The Global App Store and Its Growth

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Summary

In 2024, the App Store ecosystem facilitated nearly $1.3 trillion in billings and sales worldwide. Over the past five years, amidst changes in app usage, consumer preferences, and broader economic trends, the economic activity on the App Store ecosystem more than doubled. The App Store is part of a large ecosystem with millions of apps available to more than a billion users worldwide.

Across a wide range of app categories, billings and sales facilitated by the App Store grew significantly: Digital goods and services grew 109%—driven in part by growth in games, photo & video editing apps, and enterprise apps—physical goods and services grew 162%—driven in part by increased demand for online food and grocery orders—and in-app advertising revenue from ads placed by developers in their apps on iOS devices grew 131%.

The overall growth seen on the App Store was also reflected at a regional level: Billings and sales in the US, China, and Europe all doubled, or more, over the last five years. In 2024, the App Store was a growing ecosystem, supporting consumers across multiple sectors and regions worldwide.

Section 1

Billings and sales facilitated by the App Store globally in 2024 and 5-year changes

Section 2

Regional dynamics on the App Store ecosystem in 2024 and 5-year changes

Definitions of Billings and Sales

"Billings" refers to payments for paid downloads and in-app purchases, including subscriptions, that use Apple's in-app purchase system. "Sales" refers to money spent by customers purchasing goods and services in general. We use the term "facilitated" to include the various ways in which apps contribute to generating billings and sales.

Methodology

"iOS apps" include apps on iPhone and iPad devices. Apps developed by Apple, such as Apple Music, as well as mobile browser apps, such as Google Chrome, are excluded from this analysis. Categories as presented in this report do not reflect App Store categories.

In-App Ad Sales

Estimates of in-app ad sales for iOS apps include revenue generated from the publishing of advertisements by developers within apps only. Estimates do not include ad-network or other ad-tech revenue, advertising on mobile web (such as on mobile browser apps) or search advertising (such as Apple Ads).

The App Store ecosystem globally in 2024

The App Store provides users around the globe access to millions of apps. In 2024, the App Store saw an average of more than 813 million weekly visitors worldwide.

In 2024, the App Store ecosystem facilitated nearly $1.3 trillion in billings and sales worldwide. Of the $1.3 trillion, $131 billion, or 10%, originated from billings and sales of digital goods and services, $1,014 billion, or 78%, from sales of physical goods and services, and $150 billion, or 12% from in-app advertising revenue from ads placed by developers in their apps on iOS devices. (See **Table 1**.)

Consistent with previous years, within digital goods and services, games, video streaming apps, and enterprise apps were the largest sources of billings and sales in 2024. Within physical goods and services, general retail was the largest subcategory comprising nearly 50% of the total ecosystem.

Table 1: Estimated Billings and Sales Facilitated by the App Store Ecosystem Worldwide, 2024 ($ Billion)*

Digital Goods and Services**	**$131**	**10%**
Physical Goods and Services***	**$1,014**	**78%**
M-Commerce		
General Retail	$618	48%
Travel	$135	10%
Food Delivery and Pickup	$110	8%
Grocery	$80	6%
Ride Hailing	$60	5%
Digital Payment	$12	1%
In-App Advertising****	**$150**	**12%**
Total	**$1,295**	**100%**

* Totals may not sum due to rounding. Estimates may not be directly comparable to previous reports due to periodic updates made by third-party sources. Revisions to third-party sources are typically related to incorporating new, higher-quality data sources, adjusting the weights assigned to different sources, or updating foreign-exchange rate assumptions.

** Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

*** Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

**** iOS in-app ad revenue from ads placed by developers in their apps; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

Apple collected no commission on more than 90% of the $1.3 trillion in billings and sales facilitated by the App Store ecosystem globally. (See **Appendix Table 1** for further methodological details.)

Apple does not collect a commission on purchases of **digital goods and services that happen entirely outside of apps**[1] (e.g., purchasing a subscription to a newspaper through a web browser), on purchases of **physical goods and services through apps** (e.g., when a user pays for a ride on a ride-hailing app or buys groceries online), or on **in-app ad revenue** (e.g., ad revenue for ads purchased by advertisers outside the app and placed by developers in the app using ad network APIs).

While the present analysis captures the major app monetization strategies available to developers (see **Estimating the size of the App Store ecosystem**), the full economic impact of the App Store ecosystem extends beyond the estimates provided in this report, as the current methodology does not capture all of the ways in which the App Store ecosystem facilitates sales, or all of the benefits created by apps. For example, the App Store supports "companion apps" that raise the value of a company's goods and services, including smart home apps and health apps. In addition, many apps now use different monetization strategies. As such, this analysis does not account for all the ways in which the App Store ecosystem creates value.

Estimating the size of the App Store ecosystem

This study relies on the methodology to estimate the billings and sales facilitated by the App Store from the studies conducted by Borck, Caminade, and von Wartburg (*How Large Is the Apple App Store Ecosystem?*, *A Global Perspective on the Apple App Store Ecosystem*, and *The Continued Growth and Resilience of Apple's App Store Ecosystem*). Due to retroactive changes made to third-party data sources, some numbers in this report have been updated for accuracy and may differ from previous studies.

Consistent with past studies, in this report, the direct monetization of apps represents a small fraction of the overall commerce the App Store facilitates, because developers can monetize their apps in several ways that do not involve transacting through the App Store, such as:

1. Selling digital goods and services outside of the App Store for use within apps on Apple devices (e.g., news and magazine subscriptions, music and video streaming)
2. Selling physical goods and services through apps on Apple devices (e.g., food and grocery delivery or ride hailing)
3. Offering ad-supported content within apps (e.g., ad-supported games)

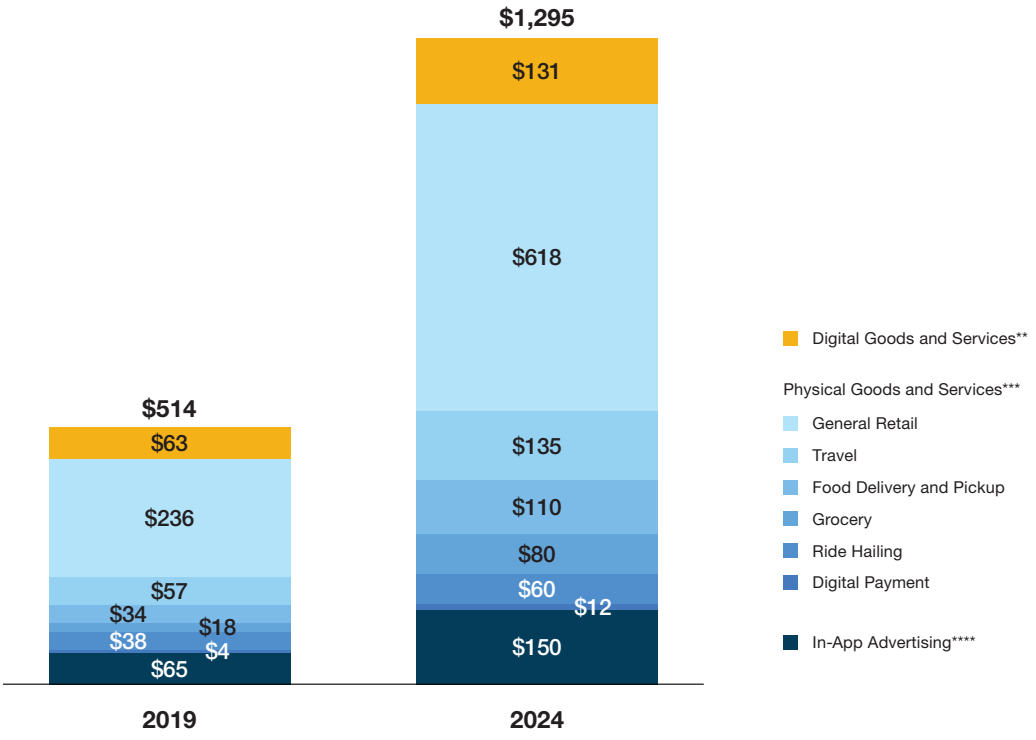
A complete description of the methodology used in this report is included in the Appendix.

1 In 2024, transactions facilitated by certain in-app links may have been subject to a reduced commission, depending on the jurisdiction.

The growth in the App Store ecosystem globally, 2019 to 2024

Over the past five years, **the App Store ecosystem has more than doubled in size, increasing from $514 billion in 2019 to nearly $1.3 trillion in 2024.** (See **Figure 1**.) This growth reflects an increased use of iOS apps for everyday life, following technological changes, increased digital adoption, and shifts in consumer behavior towards m-commerce, and digital entertainment.

Figure 1: Estimated Billings and Sales Facilitated by the App Store Ecosystem by App Category, 2019 to 2024 ($ Billion)*



* Totals may not sum due to rounding. 2019 estimates are based on retroactively updated numbers from third-party data.

** Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

*** Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

**** iOS in-app ad revenue from ads placed by developers in their apps; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

Since 2019, iOS-based spending on digital goods and services, physical goods and services, and in-app advertising have all more than doubled, with physical goods and services experiencing the largest growth (+2.6x). (See **Table 2**.)

Table 2: Estimated Changes in Billings and Sales Facilitated by the App Store Ecosystem Worldwide Since 2019*

	Change 2019 to 2024
Digital Goods and Services**	**+109%**
Physical Goods and Services***	**+162%**
M-Commerce	
General Retail	+162%
Travel	+137%
Food Delivery and Pickup	+222%
Ride Hailing	+334%
Grocery	+57%
Digital Payment	+241%
In-App Advertising****	**+131%**
Total	**+152%**

* Changes are based on retroactively updated numbers from third-party data. See Appendix for more details.

** Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

*** Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

**** iOS in-app ad revenue from ads placed by developers in their apps; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

Digital goods and services: Apps support content creation, entertainment, and productivity. Over the last five years, digital goods and services more than doubled. Games have contributed to consumer spending, with users often making in-app purchases. Following the pandemic, consumers have also adopted apps for digital education,[i] virtual fitness,[ii] and mental wellness apps,[iii] alongside enterprise apps that support flexible work (for example, Slack).[iv] Most notably, the last five years have seen an increase in user spending on apps that support digital content creation, such as photo and video editing apps (for example, CapCut and Adobe Express) and entertainment apps (for example, WePlay).

Physical goods and services: Apps have played a central role in changing global commerce. Overall, the last five years have seen increased adoption of apps that bring convenience and speed to the purchase of physical goods and services.[v] Online retailers, as well as resale marketplaces, like Poshmark, have expanded,[vi] in line with general retail spending, which has more than doubled since 2019. Many new and convenient apps have changed the way users shop, with some like Instacart and Glovo now offering same-day or even within-the hour delivery,[vii] contributing to the growth of online grocery shopping.[viii] Five years ago, ride-hailing was the largest source of consumer spending for on-demand goods and services; today food delivery and pickup and grocery are the largest source of consumer spending, as food delivery and pickup spending more than tripled and grocery spending grew fourfold over the last five years.

In-app advertising: Ad spend has grown alongside the App Store ecosystem. In-app advertising allows users to enjoy a wide range of apps at a lower or no cost. In line with the broader digital ad market,[ix] in-app advertising on iOS more than doubled over the past five years, with ad revenue from ads placed by developers on non-gaming apps growing faster than on games.

Regional dynamics on the App Store ecosystem in 2024

In 2024, the US accounted for $406 billion in billings and sales facilitated by the App Store ecosystem, China accounted for $539 billion, and Europe accounted for $148 billion.[2] (See **Table 3**.)

Physical goods and services was the largest category in each region. In China, driven by large e-commerce marketplaces, such as Taobao, sales of physical goods and services comprised roughly 90% of China's total billings and sales, compared to around 70% elsewhere in the world (68% in the US, 73% in Europe, and 71% on average in the rest of the world). Within physical goods and services, general retail was the largest category across all regions. Travel also had a strong presence, ranking as the second-largest category in every region except China. Sales in grocery and food delivery and pickup iOS-based apps surpassed ride hailing in all regions except for the US. Compared to other regions, the US had the largest billings and sales for digital goods and services, as well as the largest spending in in-app advertising—both more than double China's and Europe's spending. (See **Table 3**.)

Table 3: Estimated Billings and Sales Facilitated by the App Store Ecosystem, By Region, 2024 ($ Billion)*

	US	China	Europe	Rest of the World	Total
Digital Goods and Services**	**$53**	**$23**	**$20**	**$33**	**$131**
Physical Goods and Services***	**$277**	**$484**	**$109**	**$142**	**$1,014**
M-Commerce					
General Retail	$146	$350	$56	$65	$618
Travel	$41	$34	$27	$33	$135
Food Delivery and Pickup	$38	$41	$11	$19	$110
Grocery	$14	$41	$8	$16	$80
Ride Hailing	$31	$14	$5	$8	$60
Digital Payment	$7	$5	-	-	$12
In-App Advertising****	**$75**	**$31**	**$20**	**$25**	**$150**
Total	**$406**	**$539**	**$148**	**$200**	**$1,295**

* Totals may not sum due to rounding. Regional estimates may not be directly comparable to previous reports due to periodic updates made by third-party sources. Revisions to third-party sources are typically related to incorporating new, higher-quality data sources, adjusting the weights assigned to different sources, or updating foreign-exchange rate assumptions.

** Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

*** Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

**** iOS in-app ad revenue from ads placed by developers in their apps; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

2 Throughout the report, China refers to Greater China. Estimates for Europe include countries in Western, Central, and Eastern Europe (including the UK and the Nordic Region, not including Russia).

Within Europe, the UK had the largest amount of billings and sales facilitated by the App Store ecosystem, driven in part by its relatively high iOS market share and its large m-commerce sector, which includes, for example, the secondhand fashion marketplace Depop. In the UK and Germany, food delivery and pickup ranked as the third largest category within m-commerce, behind general retail and travel. In France, Italy, and Spain, grocery spending surpassed food delivery and pickup. (See **Table 4**.)

Table 4: Estimated Billings and Sales Facilitated by the App Store Ecosystem, Select European Countries, 2024 ($ Billion)*

	UK	Germany	France	Italy	Spain
Digital Goods and Services**	**$5.4**	**$3.6**	**$2.1**	**$1.0**	**$1.1**
Physical Goods and Services***	**$43.8**	**$15.0**	**$8.1**	**$4.4**	**$4.2**
M-Commerce					
General Retail	$24.1	$5.9	$4.5	$1.6	$1.8
Travel	$7.6	$5.7	$2.1	$1.7	$1.6
Food Delivery and Pickup	$6.2	$1.8	$0.4	$0.3	$0.2
Grocery	$3.5	$1.1	$0.6	$0.6	$0.4
Ride Hailing	$2.4	$0.6	$0.5	$0.1	$0.2
In-App Advertising****	**$5.9**	**$2.9**	**$2.4**	**$1.3**	**$0.7**
Total	**$55.1**	**$21.5**	**$12.6**	**$6.7**	**$5.9**

* Totals may not sum due to rounding. Regional estimates may not be directly comparable to previous reports due to periodic updates made by third-party sources. Revisions to third-party sources are typically related to incorporating new, higher-quality data sources, adjusting the weights assigned to different sources, or updating foreign-exchange rate assumptions.

** Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

*** Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

**** iOS in-app ad revenue from ads placed by developers in their apps; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

Looking at Japan, Korea, Australia and New Zealand, and India, general retail, ranked as the largest category of physical goods in services, with popular apps such as India-based Lenskart. Additionally, similar to the US and Europe, travel was also the second-largest category in Japan, Australia and New Zealand, and India, while in Korea, that position was held by food delivery and pickup. (See **Table 5**.)

Table 5: Estimated Billings and Sales Facilitated by the App Store Ecosystem, Select Countries and Regions, 2024 ($ Billion)*

	Japan	Korea	Australia and New Zealand	India
Digital Goods and Services**	**$14.5**	**$2.3**	**$3.0**	**$0.3**
Physical Goods and Services***	**$24.5**	**$23.5**	**$9.1**	**$4.6**
M-Commerce				
General Retail	$10.9	$13.8	$3.0	$2.1
Travel	$5.7	$2.9	$2.9	$1.4
Food Delivery and Pickup	$2.3	$4.4	$1.1	$0.5
Grocery	$5.0	$2.3	$1.1	$0.4
Ride Hailing	$0.5	$0.4	$1.1	$0.3
In-App Advertising****	**$7.7**	**$0.9**	**$2.5**	**$0.4**
Total	**$46.7**	**$27.0**	**$14.6**	**$5.3**

* Totals may not sum due to rounding. Regional estimates may not be directly comparable to previous reports due to periodic updates made by third-party sources. Revisions to third-party sources are typically related to incorporating new, higher-quality data sources, adjusting the weights assigned to different sources, or updating foreign-exchange rate assumptions.

** Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

*** Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

**** iOS in-app ad revenue from ads placed by developers in their apps; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

Regional trends (2019 to 2024)

Consistent with global trends, billings and sales facilitated by the App Store ecosystem at least doubled in the US, China, and Europe between 2019 and 2024. Spending on digital goods and services, physical goods and services, and in-app advertising grew significantly over the last five years across all regions. (See **Table 6**.)

This growth masks some regional differences. In both the US and China, for example, sales on physical goods and services category outpaced billings and sales on digital goods and services, while the reverse was true in Europe. Within physical goods and services, sector-specific growth also differed by region: Digital payment spending grew over seven-fold in the US since 2019, as mobile payment has become commonplace; while online grocery spending grew over five-fold in China, and food delivery and pickup spending more than tripled in Europe.

Table 6: Estimated Changes in Billings and Sales Facilitated by the App Store Ecosystem by Region Since 2019*

	US	China	Europe
Digital Goods and Services**	**+141%**	**+68%**	**+209%**
Physical Goods and Services***	**+211%**	**+132%**	**+190%**
M-Commerce			
General Retail	+317%	+116%	+224%
Travel	+163%	+110%	+163%
Food Delivery and Pickup	+220%	+192%	+243%
Grocery	+353%	+453%	+175%
Ride Hailing	+37%	+98%	+61%
Digital Payment	+653%	+103%	-
In-App Advertising****	**+141%**	**+144%**	**+121%**
Total	**+185%**	**+129%**	**+181%**

* Changes are based on retroactively updated numbers from third-party data. See Appendix for more details.

** Billings and sales from digital goods and services are not the same as App Store billings. Sales from digital goods and services purchased elsewhere but used on apps on Apple devices are included, while billings from in-app purchases made via the App Store but used elsewhere are excluded. The estimate relies on third-party sources and Apple data. See Appendix for details.

*** Sales from physical goods and services rely on estimates from third-party sources. For general retail and grocery, total e-commerce and m-commerce sales are based on EMARKETER, "Country Retail eCommerce and mCommerce Sales". See Appendix for details.

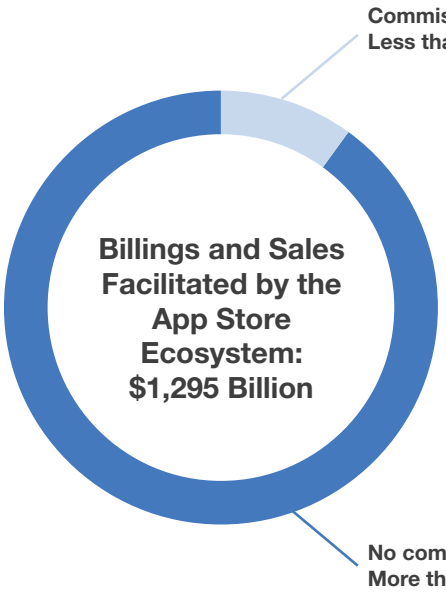
**** iOS in-app ad revenue from ads placed by developers in their apps; does not include ad-network or other ad-tech revenue, advertising on mobile web, or search ads, including Apple Ads.

Conclusion

In 2024, the App Store ecosystem facilitated nearly $1.3 trillion in billings and sales worldwide—more than double its size in 2019. This growth over the last five years reflects the ongoing evolution of app usage, digital adoption, and consumer behavior, with notable growth across all app categories—digital goods and services, physical goods and services, and in-app advertising. The App Store ecosystem grew significanlty across the US, China, and Europe, where the billings and sales facilitated by the App Store at least doubled over the past five years. As millions of apps serve over a billion users globally, the App Store remains an important facilitator of economic activity and innovation.

Appendix

Appendix Table 1: Breakdown of Where Apple Collects a Commission on Billings and Sales Facilitated by the App Store



Apple collects a commission on:

- **Digital goods and services** that are purchased *in* or *through* the App Store, for example:
  - * In-app subscriptions to multiplatform video streaming apps like Hulu
  - * In-app subscriptions to education apps like Duolingo
  - * In-app purchases of a game's bonus features

Apple does not collect a commission on:

- **Digital goods and services** that are purchased *outside* of the App Store, for example:
  - * Subscriptions to multiplatform video streaming apps like Hulu
  - * Subscriptions to audiobook apps like Audible
  - * Subscriptions to music streaming apps like Spotify
  - * Subscriptions to news and magazine apps like NY Times
- **Physical goods and services** ordered within the app, for example:
  - * Ordering a ride through the Uber app
  - * Placing an order on the Amazon app
  - * Ordering grocery delivery through Instacart
  - * Transaction fees on digital payments occuring through apps
- **In-app advertising** sold to advertisers outside of the app and placed by developers in apps using ad network APIs, for example:
  - * Non-gaming apps like Pinterest and YouTube
  - * Gaming apps like Rolly Vertex and Helix Jump

Methodological approach

The study considers three primary app monetization strategies that developers rely on:

- **First, to sell and distribute digital goods and services.** Sales and distribution of digital goods and services can occur through the App Store in the form of paid app downloads and in-app purchases, through linking out to webstores where content is consumed in-app but payments are made outside of the App Store, or through the sale of digital content and subscriptions from multi-platform apps that allow for the use and consumption of the app, both in the App Store ecosystem and elsewhere. Examples of apps using this monetization strategy include those for gaming, dating, video and music streaming, fitness and health, and news and magazines.
- **Second, to sell physical goods and services through the app.** Apps using this monetization strategy are e-commerce apps generally, including apps for ride hailing, food delivery and pickup, grocery delivery and pickup, general retail, and travel, as well as digital payment apps.
- **Third, to sell in-app advertising.** Examples of apps using in-app advertising as their primary monetization strategy are social network and short video sharing apps.

Different methodologies and data sources are used to estimate billings and sales facilitated by the App Store ecosystem for each of these monetization strategies. Data sources include data from Apple, app analytics companies, market research firms, and individual companies. To ensure the reliability and robustness of the estimates, key inputs are validated and compared from different data sources and updated over time if needed.

As a result, the estimates in this report may differ from those presented in previous years' reports due to methodological improvement and adjustments for changes in underlying third-party data. Where and when applicable, the reliance on updated estimates is noted in this report.

While this analysis captures the major app monetization strategies, it does not capture all of the ways in which the App Store ecosystem facilitates sales, or all of the benefits created by apps. For example, it does not capture benefits that companies derive from "companion apps" that raise the value of their goods and services, including smart home apps and health apps. Apps developed by Apple, such as Apple Music, as well as mobile browser apps, such as Google Chrome, are excluded from this analysis.

Sales and distribution of digital goods and services

Developers can choose to monetize their iOS apps in several ways, which has implications for the appropriate way to estimate total sales that the App Store facilitates. For example, some developers can choose to monetize their iOS apps only through the App Store, and those apps can only be used on the iOS platform. For these types of apps, App Store billings are equivalent to sales generated by the app. For iOS apps that sell digital goods and services only through the App Store, this study counts total billings,

which include Apple's commission.[3] Billings represent the total amount customers pay. For games that sell through webstores, this study adjusts spending on the most common webstore games to better reflect sales facilitated by the App Store.

Other developers may choose to monetize their iOS apps outside of the App Store—through the reader rule for instance—while the content would be consumed on an iOS app. Some monetize both through the App Store and other platforms or devices, and the app content can be consumed on multiple devices. In both cases, purchases and consumption are not device specific and purchases may not reflect where the consumption of the product or service happens.

In the case of multiplatform apps that have digital content that can be consumed either in-app or on another device, to illustrate why App Store purchases may not adequately reflect consumption, consider for example a subscription to the video streaming service Netflix.[4] A user can purchase a subscription to Netflix on their desktop or mobile browser, for example, but watch most of the content through the Netflix app on iOS devices. In this instance, App Store billings would be zero and would understate the value of the Netflix product enjoyed through apps on Apple devices.

When purchase and use differ significantly, App Store billings do not reliably measure engagement with iOS apps and a different approach is used for attributing the appropriate share of billings and sales to the App Store ecosystem. In those cases, estimates rely on the proportion of use that occurs on apps in the App Store ecosystem to estimate how much of the total sales of multi-platform apps (App Store plus non-App Store) is facilitated by the App Store ecosystem.

This study estimates the volume of sales facilitated by the App Store ecosystem for several categories of apps: video streaming, e-books and audiobooks, newspapers and magazines, and enterprise. This study also considers variation in users' app consumption habits across categories, using third party research. For example, consumers often listen to audiobooks through apps on mobile devices, while they are more likely to stream videos on smart TVs. Additionally, when the data is available, variation in the consumption patterns of iOS (and non-iOS) users by app type is taken into account. Estimates of total sales rely on inputs from third-party sources, typically market research firms.[x] The sales are apportioned using the share of content consumed in apps on any platform, based on information collected from marketing surveys, company reports, or data on usage patterns.[xi] Finally, usage is apportioned to Apple iOS devices specifically using the iOS market share for each device category in each respective country.[xii]

Enterprise apps, which allow businesses and organizations to provide tools and capabilities on smartphones and tablets, are treated differently than consumer apps. Usage patterns are more heterogeneous for enterprise apps than consumer apps, and app- and desktop-based usage of enterprise products tend to be more integrated. We individually estimate sales from major enterprise apps or families of apps – Microsoft

3 In 2024, Apple's commission rate was 30% for the sale of digital goods and services; for subscriptions, it was 30% for the first year and 15% for any subsequent years. Developers who made up to $1 million USD in the prior calendar year for all of their apps, as well as developers new to the App Store, qualify for the Small Business Program and pay a reduced commission of 15%.

4 The apps mentioned throughout this report may not be available in all App Stores due to regional restrictions or other factors, including the developer's discretion or the specific location of their business operations.

Office 365, Google Workspace (i.e., enterprise versions of Google productivity tools such as Gmail and Google Docs), Adobe (Acrobat), Dropbox, Box, Webex, Zoom, and Slack. We also include an aggregate market-level estimate for mobility management apps, which allow employees to securely access business content.

Sales of physical goods and services through the app

Many developers monetize their apps by selling physical products through their apps. These include:

- Apps that let customers purchase physical goods and services. This study broadly refers to these as m-commerce apps.[5] The group includes apps for general retail, ride hailing, food delivery and pickup, grocery delivery, and travel.
- Apps that enable digital payments or transfers, such as peer-to-peer transfer apps.

M-commerce

Globally, mobile apps have been an increasingly popular e-commerce channel. Apps of retailers such as Amazon and Target allow consumers to browse and purchase physical goods directly in the app and offer delivery. In addition, mobile apps—including those for ride hailing, food delivery and pickup, grocery delivery and pickup, and mobile pickup ordering—have been central to the creation or expansion of certain business models.

Sales on m-commerce apps do not happen through Apple's in-app purchase system.[6] Third-party data estimates the volume of sales of physical goods and services from transactions on mobile apps.[7] Results are provided for several categories of apps: general retail, food delivery and pickup, travel, grocery, and ride hailing.

For many of the m-commerce categories, this study relies on Statista's Digital Market Outlook and Mobility Market Outlook data for online sales revenue. In 2022, Statista updated their methodology to estimate industry revenues to use current exchange rates, rather than fixed exchange rates, with the goal of being more accurate. As a result, their estimates for all years, including 2019, were retroactively updated.

For general retail, total m-commerce sales estimates are based on the EMARKETER data. For grocery in the US, the total e-commerce sales estimate is also based on EMARKETER data. In 2024, EMARKETER updated their methodology for estimating e-commerce and m-commerce. As a result, their estimates in 2019 were retroactively updated. EMARKETER periodically updates its estimates for several reasons, including, but not limited to, incorporating new, higher-quality data sources, adjusting the weights assigned to different sources, and refreshing foreign exchange assumptions (e.g., changing the base year used in currency conversions).

For each app category, the total volume of e-commerce or m-commerce sales relies on estimates of third-party sources, typically market research firms.[xiii] This study then apportions the volume of sales, if necessary, to purchases that occur via smartphone

5 M-commerce refers to the buying or selling of goods and services on mobile devices, either through mobile apps or mobile browsers.

6 Since the launch of the App Store, Apple's policy has been to not charge a commission on sales of physical goods and services.

7 The sales associated with purchases made on mobile browser apps are excluded.

and tablet apps. For example, for online food delivery and pickup, customers may place orders via an app, a mobile browser, or a desktop browser. The share of each app category's sales that occur via mobile apps are estimated using information collected from marketing surveys or data on usage patterns.[xiv] Finally, usage attributable to Apple platforms is apportioned based on the overall iOS market share.[8,xv]

Digital payments

Digital payment apps continue to become increasingly popular worldwide, although the landscape differs substantially across countries. In China, currently the largest market for digital payments, two QR code-based payment apps, Alipay and WeChat Pay, dominate both online and brick-and-mortar points of sale. These apps charge merchants a fee on purchases paid for with their apps. In the US, peer-to-peer transfer apps such as Venmo and Cash App are already popular and have grown significantly in recent years.

This study estimates transaction fees collected by developers from customers or merchants for payments and transfers occurring through apps on the iOS platform.[9] For peer-to-peer transfer apps in the US, we use the ratio of total transaction fees to TPV from Venmo and Cash App to estimate the transaction fees collected by the apps. For QR code-based payment apps in China, we start with an estimate of total payment volume (TPV) from a third-party research firm. We then estimate WeChat Pay and Alipay total transaction fees using their published fee rates and deductible policies. Finally, we apportion usage to Apple platforms based on data on the overall iOS share in each region.

In-app advertising

In-app advertising is a frequently used and effective method of monetizing apps whereby developers publish advertisements within their apps. Prominent examples of apps that primarily make money through in-app advertising are Instagram, Twitter, YouTube, and Pinterest. Examples of games are Rolly Vortex and Helix Jump. These apps tend to be free to download and use, but in-app advertising can also be a complementary monetization strategy for paid apps or apps with in-app purchases.

Users have been spending more and more time on their mobile devices, particularly using apps, which has led to an increased share of digital marketing expenditures going toward in-app advertising. Given that apps are used frequently throughout the day—for example, during commutes or moments of downtime—in-app advertising allows advertisers to reach users in ways that other marketing channels cannot. Compared with mobile web, the app environment is a more effective way for advertisers to reach their audiences, with in-app advertisements allowing for personalized and contextually relevant ad messages.

Technology research firm Omdia estimated that in-app ad revenue from ads placed by developers in their iOS apps was $150 billion globally in 2024, with around $25 billion tied to games.[xvi] This estimate includes revenue generated from the publishing of advertisements within apps only and excludes advertising on mobile web (including mobile browser apps), search advertising, and Apple Ads. Omdia derived this estimate

8 Apportioning by iOS market share almost certainly results in a conservative estimate because owners of iOS devices tend to spend relatively more than owners of Android devices.

9 This study excludes digital payment apps and services based on near-field communication, such as Apple Pay. Mobile commerce transactions that occur within an app and are paid with Apple Pay are included in m-commerce sales.

based on ad sales reported by large digital advertising firms, and then used data analytics from mobile ad platforms to apportion the iOS share, limited to in-app advertising only (i.e., by removing mobile web advertising), and to adjust for ad price differences between the iOS and Android app platforms. This study uses Omdia's research for in-app ad sales. In 2024, Omdia updated their estimates from previous years to account for updates to their projections. When calculating 5-year changes, Omdia's retroactively updated estimates are used.

Additional dimensions not included in estimates

The App Store enables consumers to sign up for subscriptions and make purchases of digital goods and services. This may lead to incremental sales for app developers regardless of the platform chosen by users to consume the digital goods and services. Apps have also allowed traditional firms and industries to expand their offerings of a wide range of products via connected devices—devices that typically require the use of apps to control and monitor them. The App Store has enabled a new generation of home devices like smart thermostats and doorbells, for example, as well as new possibilities for health like connected blood pressure cuffs, smart scales, and even hearing aids.

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