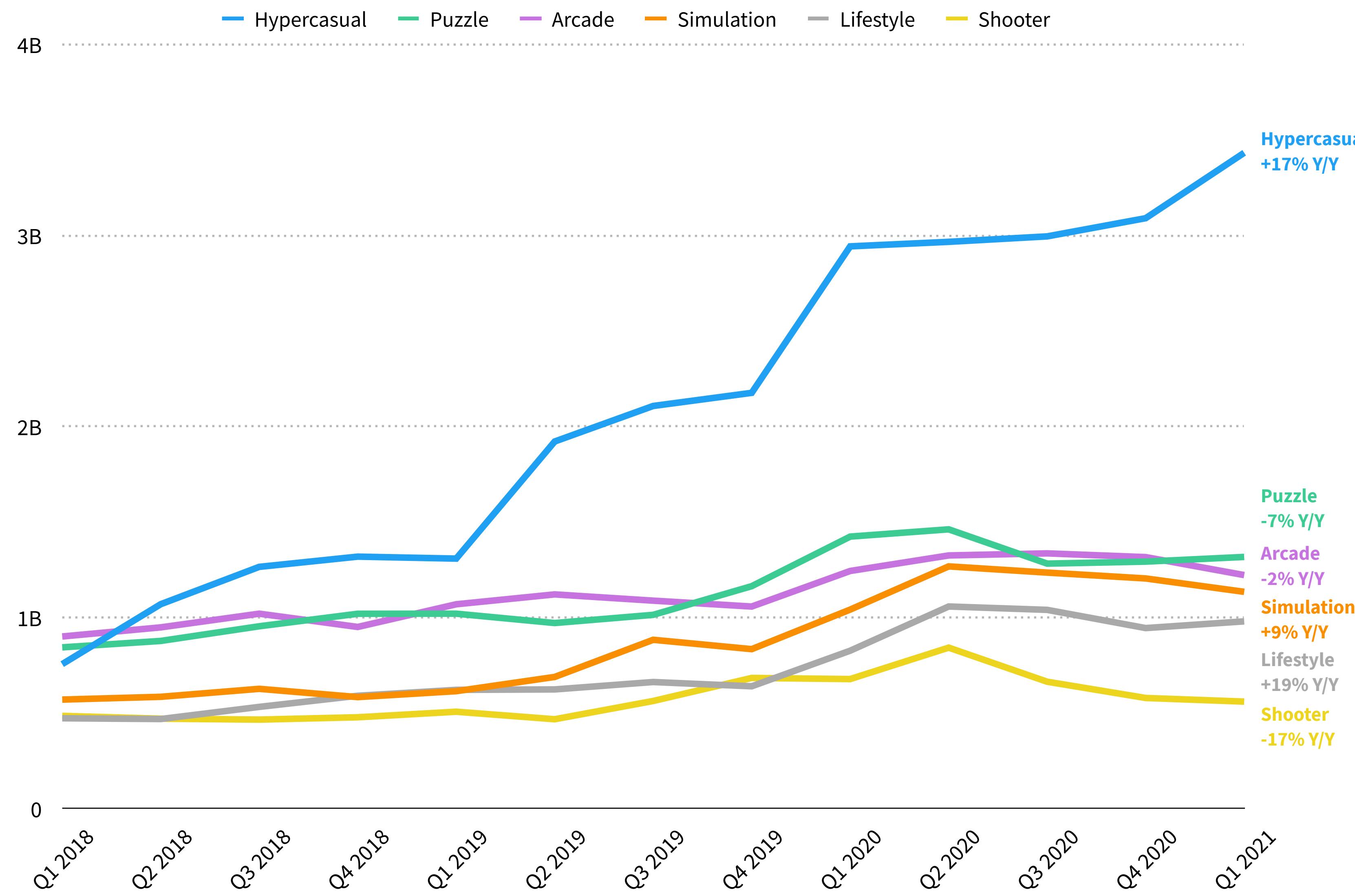
Top Sub-Genre:	Top Country:	Top Game:
Puzzle	🇺🇸 14%	Tiles Hop 3D
Other Puzzle	🇮🇳 16%	Gardenscapes
Platformer / Runner	🇮🇳 20%	Among Us
Driving / Flight Simulator	🇮🇳 18%	Roblox
Lifestyle Simulator	🇮🇳 15%	My Talking Tom 2
FPS / 3PS	🇮🇳 26%	Garena Free Fire
Board	🇮🇳 31%	Ludo King
Realistic Racing	🇮🇳 28%	Hill Climb Racing
Realistic Sports	🇮🇳 18%	8 Ball Pool
4X Strategy	🇺🇸 9%	Brawl Stars

Hypercasual install growth continued in 2020, rising 60 percent year-over-year. Most of the growth occurred early in 2020 as downloads rose 35 percent between Q4 2019 and Q1 2020.

Other top growing genres included Simulation and Lifestyle with 57 percent and 52 percent Y/Y growth, respectively. India was the top country by downloads for both of these genres, followed by Brazil and the U.S.

# Hypercasual Has Seen Staggering Growth Since 2018

*Worldwide download growth by game genre, App Store and Google Play*

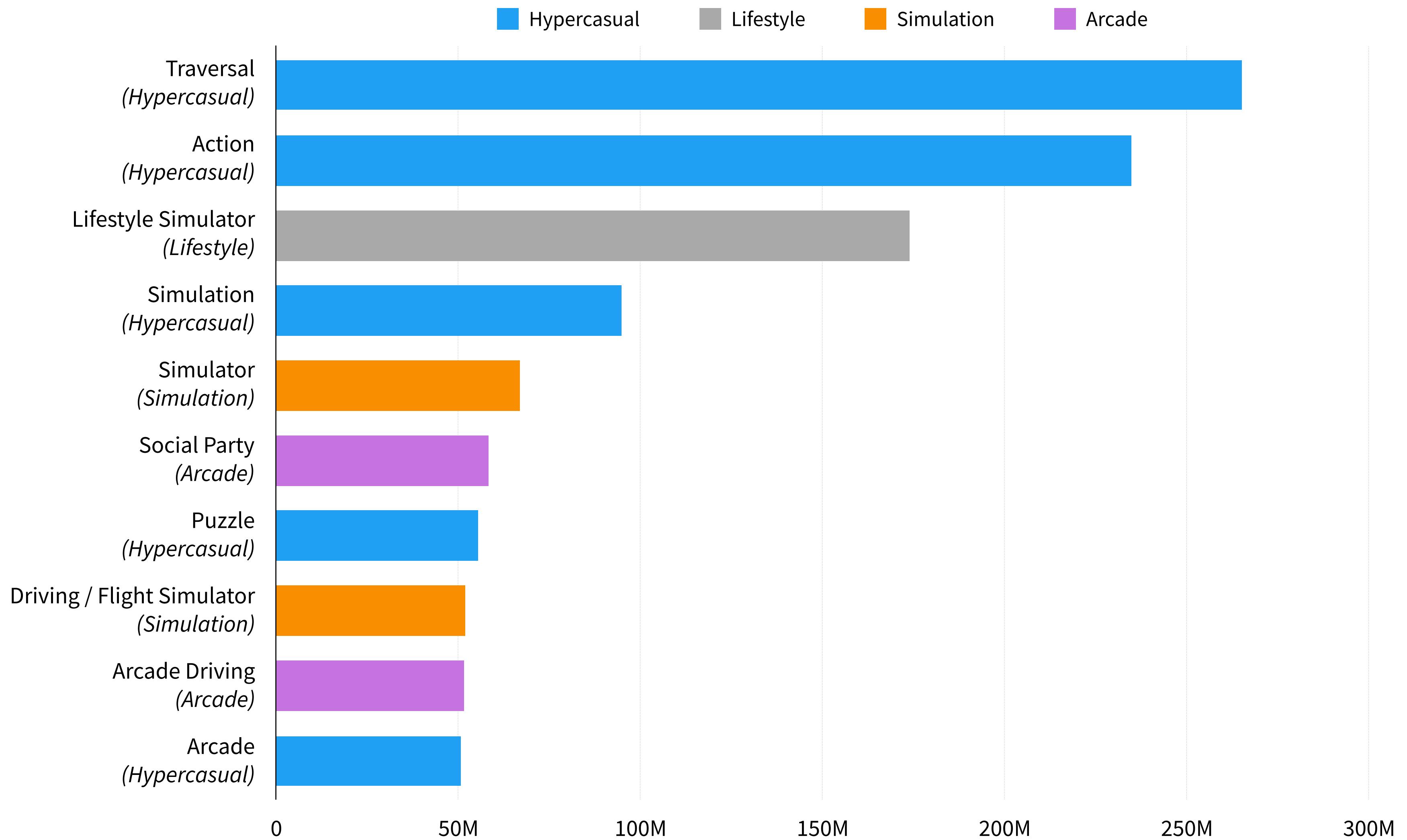


Hypercasual installs have skyrocketed, climbing from 757 million in Q1 2018 to more than 3.4 billion in Q1 2021. The genre was responsible for 31 percent of downloads in Q1 2021; no other genre had more than 12 percent.

Other genres like Puzzle, Arcade, and Shooter saw downloads dip compared to the highs seen during the start of the pandemic. Most genres still saw solid growth compared to 2019 totals.

# Hypercasual Sub-Genres Drove Adoption Growth

*Top 10 game sub-genres by year-over-year download growth in Q1 2021*

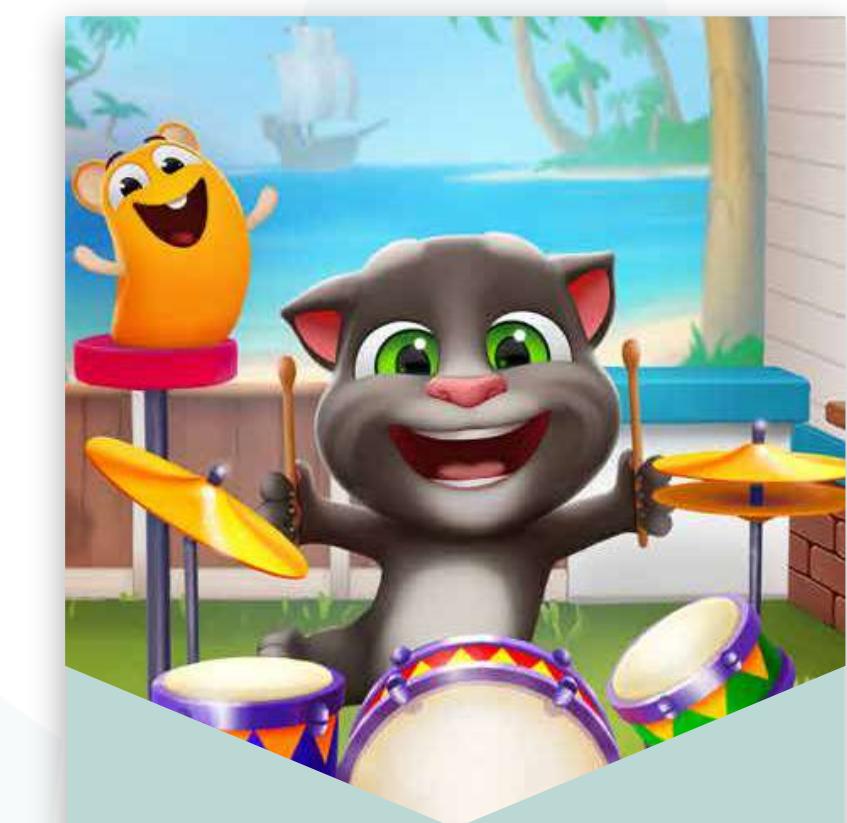
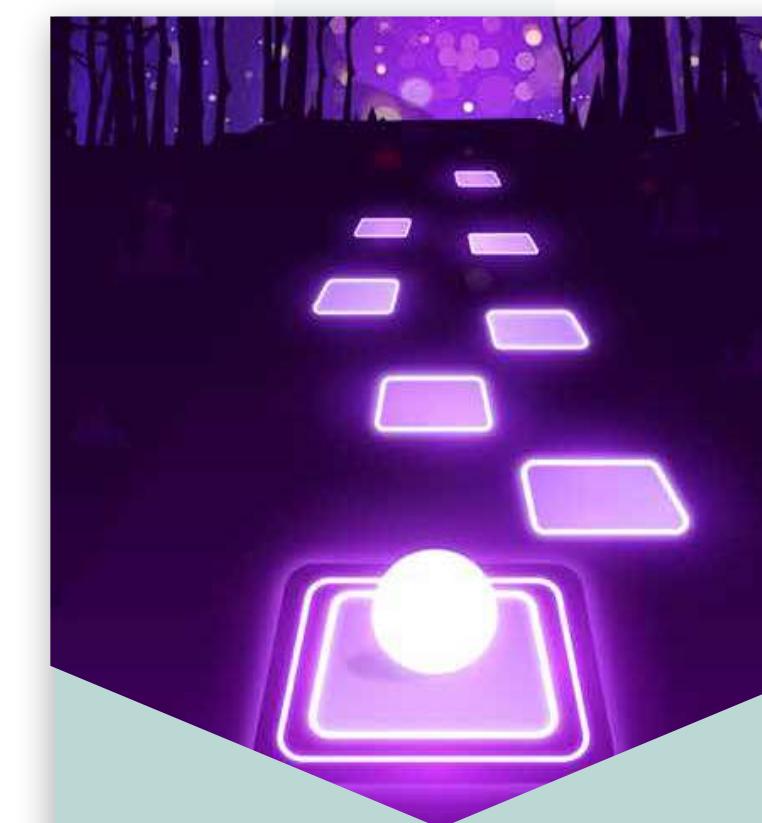


Five of the top 10 fastest growing sub-genres by Y/Y growth in Q1 2021 were in the Hypercasual genre, including the top two. Simulation and Arcade each had two sub-genres represented.

The top game in Q1 2021 was Join Clash 3D from Supersonic Studios with more than 81 million downloads, representing the Hypercasual - Traversal sub-genre. Among Us drove nearly all of the growth for the Arcade - Social Party sub-genre.

# Key Takeaways: Game Genre Trends

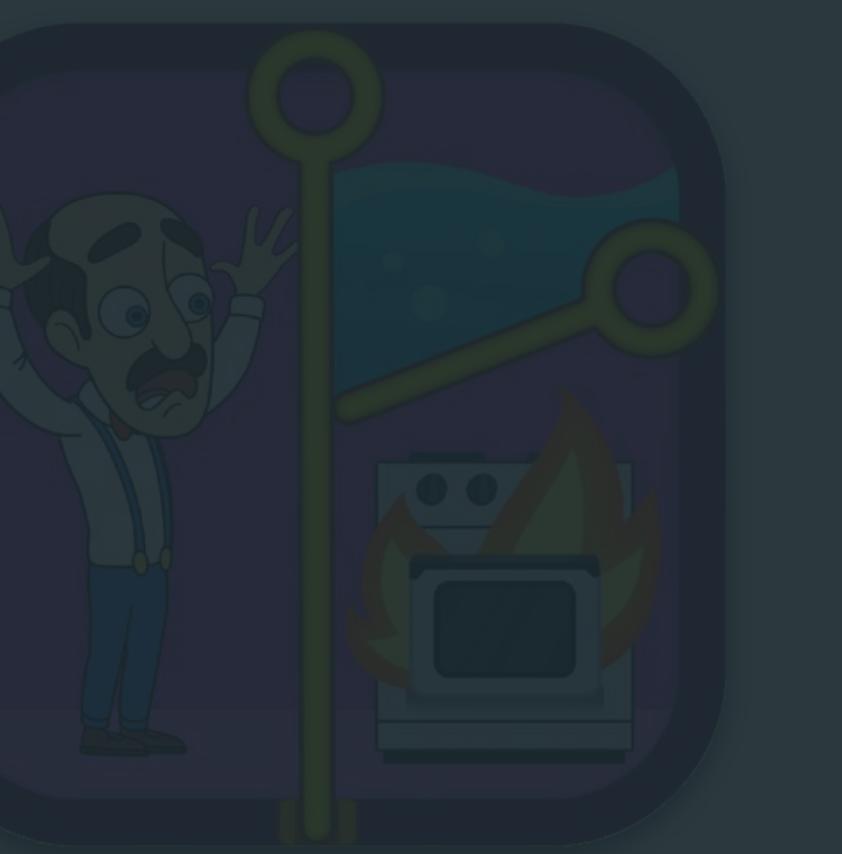
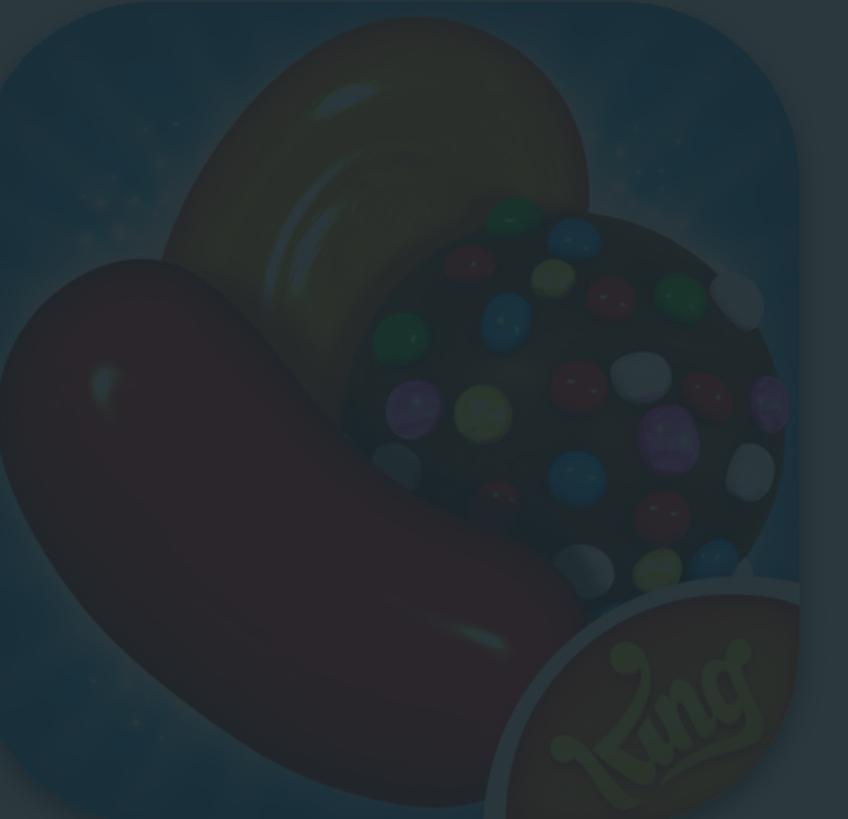
1. RPG and Strategy were the top two genres by revenue in 2020 at \$21.9 billion and \$15.1 billion, respectively. No other genre had more than \$10 billion in revenue that year.
2. Revenue growth was strong across top genres in 2020, with Simulation (53 percent year-over-year growth), Shooter (50 percent), and Casino (46 percent) leading the way. Eight different genres had one of the top 10 sub-genres by revenue growth in Q1 2021.
3. When it comes to mobile games installs, hypercasual has seen staggering growth in recent years. While hypercasual game download growth slowed after a large spike in Q1 2020, downloads still reached a record high 3.4 billion in Q1 2021, up 17 percent from a year prior. More than 30 percent of game installs in Q1 2021 were from hypercasual games.





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# Monetization Trends

Trends in Mobile Game Monetization Strategies



# Monetization Trends:

## Mobile Monetization Strategies

Early on, mobile games primarily monetized by offering a fixed price for full access. Monetization strategies have evolved since, with many top mobile games utilizing different in-app purchase (IAP) and advertising strategies to boost revenue far beyond the levels reached by premium (paid) games at the launch of the app stores. This section explores current strategies used by the leaders in mobile gaming.

### 1 Free Games With IAPs

PUBG Mobile



Roblox



Pokémon GO



### 2 Free Games With Ads

Tie Dye



Tiles Hop



Join Clash 3D



### 3 Paid Games

Minecraft



Heads Up!

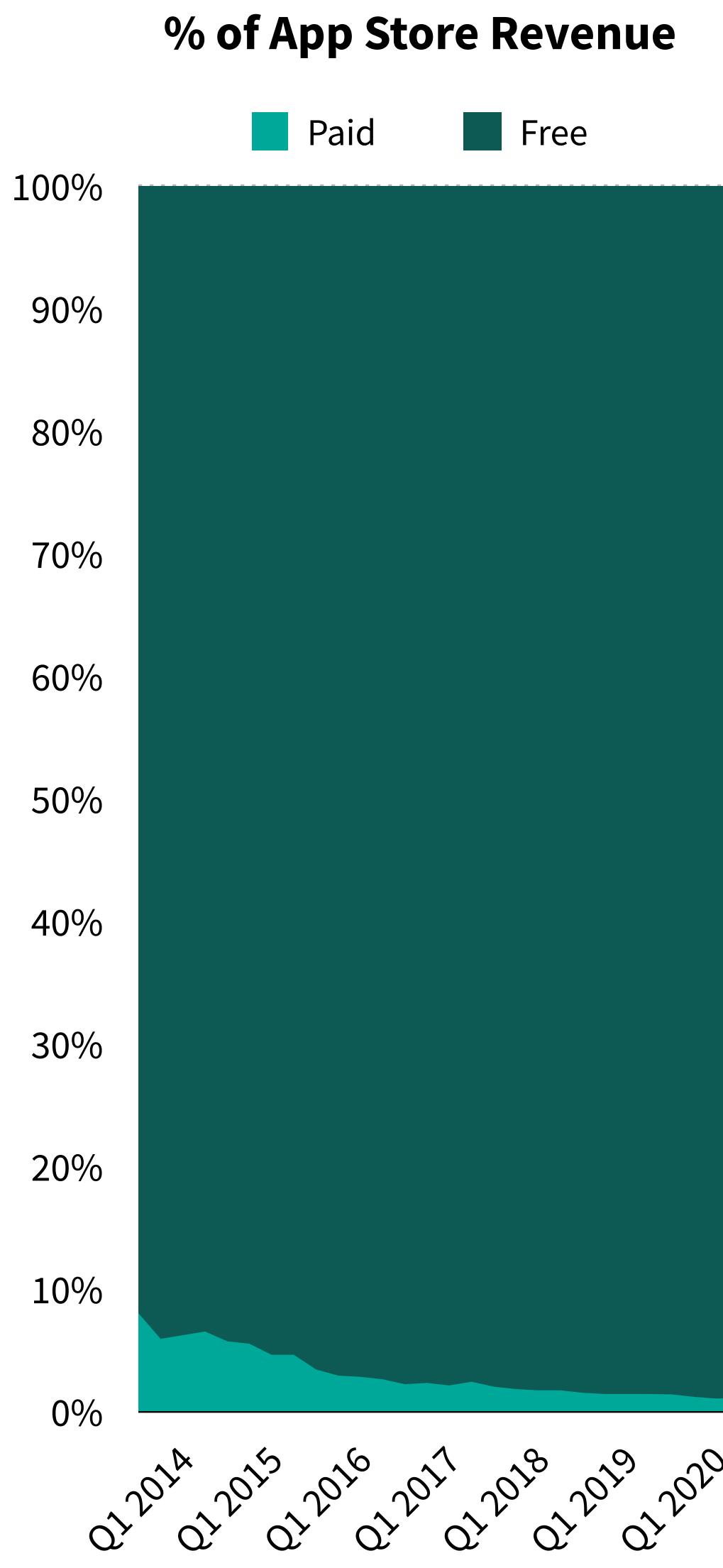
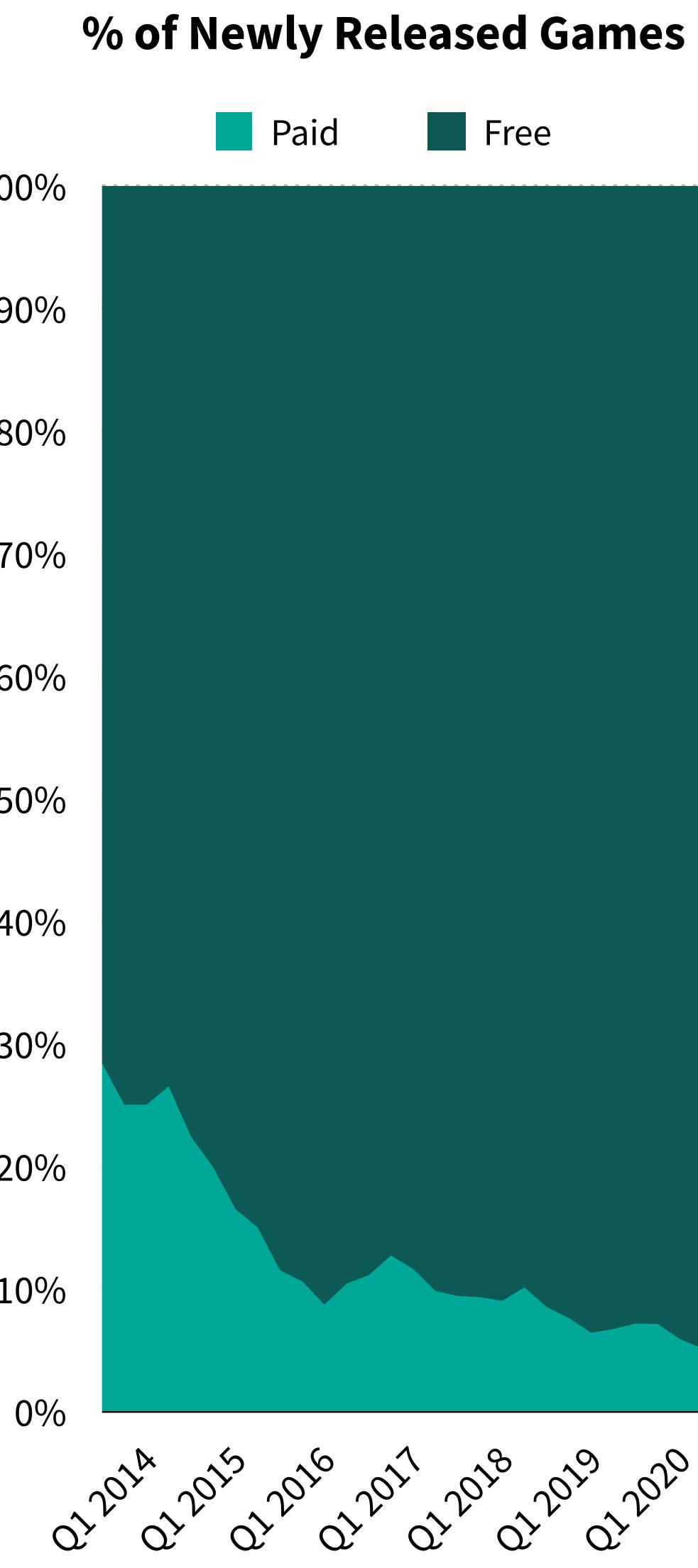
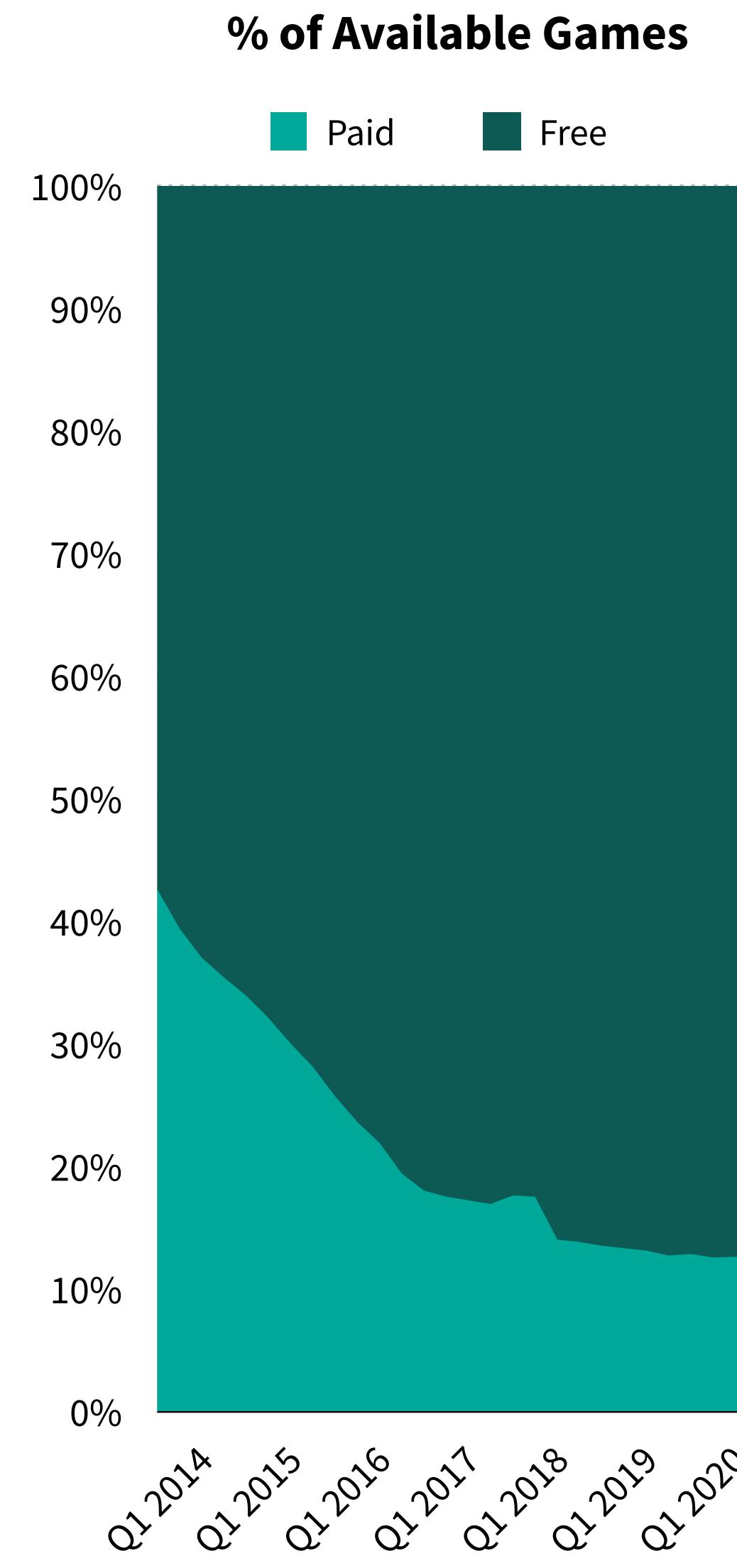


Bloons TD 6



# Freemium Has Edged Out Premium in Mobile Gaming

*Paid game shares relative to free games on the App Store*

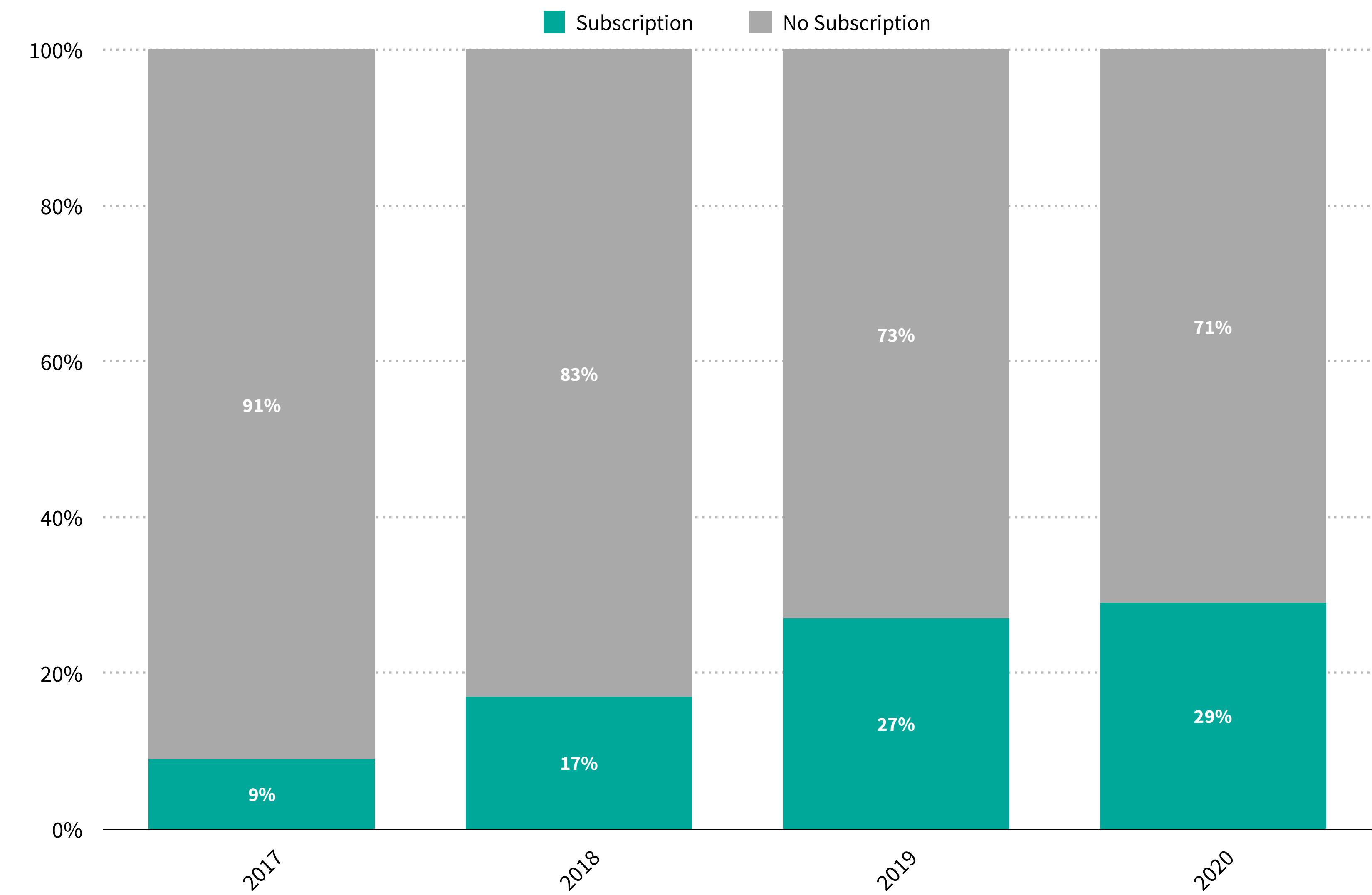


Since the start of 2014, paid (or premium) games have continued to lose market share to free games. By Q4 2020, only five percent of newly released games were paid games, and the share of paid games on the App Store had fallen to 12 percent (down from 43 percent in Q1 2014).

Freemium games have held an edge in monetizing since 2014, explaining the transition away from the premium model. Paid games only accounted for eight percent of mobile game revenue on the App Store at the start of 2014. By Q4 2020 this share had fallen to one percent.

# Subscription Model is On the Rise

*Share of the top 100 games by U.S. App Store revenue in 2020 that have a subscription*



By 2020, 29 percent of the top games by U.S. revenue on the App Store had a subscription. This number has climbed steadily, up from just 9 percent in 2017.

More games have begun to adopt the subscription model, including some top titles like Roblox, Clash of Clans, and PUBG Mobile. While the subscription is not the top in-app purchase for most of these games, it does provide a boost to the freemium model when implemented correctly.

# Most Mobile Games Don't Rely on Subscriptions

*Top in-app purchases (IAPs) for games with subscriptions*



**Roblox**

Roblox

Name	Price	Rank
Premium 80 Robux	\$0.99	1
800 Robux Premium	\$9.99	2
400 Robux Premium	\$4.99	3
80 ROBUX	\$0.99	4
880 Robux Subscribed	\$9.99	5
Premium 88 Subscribed	\$0.99	6
800 ROBUX	\$9.99	7
Roblox Premium 450	\$4.99	8
400 ROBUX	\$4.99	9
440 Robux Subscribed	\$4.99	10



**Clash of Clans**

Supercell

Name	Price	Rank
Pile of Gems	\$4.99	1
Bag of Gems	\$9.99	2
Sack of Gems	\$19.99	3
<b>Gold Pass</b>	\$4.99	4
Pocketful of Gems	\$0.99	5
Resource Pack	\$0.99	6
Special Offer	\$2.99	7
Box of Gems	\$49.99	8
Chest of Gems	\$99.99	9
Special Offer	\$9.99	10



**PUBG Mobile**

Tencent

Name	Price	Rank
60 Unknown Cash	\$0.99	1
600 Unknown Cash	\$9.99	2
300 Unknown Cash	\$4.99	3
1500 Unknown Cash	\$24.99	4
6000 Unknown Cash	\$99.99	5
3000 Unknown Cash	\$49.99	6
<b>PUBGM Prime(1 month)</b>	\$0.99	7
<b>PUBGM PrimePlus(1 month)</b>	\$9.99	8
180 Unknown Cash	\$2.99	9
ig.yiyuan1	\$0.99	10



**Rise of Kingdoms**

Lilith Games

Name	Price	Rank
Daily Limited	\$2.99	1
Daily Limited	\$0.99	2
Daily Limited	\$1.99	3
Legendary Commander Training	\$4.99	4
Hero Pack	\$4.99	5
<b>Gem Monthly Subscription</b>	\$9.99	6
War Pack	\$4.99	7
1050 Gem Pack	\$4.99	8
Research Pack	\$4.99	9
City Developing Pack	\$4.99	10

Even games that have successfully implemented the subscription model tend to get the bulk of their revenue from one-time purchases. Roblox is an exception, with monthly recurring subscription as its top three IAPs. Roblox also give subscribers a discount on additional Robux, the in game currency, as an extra incentive to subscribe.

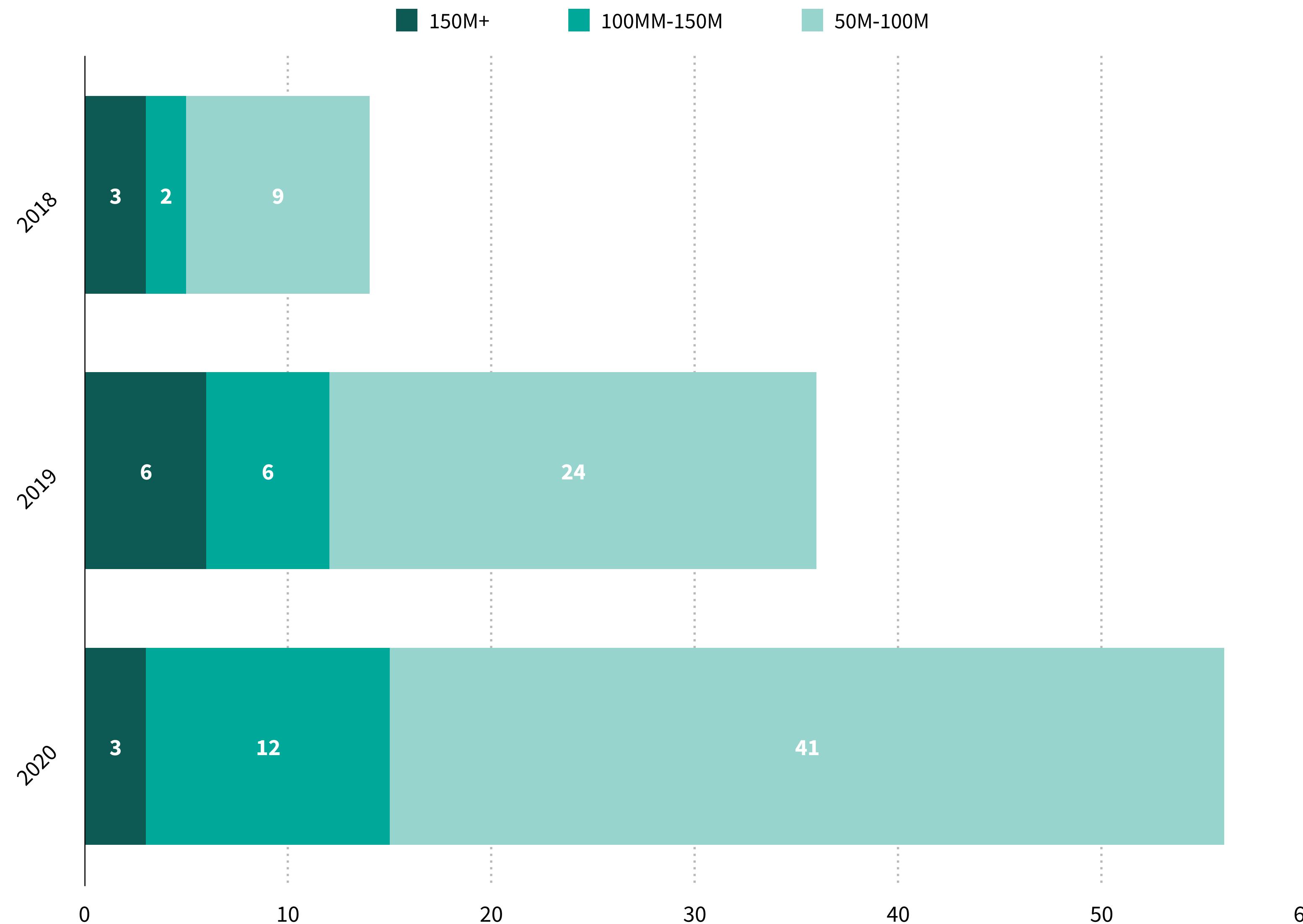
Other top games like Clash of Clans, PUBG Mobile, and Rise of Kingdoms have their subscription among the top 10 IAPs but outside the top three spots. The subscriptions contribute to these games' success but are not the only monetization strategy they use.

## Note:

In-app purchase rankings are as of the end of Q1 2021

# More Than 50 Hypercasual Titles Crossed 50M Installs in 2020

*Number of Hypercasual games reaching 50 million worldwide downloads by year*



The rise of Hypercasual games illustrates how more and more developers are monetizing primarily through ads. 56 different Hypercasual games surpassed 50 million downloads in 2020, up from just 14 Hypercasual games that reached that threshold in 2018.

It is yet to be seen what the impact of IDFA will be on the Hypercasual games space, and mobile games advertising more broadly.

# Key Takeaways: Monetization Trends

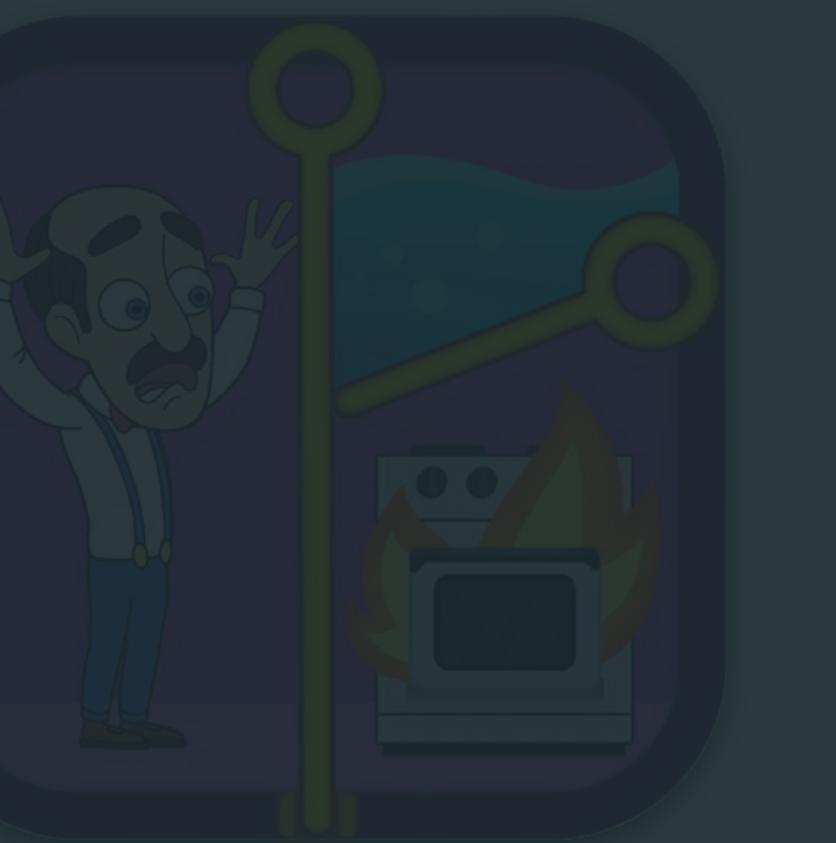
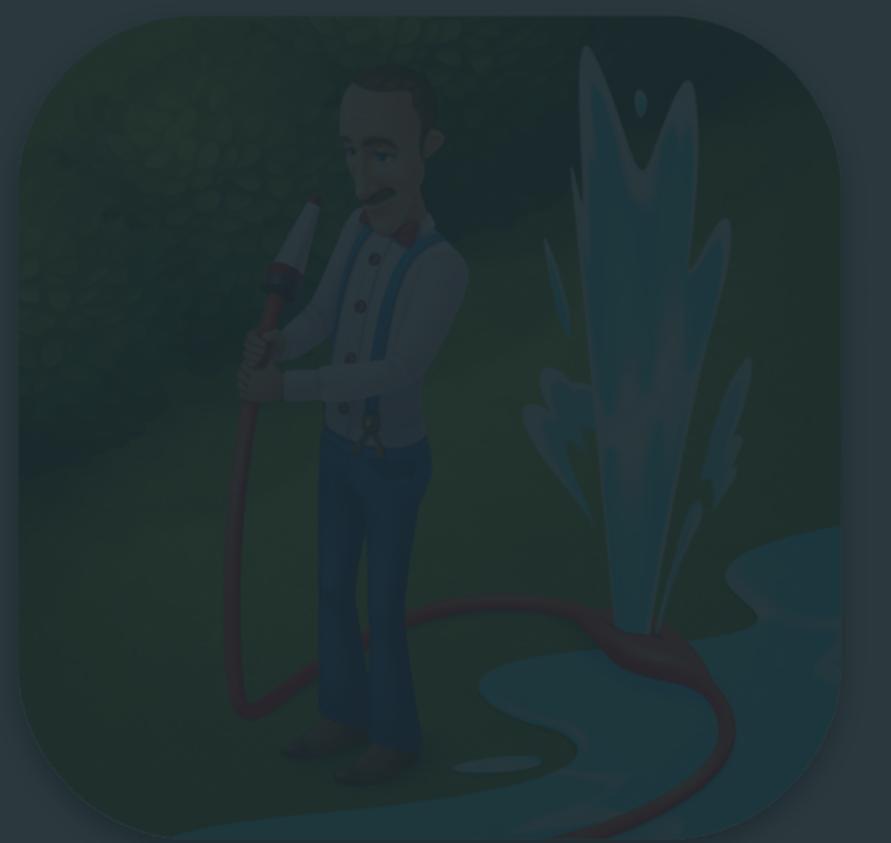
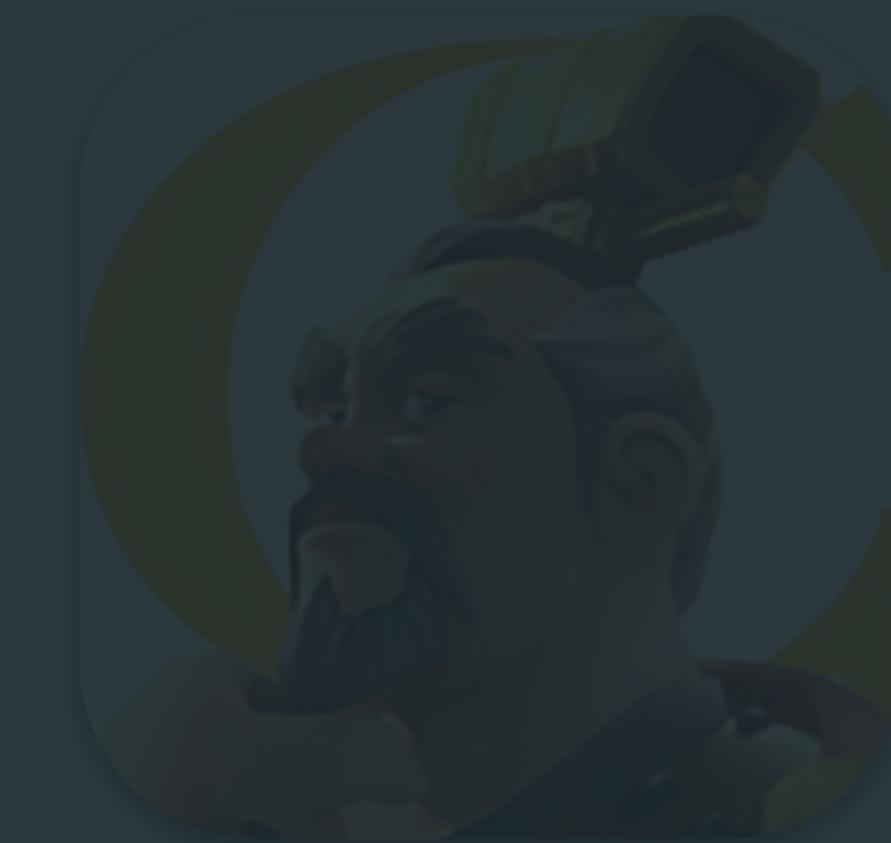
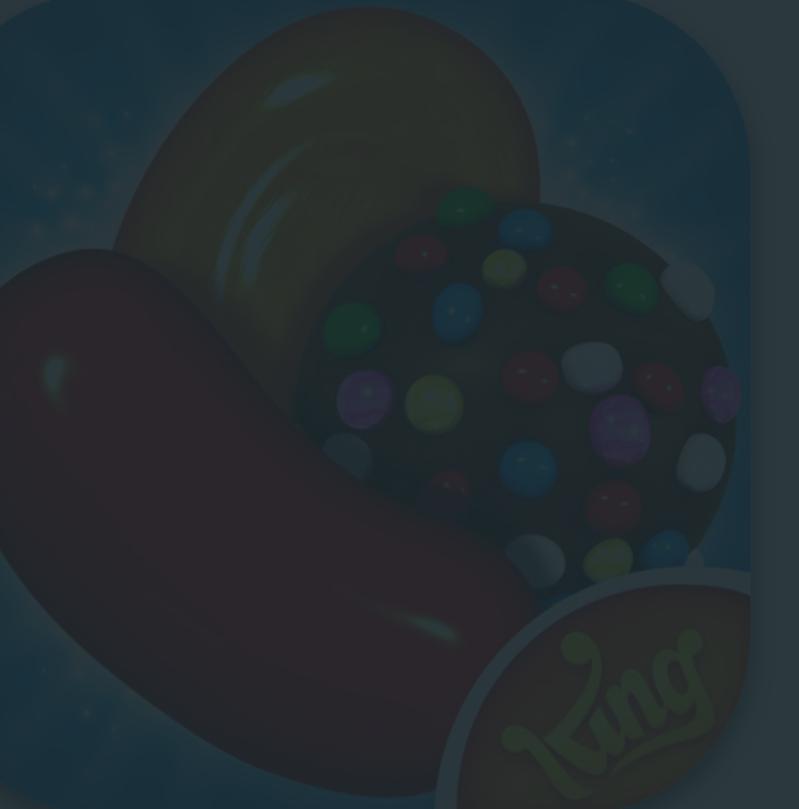
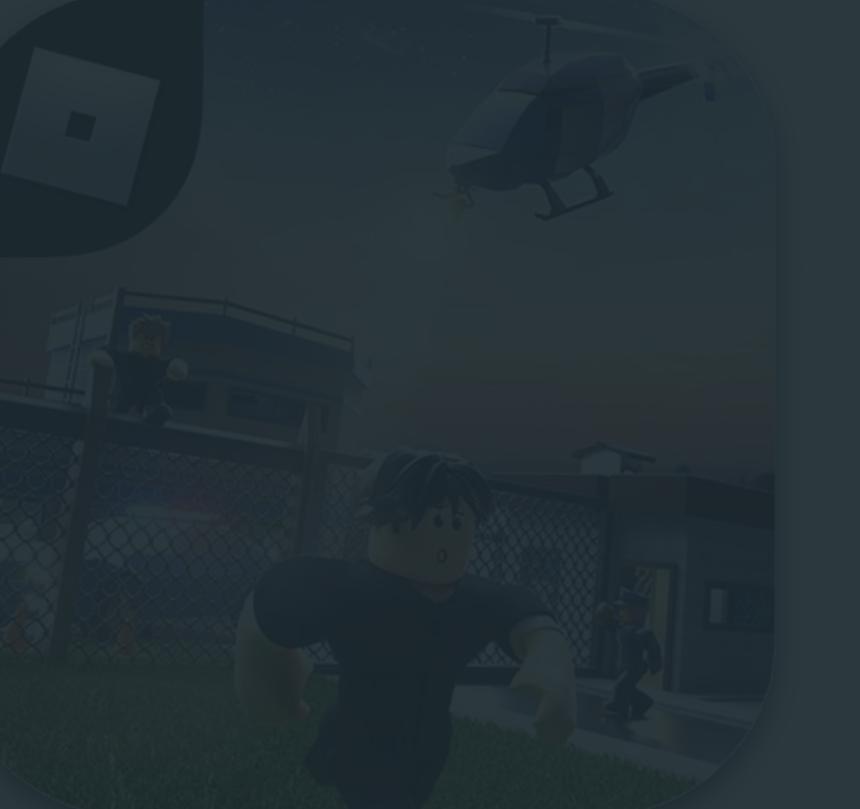
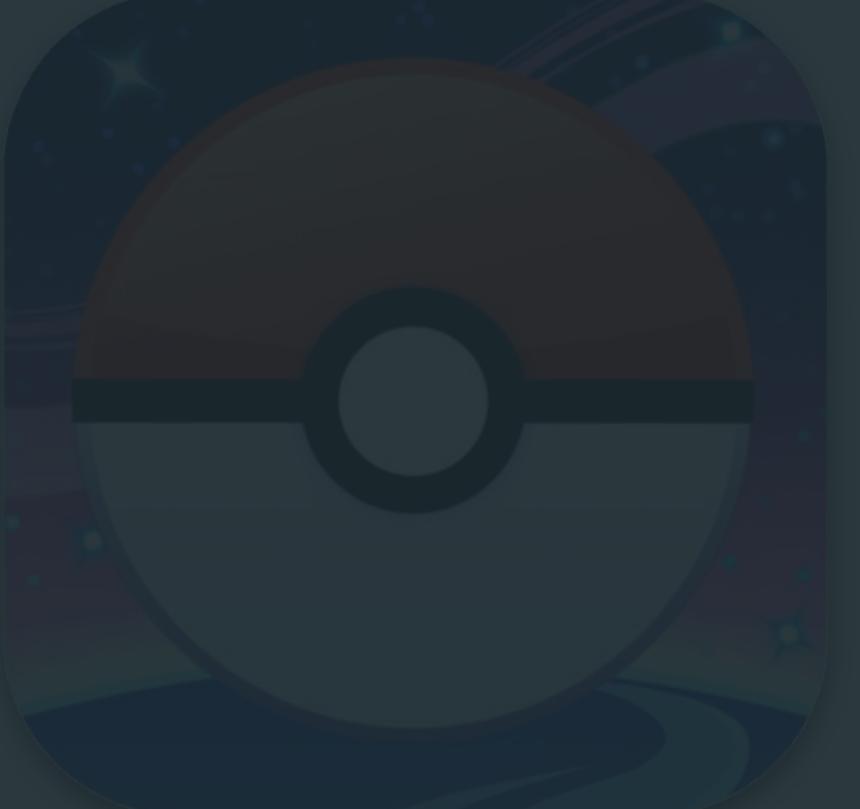
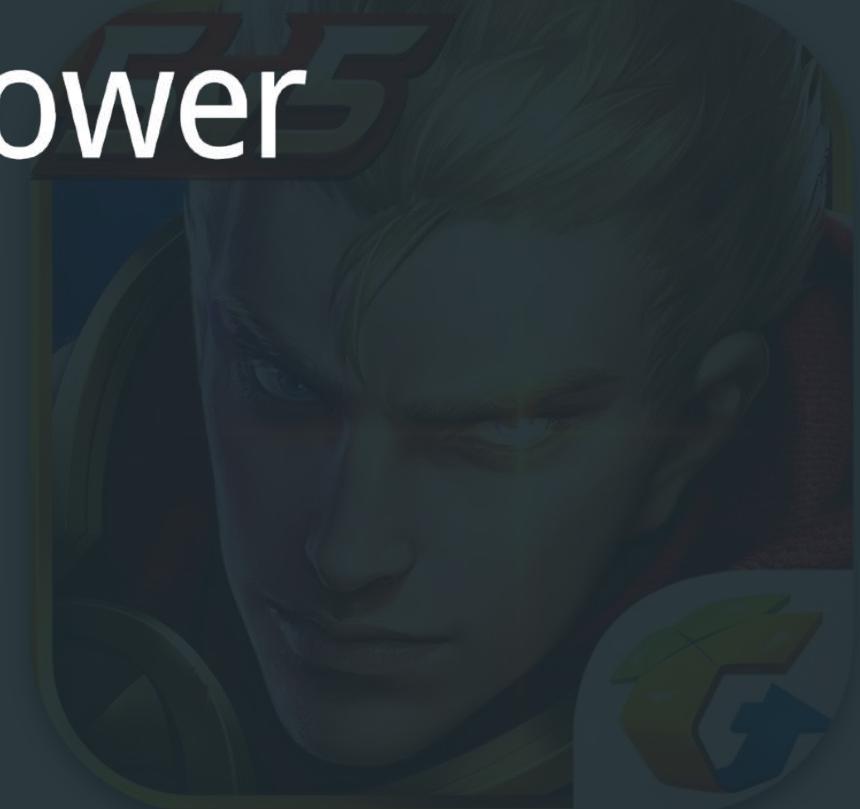
1. The vast majority of mobile games utilize the freemium model over the premium model. By Q4 2020, freemium games earned 99 percent of the revenue on the App Store compared to just one percent from premium games.
2. Some top games have found success using the subscription model, with examples including Roblox, PUBG Mobile, Clash of Clans, and Mario Kart Tour. While a subscription can help boost the revenue for games when it fits into the overall monetization strategy, most still rely on one time in-app purchases.
3. More and more games are monetizing through ads, with 56 different Hypercasual games adding at least 50 million users in 2020. The impact of IDFA on this strategy is yet to be seen.





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# Advertising Trends

Trends in Mobile Game Advertising



# Advertising: Definitions

## Ad Publisher

The app monetizing its platform by displaying ads to its users



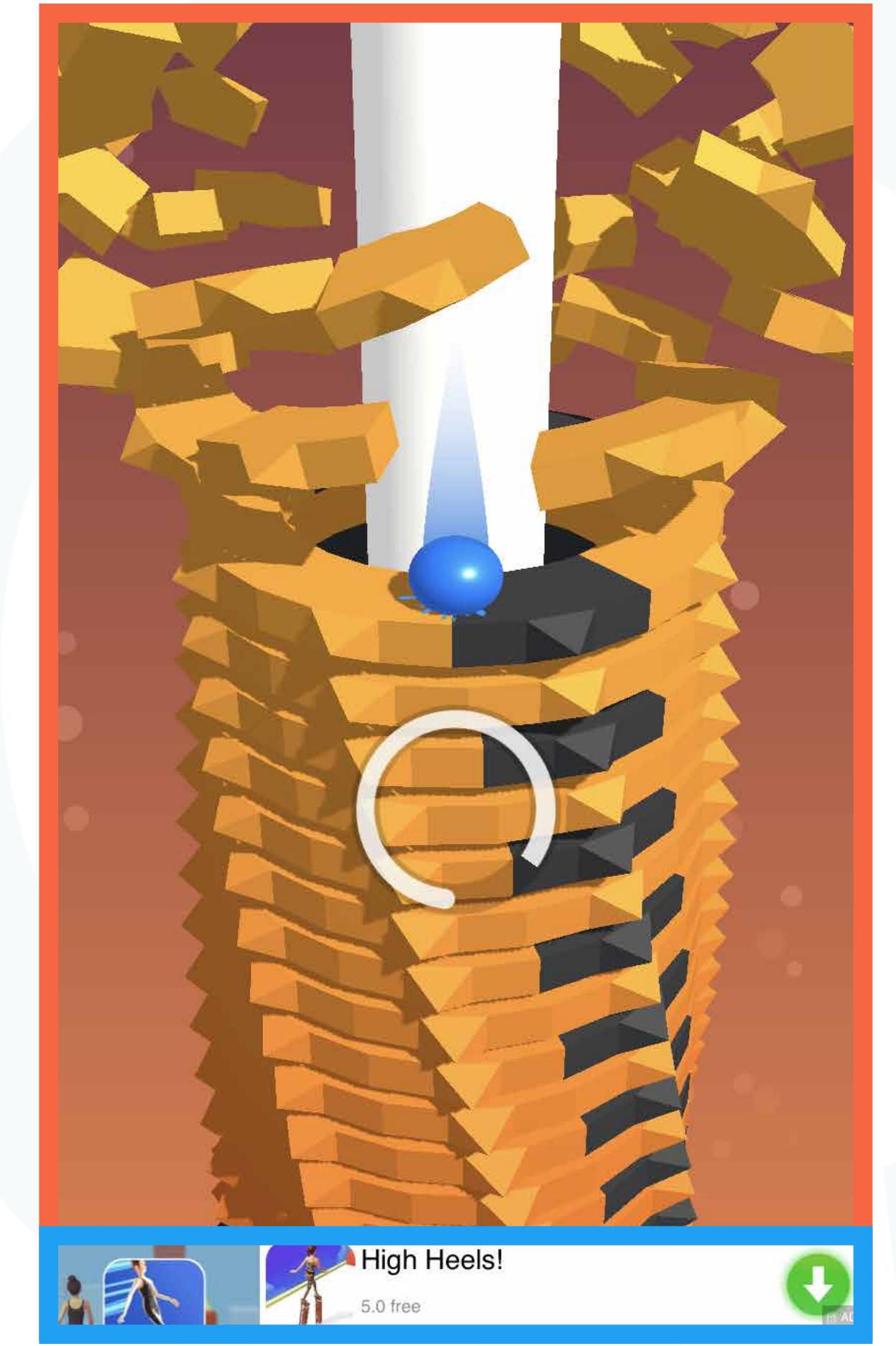
### Shortcut Run

Voodoo



### Stack Ball

Azur Interactive



## Advertiser

Apps that are running mobile ad campaigns

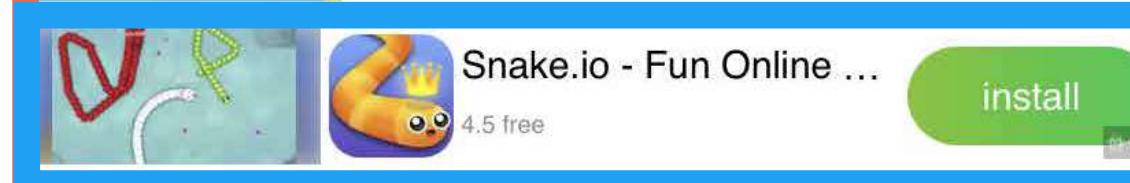
## Game Developer

Developer that publishes the advertising app



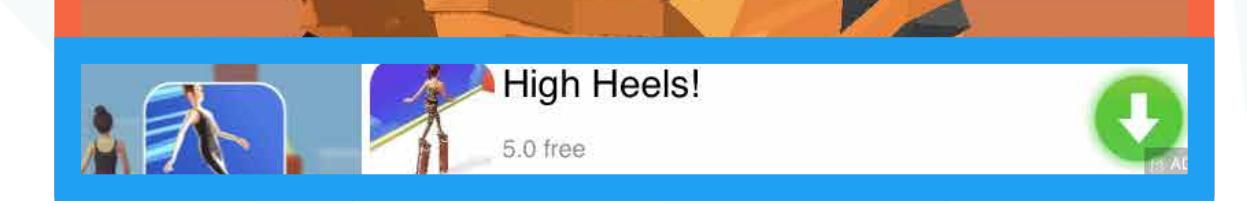
### Snake.io

Kooapps



### High Heels!

Zynga

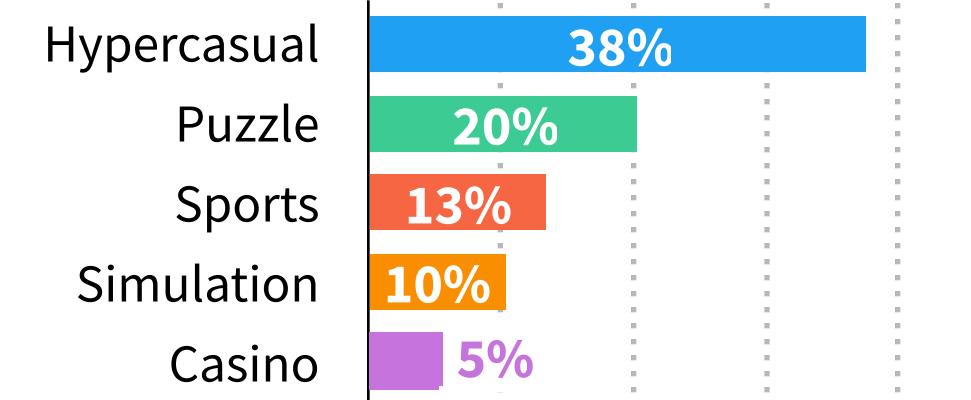


# Hypercasual and Puzzle Genres Rely on Ads the Most

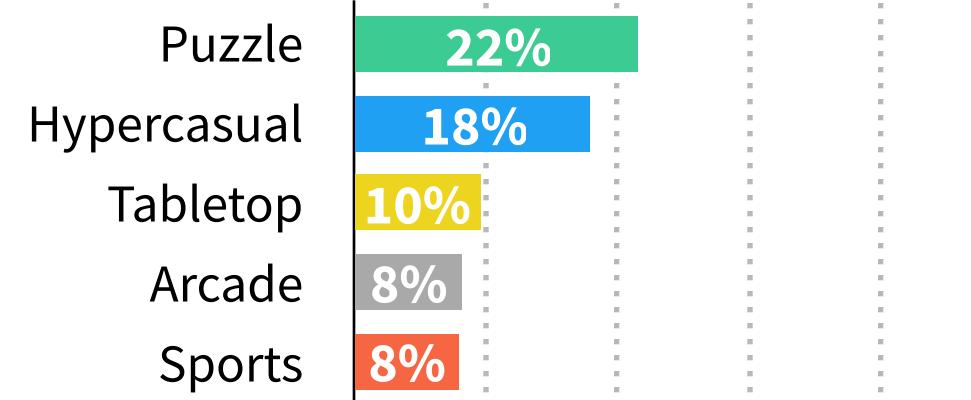
2020 U.S. share of voice by game genre of the ad publishers on iOS



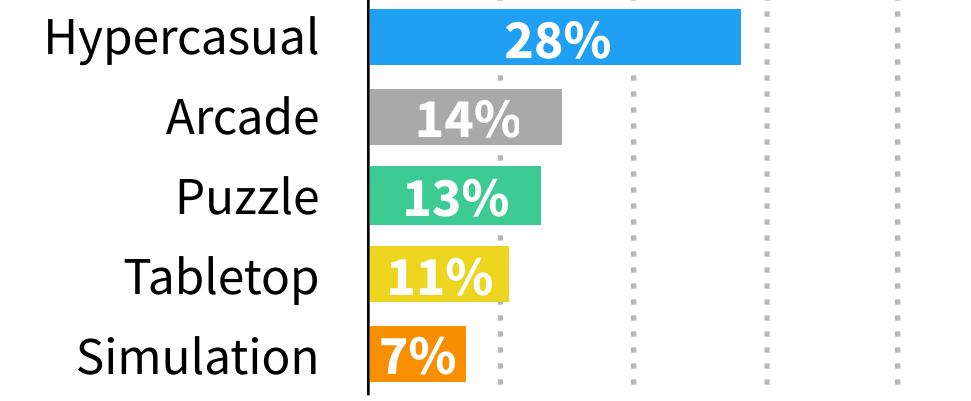
**AdColony**



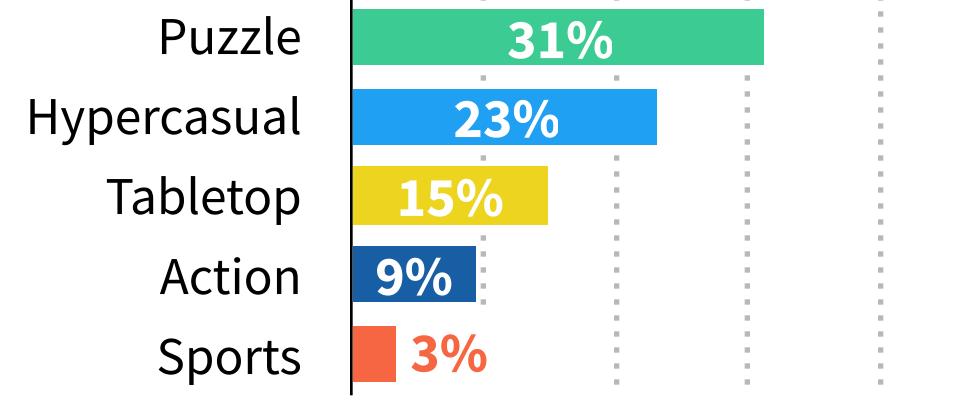
**AdMob**



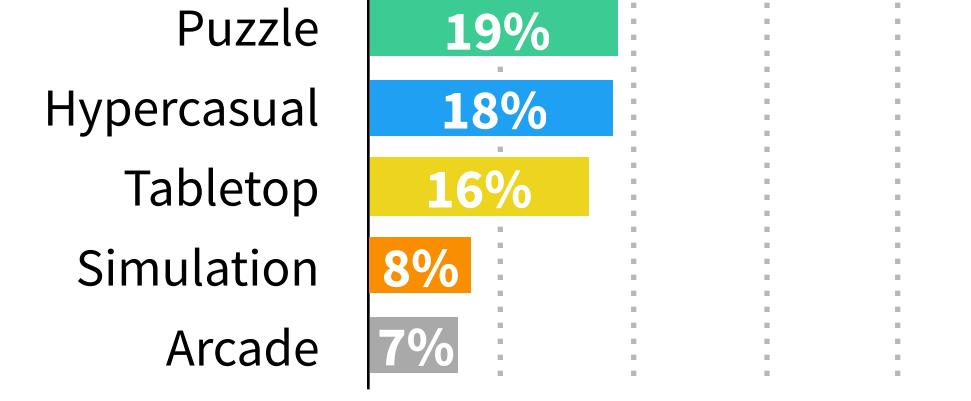
**AppLovin**



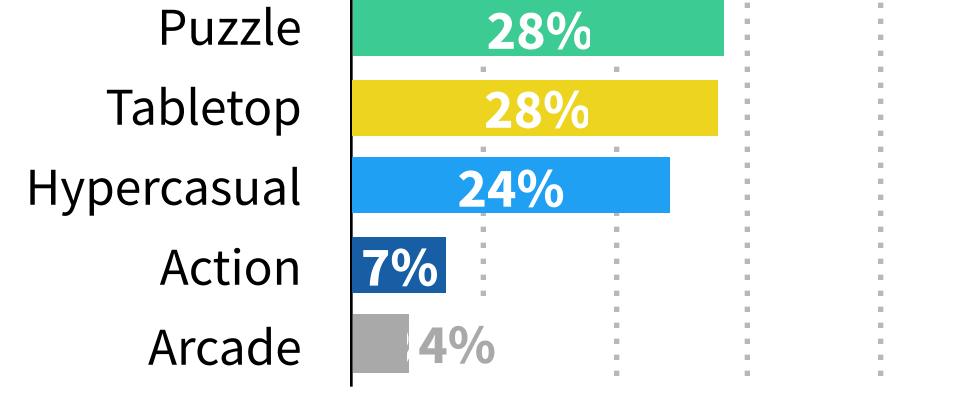
**Facebook**



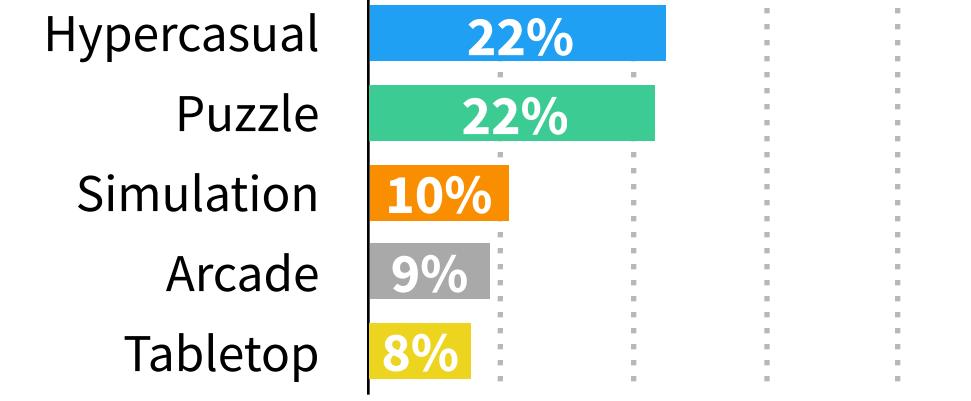
**ironSource**



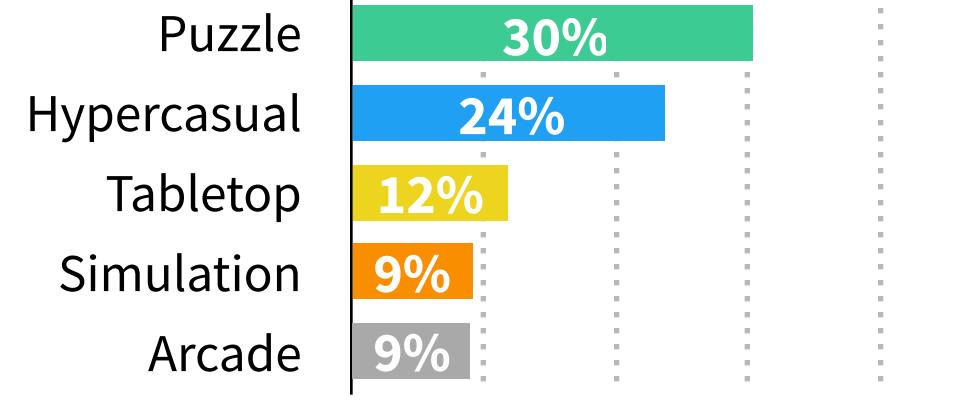
**MoPub**



**Unity**



**Vungle**



Puzzle was the top genre by ad publishing share of voice on five of the eight ad networks studies, and Hypercasual had the highest share of voice on the remaining three. Hypercasual games in particular monetize through showing ads, so it is not surprising that this genre publishes a high percentage of ads in mobile games.

Tabletop was the No. 2 genre by ad publishing share of voice on MoPub, and it ranked third on AdMob, Facebook, ironSource, and Vungle. Arcade also ranked among the top five on six of the eight networks.

**Note:**

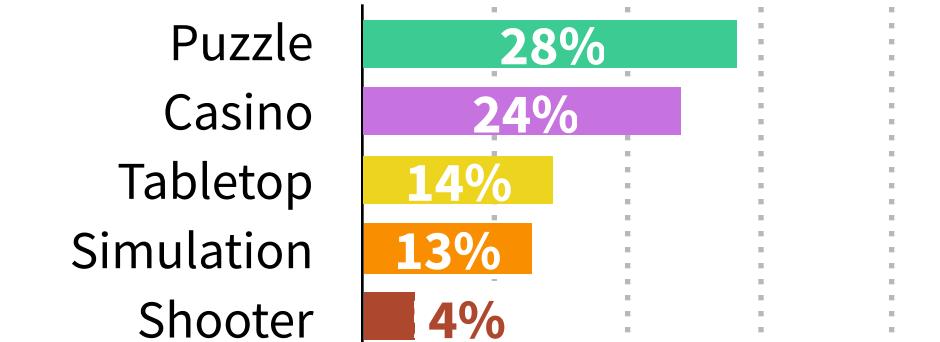
Share of voice is calculated among game ad publishers only. Non-game ad publishers are excluded.

# Puzzle Advertises the Most Across the Majority of Networks

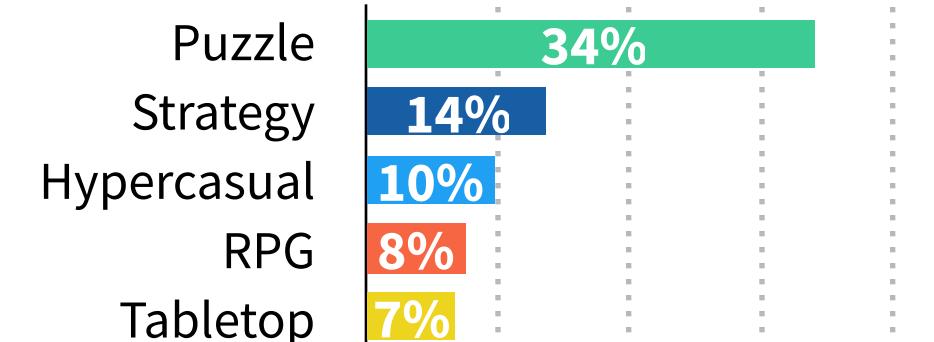
2020 U.S. share of voice by game genre of the advertiser on iOS



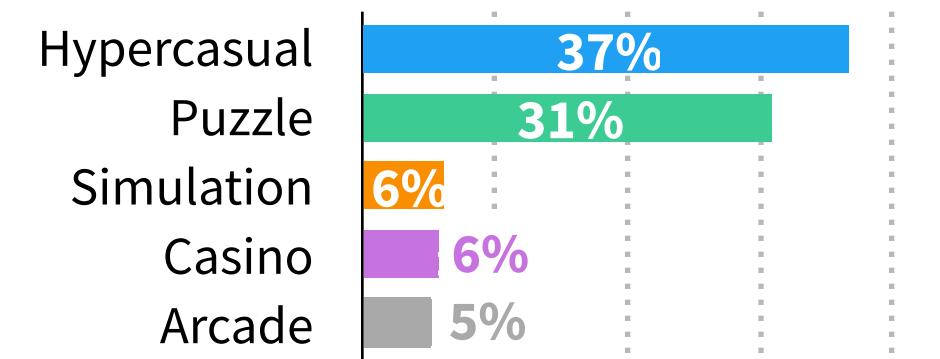
**AdColony**



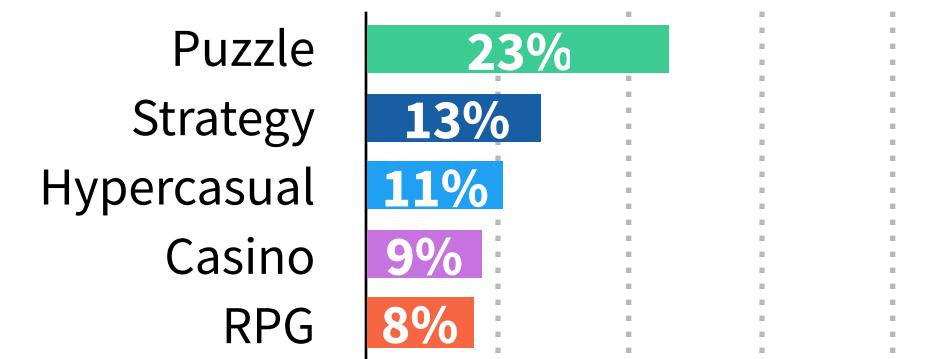
**AdMob**



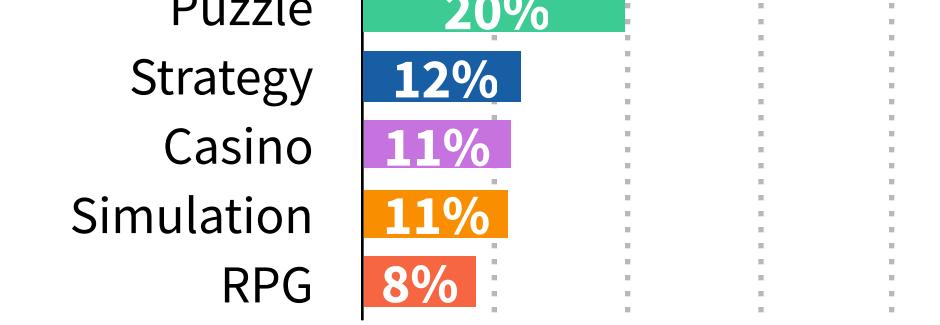
**AppLovin**



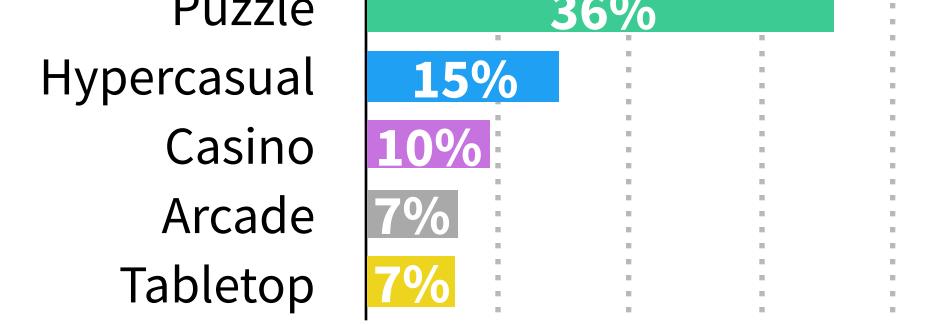
**Facebook**



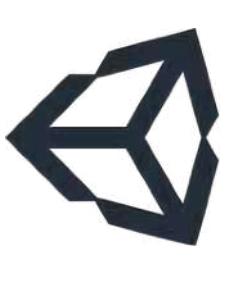
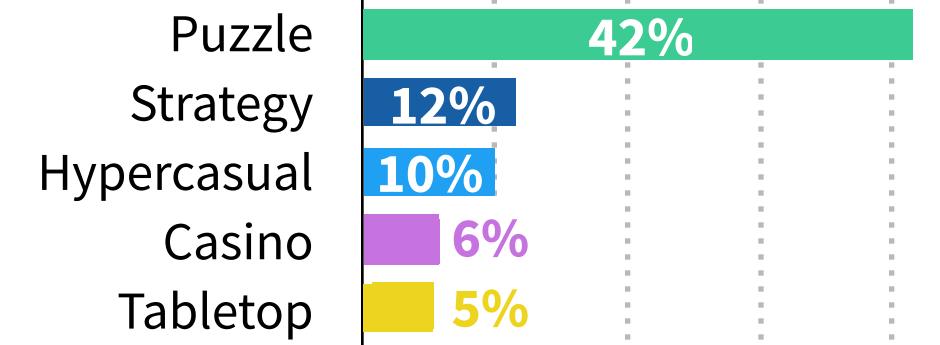
**Instagram**



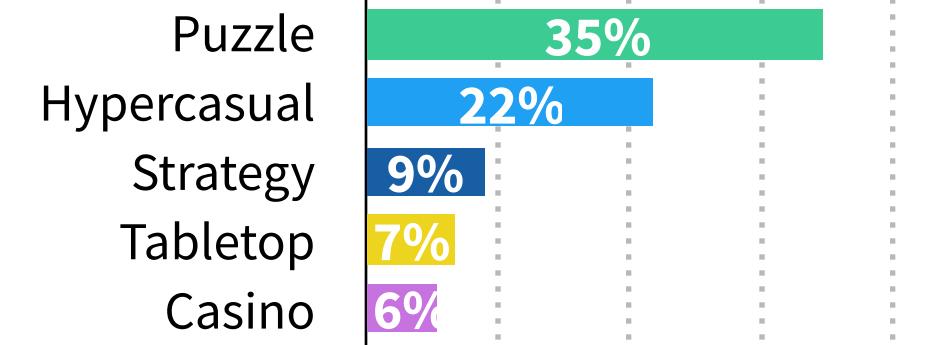
**ironSource**



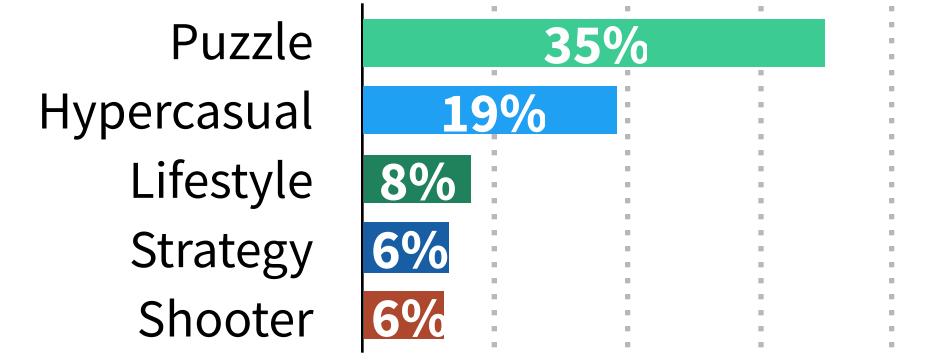
**MoPub**



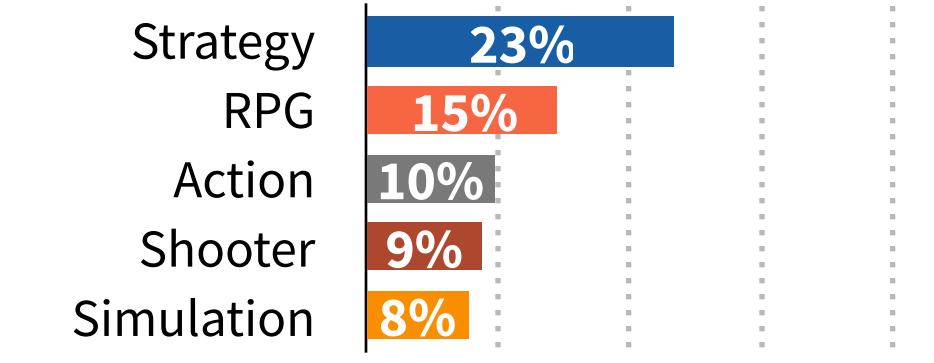
**Unity**



**Vungle**



**YouTube**



When it comes to advertising, Puzzle games advertise frequently on mobile to drive adoption. Puzzle games were responsible for more than 30 percent of the mobile game advertising share of voice (SOV) on six of the 10 ad networks studied, including 42 percent on MoPub and 36 percent on ironSource.

Strategy and Hypercasual game genres also advertise considerably. Hypercasual was the top genre by SOV on AppLovin and it ranked among the top three genres on six other networks. Meanwhile, Strategy was the top genre on YouTube and was the No. 2 genre on four other ad networks.

## Note:

Share of voice is calculated among game advertisers only. Non-game advertisers are excluded.

# AppLovin and Activision Blizzard Are Among the Top Ad Publishing Developers

*Top ad publishing developers by U.S. advertising share of voice on iOS*

## AdColony

- 1  Ninja Kiwi
- 2  Miniclip
- 3  Take-Two Interactive
- 4  Ubisoft
- 5  Sybo Games

## AdMob

- 1  Electronic Arts
- 2  AppLovin
- 3  Activision Blizzard
- 4  zplay
- 5  InnerSloth

## AppLovin

- 1  AppLovin
- 2  RobTop Games
- 3  Ubisoft
- 4  Playgendary
- 5  Elokence

## Facebook

- 1  Activision Blizzard
- 2  Habby
- 3  Zynga
- 4  Voodoo
- 5  Miniclip

## MoPub

- 1  X-Flow
- 2  Zynga
- 3  Habby
- 4  Voodoo
- 5  Easybrain

## Unity

- 1  AppLovin
- 2  Voodoo
- 3  Zynga
- 4  InnerSloth
- 5  Stillfront Group

## Vungle

- 1  X-Flow
- 2  Easybrain
- 3  Voodoo
- 4  Zynga
- 5  AppLovin

## ironSource

- 1  Activision Blizzard
- 2  Miniclip
- 3  Jam City
- 4  MobilityWare
- 5  Take-Two Interactive

# Zynga Was a Top Advertiser Following Its Rollic Games Acquisition

*Top game developers by U.S. advertising share of voice on iOS*

## AdColony

- 1  Playrix
- 2  Stillfront Group
- 3  Nordcurrent
- 4  Big Run Studios
- 5  Tether Studios

## AdMob

- 1  Playrix
- 2  Zynga
- 3  Easybrain
- 4  AppLovin
- 5  Activision Blizzard

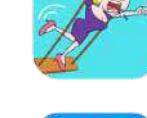
## AppLovin

- 1  AppLovin
- 2  Voodoo
- 3  Easybrain
- 4  SayGames
- 5  Good Job Games

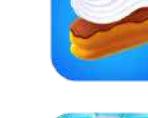
## Facebook

- 1  Zynga
- 2  AppLovin
- 3  Voodoo
- 4  Habby
- 5  Topwar Studio

## MoPub

- 1  Playrix
- 2  Zynga
- 3  Activision Blizzard
- 4  AppLovin
- 5  Easybrain

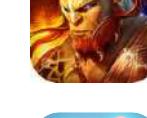
## Unity

- 1  Zynga
- 2  Playrix
- 3  Easybrain
- 4  Playgendary
- 5  BitMango

## Vungle

- 1  Playrix
- 2  Activision Blizzard
- 3  Voodoo
- 4  Zynga
- 5  Crazy Labs

## YouTube

- 1  Activision Blizzard
- 2  miHoYo
- 3  Lilith Games
- 4  Aristocrat Technologies
- 5  Moon Active

# Homescapes Saw Steady Advertising Across Many Networks

Top apps by U.S. advertising share of voice on iOS

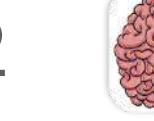
## AdColony

1		Homescapes
2		BitLife
3		Gardenscapes
4		Blackout Bingo
5		Marvel Contest of Champions

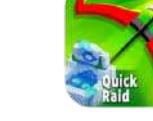
## AdMob

1		Homescapes
2		Toon Blast
3		Double Down
4		Happy Color
5		Gardenscapes

## AppLovin

1		Wordscapes
2		Brain Test
3		Ink Inc
4		Save the Girl
5		Cooking Fever

## Facebook

1		Archer0
2		Top War
3		Toon Blast
4		CSR 2
5		Wordscapes

## MoPub

1		Homescapes
2		Fishdom
3		Call of Duty: Mobile
4		Township
5		Gardenscapes

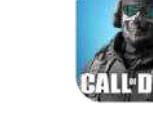
## Unity

1		Homescapes
2		Gardenscapes
3		Happy Color
4		Word Collect
5		Pokémon GO

## Vungle

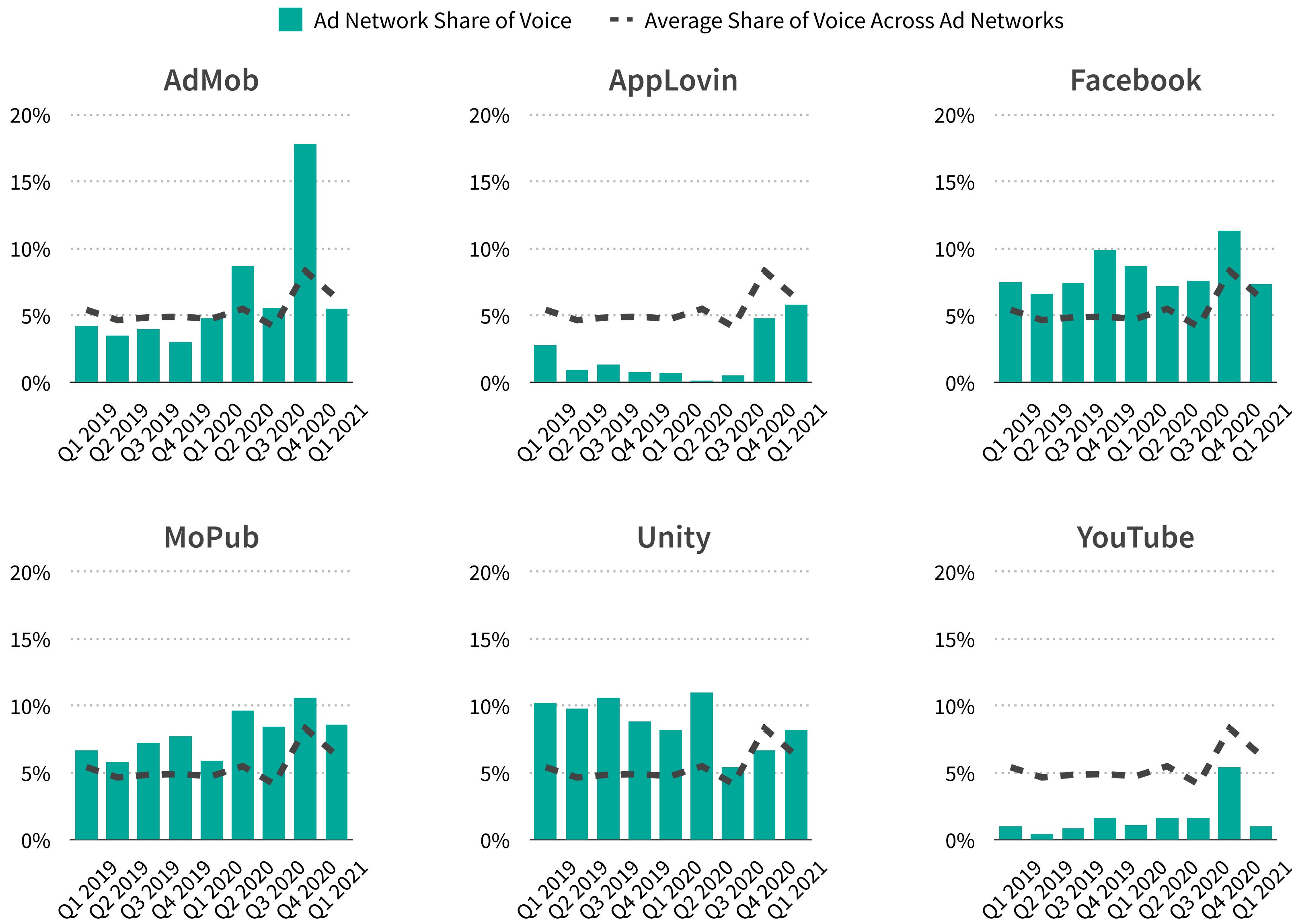
1		Homescapes
2		Call of Duty: Mobile
3		Fishdom
4		Episode
5		State of Survival

## YouTube

1		Call of Duty: Mobile
2		Genshin Impact
3		RAID: Shadow Legends
4		Coin Master
5		Rise of Kingdoms

# Zynga Advertising Increased After Hypercasual Acquisition

Zynga's U.S. share of voice by ad network



Zynga's advertising surged in Q4 2020 along with its acquisition of hypercasual games publisher Rollic Games. While its share of voice dipped somewhat in Q1 2021, it was still higher than it had been in Q1 2019 through Q3 2020.

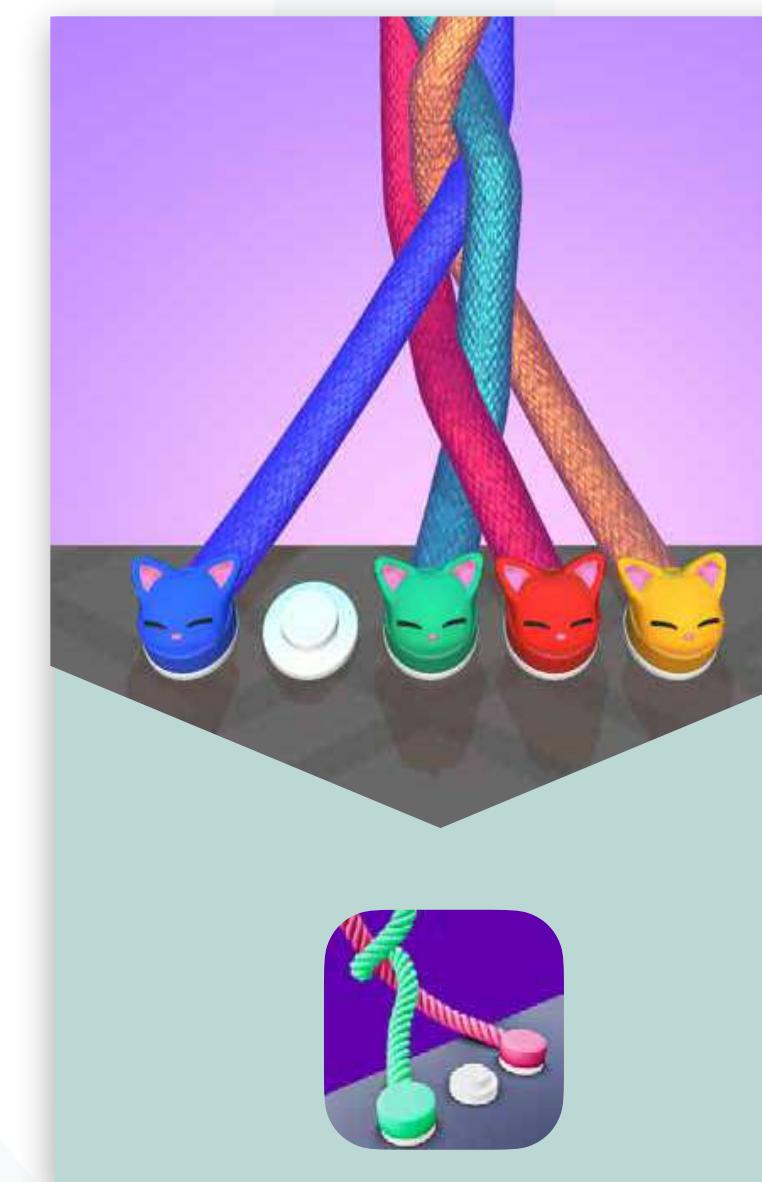
Zynga's ad push in Q4 2020 was most pronounced on networks including AdMob, AppLovin, Facebook, and YouTube.

**Note:**  
Share of voice includes advertising from all games currently owned by Zynga, even if it was prior to the acquisition. Average share of voice takes the mean across 10 ad networks (AdMob, AppLovin, Chartboost, Facebook, Instagram, ironSource, MoPub, Unity, Vungle, and YouTube).

# Key Takeaways:

## Advertising Trends

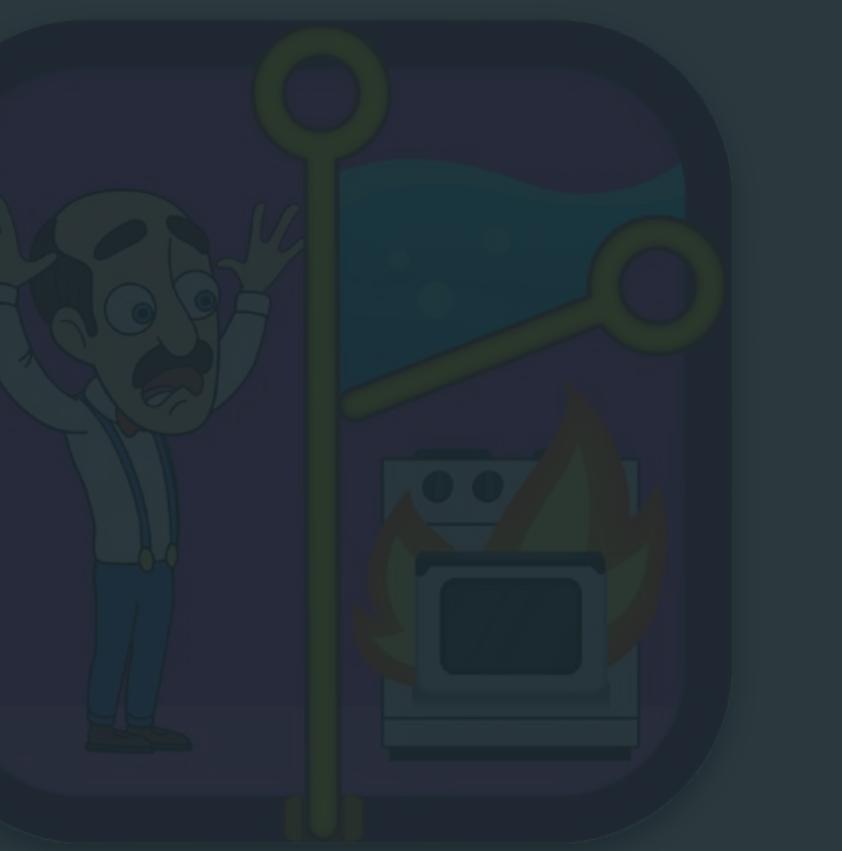
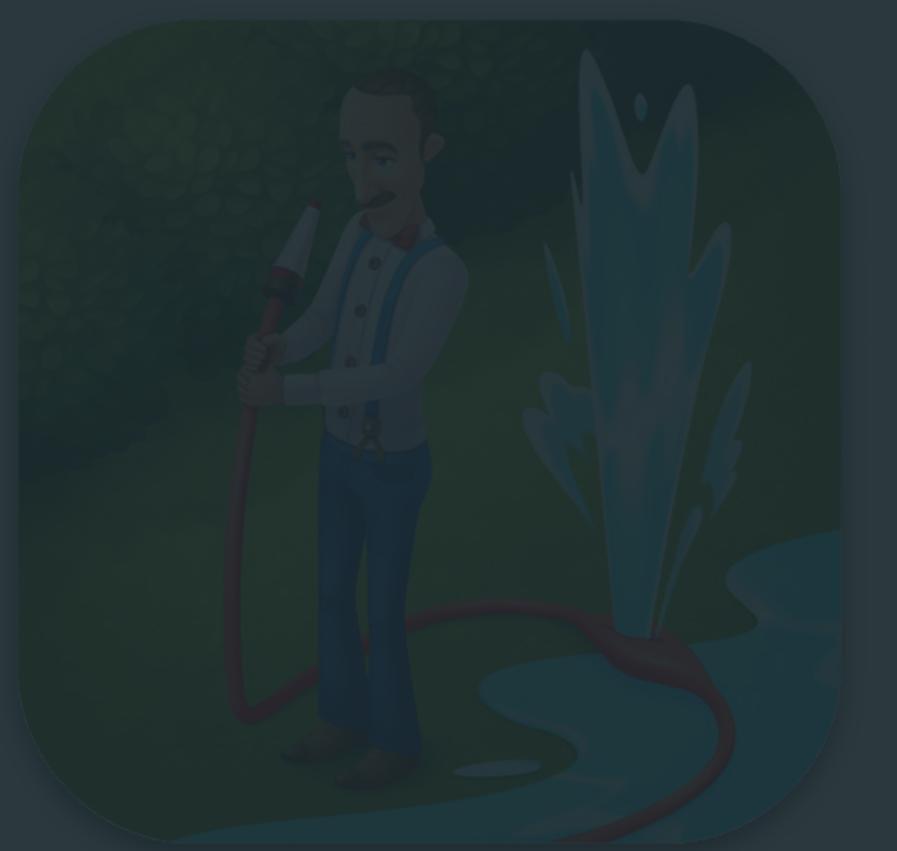
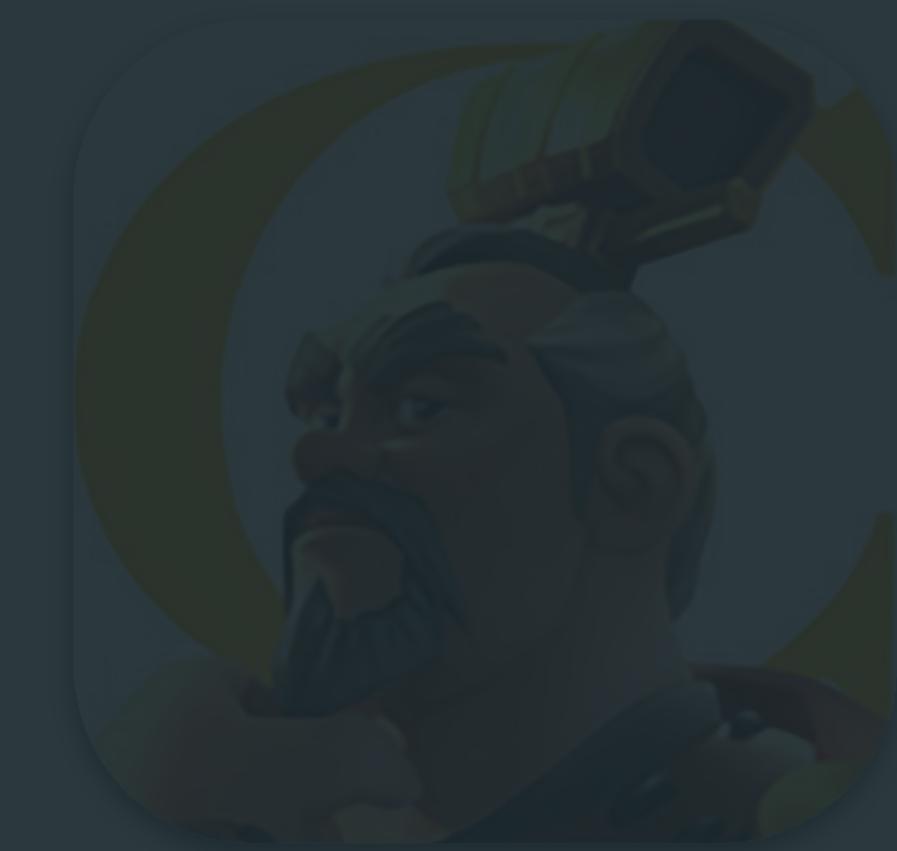
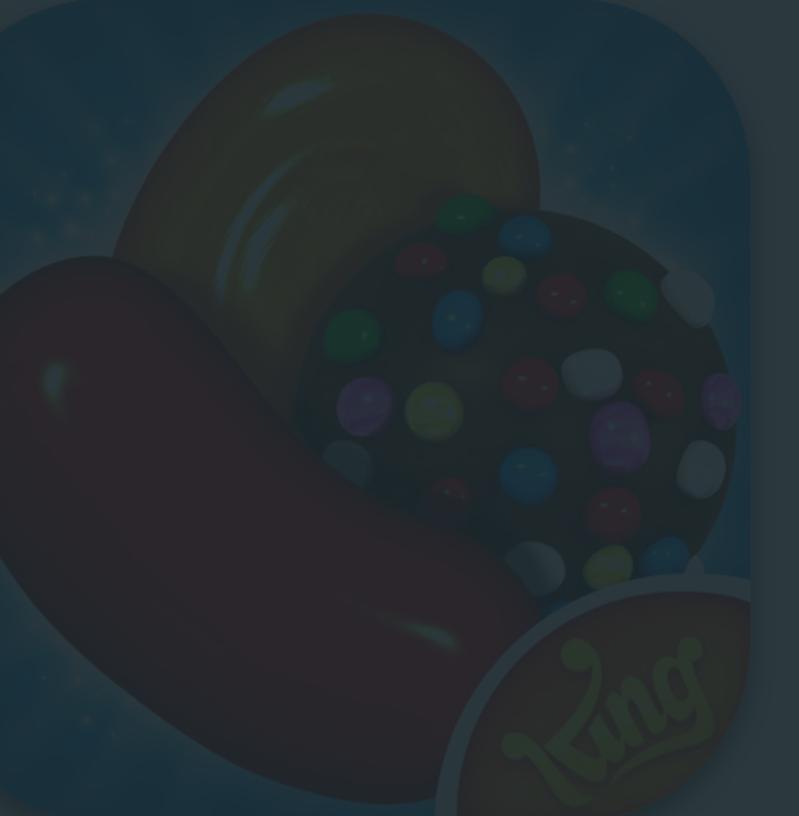
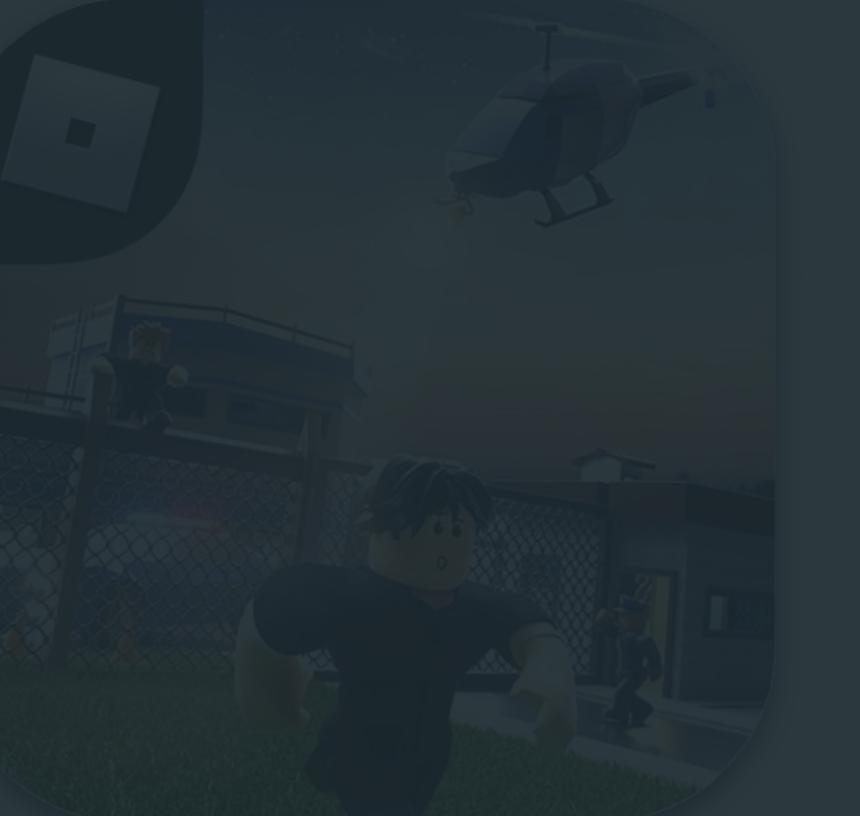
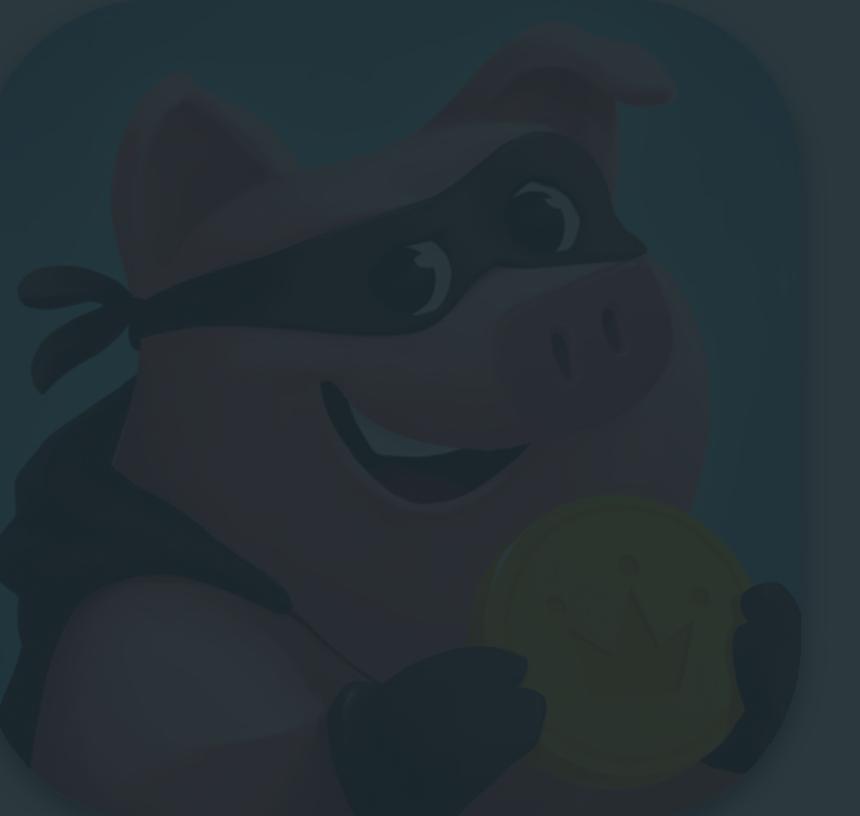
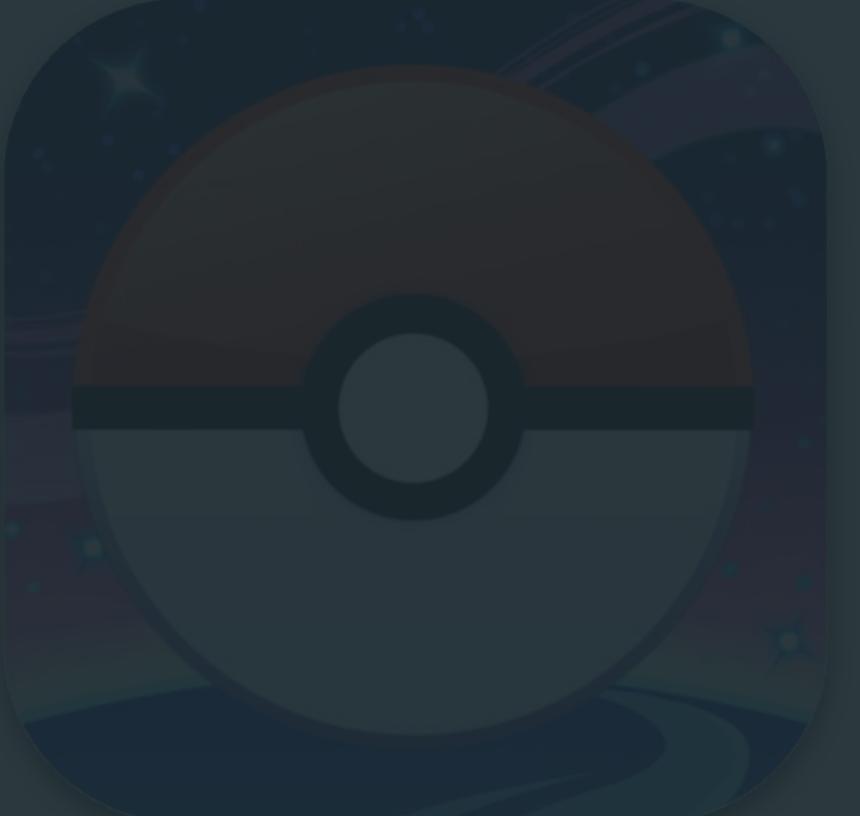
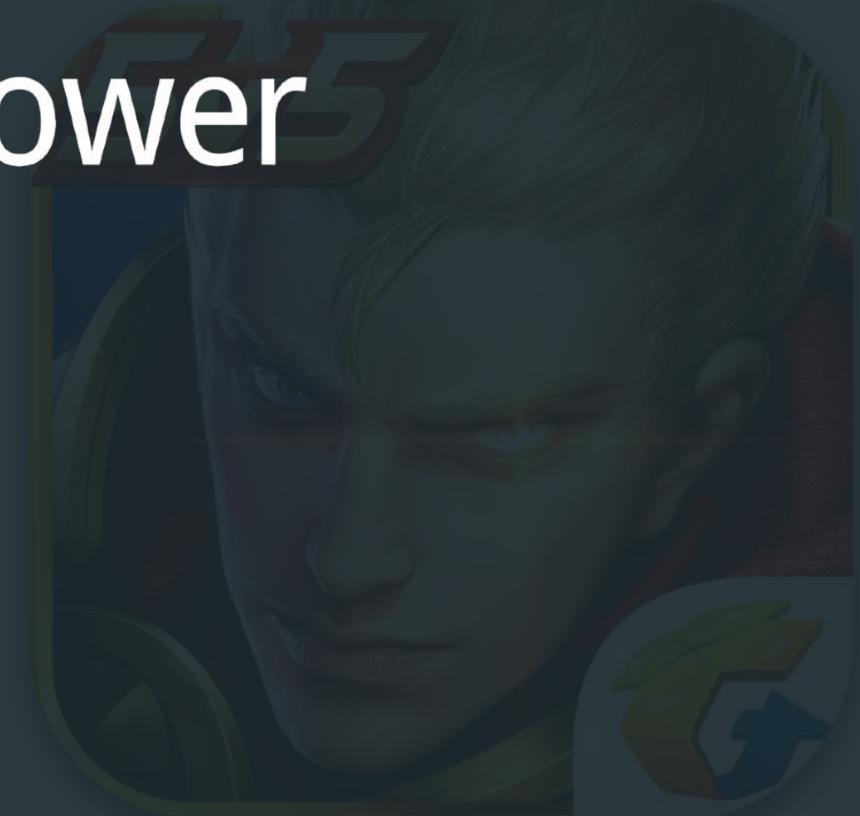
- 1. Hypercasual and Puzzle games published the most ads across ad networks.**  
Meanwhile, Puzzle games had the highest share of voice among game advertisers, suggested that these games are particularly reliant on advertising for user acquisition. Strategy and Hypercasual games also had a large portion of the share of voice on a few networks.
- 2. Playrix continued to be one of the top advertisers in the U.S., with the highest share of voice on Adcolony, AdMob, and Vungle networks.** Its puzzle and decorate game Homescapes was the top advertising game on each of these networks, and it also advertised heavily for Gardenscapes and Fishdom.
- 3. Zynga's acquisition of Hypercasual games publisher Rollic Games suggests that it still believes in the value of the genre despite the concerns around IDFA.** Zynga's share of voice surged following this acquisition.





# SensorTower

BATTLEGROUNDS  
MICHIE

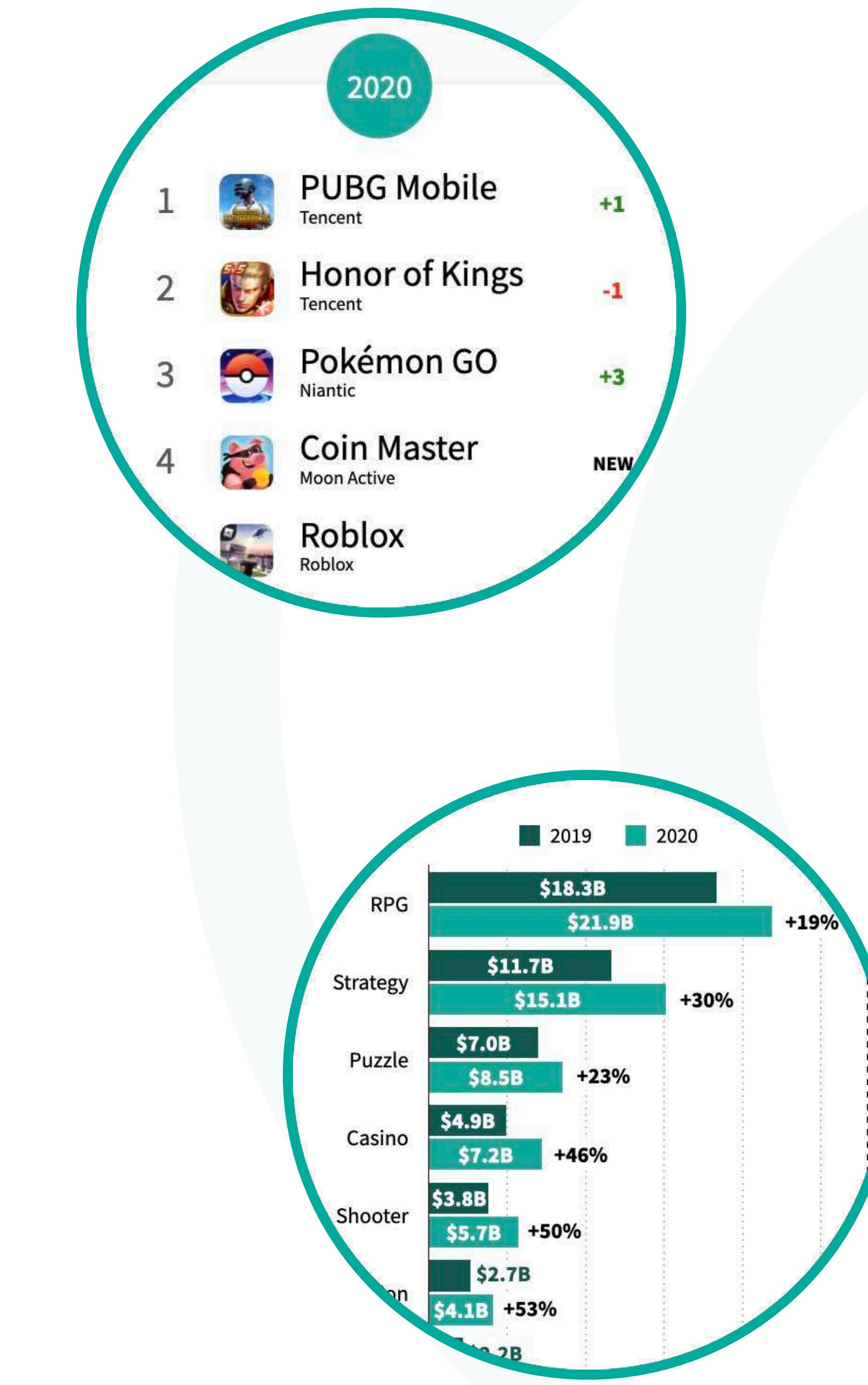


## Conclusion

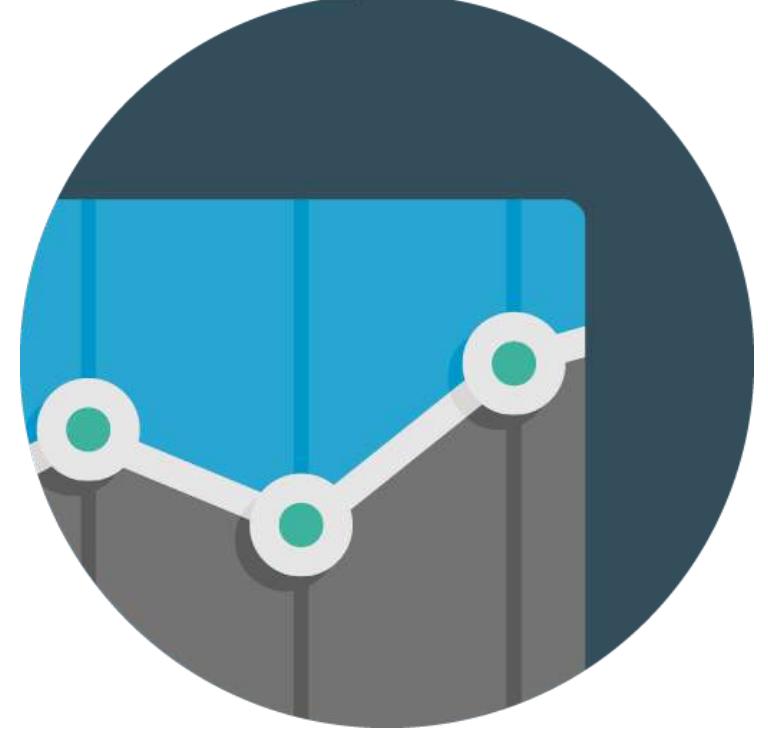
Key Takeaways from the Report

# Conclusion

- The mobile games market was larger than ever in 2020 and shows no signs of slowing down. In fact, revenue growth only accelerated during the COVID-19 pandemic and users spent more than \$22 billion in mobile games in Q1 2021.
- The U.S. continues to be the top market for mobile game spending. Mobile game revenue in the country surged at the start of the pandemic, and the U.S. accounted for 28 percent of global game revenue in 2020. Meanwhile, Europe and Southeast Asia are also projected for strong growth over the next several years and are key regions for game developers to expand.
- Mobile game monetization has trended away from premium apps and towards the freemium and ad models in recent years. Some top games have had success with subscriptions, demonstrating how being creative with monetization strategies can give game developers an edge in such a competitive space. It will also be important to monitor how IDFA impacts mobile game advertising and genres such as Hypercasual and Puzzle that rely heavily on ads.

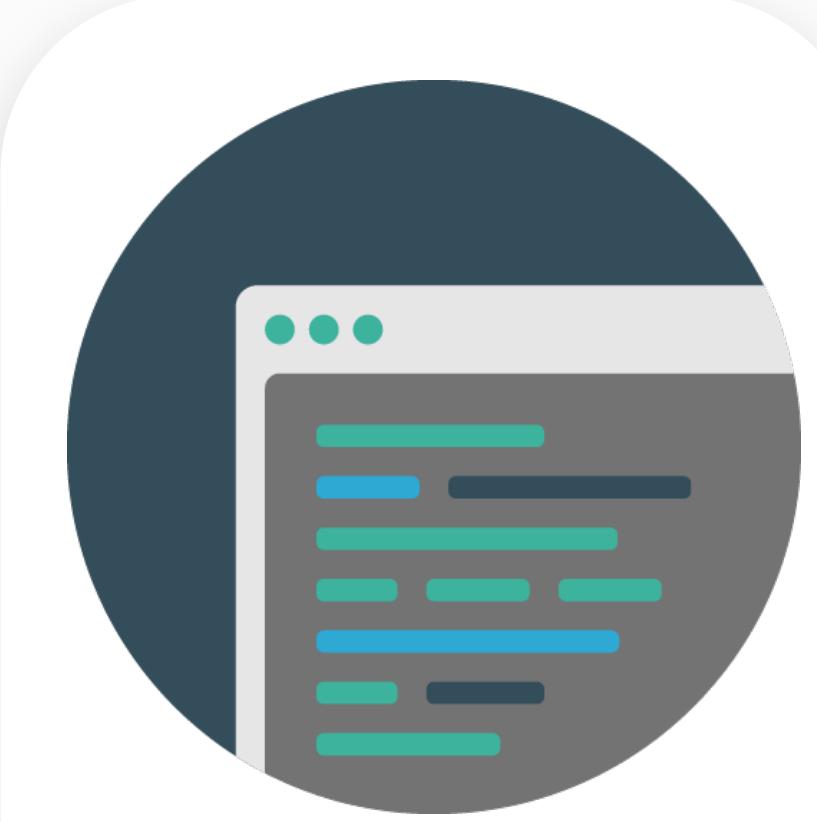


# Sensor Tower Solutions



## Store Intelligence

Make strategic decisions with the industry's most accurate estimates.



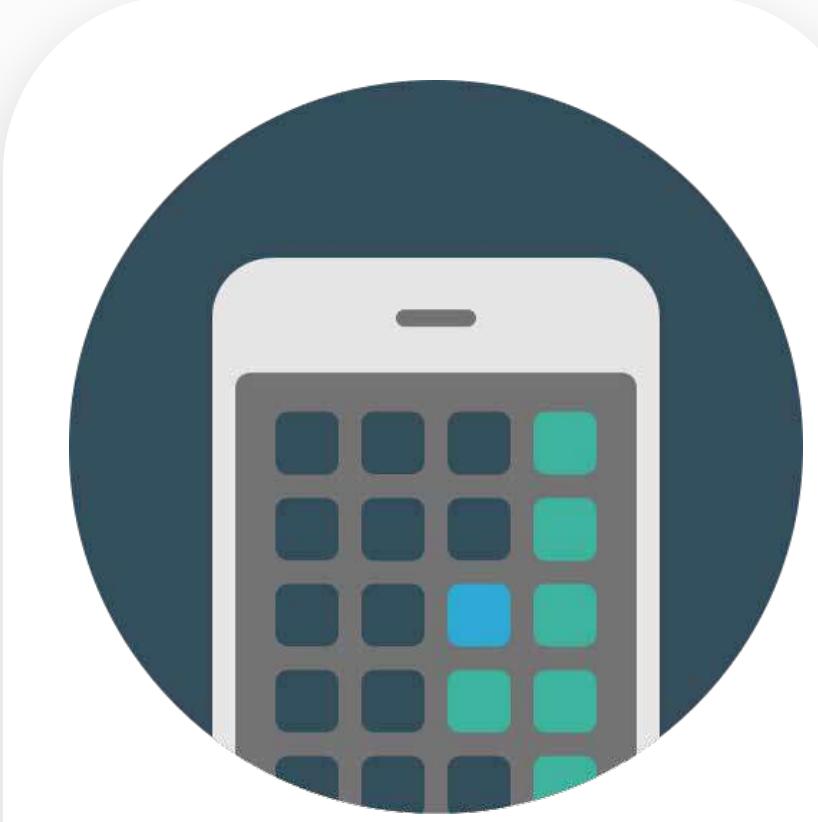
## App Intelligence

Drive organic growth with the leading App Store Optimization platform.



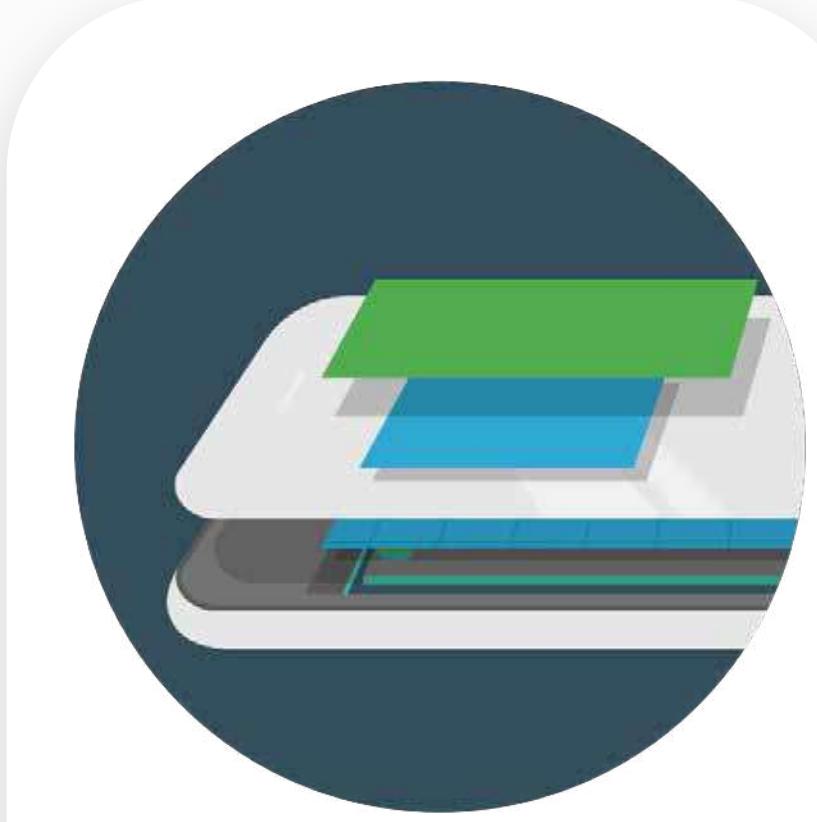
## Ad Intelligence

Develop winning User acquisition campaigns with crucial mobile advertising insights.



## Usage Intelligence

Benchmark app usage, engagement, and demographics.



## App Teardown

Evaluate which SDKs apps are using and measure SDK adoption across market segments.



## Consumer Intelligence

Access unfiltered mobile user engagement for financial analysis.

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Sensor Tower is the leading solution for mobile marketers, app developers, and industry analysts who demand competitive insights on the mobile economy. Sensor Tower's product suite includes: Top Charts, App Intelligence, Store Intelligence, Ad Intelligence, Usage Intelligence, and Consumer Intelligence.

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