



# The State of **Mobile Gaming 2023**

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

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# Game Genre Trends



# Genres Saw Mixed Outcomes in 2022

Top 10 Game Genres by Worldwide Downloads, App Store and Google Play

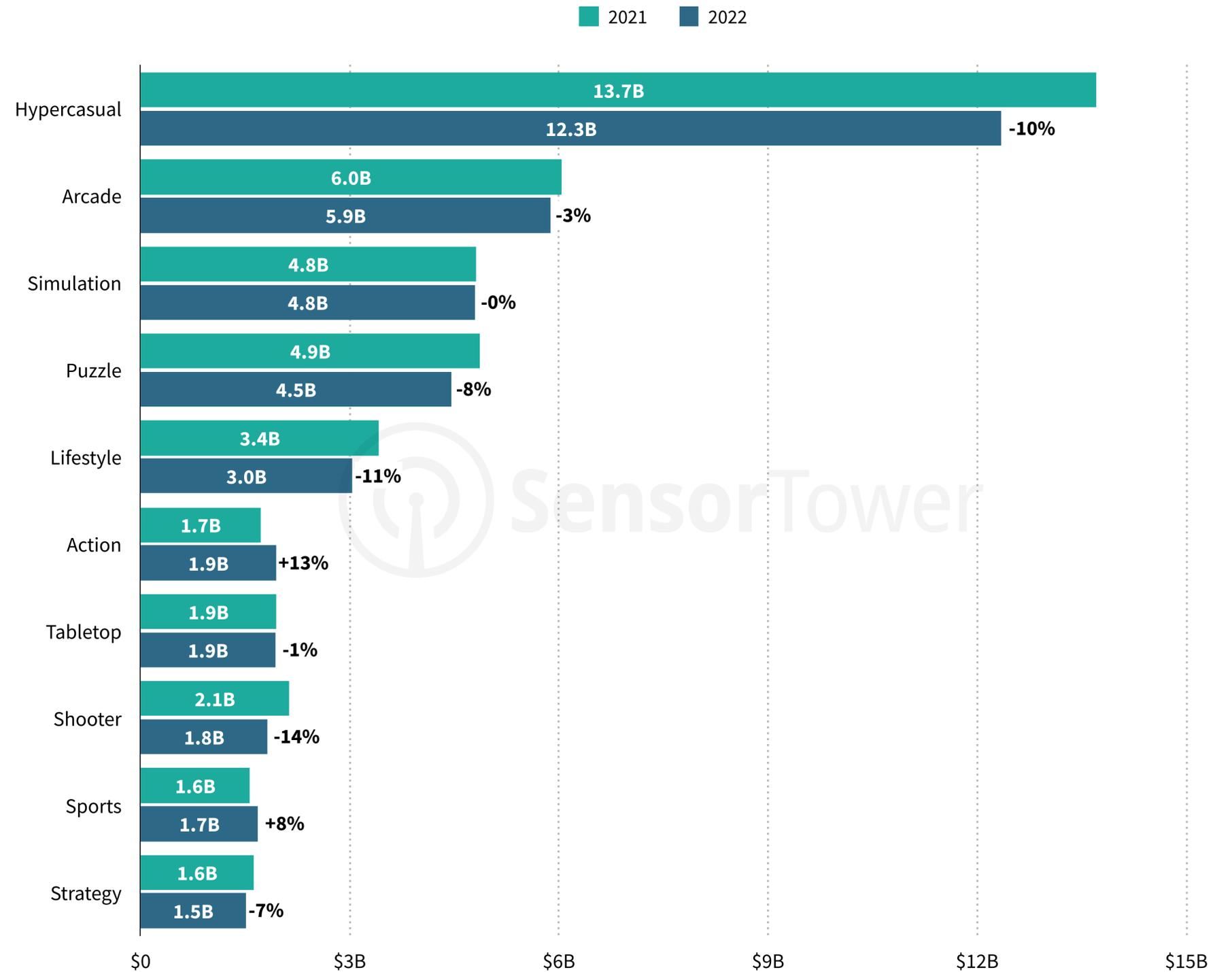
Mobile game downloads are affected by multiple factors today, including ATT policies that impact cost per install, the recession affecting user acquisition budgets and the overall post-covid cultural and macroeconomic recovery.

But even if these factors influence the whole mobile gaming ecosystem, some types of games are more affected than others. **Why?**

The top five genres by downloads in 2022 were the same as in 2021. Hypercasual remained on top in spite of a decrease of 10 percent in 2022 overall, a drop of 24 percent in Q4 2022, and a continued trend downwards in 2023.

In 2022, Simulation surpassed Puzzle as the No.3 Genre by downloads, fueled by Roblox and a new trend in Simulators, Sandbox and Tycoon/ Crafting games utilizing a Hybridcasual product model.

While each of the top 5 genres exhibited negative growth in 2022, Action games registered double-digit growth at 13 percent in downloads, mainly due to the strong performance of Shoot'em Ups like Survivor.io and Action Sandbox games like School Party Craft which inherits game patterns from Roblox.



# Hypercasual Saw Major Decline in Downloads in 2022

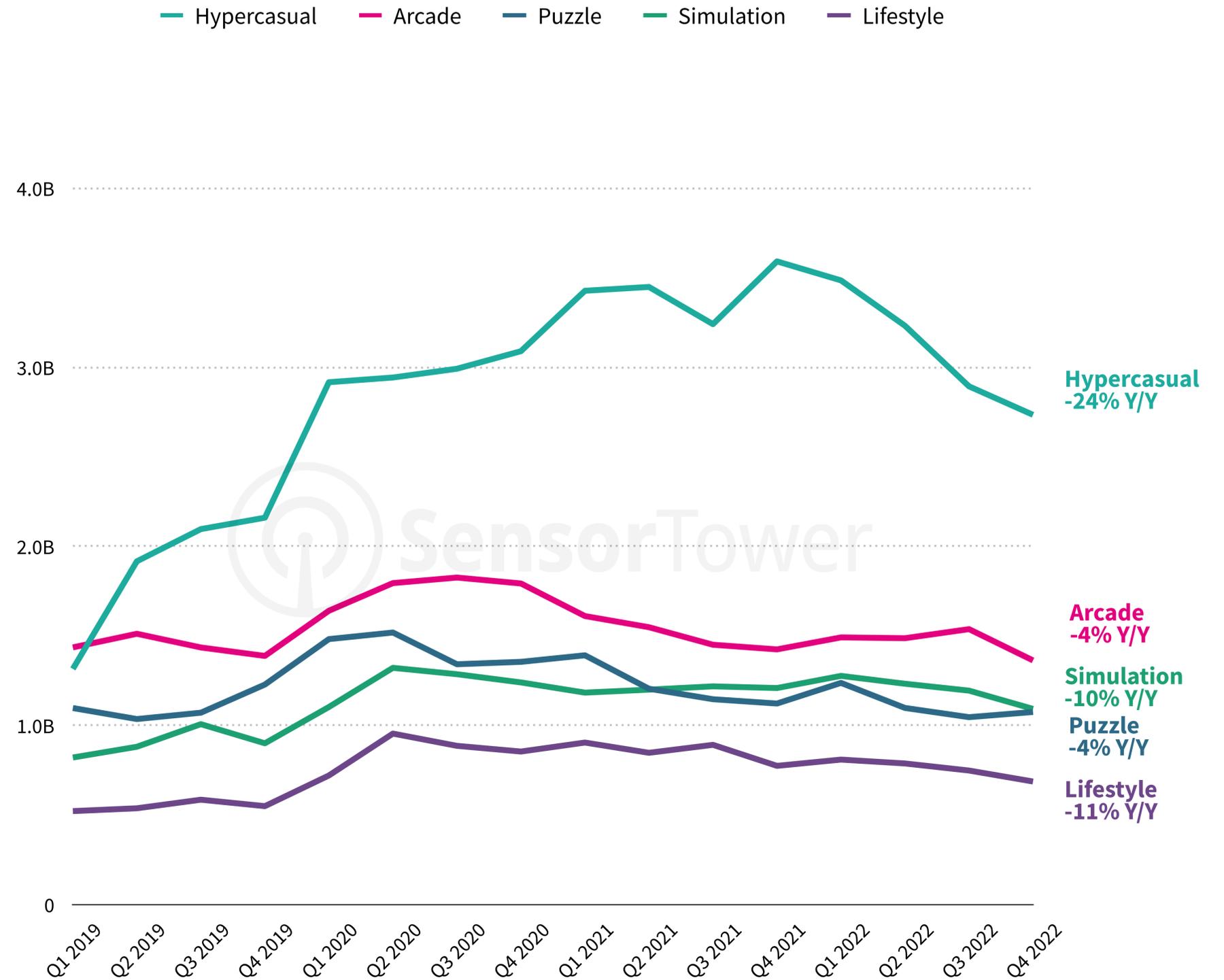
Worldwide Download Growth by Game Genre, App Store and Google Play

After the explosive growth of the preceding years, downloads of Hypercasual games began trending downwards in Q1 2022. In Q4 2022, Hypercasual game downloads were down 24 percent year-over-year to 2.7B.

The profitability of the Hypercasual product model is directly linked to user acquisition costs and monetization through the use of video ads. Both were impacted by multiple factors in 2022.

Hypercasual was the fastest growing genre by downloads during the pandemic. Hypercasual downloads were up 60 percent year-over-year 2020, and up 15 percent in 2021. This trend, however, reversed course in 2022, and downloads continue trending down in 2023.

Many Hypercasual developers and publishers are searching for solutions to this decline. The most appealing has been the transition to the new Hybridcasual product model.



# Hybridcasual Is the New Casual

Worldwide Downloads by Product Model, App Store and Google Play

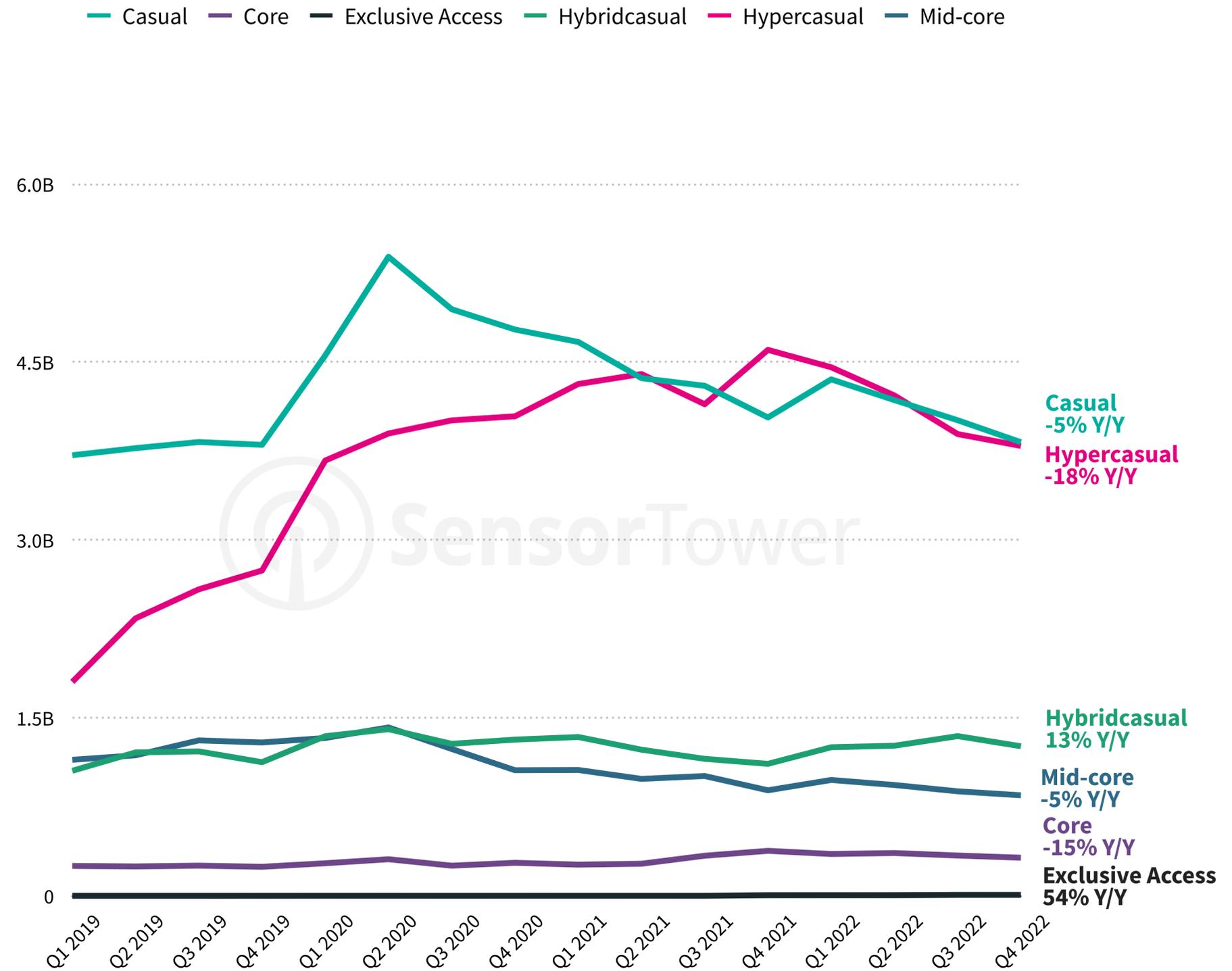
It's clear that the mobile gaming ecosystem is evolving rapidly, with the market producing new innovations in response to changes like ATT and post-covid player behavior.

Changes in cost per install and consolidation between publishers and developers are resulting in industry-wide shifts that challenge established financial models for developing and operating games.

Sensor Tower's Product Model descriptor identifies the core business strategy of a game. It answers fundamental financial questions around how a game generates revenue and the costs to acquire and retain players.

Each Product Model identified by Sensor Tower represents a distinct business strategy to find and sustain profitability.

In 2022, the **Hypercasual** product model was most affected, decreasing by 1 billion yearly downloads, whereas **Hybridcasual** saw a 13 percent increase in downloads. At the same time, **Exclusive Access** (meaning games only available through external subscriptions, like the Netflix and Apple Arcade libraries) saw a 54 percent increase in downloads year-over-year.



# Revenue of Most Top Genres Declined in 2022

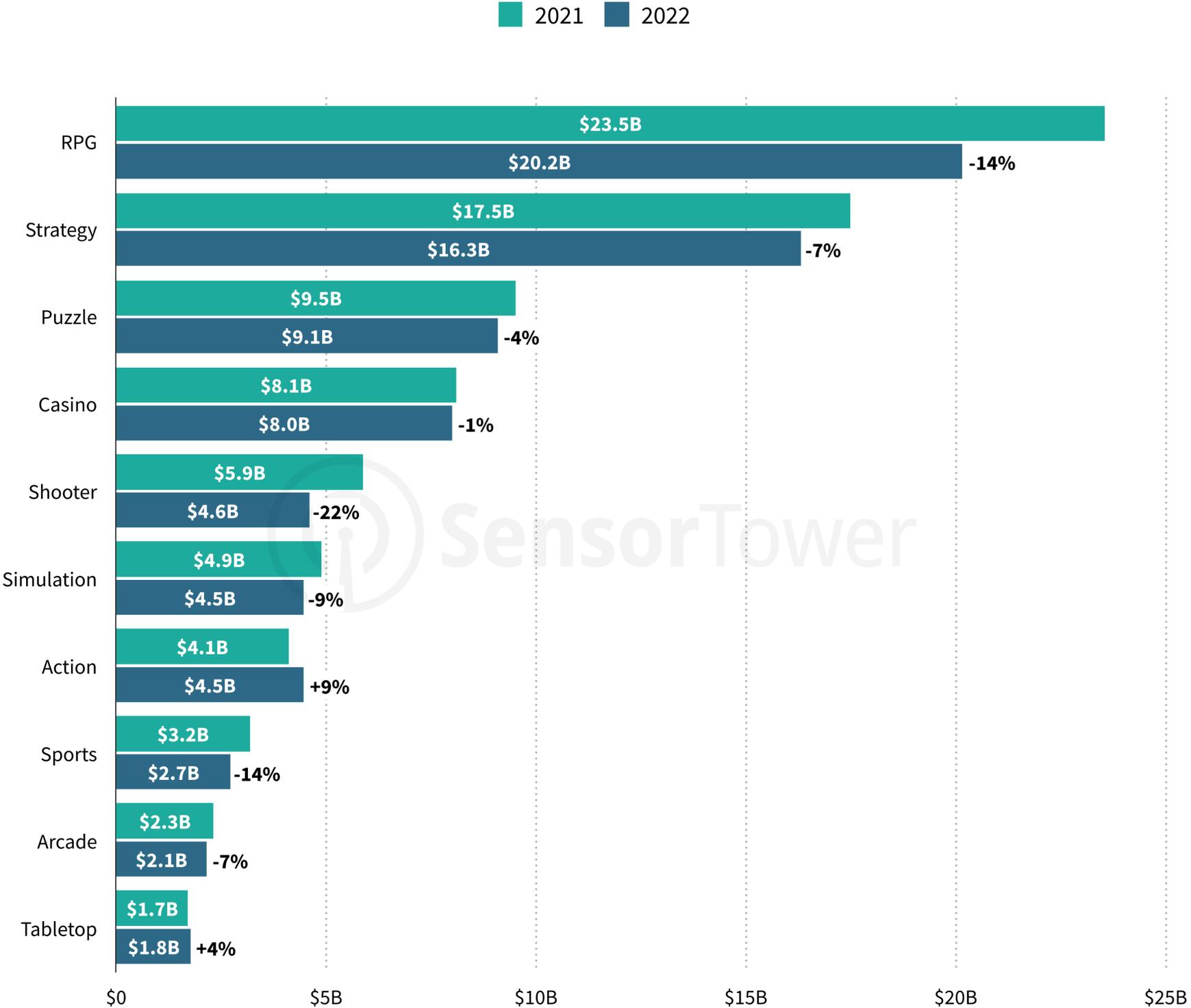
Top 10 Game Genres by Worldwide Gross Revenue, App Store and Google Play

Among the top genres, Action and Tabletop stood out as the only two showing positive growth in 2022, with revenue increasing by 9 percent and 4 percent year-over-year, respectively.

The Action genre was mostly fueled by Mid-core ‘forever’ games like Genshin Impact, Dragon Ball Legends and Marvel Contest of Champions. Trending Hybridcasual game Survivor.io also made a contribution to the genre.

In contrast, Shooter was the worst performing genre in terms of revenue growth, with worldwide revenue decreasing 22 percent year-over-year during 2022. We see the the genre consolidating towards top grossing games like PUBG Mobile, Garena Free Fire and Call of Duty Mobile.

Although Shooter still ranked as the fifth largest genre in 2022, if the ascent of Action continues into 2023, it may surpass Shooter to become the fifth largest genre by revenue.



# RPG Revenue Down for the Seventh Consecutive Quarter

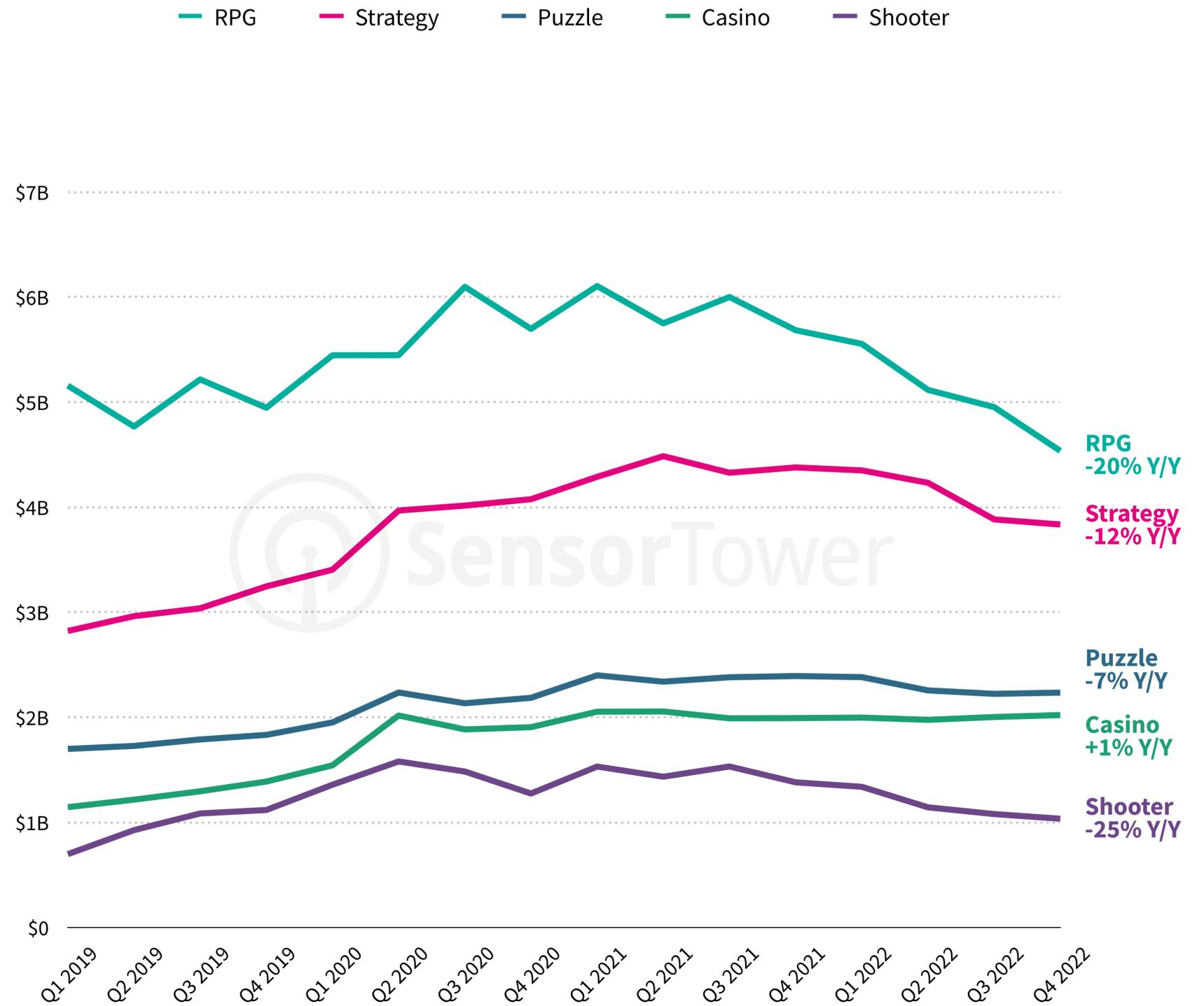
Worldwide Gross Revenue by Game Genre, App Store and Google Play

Four of the top five largest game genres registered revenue declines in Q4 2022, with Casino as the only exception. Shooter saw the steepest decline, with revenue falling by 25 percent year-over-year in Q4 2022, followed by RPG, which declined by 20 percent.

RPG saw a drastic decline in the past two years, with revenue falling from \$6.1B in Q1 2021 to \$4.5B in Q4 2022, down 26 percent.

Despite this, RPG still ranked as the largest genre by revenue in 2022.

If recent trends continue, Strategy could overtake RPG in the coming years as the biggest genre by revenue. With relatively stable revenue, Strategy has narrowed the gap with RPG to \$700M in revenue in Q4 2022, down from nearly \$1.3B a year prior.



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



# Asia Is a Major Contributor to RPG Revenue

Market Share for Game Genres by Gross Revenue in 2022, App Store and Google Play

RPGs were the most popular and lucrative genre in the mobile gaming industry in Asia, accounting for 39 percent of mobile game revenue generated in 2022.

In contrast to the Asian market, North American mobile gaming revenue is driven by a wider variety of genres, including Puzzle, Casino, Strategy, and RPG. Each of those genres generated at least 12 percent of all player spending in North America.

In Europe, the mobile gaming industry is similarly driven by a diverse range of genres. The Strategy genre accounted for nearly a quarter of the mobile game revenue in Europe in 2022.





# The Rise of Hybridcasual



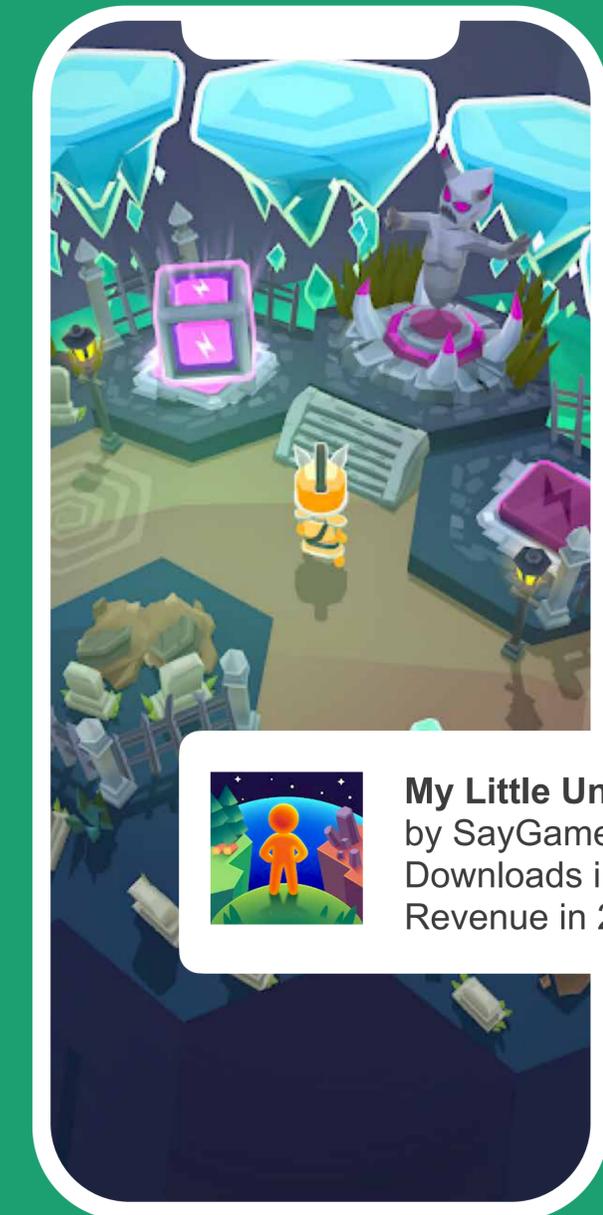
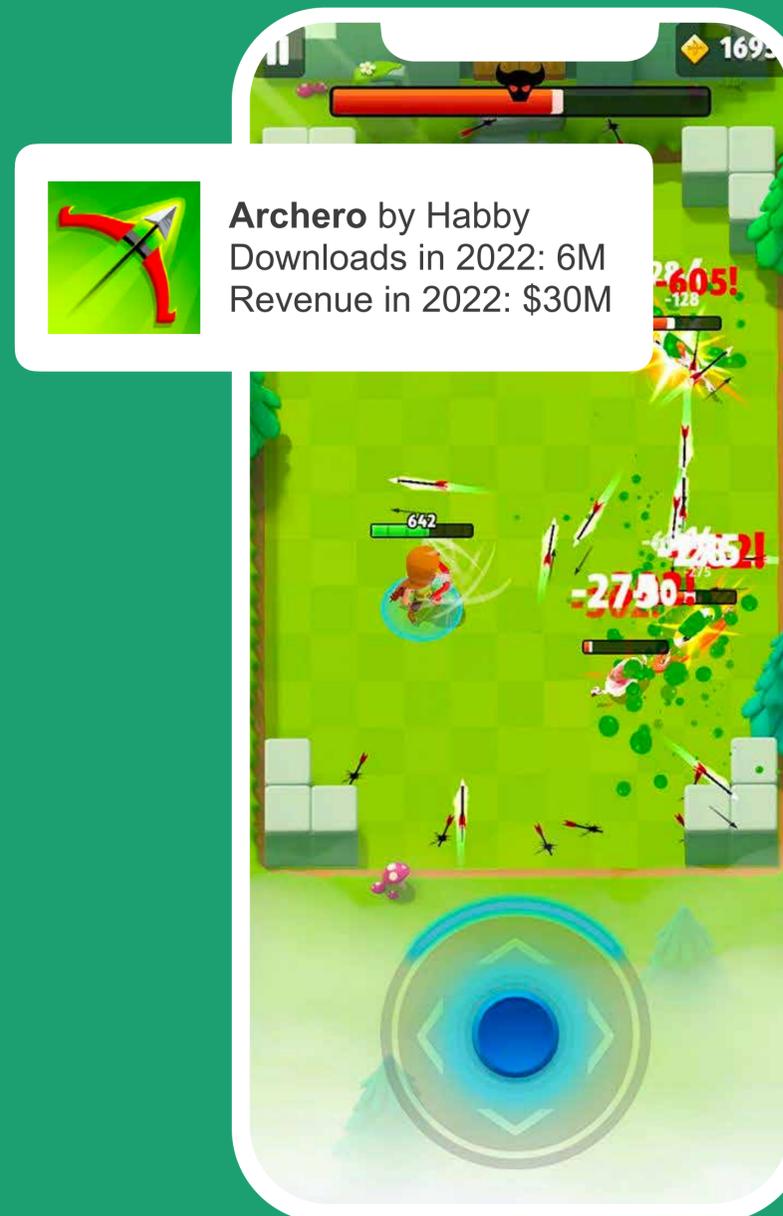
# Definition of Hybridcasual

## What is Hybridcasual?

The Hybridcasual product model combines the approachable core mechanics from Hypercasual games with retention and monetization features of Mid-core and Casual games.

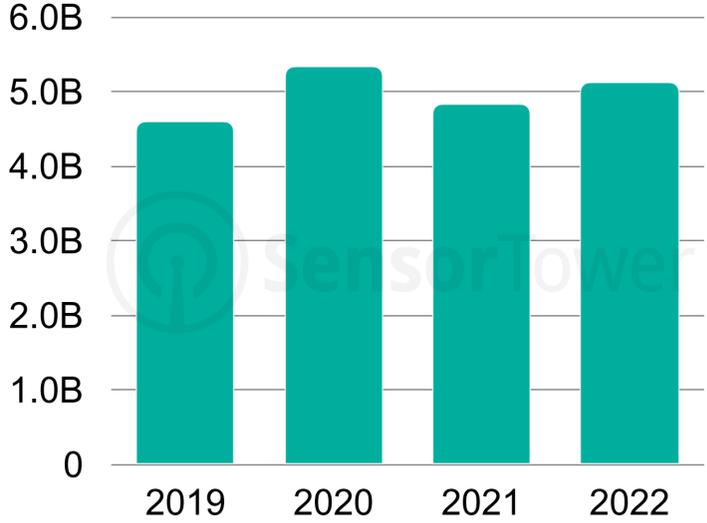
## These games are characterized by:

- Easy to understand active gameplay mechanics that require low cognitive effort inherited from Hypercasual games.
- Simplified long term meta features like Character Collection and Progression associated with Mid-core games.
- Hybrid monetization strategies, featuring currency bundles and progression packs from Casual games, and interstitials and rewarded ads with implementations similar to Hypercasual games.
- Often lower production costs than Casual games, and thus the utilization of more generic assets, codebase and logic from other projects - an operational strategy pioneered in Hypercasual.
- A broad appeal to multiple audiences due to its unique combination of Mid-core, Hypercasual and Casual personas.



# Hybridcasual Mobile Games Market Overview:

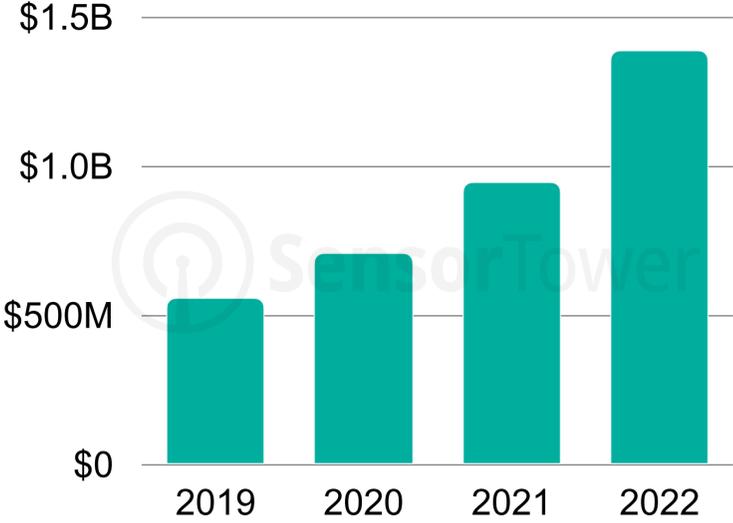
Worldwide Hybridcasual Games Downloads (App Store and Google Play)



**5.1 Billion**

App Store + Google Play Downloads in 2022

Worldwide Hybridcasual Games Revenue (App Store and Google Play)



**1.4 Billion**

App Store + Google Play Revenue in 2022

**99** New Hybridcasual Games launched in 2022

Percentage of Top 10 Hybridcasual Game Themes



# Hyper & Hybrid in 2022

*U.S. Monthly Download Growth for Hypercasual & Hybridcasual, App Store and Google Play*

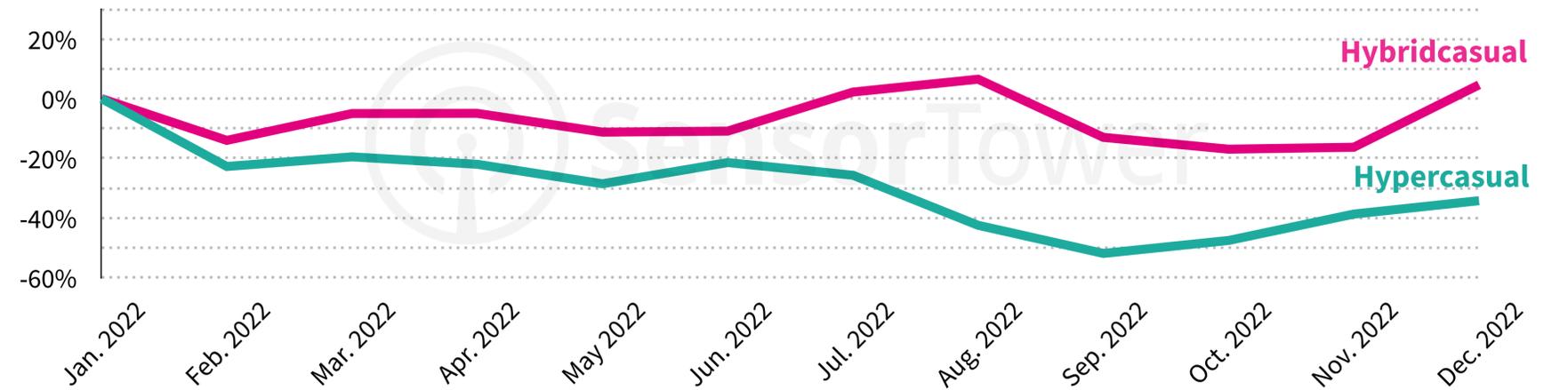
Between June and August 2022, we see the trend for US downloads start to shift toward Hybridcasual, fueled by **Stumble Guys**, acquired during this same period by Scopely. Stumble Guys embraces the Social Party meta from Roblox and mini-game patterns borrowed from successful PC and console game Fall Guys: Ultimate Knockdown.

Hypercasual's growth reached an inflection point in Q4 2022, while Hybridcasual initiated its second wave of downloads, with games such as **Survivor!.io** amassing more than 21M downloads worldwide during this quarter. Survivor!.io is a mobile game published by Habby that utilizes game patterns from successful pixel-graphic and PC game Vampire Survivors.

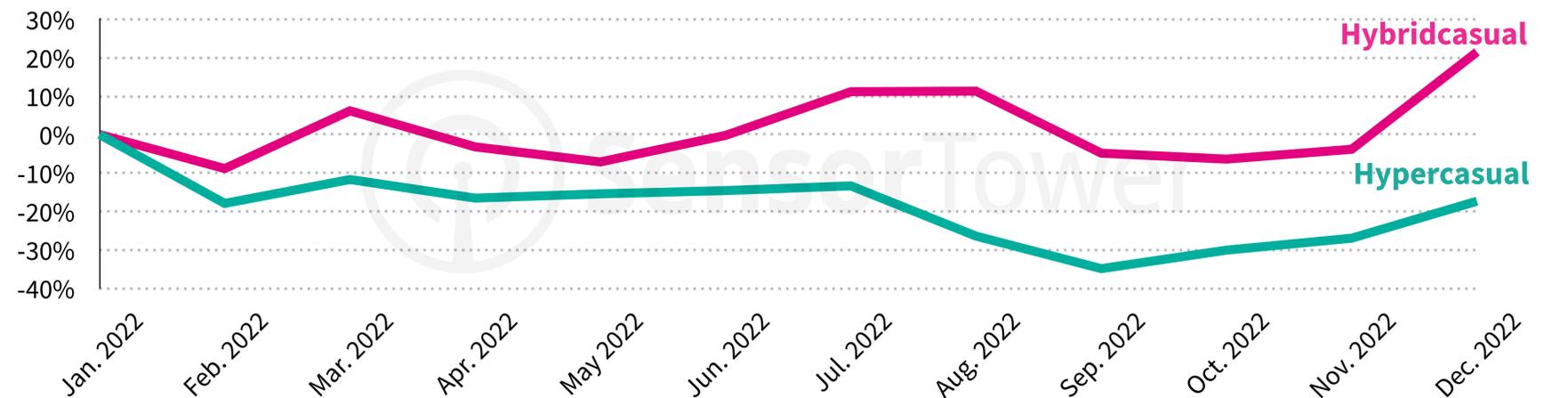
From a game design perspective, there's a clear trend of mobile publishers utilizing the Hybridcasual product model with games inspired by recent successes from the PC/console space.

**Sensor Tower Game Intelligence can identify emerging trends and market shifts to help drive your product strategy.**

U.S. Download Growth for Hypercasual and Hybridcasual Games  
App Store (indexed to Jan. 2022)



U.S. Download Growth for Hypercasual and Hybridcasual Games  
Google Play (indexed to Jan. 2022)



# Hypercasual and Casual Developers Join the Hybrid Wave

*More Hybridcasual Games Released in recent years*

Some identify Hybridcasual as an evolution of Hypercasual, going as far as to call these games Hypercasual 2.0. However, if we dive deeper into the more than 700 Hybridcasual games released in recent years, we see that this product model is also being adopted by studios that focus on Casual and Mid-core games.

SayGames transitioned from Hyper to Hybrid very early, allowing them to generate hits such as **Race Master 3D** (Arcade Racing), and **My Little Universe** (Tycoon Crafting). Revenue from their games achieved 2X growth in 2022.

Miniclip's **Triple Match 3D** combines Pair game patterns aimed at casual players with the Hybridcasual product model, which has led it to dominate the Pair sub-genre. It generated 4X more revenue than its closest competitor with nearly the same number of monthly downloads.

Even Supersonic is beginning to explore the Hyper to Hybrid transformation with games like **My Mini Mart** that include in-app purchases and progression metas.

Sensor Tower identifies Hypercasual games using a variety of signals from our dataset, including monetization and meta features, ad publishing activity, and usage data from our proprietary panel. All core descriptors, including Product Model and Hypercasual, are also manually reviewed by our analyst team for the highest accuracy.



## Race Master 3D - Car Racing

SayGames

**No. 2** Hybridcasual game by download in 2022

**Worldwide Released Date:** 8/1/2021

**All-Time Download:** 205M

**All-Time Revenue:** \$2.38M



## Triple Match 3D

Miniclip

**No. 214** Hybridcasual game by download in 2022

**Worldwide Released Date:** 4/13/2022

**All-Time Download:** 6M

**All-Time Revenue:** \$69.6M



## My Mini Mart

Supersonic Studios

**No. 14** Hybridcasual game by download in 2022

**Worldwide Released Date:** 12/18/2021

**All-Time Download:** 71.2M

**All-Time Revenue:** \$3.2M



## Rush Royale: Tower Defense TD

UPWAKE.ME

**No. 74** Hybridcasual game by download in 2022

**Worldwide Released Date:** 10/9/2020

**All-Time Download:** 43.9M

**All-Time Revenue:** \$137M



# Hybridcasual Wins Player Engagement

Average Time Spent and Session Duration in Top Games, Q4 2022

In Q4 2022, Hybridcasual games had longer average sessions and playtime than top Hypercasual games. On average, players of Hybridcasual games spent over an hour per month playing; nearly double the amount of time spent by players of Hypercasual games.

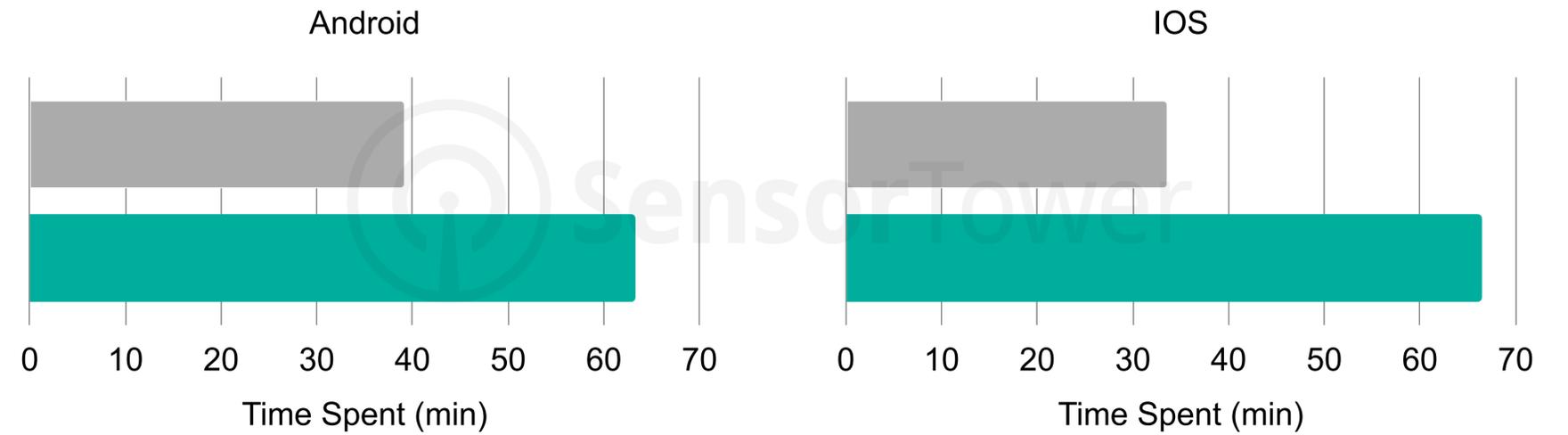
Engaged players generate more value than ever. Solid in-game economies with clear monetization and meta features are even more critical today to retain players and drive long-term engagement.

In Q4 2022, **Rush Royale: Tower Defense TD** led Hybridcasual games in average time spent on Android. Its players spent 88.7 percent more time on the app compared to No.1 Hypercasual title **Crafting and Building** on Android.

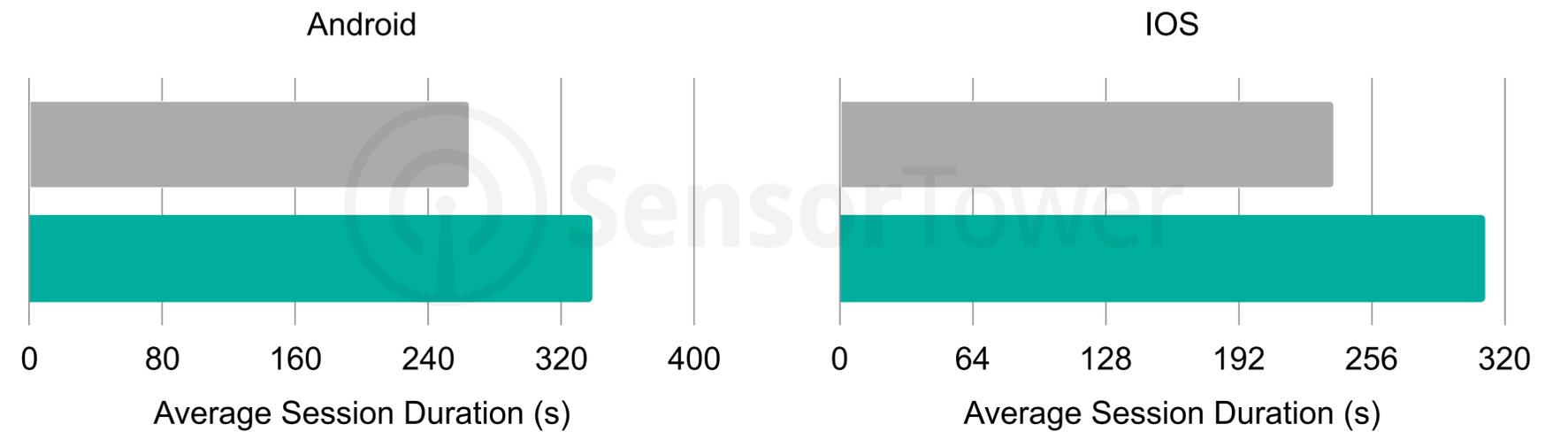
This success can be attributed to its various engaging meta features, including *Character Collection*, *Levels*, and *Social Clans*, which helped to keep players interested and involved in the game.

■ Hypercasual ■ Hybridcasual

Average Time Spent per Month



Session Duration



# Hybridcasual Games Employ Meta Features

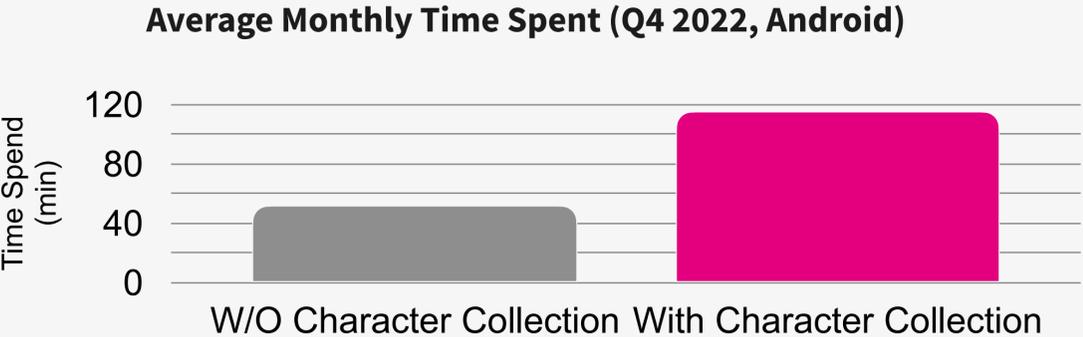
Percentage of Top Hybridcasual Games With Selected Meta Features

**Meta features are more widespread in Hybridcasual games.**

While only 5 percent of the top Hypercasual games utilize at least one meta feature, 30 percent of the top Hybridcasual games employ at least one meta feature identified by Sensor Tower advanced descriptors.

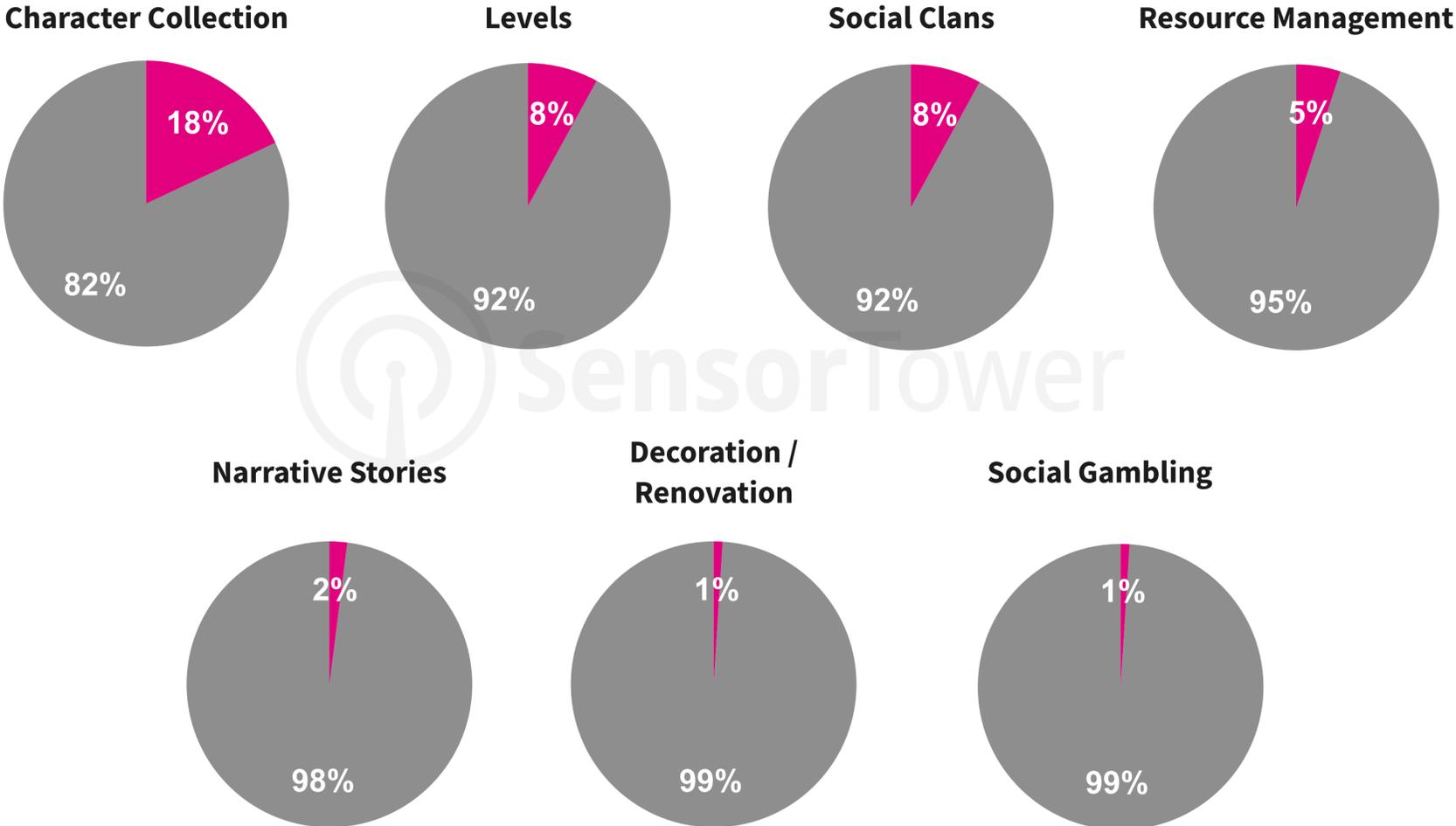
Character Collection is the most common meta feature in Hybridcasual games, with 18 percent of the top Hybridcasual games incorporating this feature.

The Character Collection feature also boosts time spent. On average, players spend nearly 2 hours on a Hybridcasual game with Character Collection, which is 122 percent more time compared to a game without this meta.



**Note:**  
Top 100 Hybridcasual mobile games by download in 2022

● With Meta Feature ● Without Meta Feature

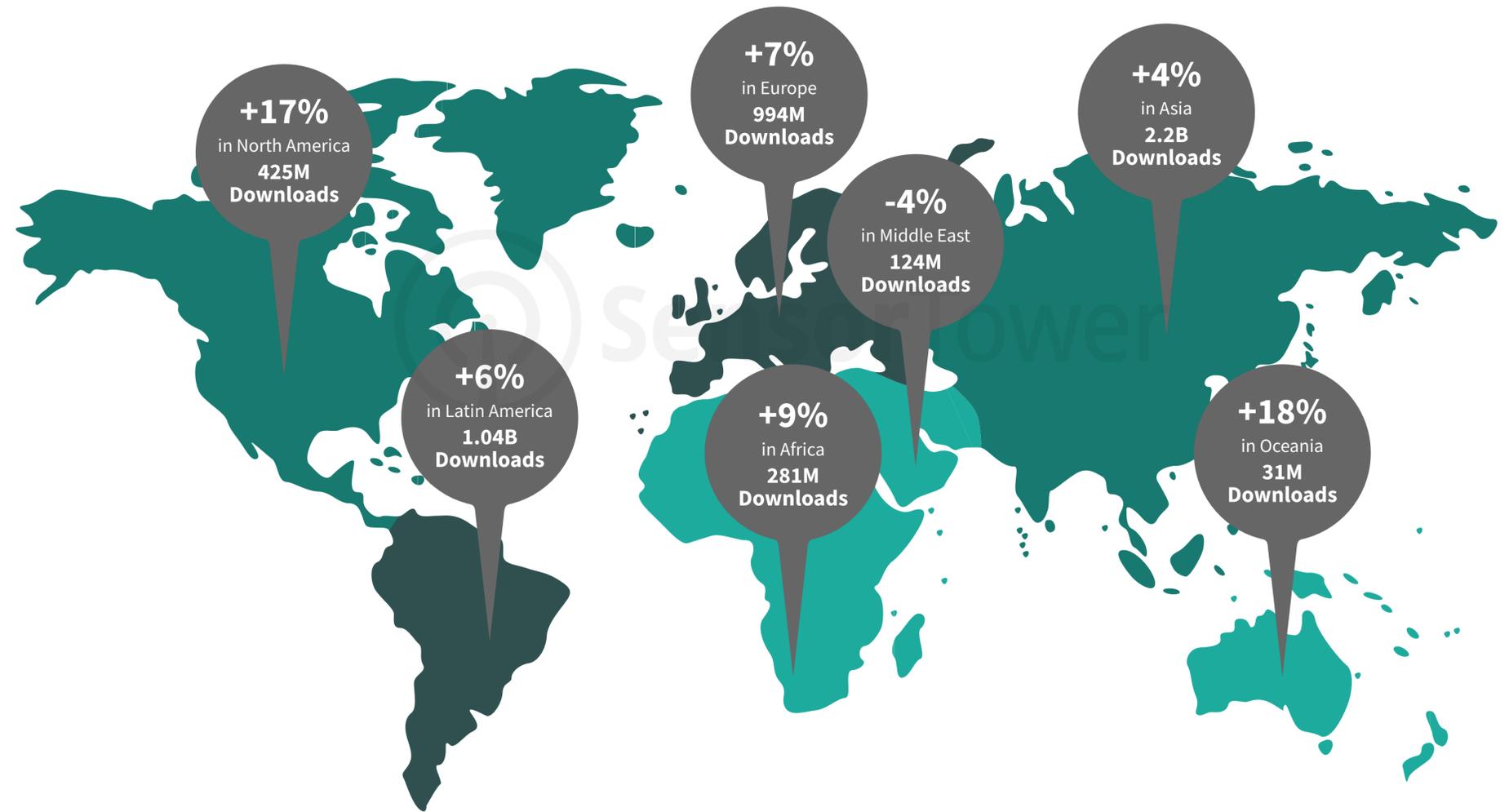


# Hybridcasual Finds Worldwide Audience

*Hybridcasual Download Growth by Region in 2022, App Store and Google Play*

While the worldwide number of downloads of mobile games has not changed in 2022 compared to 2021, Hybridcasual games saw positive growth in downloads across the globe with the exception of the Middle East.

Asia saw the largest download growth in 2022, with installs increasing 94M, up 4 percent year-over-year. North America also experienced high download growth in 2022, as installs rose by nearly 63M, up 17 percent year-over-year.



### Note Regarding Download Estimates

Our estimates include worldwide downloads for iPhone, iPad, and Google Play in 2022. Apple apps and Google pre-installed apps are excluded. We report unique installs only. Android estimates do not include third-party stores.



# External Game Subscriptions



# External Game Subscription - Netflix

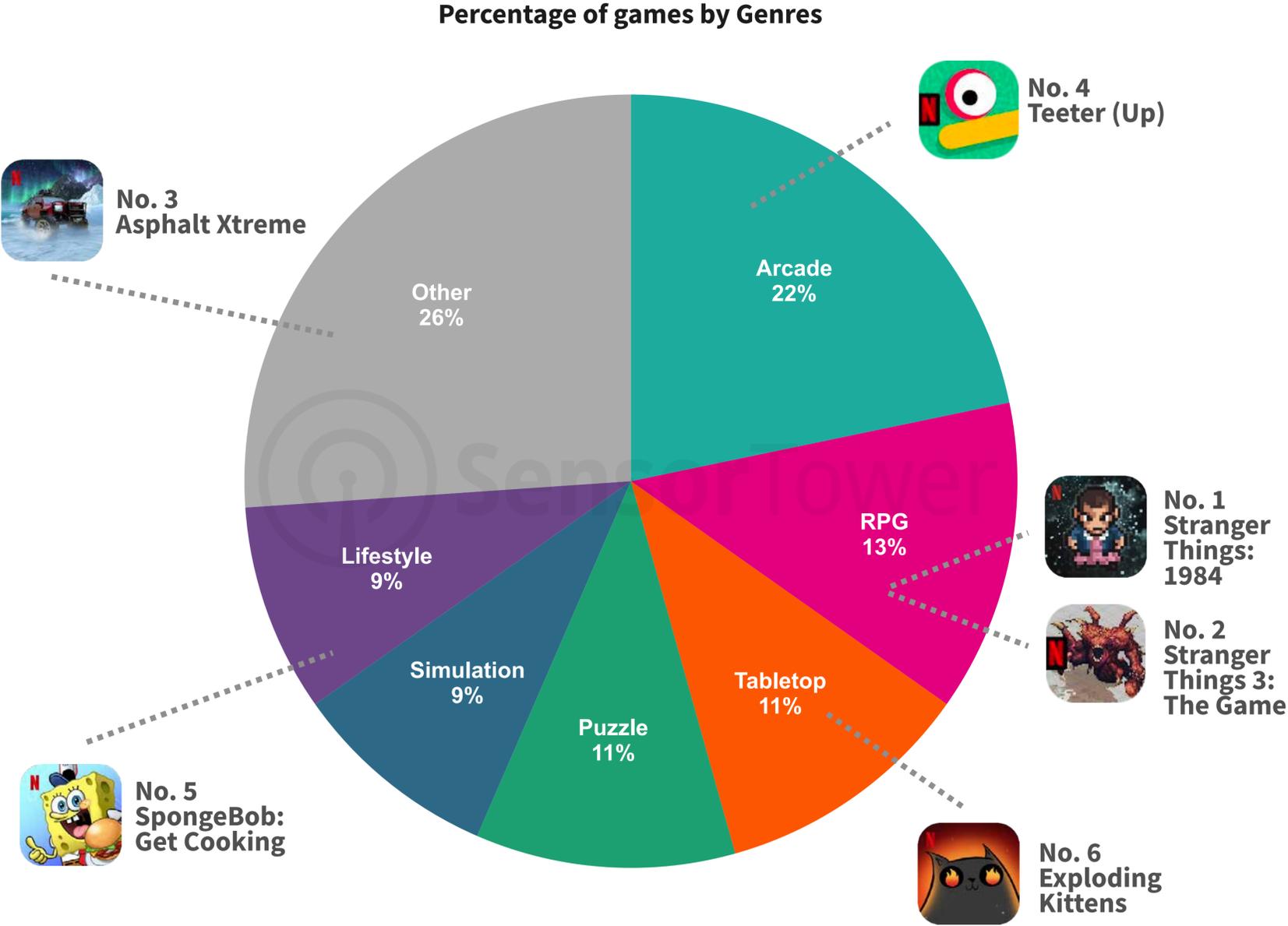
## Exclusive Access Product Model and External Game Subscriptions

Netflix is a new player in the mobile gaming market, but they are making a big splash with their Exclusive Access games.

The Exclusive Access product model identifies games that are only available to members of a subscription service.

By making their games only accessible to their subscribers, Netflix leverages an enormous user base. This model allows developers for Netflix games to ignore monetization features and focus on building engaging stories and experiences.

Netflix's catalog is growing and generated 24.6 M downloads in 2022.



# Popular Netflix Shows Boost Game Adoption

Top Netflix Games by Downloads, App Store and Google Play

Mobile games based on Netflix's popular series Stranger Things hold the top spots for Netflix-published mobile titles. The No.1 title, Stranger Things: 1984, picked up 4M downloads from release through the end of 2022. Stranger Things 3: The Game ranks No.2 with nearly 3M downloads.

## LEADERBOARD



Stranger Things: 1984



4M



Stranger Things 3: The Game



2.9M



Asphalt Xtreme



2.7M



Teeter (Up)



1.6M



SpongeBob: Get Cooking



1.5M

**Top 5 Netflix games by downloads**

(from the publication date through the end of 2022)



# External Game Subscription - Apple Arcade

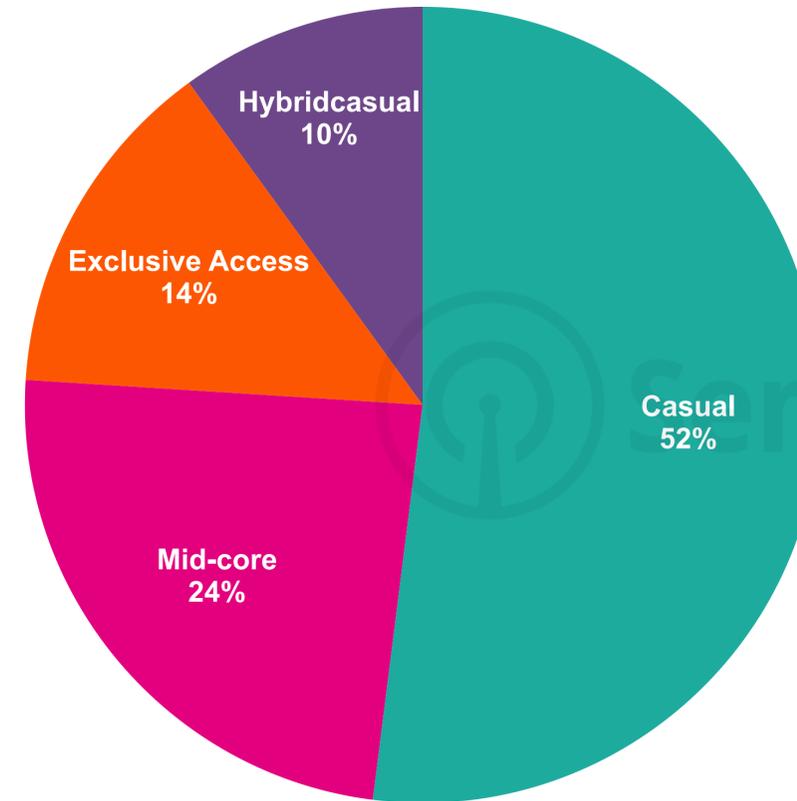
Percentage of Apple Arcade Games by Product Model and Genre

An external game subscription provides access to and benefits for games. These games aren't necessarily exclusive, but players won't have to pay any up front costs to download the game and will have access to features that are normally premium.

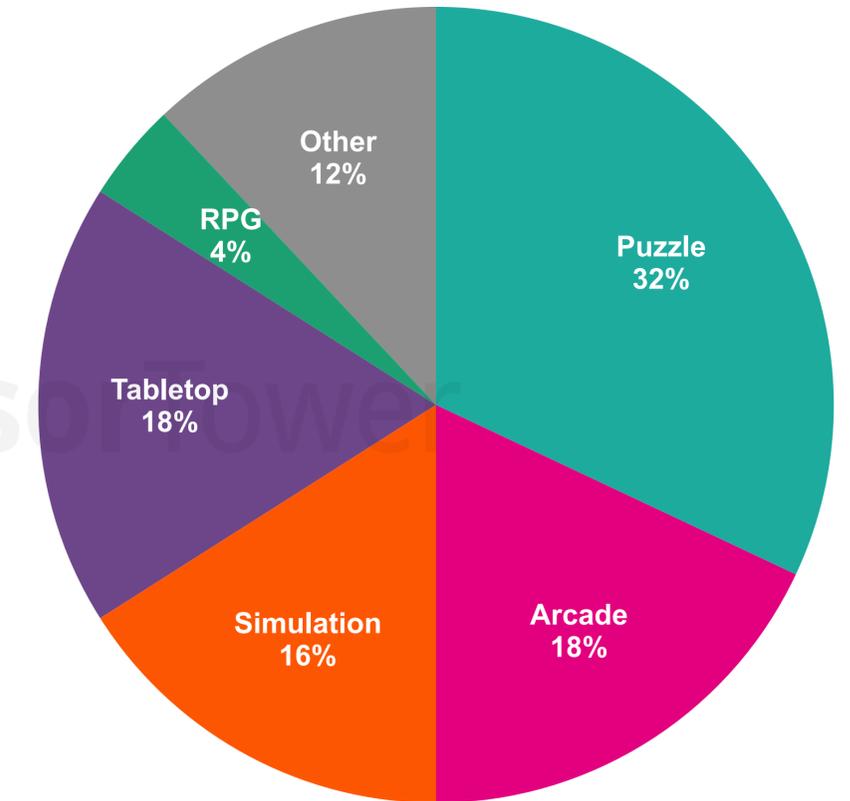
Apple Arcade offers a combination of exclusive access and standard freemium titles. They publish predominantly Puzzle and Arcade games, but have a strong selection of Mid-core Tabletop and RPG games.

Sensor Tower maintains a full updated list of Apple Arcade and external subscription games.

Percentage of games by Product Model



Percentage of games by Genres



Chess - Play & Learn  
by chess.com  
**Puzzle**



Fruit Ninja  
by Halfbrick Studios  
**Arcade**



Jetpack Joyride  
by Halfbrick Studios  
**Platformer**



# External Game Subscription - Google Play Pass

Percentage of Google Play Pass Games by Product Model and Genre

Google Play Pass has more games included than their competitors, mostly focused on Casual Arcade & Puzzle genres.

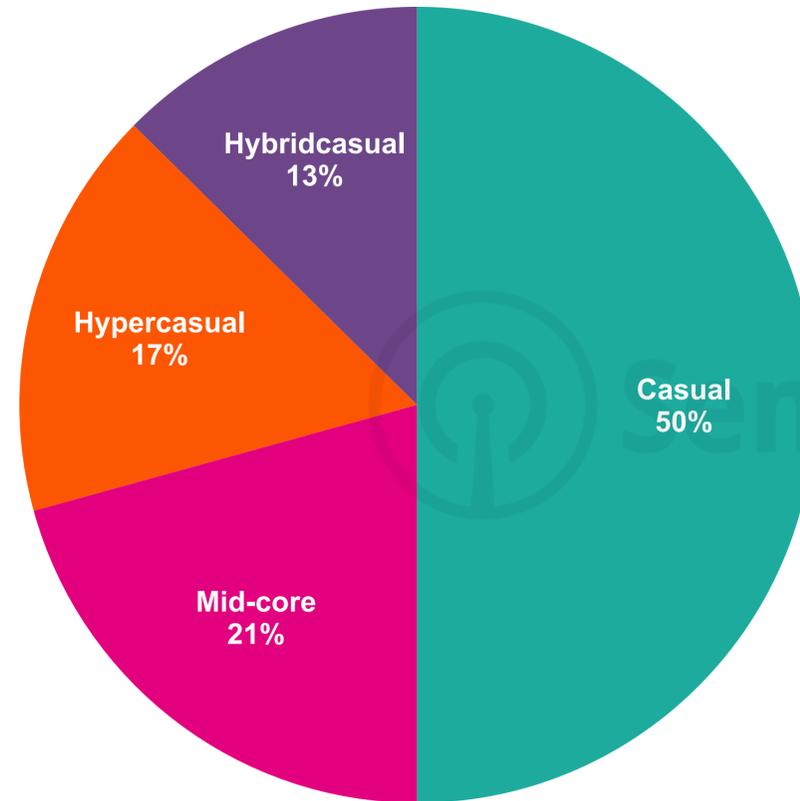
Play Pass subscribers get access to hundreds of games for one monthly subscription. Play Pass doesn't focus on exclusive titles — they target paid games and freemium titles.

An added benefit for members is that they are able to bypass any monetization present in the games and have all features normally gated behind in-game currency fully available.

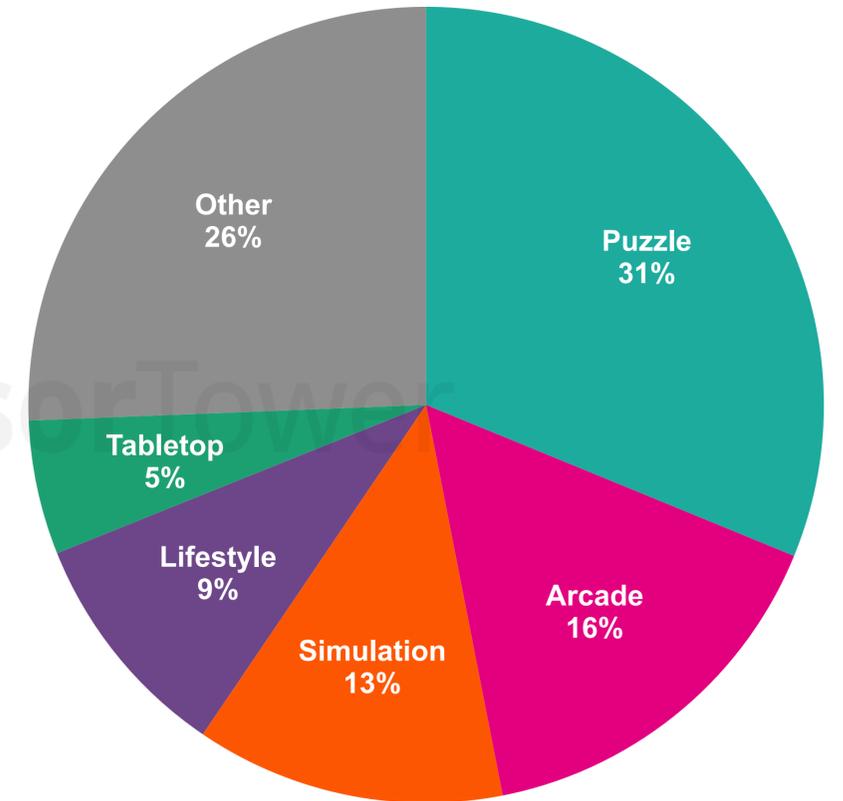
31 percent of the games in Google Play Pass are Puzzle, followed by 16 percent Arcade, 13 percent Simulation and 9 percent Lifestyle genre.

The full list of Google Play Pass games is available on Sensor Tower along with data on all monetization patterns as part of our game taxonomy.

Percentage of games by Product Model



Percentage of games by Genres



**Hungry Shark Evolution** by Ubisoft - Arcade



**Beach Buggy Racing** by Vector Unit - Racing



**Pixel Art - color by number** - by Easybrain - Tabletop

# titles: 500+



# NFT & Crypto Games



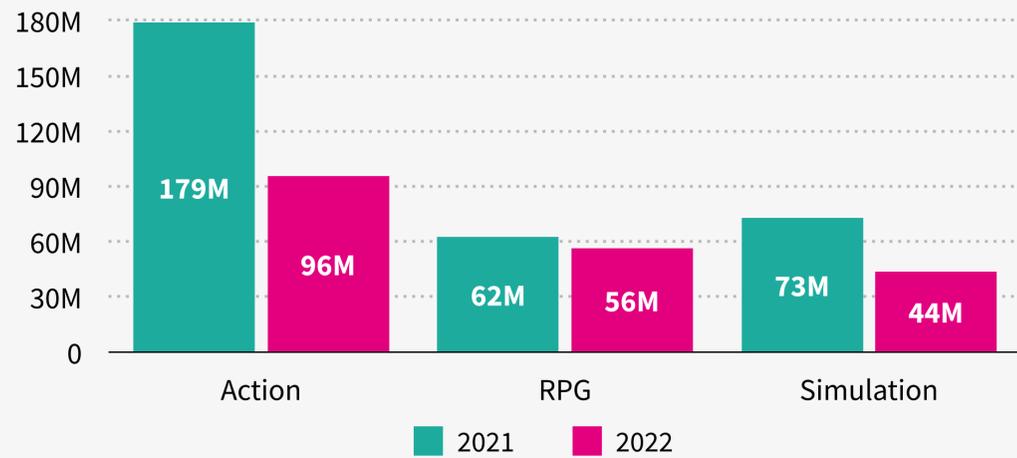
# Crypto/NFT Games on Mobile on Downward Trend Following Q3 2022

Worldwide Quarterly Downloads of NFT/Crypto Games, App Store and Google Play

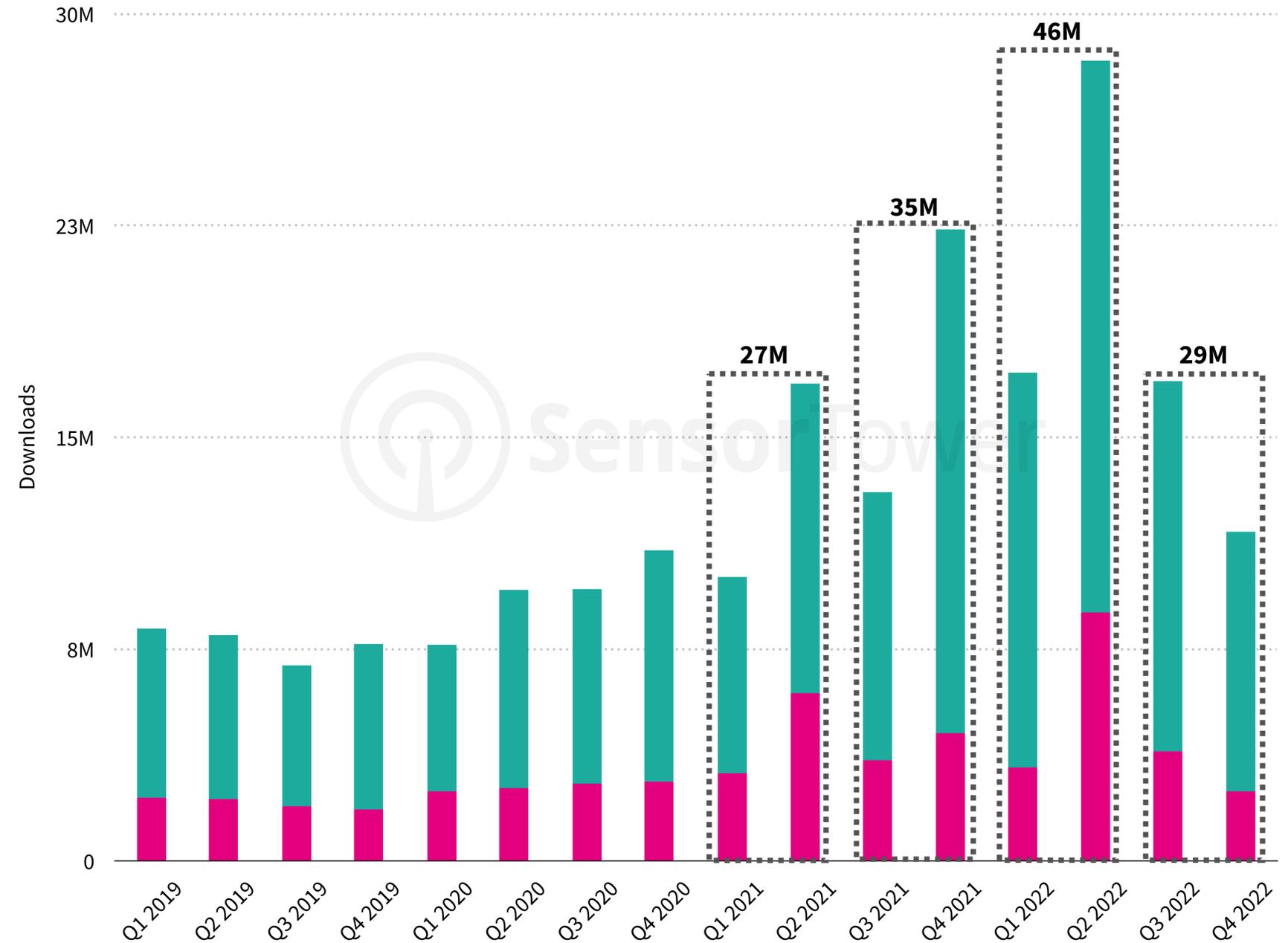
**Crypto/NFT game downloads declined sharply in the second half of 2022, from 46M in H1 2022, to 29M in H2.**

Each of the top 5 genres of Crypto/NFT games exhibited negative growth from 2021 to 2022. Action and Simulation games that incorporated Crypto/NFT mechanics saw a particularly large decline in downloads. Player spending through in-app purchases for these games also declined 35 percent Y/Y, from \$516M in 2021 to \$336M in 2022.

Downloads of NFT/Crypto games by Genre



App Store Google Play



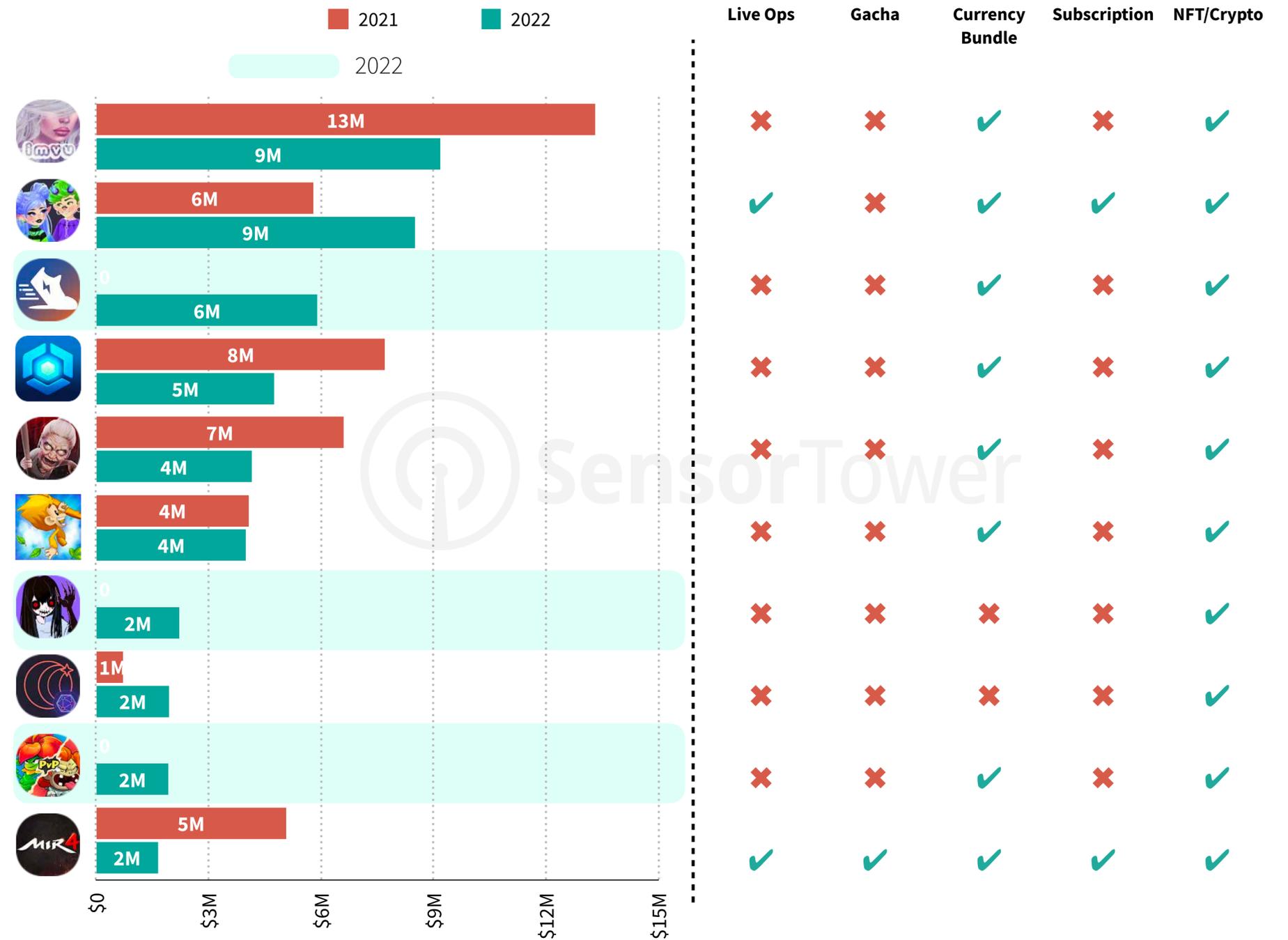
# Top NFT/Crypto Games For Mobile in 2022

Top 10 Games With NFT/Crypto Monetization by Worldwide Downloads in 2022

Apple has new rules for NFT apps and games that require developers to utilize in-app purchases, which are subject to Apple's 30% commission. Consequently, a number of developers and publishers have chosen to avoid the App Store, making their games exclusively available on Android devices.

**INVU: 3D Avatar Creator & Chat**, **Highrise: Metaverse Life World**, **STEPN**, and **Thetan Arena** stand out as the most downloaded NFT/Crypto games in the Mobile ecosystem.

Crypto/NFT mobile games were a fast-growing category in 2021, however for a multitude of reasons, many gaming companies have slowed their crypto plans in 2022.



# Monthly Active Users of Crypto/NFT Games Decline in H2 2022

## Top Markets' Active Users for Top Crypto/NFT Games

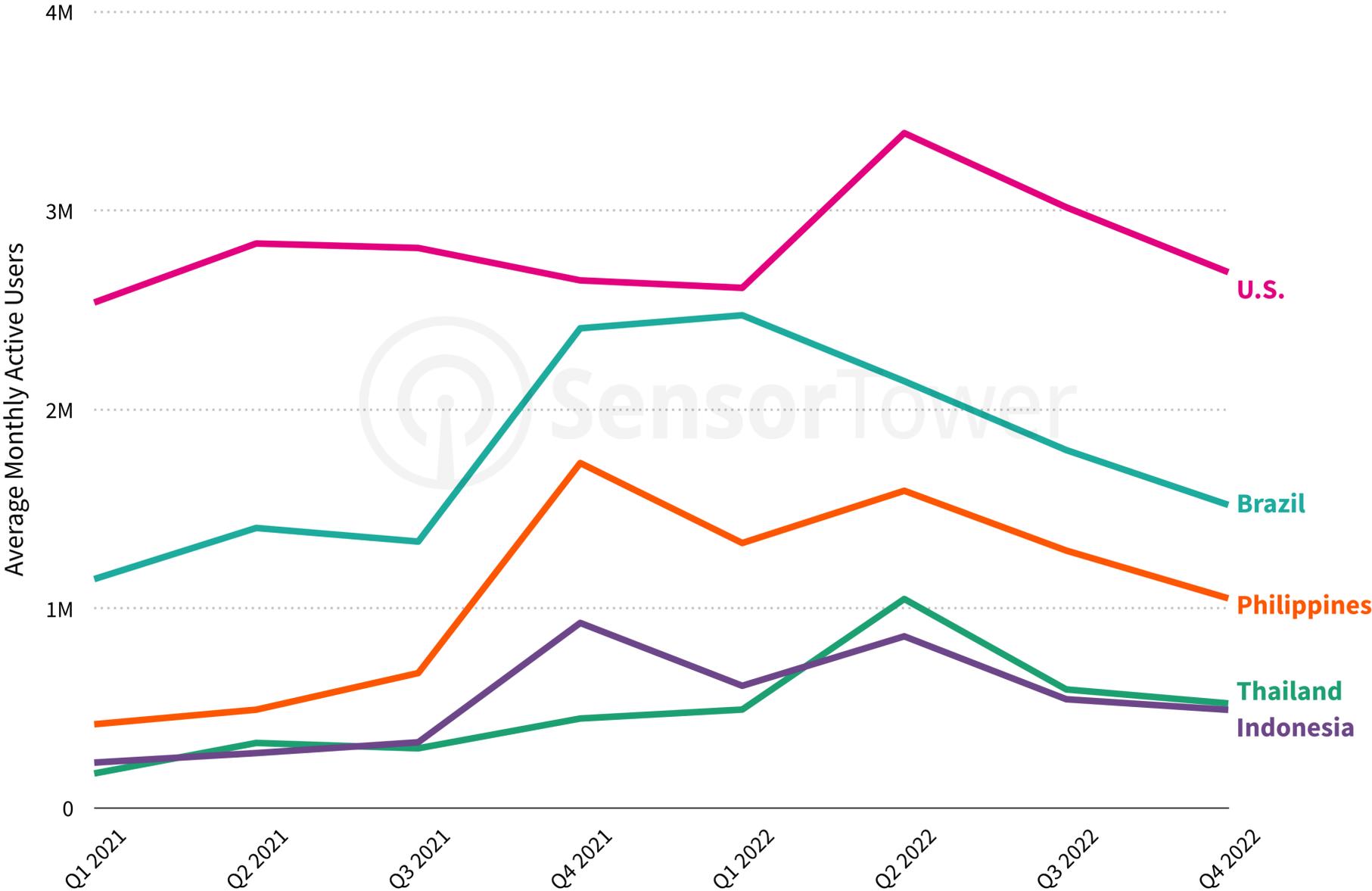
The United States is the top market in downloads for Crypto/NFT mobile games, with a market share of 16 percent in 2022, followed by Brazil and Philippines, with 12 percent and 9 percent market share, respectively.

Each of the top five markets for Crypto/NFT mobile game downloads experienced a decline in monthly active users (MAUs) at the end of 2022. The decline first hit Brazil in Q2 2022, with a 39 percent drop in usage in Q4 2022 compared to its peak in Q1 2022.

The other top markets (U.S., Philippines, Thailand, Indonesia) saw positive MAU growth in Q2 2022, but have seen declines from Q3 2022 on.

Among the top 10 markets, India is the only market maintaining positive growth over the past two years. The top Crypto/NFT games in India collectively surpassed 880K MAUs in Q4 2022, up 130 percent from Q1 2021.

**Note:** Monthly active users totals are the average of each app's average MAU each quarter (this may count users multiple times if they use multiple devices).



# Monetization and Meta Feature Trends



# Welcome to the Games-as-a-Service World!

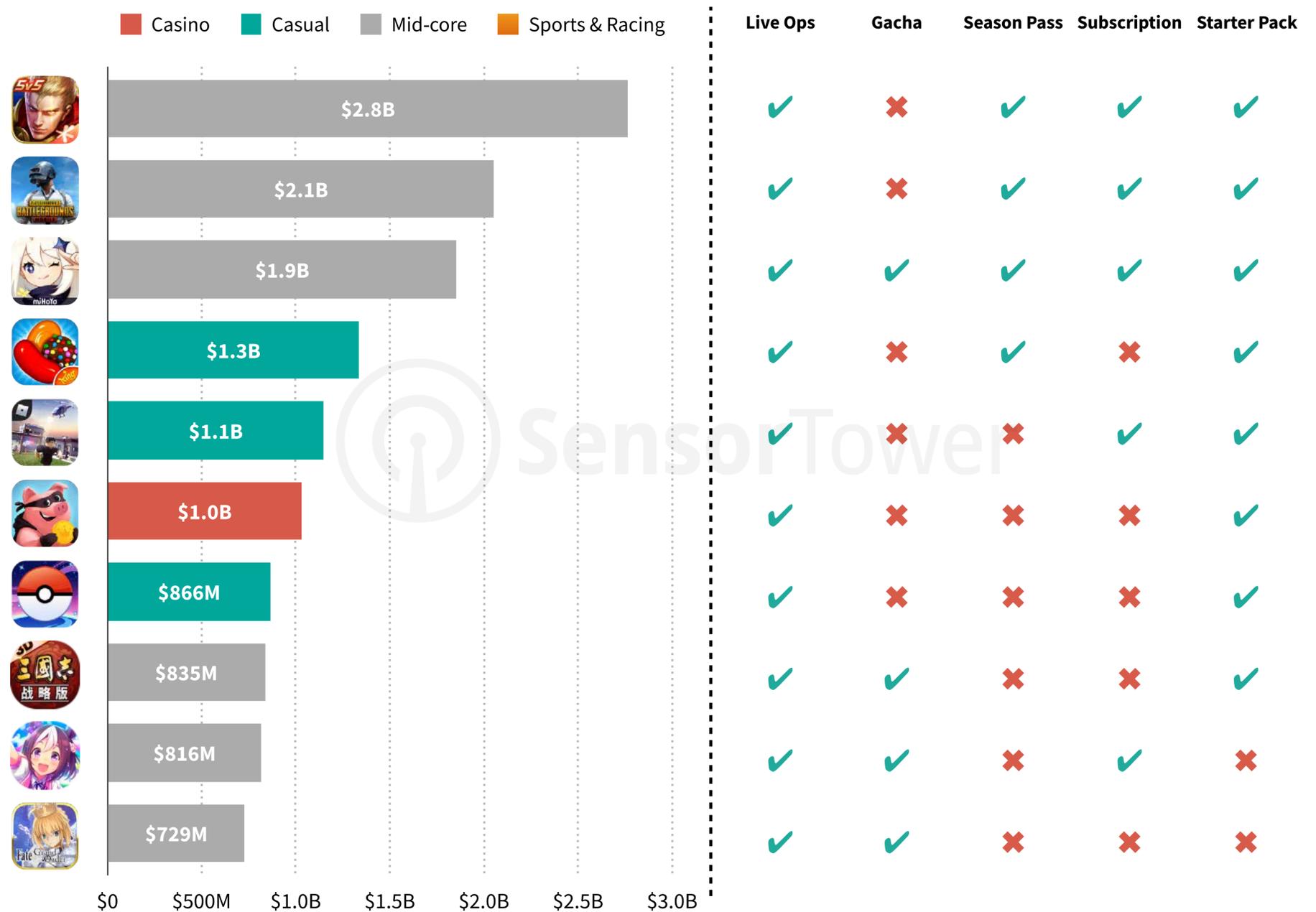
Top 10 Games by Worldwide Gross Revenue in 2022, App Store and Google Play

**Live Ops is a key monetization and retention structure for top grossing games attempting to maintain long-term player engagement and spending.** All of the world's top 10 revenue generating mobile games in 2022 support their titles through this content structure.

Classic monetization features like the Starter Pack and Currency Bundles also appear in most top grossing titles. For example, eight of the top 10 grossing games include a Starter Pack.

**Coin Master**, from Moon Active, stands out as the only Casino title in the top 10 mobile games. This is a testament to the fact that Social Casino games with Casual aesthetics, mechanics and product model can reach a broader casual audience, and drive higher engagement and revenue.

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



# Live Ops Is the Standard Practice Among Top Grossing Games

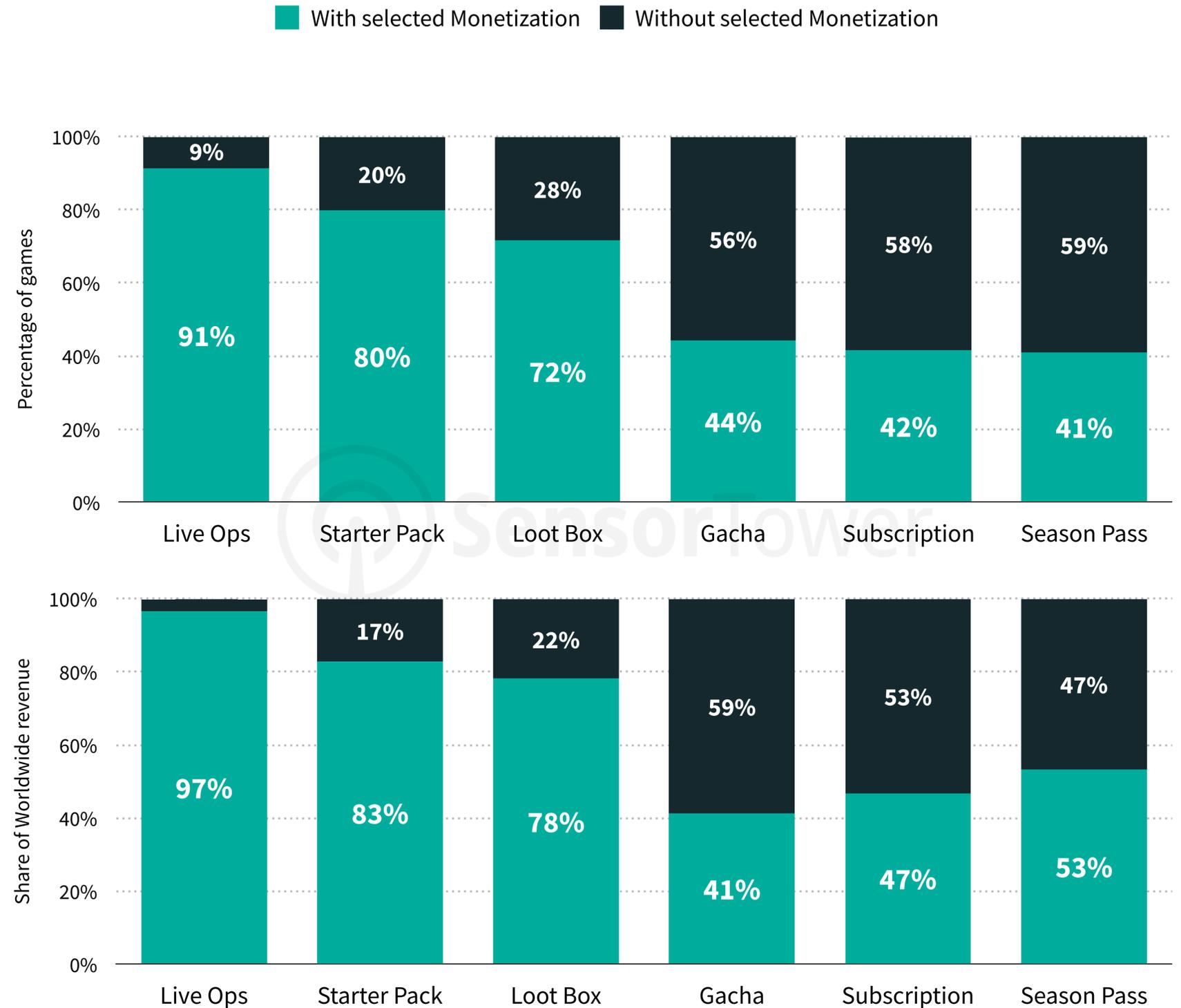
Share of Worldwide Revenue With Selected Monetization in 2022

**Live Ops has become the standard monetization for achieving success in the mobile game industry**, with 91 percent of the world's top games supporting their titles through this approach. In addition, 97 percent of top games' revenue comes from games with this monetization strategy.

Although only 41 percent of mobile games employed the Season Pass feature, these have collectively generated more than half of player spending worldwide.

Sensor Tower's advanced descriptors allow you to quickly identify the monetization structure of each game in order to understand your game's potential.

**Note:**  
Top 500 mobile games by revenue in 2022



# Live Ops Is Most Commonly Utilized for RPG Games

Percentage of Top Games With Live Ops and Average Gross Revenue in 2022

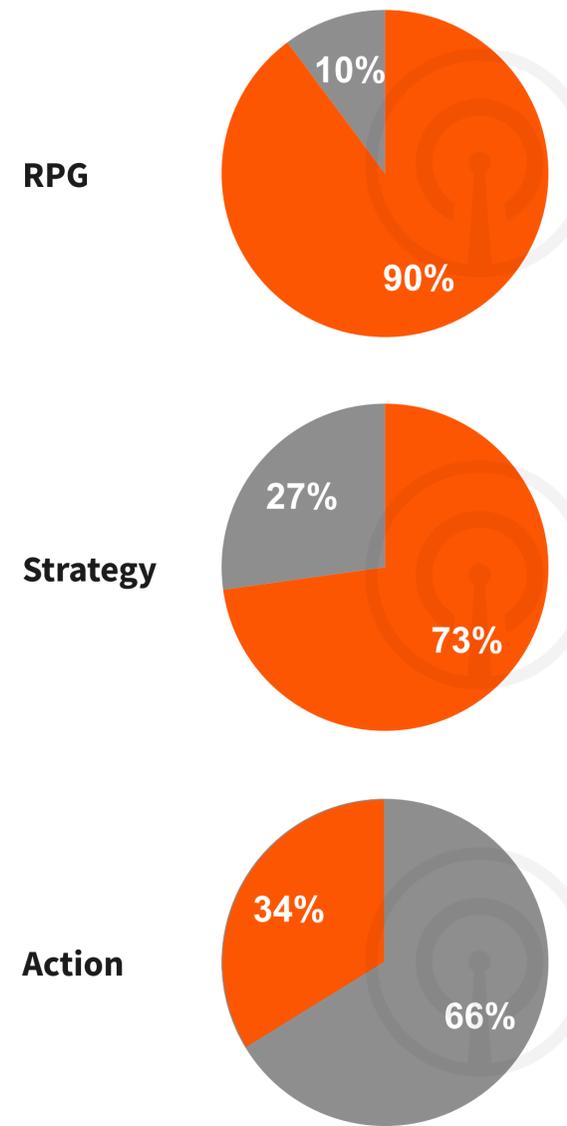
**Live Ops is most commonly used in RPG games**, with 90 percent of the top performing RPG mobile games featuring it.

Mobile games with Live Ops perform well in terms of revenue, particularly in Action titles. On average, an Action game with Live Ops can generate 30 times more in revenue than a game without it.

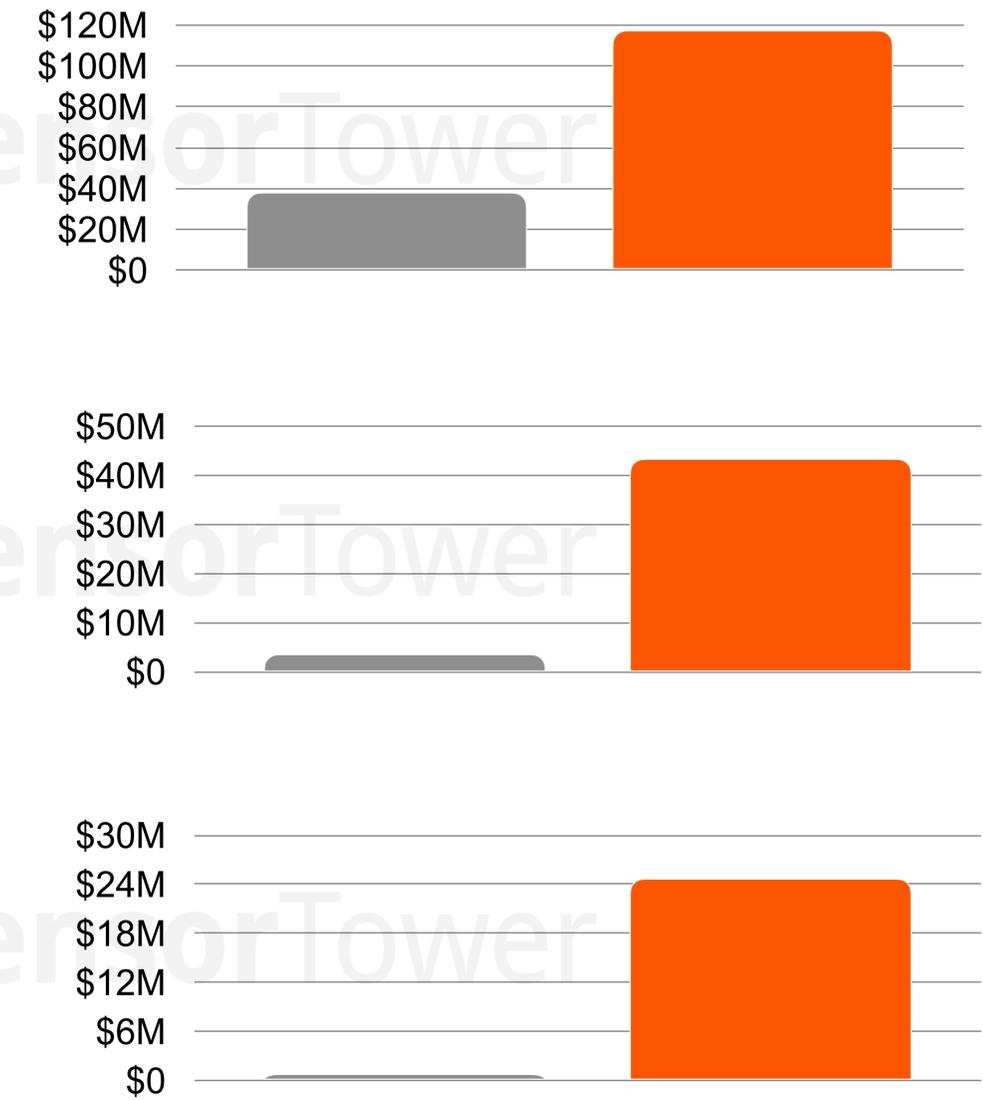
**Note:**  
Top 500 games by revenue in 2022

■ Without Live Ops   ■ With Live Ops

Percentage of titles with Live Ops



Average Gross Revenue



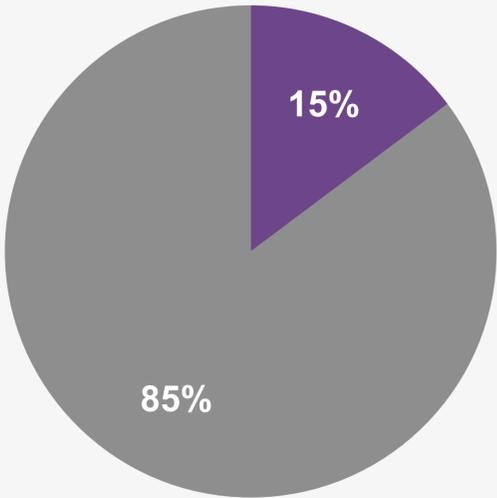
# Loot Boxes as Monetization Feature

Share of Revenue by Games That Use Loot Box in 2022

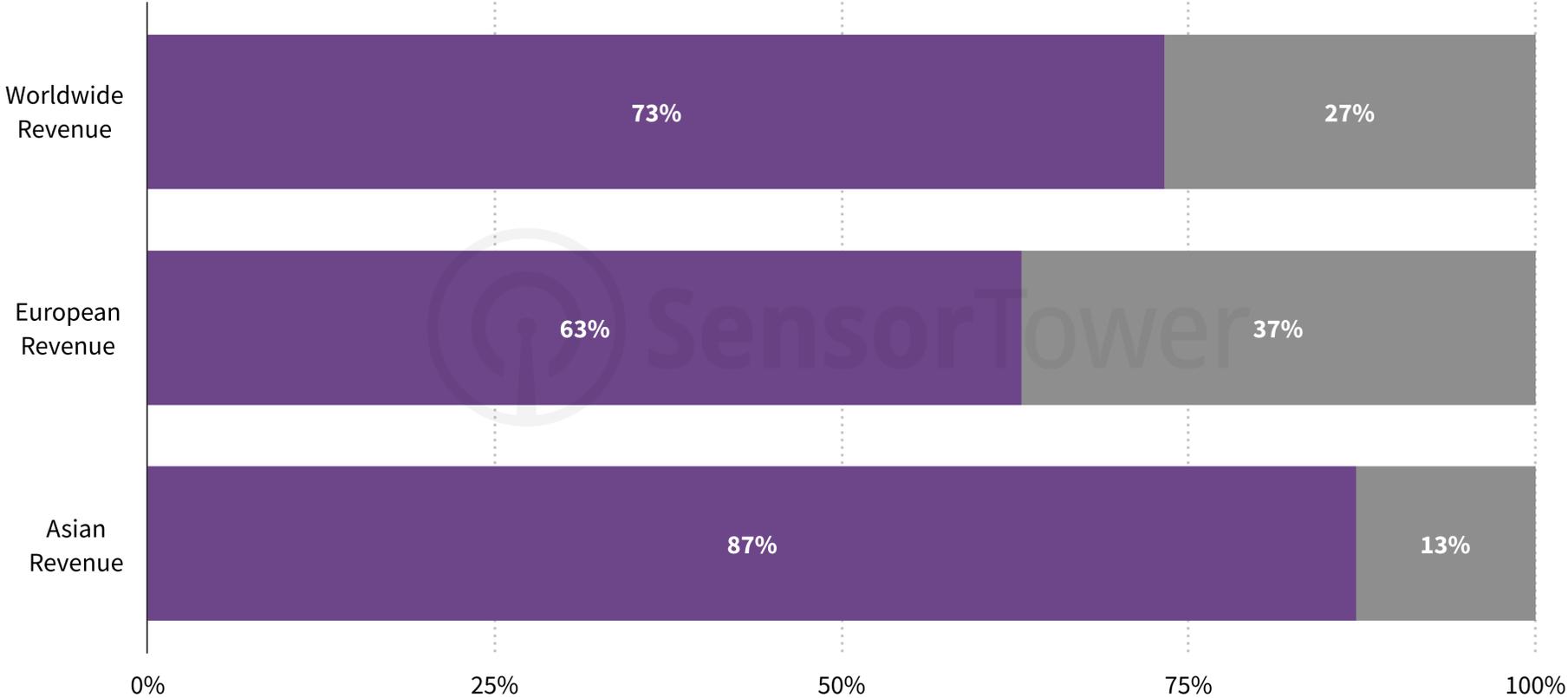
**The 15 percent of games that monetize with Loot Boxes generate 73 percent of total worldwide revenue.**

The European Commission is currently investigating whether current laws do enough to protect consumers from monetization practices such as Loot Boxes, contributing to uncertainty around the long term viability of this approach in the region. The stakes are particularly high, as 63 percent of all mobile game revenue in the EU is generated by games with Loot Boxes.

Worldwide Percentage of titles with Loot Box



With Loot Box Without Loot Box



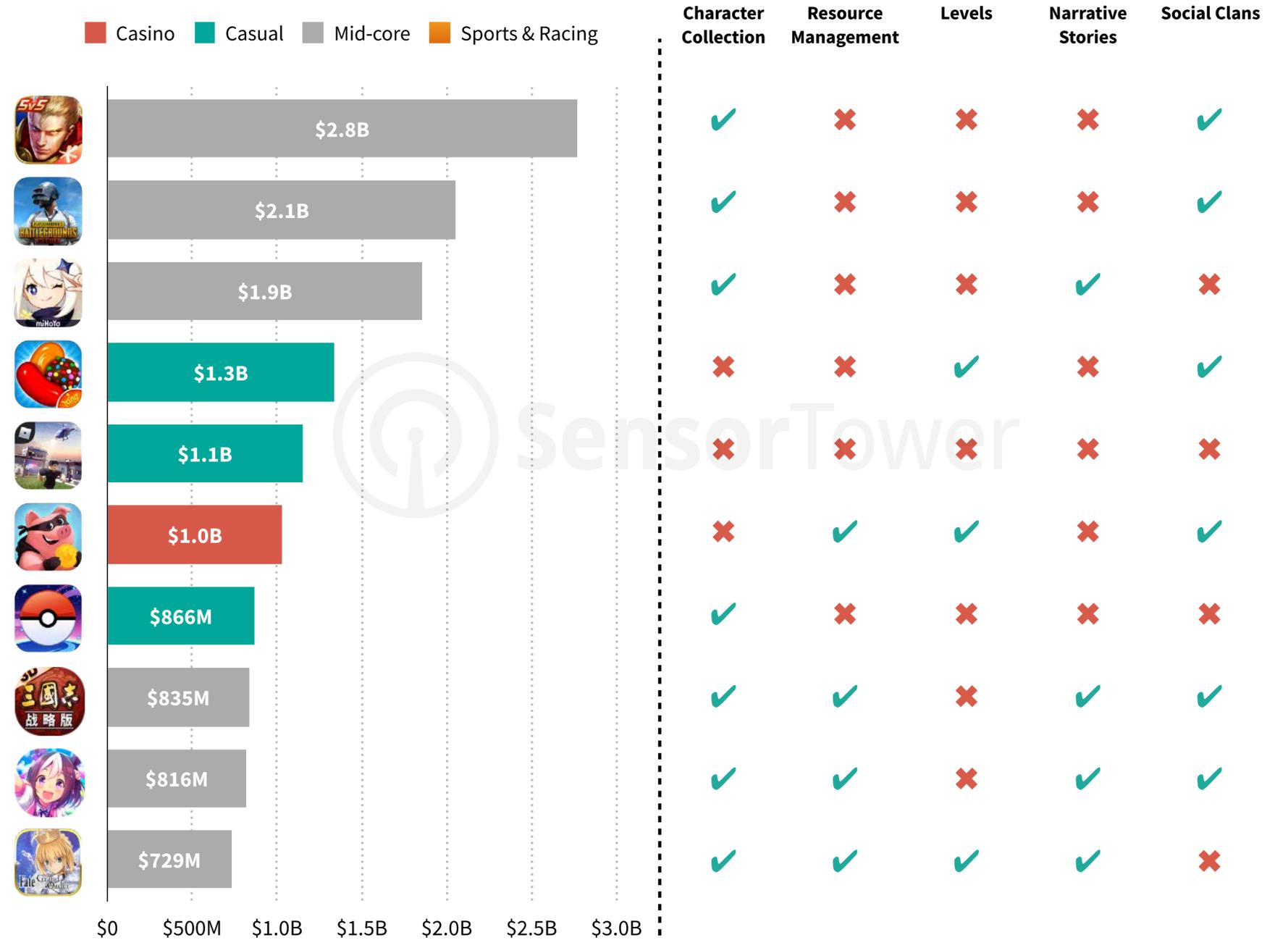
# Character Collection: The Dominant Meta Feature Among Top Mobile Games

Top 10 Games by Worldwide Gross Revenue in 2022,  
App Store and Google Play

**Character Collection is the most widespread meta feature among top titles,** and is present in 70 percent of top titles.

Character Collection is particularly prevalent in Mid-core titles, with 88 percent of the top Mid-core games, in terms of player spend, relying on this feature to enhance player engagement.

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

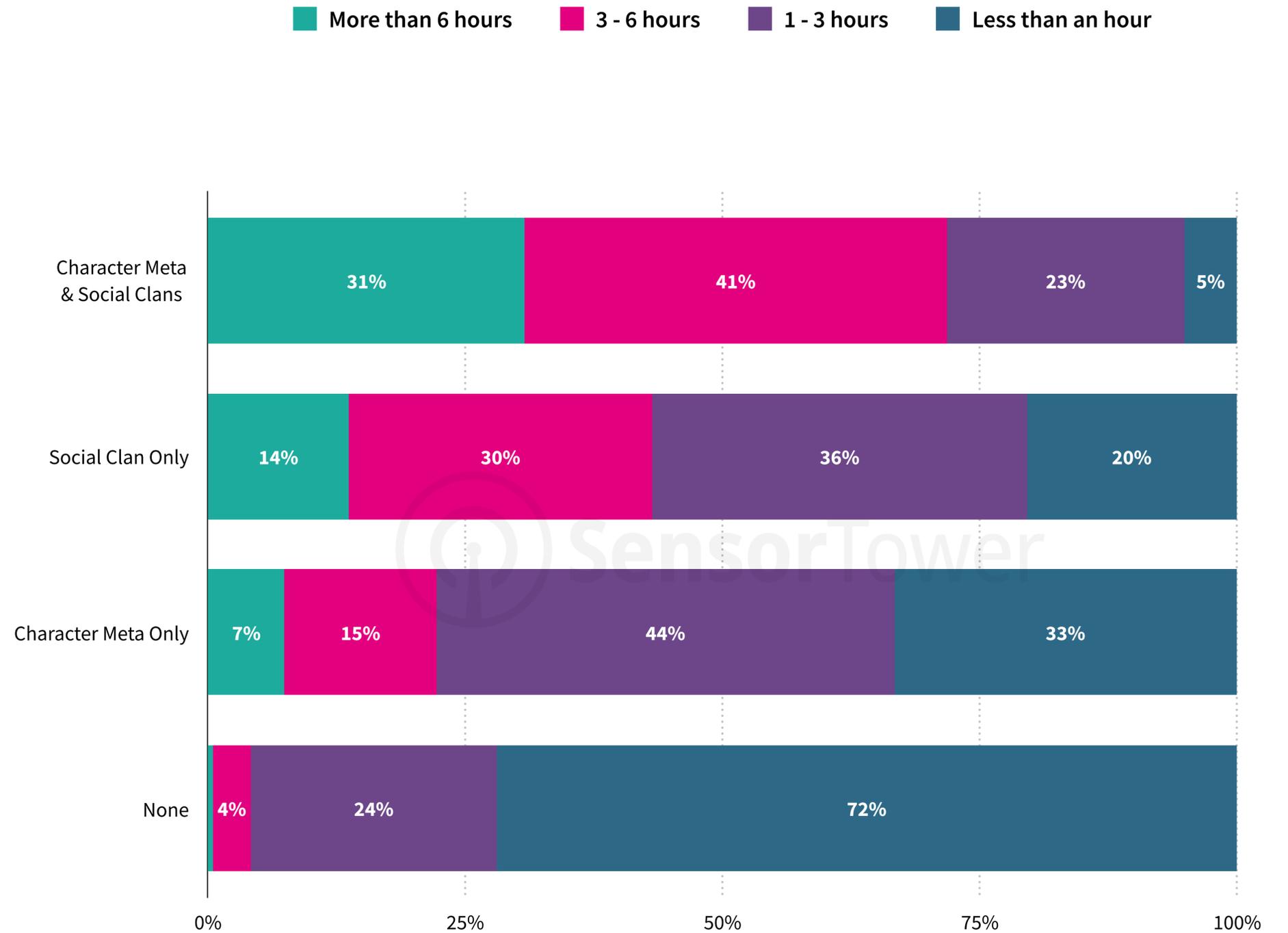


# The Combination of Character Collection & Social Clan Metas Maximize Player Engagement

Percentage of Top Android Games by Monthly Average Time Spent, Q4 2022

Character Collection and Social Clans are the most prevalent meta features among top titles in the mobile gaming ecosystem.

Players of mobile games featuring both Character Collection and Social Clans metas tend to spend more time in the game. 72 percent of the top games with this combination see players spend an average of over 3 hours per month, while only 22 percent of games with just the Character Collection meta feature see a similar amount of time spent.



**Note:**  
Top 1000 Android games by downloads



# In-App Events Drive Engagement

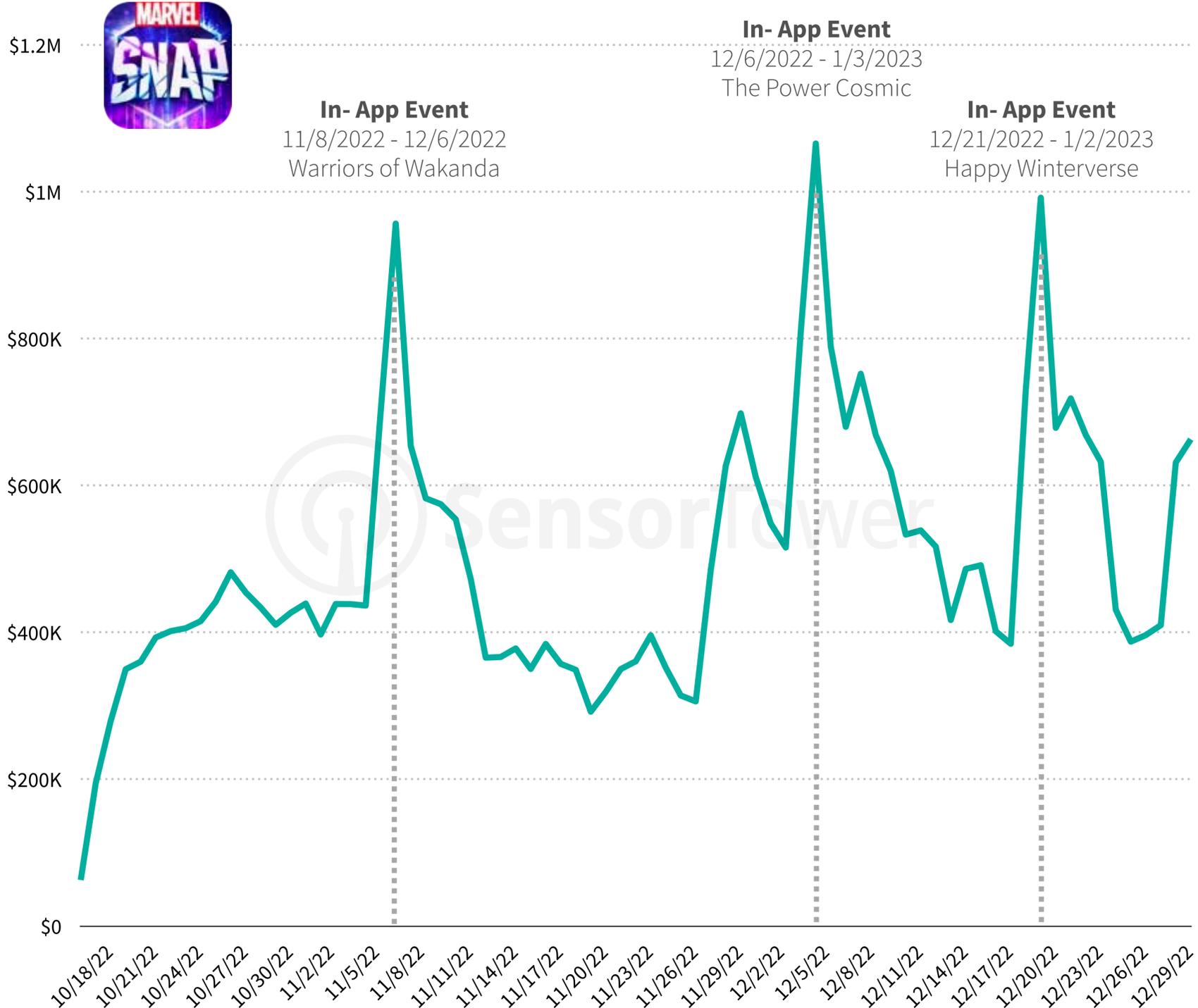
Marvel Snap's Worldwide Daily Revenue, App Store and Google Play

The release of events on a periodic update schedule drives engagement and monetization. Sensor Tower's In-App Events feature can measure how much revenue is generated by each event the game administers.

This is a powerful source of insights for benchmarking and understanding your competitors Live Ops strategy.

Among the best performing mobile games employing this strategy, **Marvel Snap** stands out. Nuverse earned an estimated \$670K in revenue on the release day of the Warriors of Wakanda event in November 2022, \$746K on the release day of The Power Cosmic event in December 2022 and \$694K the day of the Happy Winterverse Event.

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



# Market Overview: Worldwide



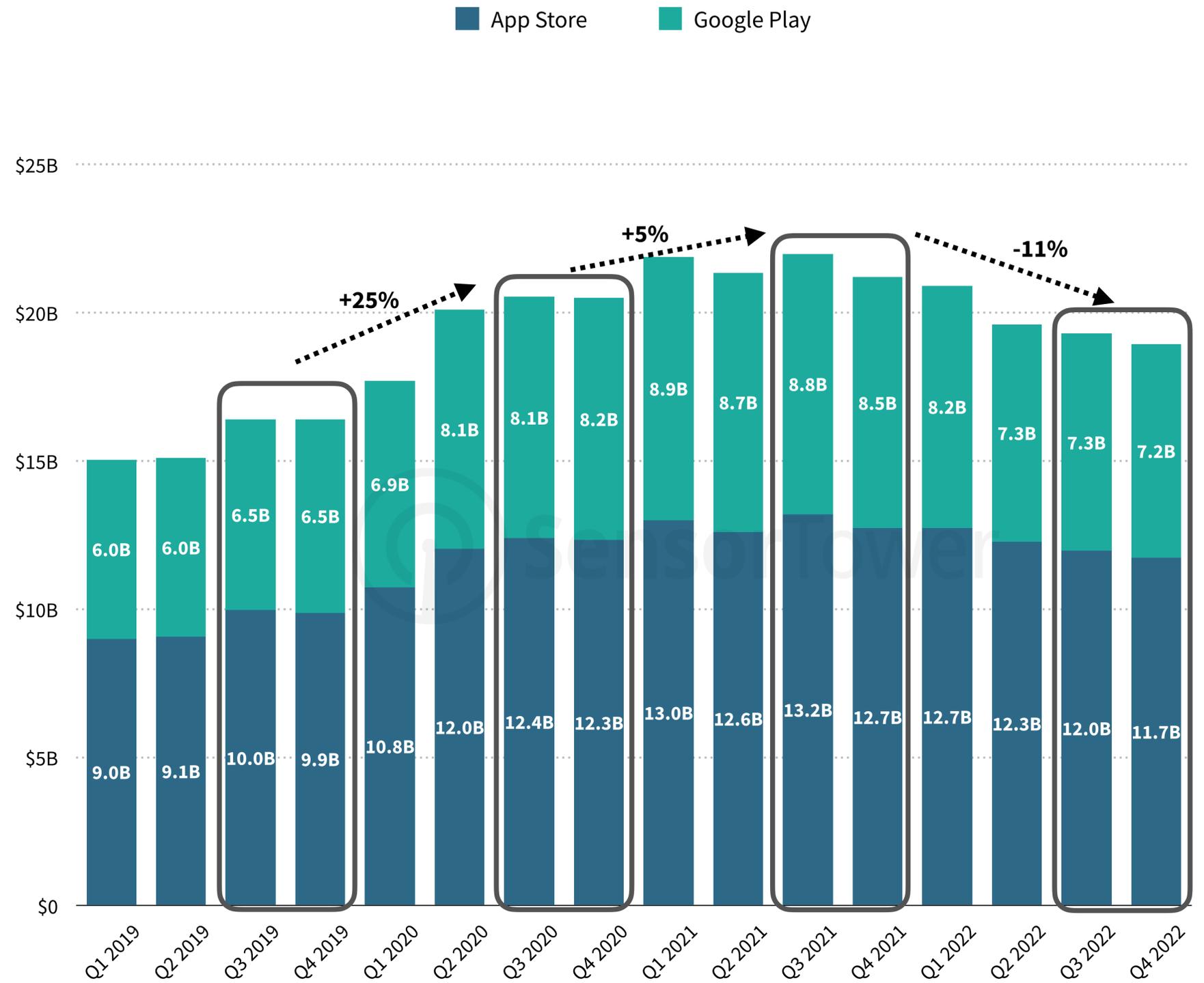
# Global Game Revenue Declines for the Fifth Consecutive Quarter

Worldwide Quarterly Consumer Spending on Mobile Games, App Store and Google Play

Global mobile game revenue experienced enormous growth in 2020 at the beginning of the COVID-19 pandemic, with its year-over-year growth in H2 2020 reaching 25 percent. Player spending peaked in H2 2021 at \$43B.

Revenue has declined quarter-over-quarter since its peak in Q3 2021. Player spending declined 14 percent, from \$22B in Q3 2021 to \$18.9B in Q4 2022. Despite this, it has remained well above pre-pandemic levels.

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



# Honor of Kings Regained Its Lead in 2022

Top Mobile Game by Worldwide Revenue on App Store and Google Play

Game Class

Mid-core

Casino

Casual

Sports & Racing

2019

1		Honor of Kings	Tencent
2		PUBG Mobile	Tencent
3		Fate/Grand Order	Sony
4		Candy Crush Saga	King
5		Monster Strike	Mixi
6		Pokémon GO	Niantic
7		Fantasy WW Journey	NetEase
8		LineageM	NCSOFT
9		Clash of Clans	Supercell
10		Homescapes	Playrix

2020

1		PUBG Mobile	Tencent	+1
2		Honor of Kings	Tencent	-1
3		Pokémon GO	Niantic	+3
4		Roblox	Roblox	NEW
5		Coin Master	Moon Active	NEW
6		Monster Strike	Mixi	-1
7		Rise of Kingdoms	Lilith Games	NEW
8		Gardenscapes	Playrix	NEW
9		Candy Crush Saga	King	-5
10		Fate/Grand Order	Sony	-7

2021

1		PUBG Mobile	Tencent	-
2		Honor of Kings	Tencent	-
3		Genshin Impact	miHoYo	NEW
4		Roblox	Roblox	-
5		Pokémon GO	Niantic	-2
6		Candy Crush Saga	King	+3
7		Coin Master	Moon Active	-2
8		Garena Free Fire	Garena	NEW
9		Uma Musume Pretty Derby	Cygames	NEW
10		Rise of Kingdoms	Lilith Games	-3

2022

1		Honor of Kings	Tencent	+1
2		PUBG Mobile	Tencent	-1
3		Genshin Impact	miHoYo	-
4		Candy Crush Saga	King	+2
5		Roblox	Roblox	-1
6		Coin Master	Moon Active	+1
7		Pokémon GO	Niantic	-2
8		Three Kingdoms Tactics	Alibaba	NEW
9		Uma Musume Pretty Derby	Cygames	-
10		Fate/Grand Order	Sony	NEW



# China Becomes the Second Largest Market Following Japan's Double Digit Year-Over-Year Decline

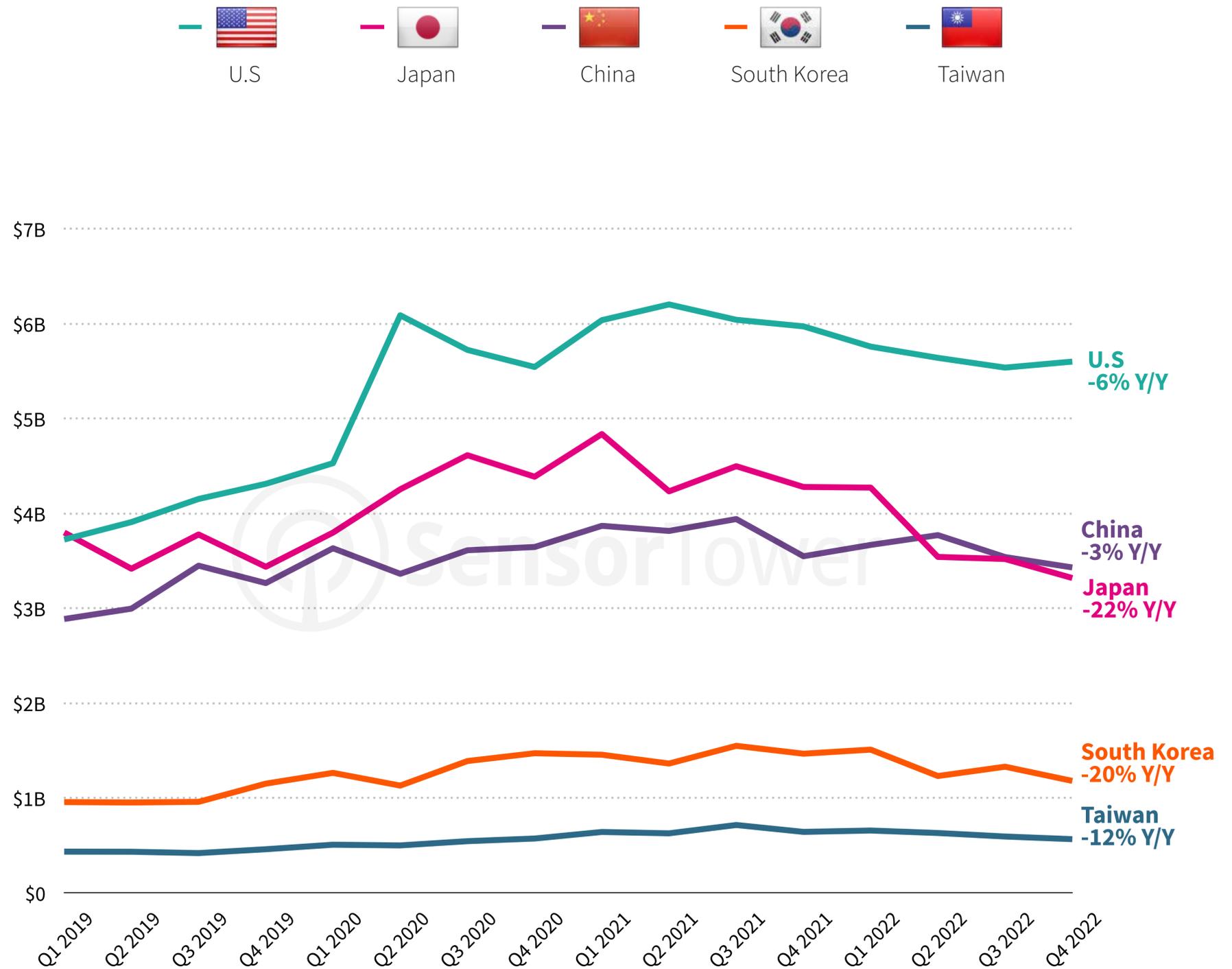
Top Markets by Mobile Game Spending, App Store and Google Play

**The United States remains the top market for mobile games.** U.S. player spending remained above \$5.5B each quarter following the onset of the COVID-19 pandemic, but has seen a downward trend in the past two years, falling 6 percent year-over-year in Q4 2022, compared to the same period in 2021.

Meanwhile, Japan, South Korea, and Taiwan, experienced double-digit revenue decline during Q4 2022, down 22 percent, 20 percent, and 12 percent year-over-year, respectively.

China broke this pattern, maintaining relatively stable revenue, and because of this the country has replaced Japan as the second largest mobile games market since Q2 2022.

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

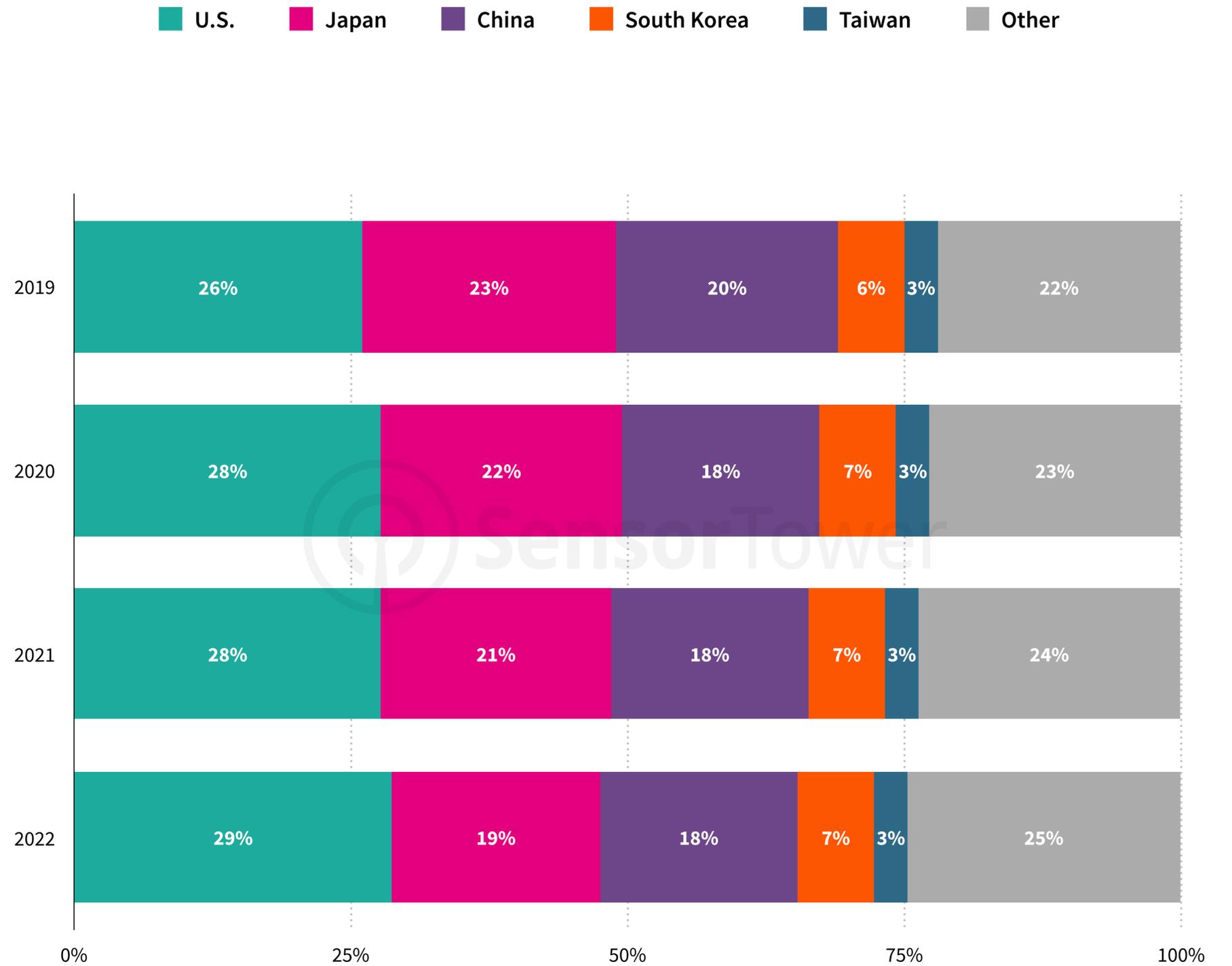


# U.S. Market Share Continues to Grow Year-over-Year

Share for Top Markets by Mobile Game Spending, App Store and Google Play

While the United States, the largest market by spend, continues to gain market share, Japan experienced double digit revenue decline year-over-year in 2022 and lost 2 percent market share in global mobile game revenue compared to 2021.

Countries outside the top five have 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 App Store as Google Play is not available there



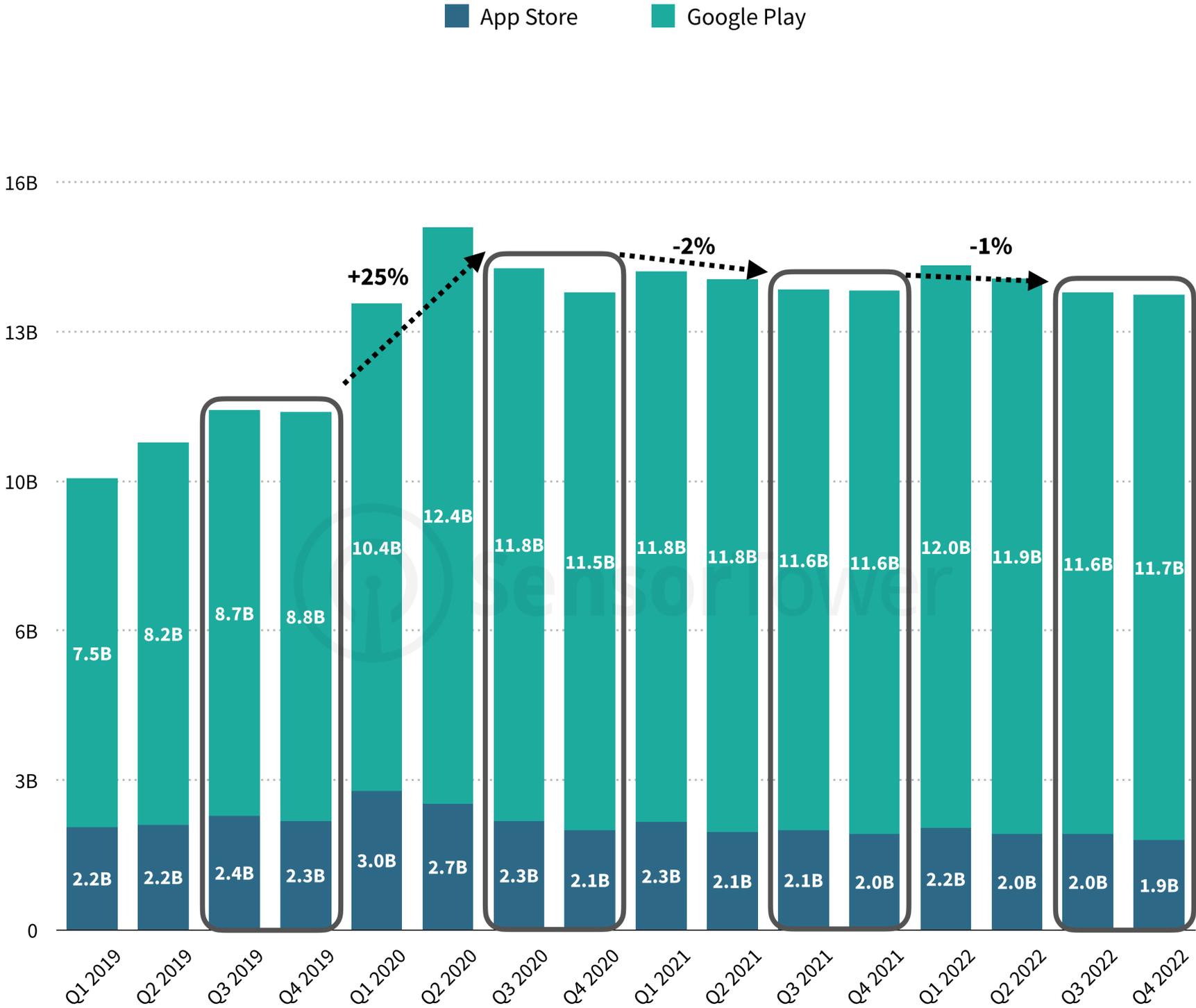
# Mobile Game Adoption Remains Stable After a Jump in 2020

Worldwide Quarterly Downloads of Mobile Games, App Store and Google Play

Mobile game downloads grew dramatically beginning in Q1 2020 at the beginning of the pandemic, peaking in Q2 2020. Global downloads are currently stable at an average of 13.8B per quarter over the last two years.

Although mobile game adoption has slowed since its peak in Q2 2020, it has remained well above pre-pandemic levels.

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



# Subway Surfers Climbs to the No. 1 Mobile Game in 2022

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

## Game Class

Mid-Core

Casino

Casual

Sports & Racing

### 2019

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

### 2020

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

### 2021

1		<b>Garena Free Fire</b> Garena	+1
2		<b>Subway Surfers</b> Sybo Games	+1
3		<b>PUBG Mobile</b> Tencent	+1
4		<b>Roblox</b> Roblox	NEW
5		<b>Bridge Race</b> Supersonic Studios	NEW
6		<b>Ludo King</b> Gametion	+2
7		<b>Candy Crush Saga</b> King	NEW
8		<b>Join Clash 3D</b> Supersonic Studios	NEW
9		<b>Among Us</b> InnerSloth	-8
10		<b>Hair Challenge</b> Rollic Games	NEW

### 2022

1		<b>Subway Surfers</b> Sybo Games	+1
2		<b>Garena Free Fire</b> Garena	-1
3		<b>Stumble Guys</b> Kitka Games	NEW
4		<b>Roblox</b> Roblox	-
5		<b>Ludo King</b> Gametion	+1
6		<b>Candy Crush Saga</b> King	+1
7		<b>Race Master 3D</b> SayGames	NEW
8		<b>Bridge Race</b> Supersonic Studios	-3
9		<b>PUBG Mobile</b> Tencent	-6
10		<b>My Talking Tom 2</b> Outfit7	NEW



# India Leads the Way in Mobile Game Adoption

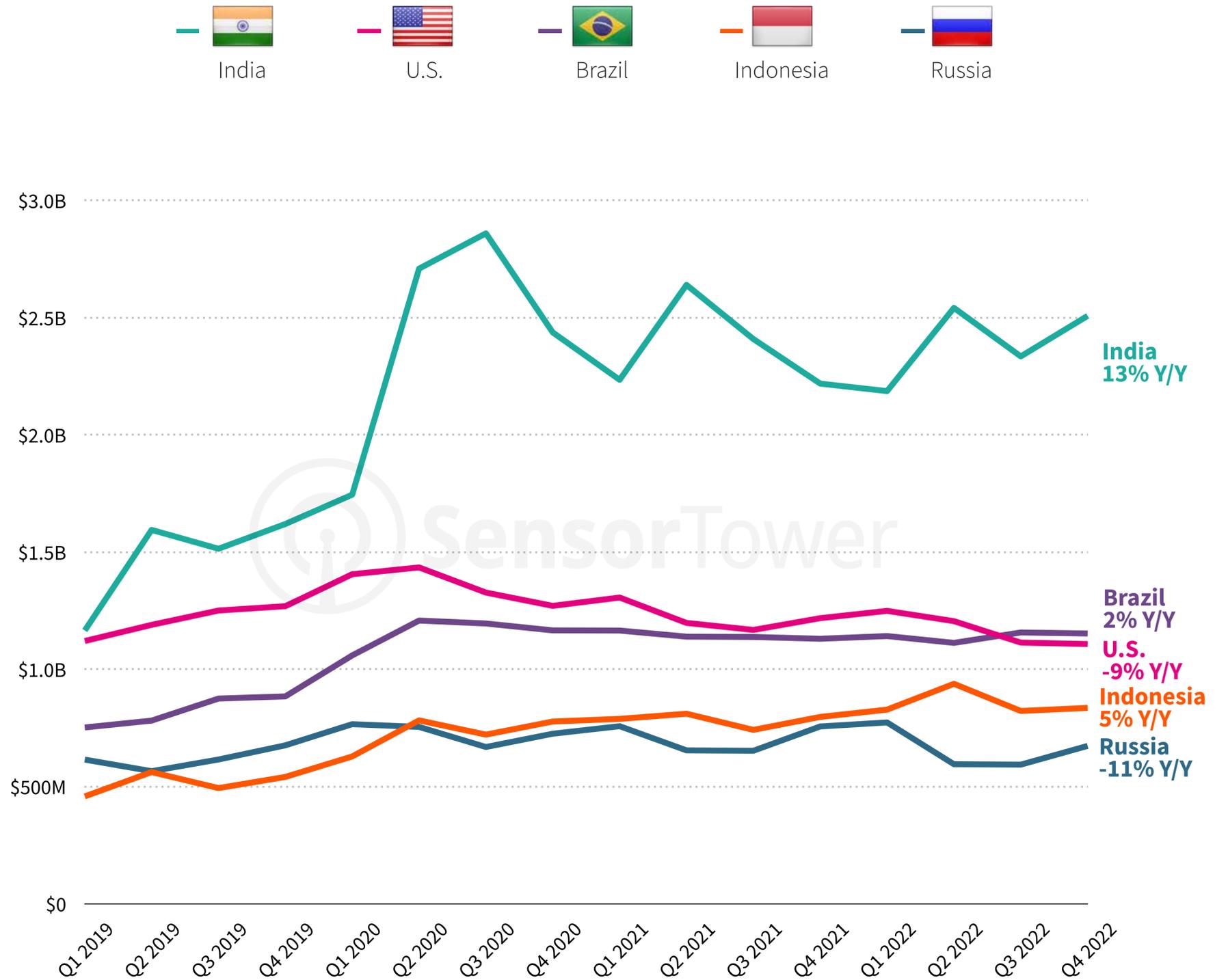
Top Markets by Mobile Game Downloads, App Store and Google Play

**India remains the largest market for downloads, accumulating 17 percent of the worldwide total for the third consecutive year in 2022.**

Four of the top five countries globally by mobile game downloads have stable market share, with the U.S. as the only exception. The U.S. lost 3 percentage points in 2022 compared to 2019.

**While 75 percent of mobile game revenue in 2022 was concentrated among the five largest markets, the top five by downloads combined accounted for only 44 percent of the installs.** This divergence illustrates the difficulty in driving user spend in mobile games relative to new user acquisition in most markets.

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



# India Accounted for 17 Percent of Downloads in 2022

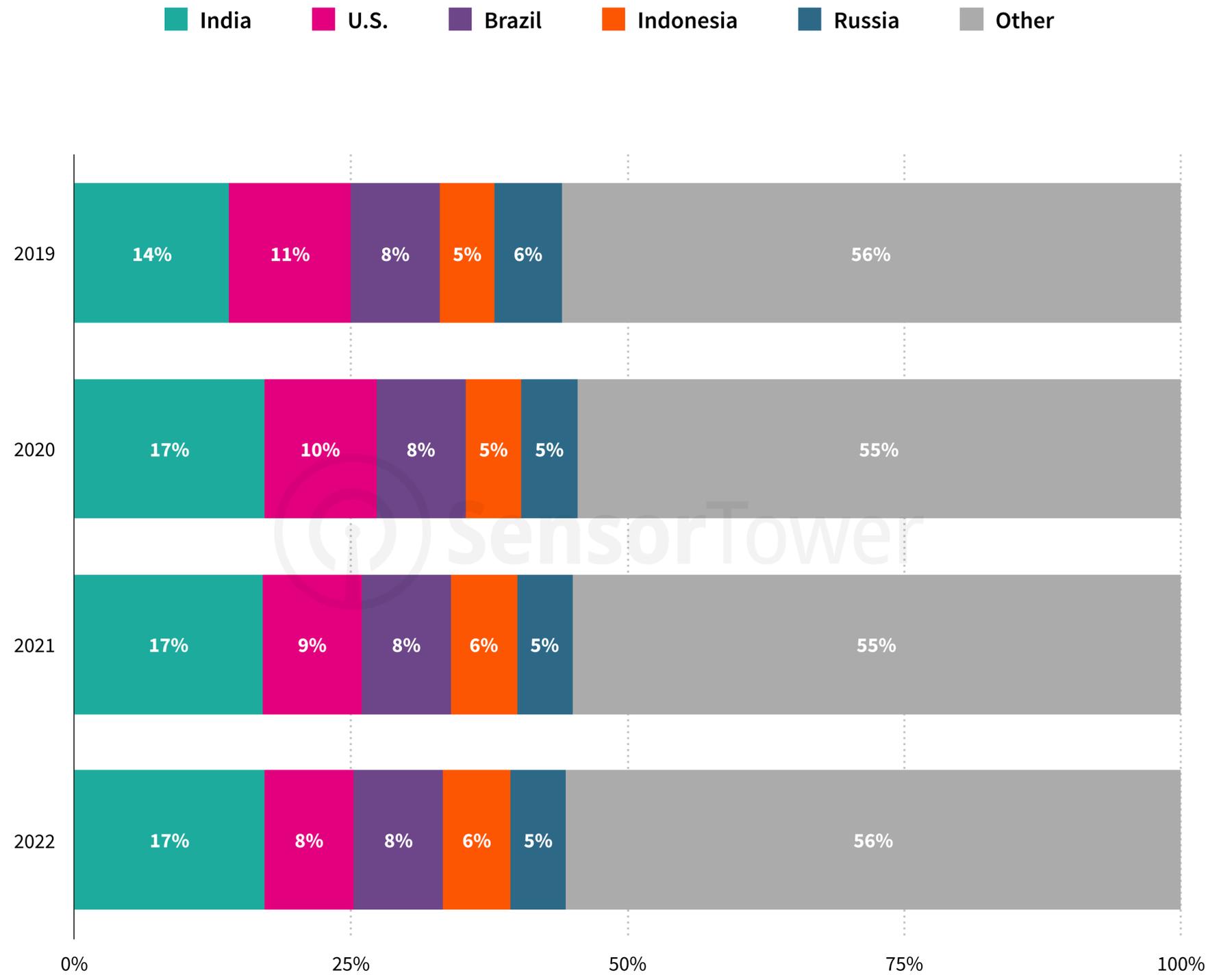
Market Share for Top Markets by Mobile Game Downloads, App Store and Google Play

**As the smartphone penetration rate in India increased in recent years, it has become the largest market for mobile game downloads.**

In contrast, the U.S. market has been shrinking, showing negative growth year-over-year since 2019. Downloads in the U.S. decreased 12.8 percent from 1.3B in Q4 2020 to 1.1B in Q4 2022. Consequently, Brazil has replaced the U.S. as the second largest market by downloads.

Russia has seen declining downloads since Q2 2022, following the onset of the Russia-Ukraine war, with the last three quarters showing negative growth year-over-year. Downloads in Russia decreased 11 percent in Q4 2022.

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



# Market Overview: United States

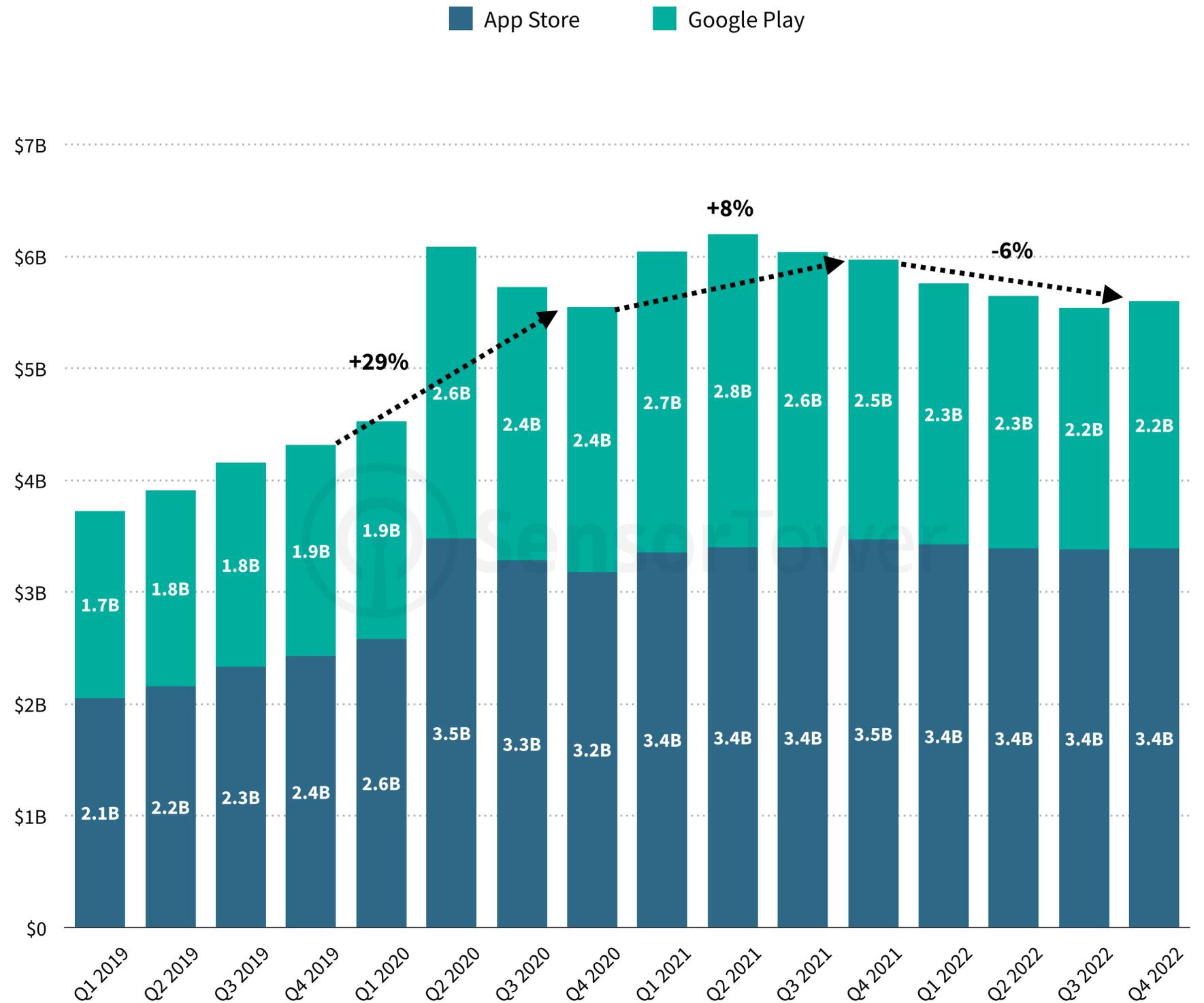


# Game Revenue in U.S. Declined 6 Percent in 2022

*U.S. Quarterly Gross Revenue From Mobile Games, App Store and Google Play*

The size of the U.S. mobile games market decreased each quarter in 2022 year-over-year by at least 5 percent each quarter. While revenue on App Store remained stable in Q4 2022, consumer spending on Google Play declined by 12 percent year-over-year, falling by \$291M in gross revenue.

Despite a decline in Q4 2022, the U.S. is still the top market for mobile gaming, accounting for 29 percent of global market share in revenue.



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



# Candy Crush, Roblox, and Coin Master

Top Mobile Games by U.S. Revenue on App Store and Google Play

Game Class

Mid-Core

Casino

Casual

Sports & Racing

2019

1		Candy Crush Saga King
2		Roblox Roblox
3		Clash of Clans Supercell
4		Pokémon GO Niantic
5		Coin Master Moon Active
6		Homescapes Playrix
7		Slotomania Playtika
8		PUBG Mobile Tencent
9		Fortnite Epic Games
10		Toon Blast Peak Games

2020

1		Roblox Roblox	+1
2		Candy Crush Saga King	-1
3		Coin Master Moon Active	+2
4		Pokémon GO Niantic	-
5		Gardenscapes Playrix	NEW
6		Homescapes Playrix	-
7		Clash of Clans Supercell	-4
8		Slotomania Playtika	-1
9		PUBG Mobile Tencent	-1
10		Call of Duty: Mobile Activision Blizzard	NEW

2021

1		Roblox Roblox	-
2		Candy Crush Saga King	-
3		Coin Master Moon Active	-
4		Garena Free Fire Garena	NEW
5		Pokémon GO Niantic	-1
6		Genshin Impact miHoYo	NEW
7		Homescapes Playrix	-1
8		Clash of Clans Supercell	-1
9		Call of Duty: Mobile Activision Blizzard	+1
10		PUBG Mobile Tencent	-1

2022

1		Candy Crush Saga King	+1
2		Roblox Roblox	-1
3		Coin Master Moon Active	-
4		Royal Match King	NEW
5		Pokémon GO Niantic	-
6		Evony: The King's Return Moon Active	NEW
7		Clash of Clans Supercell	+1
8		Homescapes Playrix	-1
9		Bingo Blitz™ Cygames	NEW
10		Jackpot Party Sony	NEW

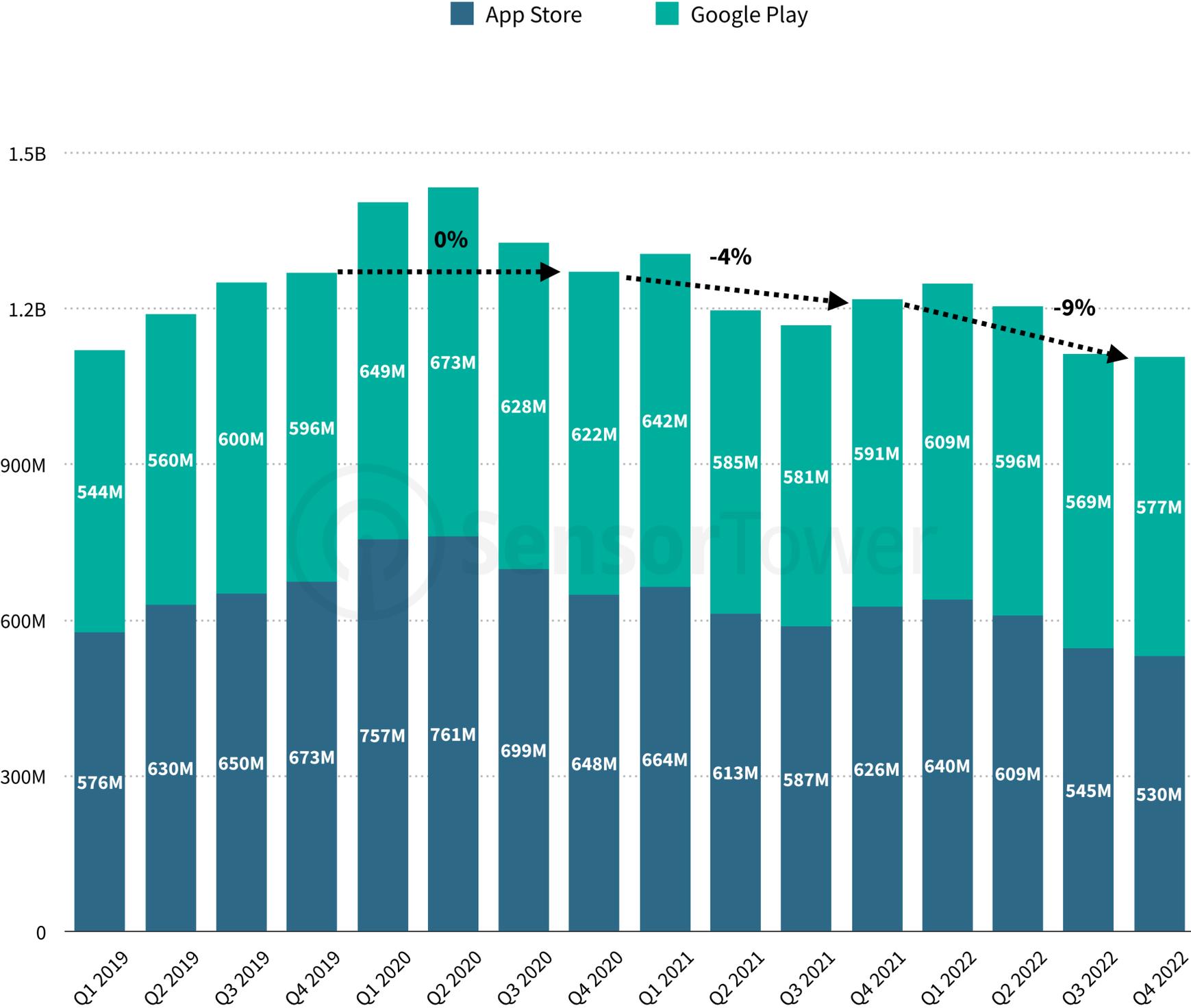


# U.S. Game Installs Have Fallen Below Pre-Pandemic Levels

U.S. Quarterly Downloads of Mobile Games, App Store and Google Play

The United States saw strong download growth year-over-year at the start of the pandemic, seeing its largest Y/Y growth in Q1 2020 at 25 percent. Mobile game downloads have fallen considerably since.

In the past two years, Q4 downloads declined year-over-year. In the U.S., downloads fell below pre-pandemic levels in Q4 2021, and the decline continued in 2022. Because of this, Brazil has displaced U.S. as the second largest market for mobile game downloads.



# Subway Surfers Continues Its Climb Towards the No.1 Spot

Top Mobile Games by U.S. Downloads on App Store and Google Play

## Game Class

Mid-Core

Casino

Casual

Sports & Racing

### 2019

1		<b>Call of Duty: Mobile</b> Activision Blizzard
2		<b>Color Bump 3D</b> Good Job Games
3		<b>Aquapark.io</b> Voodoo
4		<b>Mario Kart Tour</b> Nintendo
5		<b>Roblox</b> Roblox
6		<b>Wordscapes</b> PeopleFun
7		<b>Fun Race 3D</b> Good Job Games
8		<b>Run Race 3D</b> Good Job Games
9		<b>Mr Bullet</b> Lion Studios
10		<b>Polysphere</b> Playgendary

### 2020

1		<b>Among Us</b> InnerSloth	NEW
2		<b>Roblox</b> Roblox	+3
3		<b>Call of Duty: Mobile</b> Activision Blizzard	-2
4		<b>Subway Surfers</b> Sybo Games	NEW
5		<b>Brain Test</b> Unico Studios	NEW
6		<b>Coin Master</b> Moon Active	NEW
7		<b>Magic Tiles 3</b> Amanotes	NEW
8		<b>Fishdom</b> Playrix	NEW
9		<b>Woodturning</b> Voodoo	NEW
10		<b>Tangle Master 3D</b> Zynga	NEW

### 2021

1		<b>Roblox</b> Roblox	+1
2		<b>Project Makeover</b> AppLovin	NEW
3		<b>Among Us</b> InnerSloth	-2
4		<b>High Heels</b> Zynga	NEW
5		<b>Subway Surfers</b> Sybo Games	-1
6		<b>Bridge Race</b> Supersonic Studios	NEW
7		<b>Call of Duty: Mobile</b> Activision Blizzard	-4
8		<b>Magic Tiles 3</b> Amanotes	-1
9		<b>Count Masters</b> Tap2Play	NEW
10		<b>Paper Fold</b> Good Job Games	NEW

### 2022

1		<b>Roblox</b> Roblox	-
2		<b>Subway Surfers</b> Sybo Games	+3
3		<b>Wordle!</b> AppLovin	NEW
4		<b>Stumble Guys</b> Kitka Games	NEW
5		<b>Count Masters</b> Tap2Play	+4
6		<b>Among Us</b> InnerSloth	-3
7		<b>Fishdom</b> Playrix	NEW
8		<b>Survivor!.io</b> Habby	NEW
9		<b>Parking Jam 3D</b> Popcore Games	NEW
10		<b>Call of Duty: Mobile</b> Activision Blizzard	-3



# Market Overview: Europe



# Game Revenue in Europe Declined in 2022

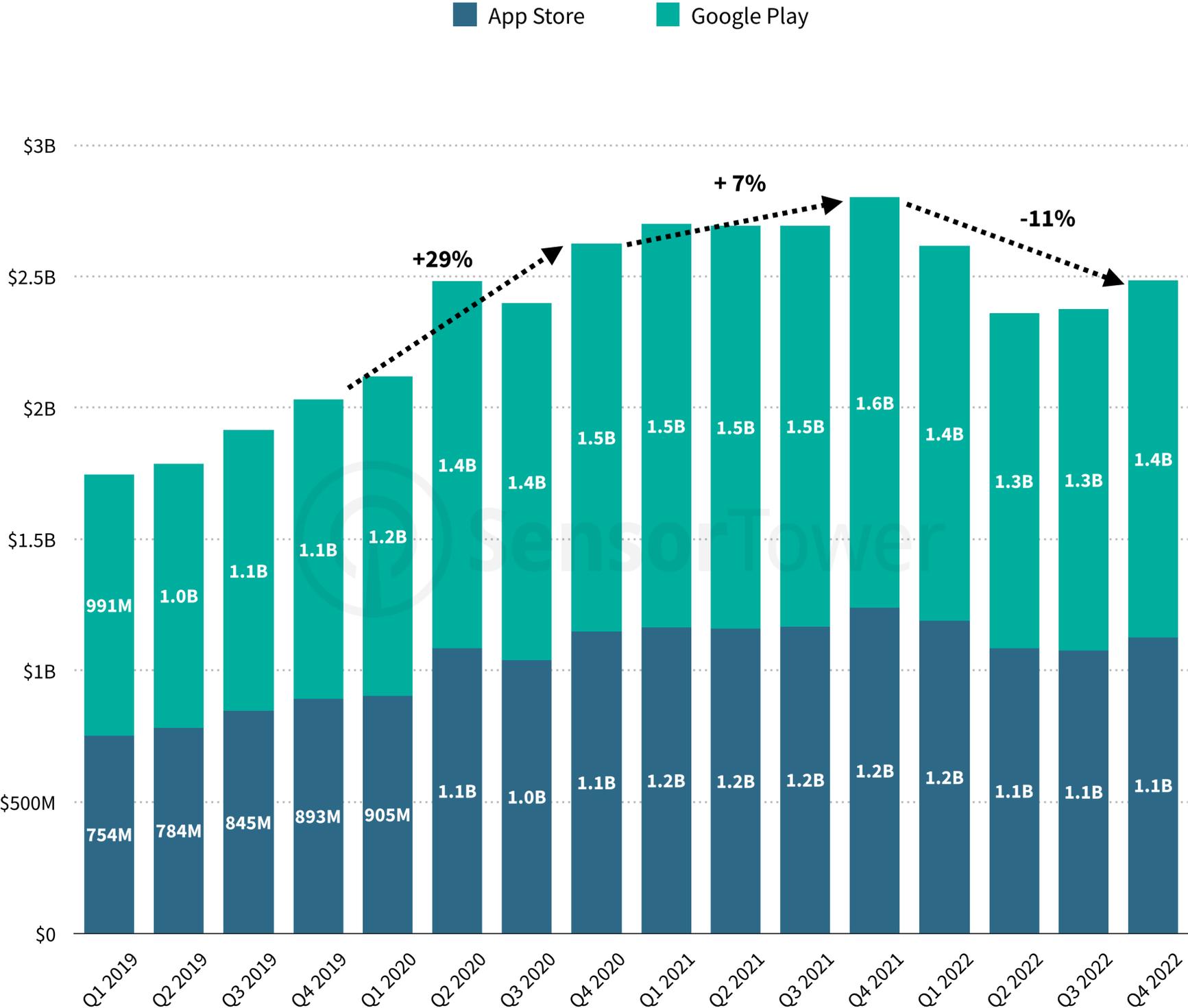
Europe Quarterly Gross Revenue From Mobile Games, App Store and Google Play

Mobile game consumer spending in Europe reached \$2.8B in Q4 2021, an all-time high and up 7 percent year-over-year. However, in Q4 2022, revenue decreased by 11 percent year-over-year to \$2.3B.

This decline was similar on both platforms, with App Store revenue down 9 percent year-over-year in Q1 2021 compared to 13 percent down year-over-year on Google Play.

Google Play remains the larger platform, with \$1.4B in gaming revenue compared to \$1.2B on App Store during Q4 2022.

Although mobile game revenue has declined since its peak in Q4 2021, it has remained well above pre-pandemic levels.



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



# Fishdom Broke into the Top Grossing Mobile Games in Europe

Top Mobile Games by Europe Revenue on App Store and Google Play

Game Class

Mid-Core

Casino

Casual

Sports & Racing

2019

1		Coin Master Moon Active	
2		Candy Crush Saga King	
3		Clash of Clans Supercell	
4		Brawl Stars Supercell	
5		Gardenscapes Playrix	
6		Homescapes Playrix	
7		Pokémon GO Niantic	
8		Empires & Puzzles Small Giant Games	
9		Guns of Glory FunPlus	
10		Clash Royale Supercell	

2020

1		Coin Master Moon Active	-
2		Brawl Stars Supercell	+2
3		PUBG Mobile Tencent	NEW
4		Gardenscapes Playrix	+1
5		Pokémon GO Niantic	+2
6		Roblox Roblox	NEW
7		Candy Crush Saga King	-5
8		Homescapes Playrix	-2
9		Clash of Clans Supercell	-6
10		State of Survival FunPlus	NEW

2021

1		Coin Master Moon Active	-
2		Roblox Roblox	+4
3		PUBG Mobile Tencent	-
4		State of Survival FunPlus	+6
5		Candy Crush Saga King	+2
6		Brawl Stars Supercell	-4
7		Gardenscapes Playrix	-3
8		Homescapes Playrix	-
9		Pokémon GO Niantic	-4
10		Clash of Clans Supercell	-1

2022

1		Moon Active Moon Active	-
2		Candy Crush Saga King	+3
3		Roblox Roblox	-1
4		State of Survival FunPlus	-
5		Gardenscapes Playrix	+2
6		PUBG Mobile Tencent	-3
7		Clash of Clans Supercell	+3
8		Homescapes Playrix	-
9		Fishdom Cygames	NEW
10		Pokémon GO Niantic	-1



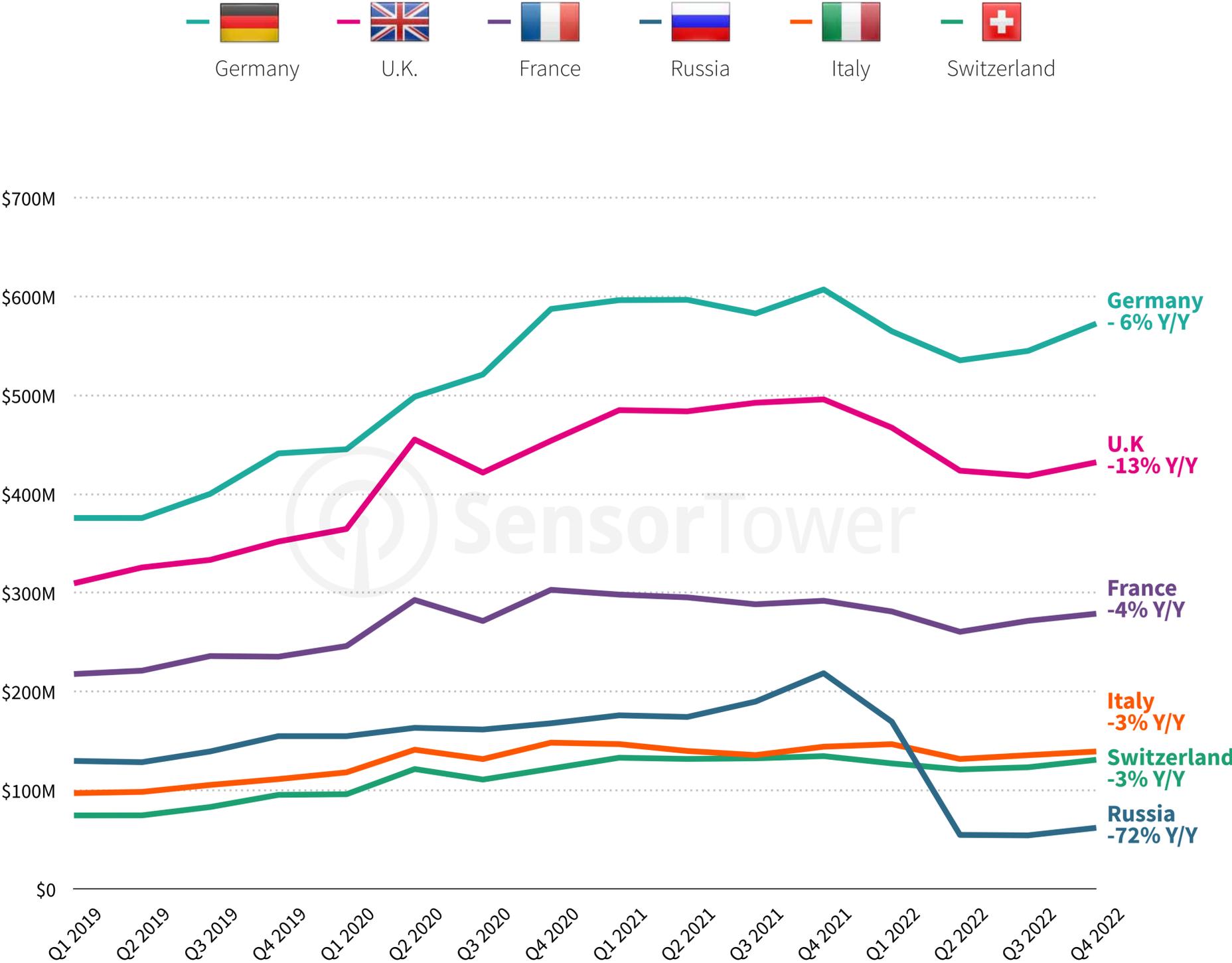
# Russia Fell Out of the Top 5 Markets in Europe for the First Time

Top European Markets by Mobile Game Revenue, App Store and Google Play

Mobile game revenue declined across the five biggest markets in Europe during Q4 2022 (Germany, U.K., France, Russia, and Italy).

Russia has seen significant decline for the first time in Q2 2022 following the onset of the Russia-Ukraine war, with consumer spending dropping 68 percent compared to Q1 2022. Russia's player spending remained below \$70M each quarter in the last three quarters.

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



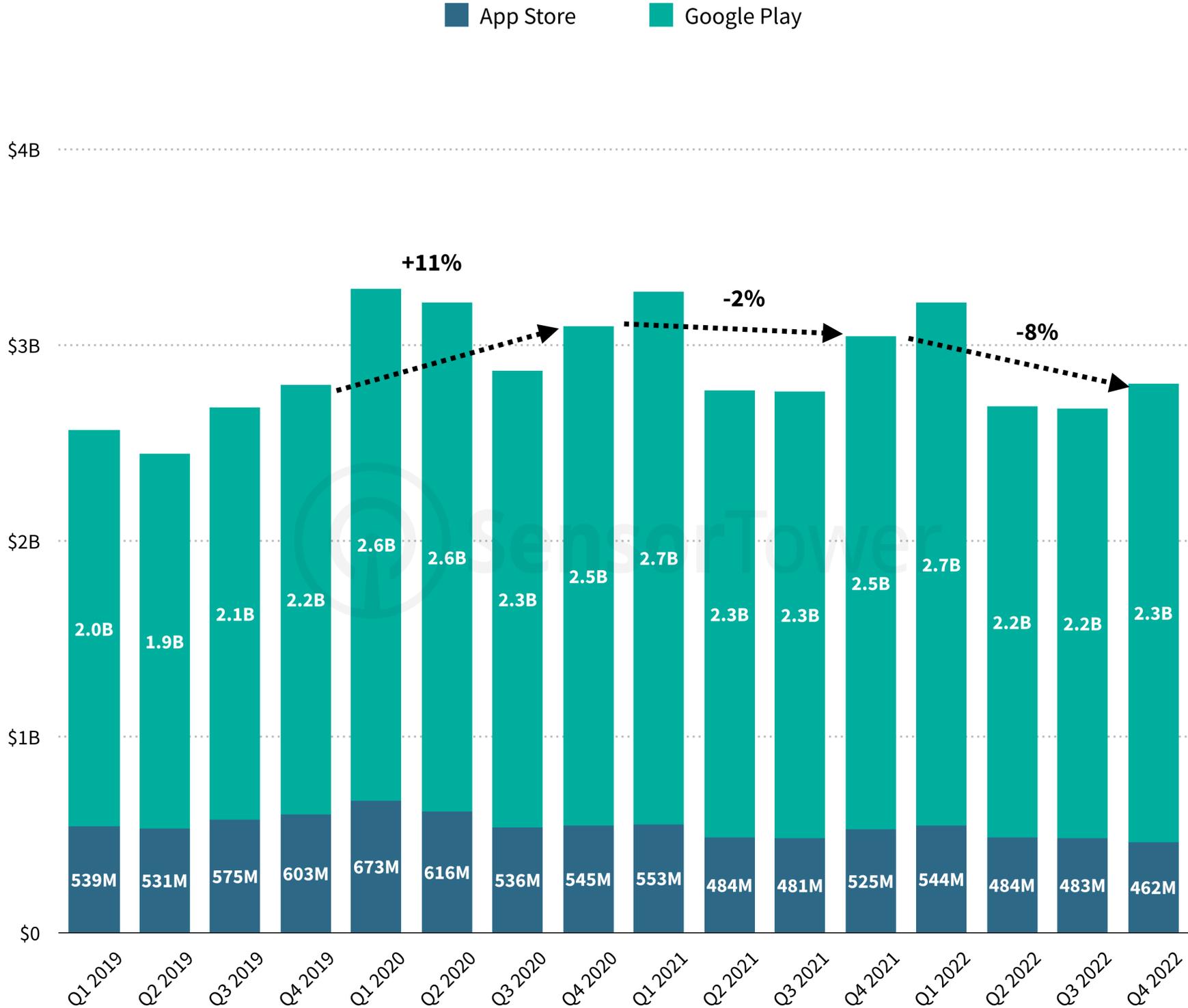
# Mobile Game Installs in Europe Fall to Pre-Pandemic Levels

European Quarterly Downloads From Mobile Games, App Store and Google Play

Mobile game installs in Europe were down 8 percent in Q4 2022, compared to the same period in 2021. This was the second consecutive year that Europe saw negative growth in mobile game downloads in Q4.

Google Play remains the most relevant mobile game marketplace in Europe, accounting for 83 percent of the market share in downloads in 2022.

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



# Stumble Guys Broke into the Top 3 Games by Europe Downloads

Top Mobile Games by Europe Downloads on App Store and Google Play

Game Class

Mid-Core

Casino

Casual

Sports & Racing

2019

1		<b>Brawl Stars</b> Supercell
2		<b>Color Bump 3D</b> Good Job Games
3		<b>Fun Race 3D</b> Good Job Games
4		<b>Call of Duty: Mobile</b> Activision Blizzard
5		<b>Homescapes</b> Playrix
6		<b>Run Race 3D</b> Good Job Games
7		<b>Sand Balls</b> SayGames
8		<b>Aquapark.io</b> Voodoo
9		<b>PUBG Mobile</b> Tencent
10		<b>Subway Surfers</b> Sybo Games

2020

1		<b>Among Us</b> InnerSloth	NEW
2		<b>Brawl Stars</b> Supercell	-1
3		<b>Gardenscapes</b> Playrix	NEW
4		<b>Brain Test</b> Unico Studios	NEW
5		<b>Subway Surfers</b> Sybo Games	+5
6		<b>Roblox</b> Roblox	NEW
7		<b>PUBG Mobile</b> Tencent	+2
8		<b>Brain Out</b> Focus Apps	NEW
9		<b>Woodturning</b> Voodoo	NEW
10		<b>Tiles Hop</b> Amanotes	NEW

2021

1		<b>Count Masters</b> Tap2Play	NEW
2		<b>Roblox</b> Roblox	+4
3		<b>Among Us</b> InnerSloth	-2
4		<b>Brawl Stars</b> Supercell	-2
5		<b>Subway Surfers</b> Sybo Games	-
6		<b>DOP 2</b> SayGames	NEW
7		<b>Phone Case DIY</b> Phone Case DIY	NEW
8		<b>Hair Challenge</b> Zynga	NEW
9		<b>Going Balls</b> Supersonic Studios	NEW
10		<b>PUBG Mobile</b> Tencent	-3

2022

1		<b>Subway Surfers</b> Sybo Games	+4
2		<b>Stumble Guys</b> Kitka Games	NEW
3		<b>Roblox</b> Roblox	-1
4		<b>Going Balls</b> Supersonic Studios	+5
5		<b>Words of Wonders</b> Fugo	NEW
6		<b>Among Us</b> InnerSloth	-3
7		<b>Race Master 3D</b> SayGames	NEW
8		<b>PUBG Mobile</b> Tencent	+2
9		<b>Snake.io</b> Kooapps	NEW
10		<b>Count Masters</b> Tap2Play	-9

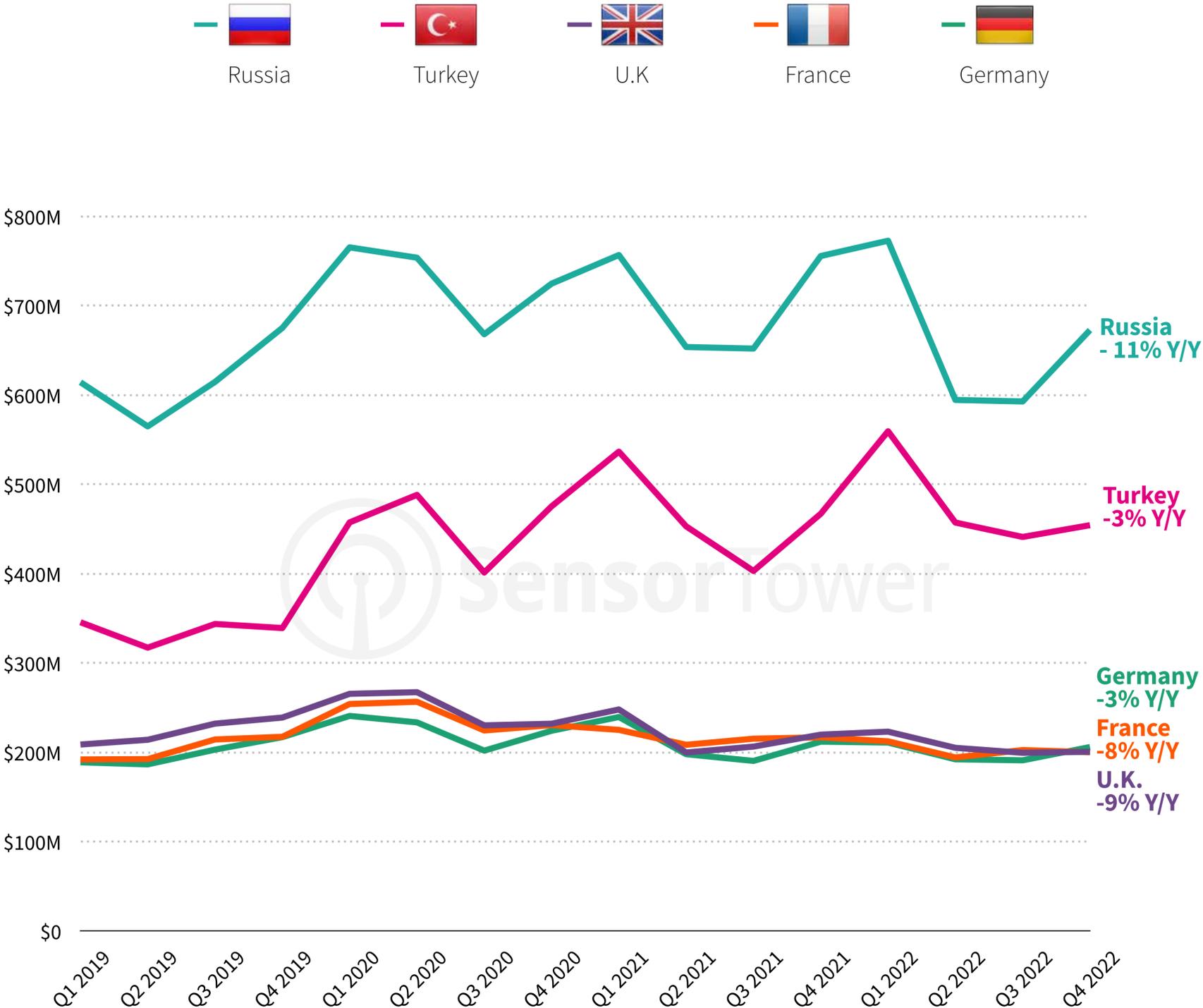


# Russia Continued to Drive European Game Downloads

Top European Markets by Mobile Game Revenue, App Store and Google Play

**Each of the five top European markets saw downloads decline year-over-year in Q4 2022.** Russia saw a particularly severe decline, down 11 percent year-over-year.

Despite its decline in adoption, Russia is still the top market for mobile gaming in Europe, with 673M downloads. It accounted for 24 percent of downloads in Europe in Q4 2022, followed by Turkey at 16 percent.



# Market Overview: Asia



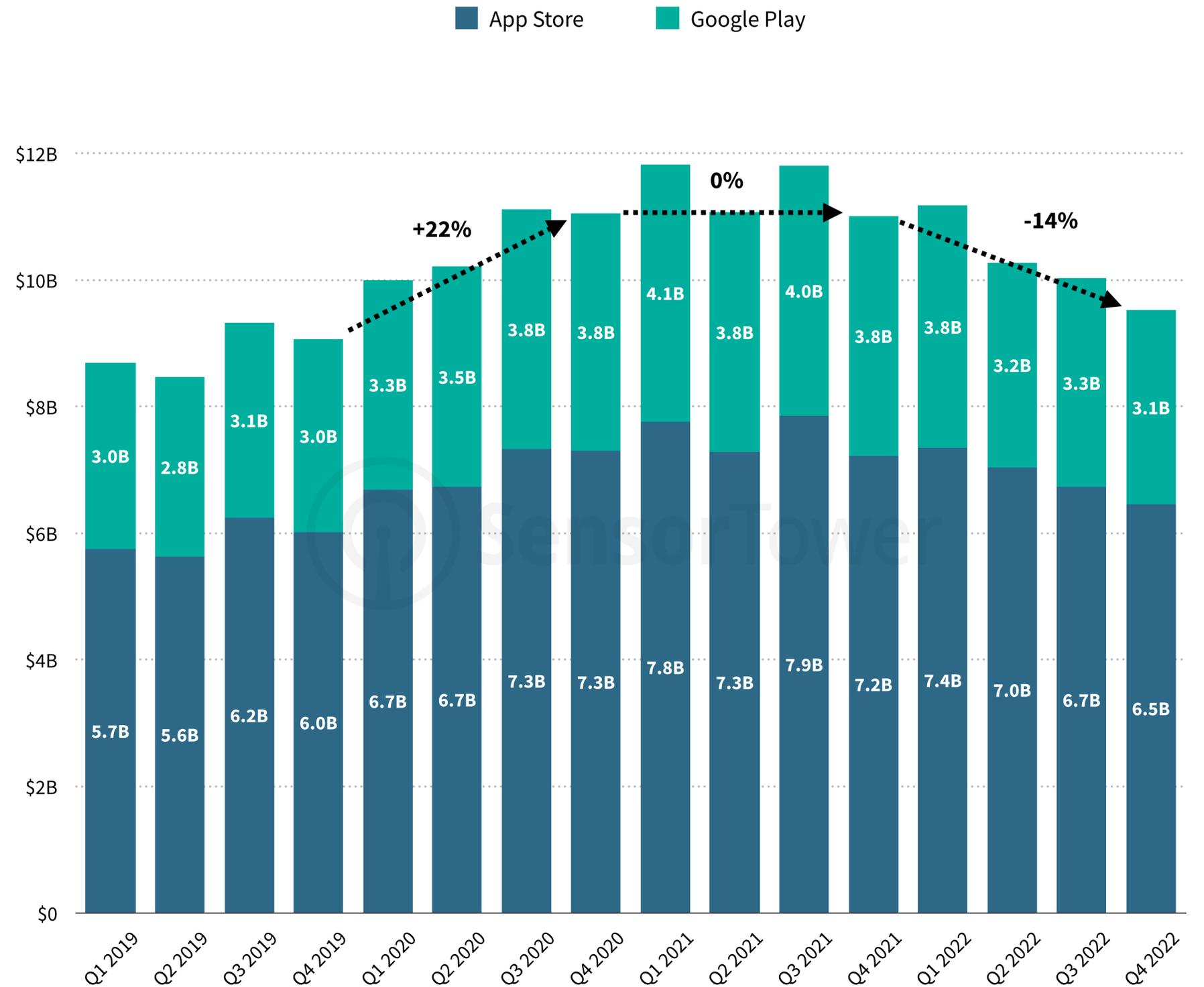
# Game Revenue in Asia Declined 14 Percent Year-Over-Year

Asia's Quarterly Gross Revenue From Mobile Games, App Store and Google Play

Asia's mobile game revenue declined quarter-over-quarter in 2022, from \$11.2B in Q1 to \$9.5B in Q4, down 15 percent. The revenue decline was more pronounced on Google Play at 20 percent compared to App Store, which decreased by 12 percent.

Following the same trend observed in the U.S. market, mobile game revenue in Asia also declined during Q4 2022 year-over-year. Where the U.S.'s gaming spend dropped 6 percent, spend in Asia was down 14 percent. Despite this, Asia still remains by far the most lucrative region for mobile game revenue, led by China and Japan.

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



# Honor of Kings Continues to Lead Mobile Games in Asia

Top Mobile Games by Asia Revenue on App Store and Google Play

Game Class

Mid-Core

Casino

Casual

Sports & Racing

2019

1		Honor of Kings Tencent
2		Fate/Grand Order Sony
3		PUBG Mobile Tencent
4		Monster Strike Mixi
5		Fantasy Westward Journey NetEase
6		Lineage M NCSOFT
7		Puzzle & Dragons GungHo
8		Perfect World Tencent
9		Knives Out NetEase
10		Dragon Ball Z Dokkan Battle Bandai Namco

2020

1		Honor of Kings Tencent	-
2		PUBG Mobile Tencent	+1
3		Monster Strike Mixi	+1
4		Fate/Grand Order Sony	-2
5		Three Kingdoms Tactics Alibaba	NEW
6		Lineage M NCSOFT	-
7		Lineage2M NCSOFT	NEW
8		Fantasy Westward Journey NetEase	-3
9		Knives Out NetEase	-
10		AFK Arena Lilith Games	NEW

2021

1		Honor of Kings Tencent	-
2		PUBG Mobile Tencent	-
3		Genshin Impact miHoYo	NEW
4		Uma Musume Pretty Derby Cygames	NEW
5		Three Kingdoms Tactics Niantic	-
6		Fate/Grand Order Sony	-2
7		Fantasy Westward Journey NetEase	+1
8		Monster Strike Mixi	-5
9		Pro Baseball Spirits A Konami	NEW
10		Lineage2M NCSOFT	-3

2022

1		Honor of Kings Tencent	-
2		PUBG Mobile Tencent	-
3		Genshin Impact miHoYo	-
4		Three Kingdoms Tactics Niantic	+1
5		Uma Musume Pretty Derby Cygames	-1
6		Monster Strike Mixi	+2
7		Lineage W NCSOFT	NEW
8		Fate/Grand Order Sony	-2
9		Fantasy Westward Journey NetEase	-2
10		Lineage M NCSOFT	+2



# Mobile Game Adoption in Asia Grew in Q4 2022

Asia's Quarterly Mobile Game Downloads, App Store and Google Play

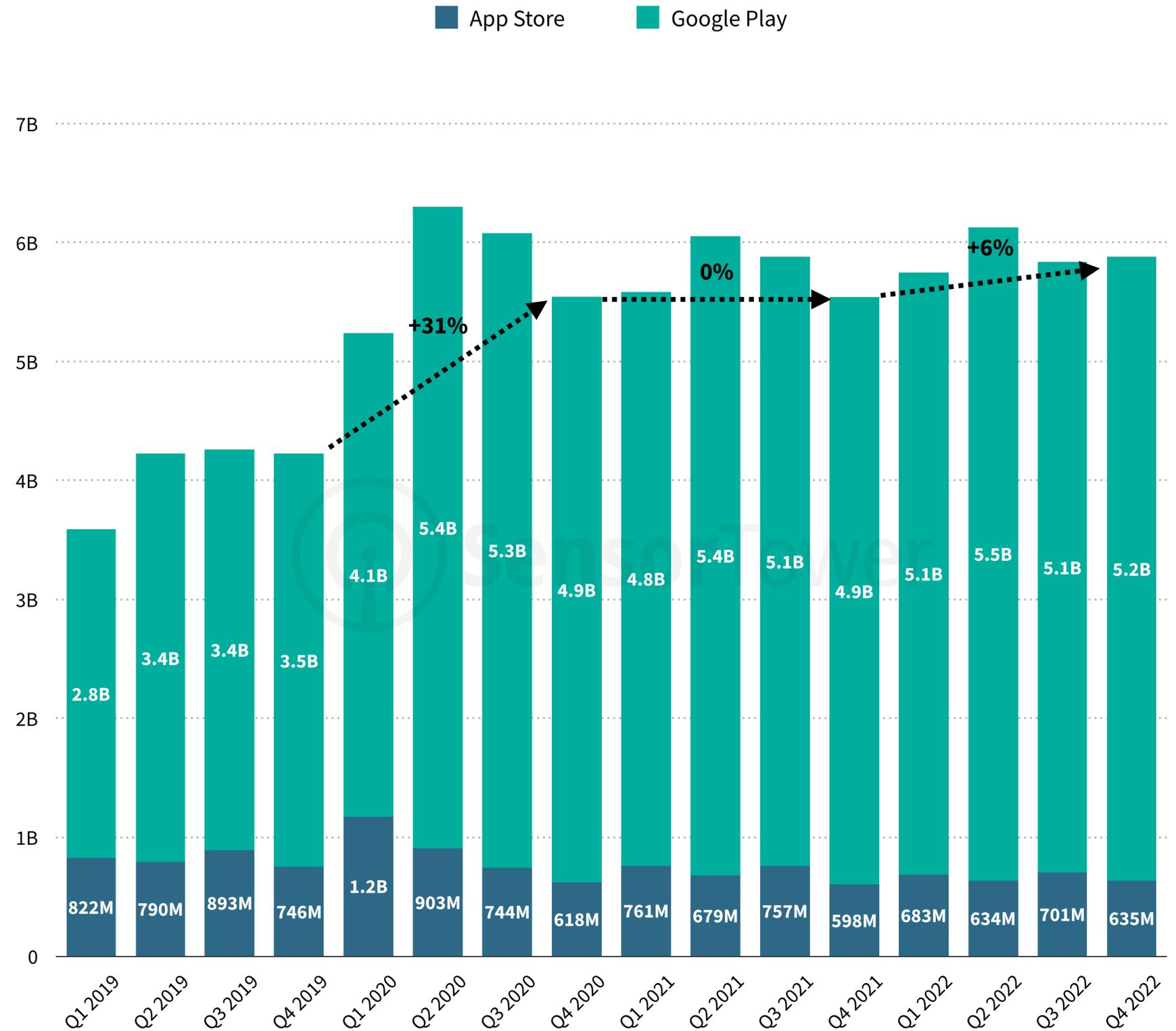
Mobile game installs in Asia remained stable at above 5.5B each quarter following big gains beginning in Q1 2020. Downloads in 2022 are now 45 percent higher than 2019.

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 89 percent of downloads in Q4 2022 were from Google Play, up from 71 percent in Q1 2018.

Note: Google Play is officially not available in China. Android users in this region typically use alternative app stores, such as Tencent MyApp, 360 Mobile Assistant, Xiaomi App Store, Huawei AppGallery.

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



# Ludo King Led All Mobile Games in Asia

Top Mobile Games by Asia Downloads on App Store and Google Play

## Game Class

Mid-Core

Casino

Casual

Sports & Racing

### 2019

1		<b>PUBG Mobile</b> Tencent
2		<b>Garena Free Fire</b> Garena
3		<b>Ludo King</b> Gametion
4		<b>Subway Surfers</b> Sybo Games
5		<b>Mobile Legends: Bang Bang</b> Moonton
6		<b>Fun Race 3D</b> Good Job Games
7		<b>My Talking Tom 2</b> Outfit7
8		<b>Temple Run 2</b> Imangi Studios
9		<b>Carrom Pool</b> Miniclip
10		<b>Candy Crush Saga</b> King

### 2020

1		<b>Ludo King</b> Gametion	+2
2		<b>Garena Free Fire</b> Garena	-
3		<b>Among Us</b> InnerSloth	NEW
4		<b>PUBG Mobile</b> Tencent	-3
5		<b>Hunter Assassin</b> Ruby Game Studio	NEW
6		<b>Subway Surfers</b> Sybo Games	-2
7		<b>Brain Out</b> Focus Apps	NEW
8		<b>Worms Zone.io</b> Azur Interactive	NEW
9		<b>Carrom Pool</b> Miniclip	-
10		<b>Gardenscapes</b> Playrix	NEW

### 2021

1		<b>Ludo King</b> Gametion	-
2		<b>Garena Free Fire</b> Garena	-
3		<b>PUBG Mobile</b> Tencent	+1
4		<b>Subway Surfers</b> Sybo Games	+2
5		<b>Carrom Pool</b> Miniclip	+4
6		<b>Join Clash 3D</b> Supersonic Studios	NEW
7		<b>Candy Crush Saga</b> King	NEW
8		<b>Bridge Race</b> Supersonic Studios	NEW
9		<b>Worms Zone.io</b> Azur Interactive	-1
10		<b>Subway Princess Runner</b> Ivy	NEW

### 2022

1		<b>Ludo King</b> Gametion	-
2		<b>Garena Free Fire</b> Garena	-
3		<b>Subway Surfers</b> Sybo Games	+1
4		<b>Candy Crush Saga</b> King	+3
5		<b>Carrom Pool</b> Miniclip	-
6		<b>PUBG Mobile</b> Tencent	-3
7		<b>Bubble Shooter</b> Ivy Mobile	NEW
8		<b>Bridge Race</b> Supersonic Studios	-
9		<b>Temple Run 2</b> Imangi Studios	NEW
10		<b>My Talking Tom 2</b> Outfit7	NEW

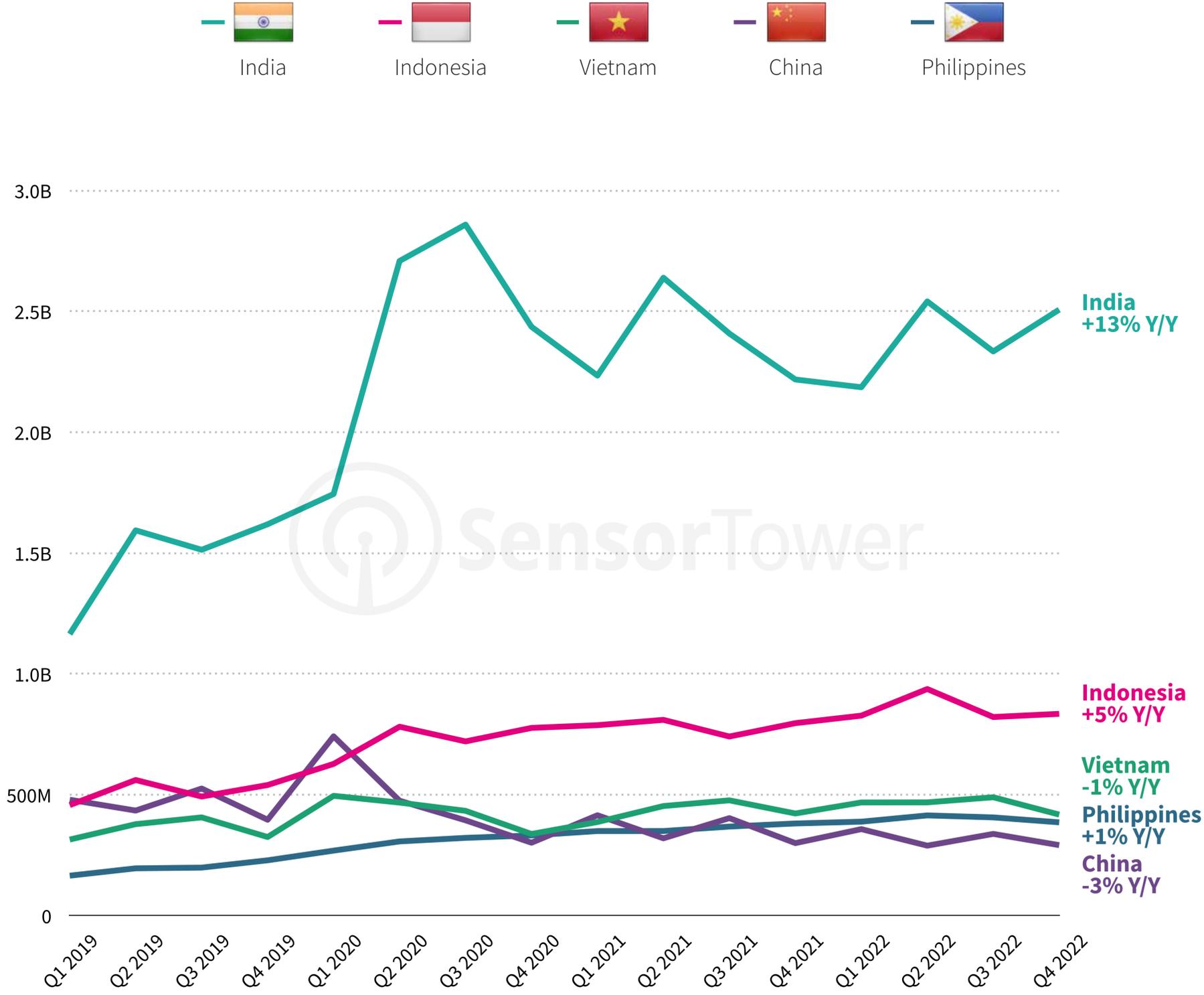


# India Leads in Download Growth in Asia

Top Asian Markets by Mobile Game Downloads, App Store and Google Play

**India is the largest mobile games market by downloads in the world.** During the last quarter, India game downloads were up 13 percent year-over-year to more than 2.5B. This was more than triple the No. 2 market, Indonesia, which generated 8.4B during the quarter.

Even though Philippines is a smaller market, it performed well, with stable growth over the past few years, rising by 133 percent from Q1 2019 to Q4 2022. If this trends continues into 2023, Philippines may surpass Vietnam as the third largest market by downloads in Asia.



# Conclusion



# Key Takeaways: Overall

- Mobile gaming downloads and revenue have been affected by multiple factors in 2022, including ATT policies that impact cost per install, the economic recession affecting user acquisition budget and the overall post-covid cultural and macroeconomic recovery.
- Although mobile game adoption has slowed since its peak in Q2 2020, it has remained well above pre-pandemic levels. Global downloads are currently stable at an average of 13.8B per quarter in the past two years.
- China, with relatively stable revenue, has replaced Japan as the second largest mobile games market since Q2 2022. India remains the largest market for downloads, accumulating 17 percent of the worldwide total for the third consecutive year in 2022.
- The RPG and Shooter genres saw the steepest decrease in revenue worldwide, falling 14 percent and 22 percent, respectively.
- Action was the only genre to show positive growth in both revenue and downloads, up 9 percent in gross revenue and 13 percent in downloads year-over-year, fueled by Hybridcasual titles like Survivor!.io
- Simulation surpassed Puzzle as the No.3 Genre by downloads, fueled by Roblox and a new trend in Simulators, Sandbox and Tycoon Hybridcasual games.
- Hypercasual downloads saw an 18 percent year-over-year decline, while Hybridcasual grew by 13 percent.



# Key Takeaways: Overall

- All of the world's top 10 revenue generating mobile games in 2022 support their titles through Live Ops content releases. On average, an Action game with Live Ops can generate 30 times more in revenue than a game without Live Ops.
- The European Commission is investigating stricter policies around monetization practices like Loot Boxes, contributing to uncertainty around the long term viability of this monetization feature in the region. The stakes are high as 63 percent of all mobile game revenue in the EU is generated by games with Loot Boxes.
- Crypto/NFT game downloads declined quickly in the second half of 2022, from 46M in H1'22, to 29M in H2'22.
- Character Collection is the most prevalent meta feature among top titles, with 70 percent of top grossing titles including this feature, followed by Social Clans, with 60 percent.
- Netflix entered as a new player in mobile games. Between November 2021 and December 2022, its titles generated more than 28M downloads globally across App Store and Google Play, led by Stranger Things: 1984, which received 4M downloads.
- There's a clear trend in game design of mobile developers utilizing the Hybridcasual product model over recently successful PC/Console game patterns.



# Sensor Tower Solutions



## Store Intelligence

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



## App Intelligence

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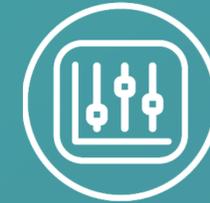
Drive organic growth with the leading App Store Optimization platform.



## Ad Intelligence

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Develop winning User acquisition campaigns with crucial mobile advertising insights.



## Usage Intelligence

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Benchmark app usage, engagement, and demographics.



## App Teardown

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



## Consumer Intelligence

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Access unfiltered mobile user engagement for financial analysis.



## About Sensor Tower

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, and Usage Intelligence.



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