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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

LAMARTINE PIERRE, MARK WHITLOCK, LYNN-MARIE RODRIGUES, and MARISSA WILLIAMS, on behalf of themselves and all others similarly situated, Plaintiffs, v. APPLE INC., Defendant.	Case No. 5:23-cv-5981 **CLASS ACTION COMPLAINT** **DEMAND FOR JURY TRIAL**

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INTRODUCTION

1. This case arises from horizontal restraints in the iOS Peer-to-Peer Payment Market, which is dominated by three firms—Apple, PayPal, and Block (formerly Square).

2. Apple owns and operates a product called Apple Cash, which allows users to make peer-to-peer payments from their Apple mobile devices. Apple's direct competitors are apps such as PayPal's Venmo and Block's Cash App, which like Apple obtain revenue through transaction and service fees charged to their users.

3. Apple has entered into mirroring agreements with each of its horizontal competitors in the iOS Peer-to-Peer Payment Market, including PayPal (which owns Venmo), Block (which owns the Cash App), and Google (which owns Google Pay). These agreements limit feature competition—and the price competition that would flow from it—marketwide, including by barring the incorporation of decentralized cryptocurrency technology within existing or new iOS Peer-to-Peer Payment apps.

4. Further, because Apple uses technological and contractual restraints—including hardware-enforced App Store exclusivity and contractual limitations on web browser technology—to exercise unfettered control over every app installed and run on iPhones and iPads, it is able to (and does) extract the same agreement from any new iOS Peer-to-Peer Payment product as a condition for entry.

5. Absent Apple's anticompetitive restraints, new entrants (or existing competitors) would introduce desirable new features in iOS Peer-to-Peer Payment products, including the use of decentralized blockchain/cryptocurrency technology to reduce transaction costs and increase throughput for peer-to-peer payments. The introduction of feature competition in the long-stagnant iOS Peer-to-Peer Payment Market would mitigate what consumers in this market have for years suffered due to Apple's marketwide restraints: rapidly inflating prices, an absence of new products and competitors, and a glaring absence of feature competition among existing entrants.

6. In recent years, Apple Cash, Venmo, and Cash App have continuously raised transaction and service fees in near lockstep, without sacrificing market share. No new entrant has stepped in to constrain prices—and when new products (including one backed by Jack Dorsey, the founder of Block, the company behind Cash App) attempted to introduce feature competition by offering peer-to-peer

services built on decentralized blockchain technology, Apple ***ejected*** them from its platform, citing the agreements challenged in this case.

7. At the same time, no new feature amongst legacy products has been introduced to engender competition in the iOS Peer-to-Peer Payments Market. And Apple's mirroring agreements, which expressly limit the features and technologies that can be introduced in peer-to-peer payment apps, are to blame.

8. Apple's horizontal agreements restraining competition in the iOS Peer-to-Peer Payment Market have allowed Apple's own Apple Cash product, and the products of other entrenched competitors including PayPal (Venmo) and Block (Cash App), to repeatedly and significantly increase prices and to directly restrict the supply, output, and features of iOS Peer-to-Peer Payment apps and services.

9. Plaintiffs are Venmo and Cash App customers that have paid inflated fees as a result of Apple's restraints of trade across the iOS Peer-to-Peer Payment Market. They seek to recover, on their own behalf and on behalf of a proposed class of Venmo and Cash App customers, for the overcharge they have suffered, and continue to suffer, by reason of Apple's anticompetitive conduct.

10. In addition, Plaintiffs and the putative class seek injunctive relief barring Apple from continuing to enter into and enforce its anticompetitive agreements restraining iOS Peer-to-Peer Payment Market competitors and would-be entrants, and requiring Apple to segregate or divest its Apple Cash business to prevent further harm to consumers in the iOS Peer-to-Peer Payment Market.

PARTIES

I. PLAINTIFFS

11. Plaintiff Lamartine Pierre is a domiciled resident of Valley Stream, New York. He is an Apple iPhone 13 user. Mr. Pierre paid instant transfer fees to Venmo as recently as May 2023. Mr. Pierre does not have an Apple Cash account.

12. Plaintiff Lynn-Marie Rodrigues is a domiciled resident of Waianae, Hawaii. She is an Apple iPhone 13 user. Ms. Rodrigues paid instant transfer fees to Cash App as recently as November 2023. Ms. Rodrigues does not have an Apple Cash account.

13. Plaintiff Mark Whitlock is a domiciled resident of Little River, South Carolina. He is an Apple iPhone 6SE user. Mr. Whitlock paid instant transfer fees to Cash App as recently as May 2022.

Mr. Whitlock paid instant transfer fees to Venmo as recently as September 2022. Mr. Whitlock does not have an Apple Cash account.

14. Plaintiff Marissa Williams is a domiciled resident of Fayetteville, Georgia. She is an Apple iPhone 11 user. Ms. Williams paid instant transfer and credit card transaction fees to Cash App as recently as November 2023. Ms. Williams does not have an Apple Cash account.

15. Plaintiffs and members of the proposed class paid—and continue to pay—transaction fees on Cash App and Venmo that are higher than they would be absent the anticompetitive conduct described in this Complaint. Additionally, Plaintiffs and members of the proposed class suffer other ongoing injuries from Apple's anticompetitive conduct described in this Complaint, including diminished product quality and reduced consumer choice in the United States iOS Peer-to-Peer Payments Market—a market in which Plaintiffs and the proposed class members are active consumers. Plaintiffs and the proposed class members seek damages under Clayton Act § 4, 15 U.S.C. § 15, and injunctive relief under Clayton Act § 16, 15 U.S.C. § 26, for these ongoing and threatened future harms, which occur by a violation of the antitrust laws by Apple.

II. DEFENDANT

16. Defendant Apple Inc. is a California corporation with a principal place of business at 1 Infinite Loop, Cupertino, California 95014. Apple regularly conducts and transacts business in California and this judicial district, as well as throughout the United States.

17. Apple designs, manufactures, markets, and sells iPhone and iPad mobile devices, as well as the iOS mobile operating system preinstalled on those devices. In 2022, Apple received $394 billion in product revenues, with iPhone sales comprising $205 billion of Apple's sales revenue.

18. Apple also operates the Apple App Store, which is preinstalled on all Apple iPhones and iPads and is the only way in which users can install third-party applications on Apple mobile devices. Additionally, Apple develops and markets its own applications and services for iPhone and iPads, including the iOS Peer-to-Peer Payment service Apple Cash.

19. Apple Cash directly competes with products such as Venmo and the Cash App. Apple's revenue from its Apple Cash product primarily comes from fees it charges for instant transfers.

JURISDICTION AND VENUE

20. This action arises under Section 1 of the Sherman Antitrust Act (15 U.S.C. § 1) and Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15, 26). Plaintiffs and the putative class seek to recover treble damages, interest, costs of suit, equitable relief, and reasonable attorneys' fees for their damages resulting from Apple's anticompetitive agreements. Plaintiffs and the putative class seek declaratory and injunctive relief to remedy ongoing harm to Plaintiffs and class members due to Apple's anticompetitive conduct described in this Complaint.

21. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 (federal question), 1332(d)(2) (class action diversity jurisdiction), and 1337(a) (antitrust); and under 15 U.S.C. § 15 (antitrust).

22. Venue is proper in this district under 15 U.S.C. § 15(a) (Clayton Act), 15 U.S.C. § 22 (nationwide venue for antitrust matters), and 28 U.S.C. § 1391(b) (general venue provision). Apple is headquartered in Cupertino, California, within this judicial district. Additionally, a substantial part of the events giving rise to the claims in this action—including acts and/or omissions constituting material parts of the anticompetitive scheme alleged in this Complaint—occurred in this judicial district.

23. The Court has personal jurisdiction over Apple because its business conduct is continuous and systematic. Indeed, Apple's corporate headquarters are in Cupertino, California.

24. In addition to federal question subject matter jurisdiction, this Court has subject matter jurisdiction over this action pursuant to the Class Action Fairness Act of 2005, 28 U.S.C. § 1332(d)(2), because this is a class action, including claims asserted on behalf of a nationwide class, filed under Rule 23 of the Federal Rules of Civil Procedure; there are likely to be hundreds of thousands if not millions of members in the proposed class; and the amount in controversy exceeds the jurisdictional amount of $5 million.

25. Moreover, there is minimal diversity present as to the class members and Defendant Apple.

DIVISIONAL ASSIGNMENT

26. This is an antitrust class action for which "venue is proper in any courthouse in this District" under Gen. Order No. 44 § D.3 and Civil Local Rule 3-2(c).

FACTS

I. THE ADVENT OF MOBILE PAYMENTS

A. PayPal and Online Payment Processing

27. In the late 1990s, as personal computers had become a fixture in American homes and offices and as the Internet was beginning to connect all of them, software engineers and venture capitalists began to consider ways in which this new technology could support electronic payments, and perhaps even banking. Two groups of founders stood at the forefront of this new technology—both in Silicon Valley.

28. In December 1998, Max Levchin, Peter Thiel, and Luke Nosek founded Confinity Inc., a software company that developed an online payments platform, and new cryptography technology to secure it. In 1999, Elon Musk, Harris Fricker, Christopher Payne, and Ed Ho launched X.com, an online bank and payments service. In March 2000—the last month of the DotCom boom—Confinity and X merged, and the combined entity focused on facilitating online payments, especially through then-nascent eCommerce giant eBay. In June 2001, X.com—by then headed by Thiel—renamed itself PayPal, and in 2002 the company went public.

Peter Thiel and Elon Musk, X/PayPal Founders

29. Since PayPal's founding and rise at the turn of the millennium, the way that people pay for things—and pay one another—electronically has transformed. Facilitating this transformation was the rapid rise and sudden ubiquity of a new personal electronic device: the smartphone.

B. The Smartphone Revolution

30. On January 9, 2007, Steve Jobs stood on stage at Apple's Macworld Expo in San Francisco and announced a new product that he said would "reinvent the phone": iPhone. The iPhone was a "smartphone" with a touchscreen display, Internet connectivity, and its own proprietary operating system, iPhoneOS (later renamed iOS).

31. In 2008, Apple introduced a new application marketplace for the iPhone, the Apple App Store, which allowed iPhone users to browse and install third-party applications, termed "apps," for use on their phone. Based on Apple's deliberate design of its iPhone and iOS as closed, "walled-garden" systems, the App Store was the only way that third-party software could be installed on an Apple mobile device, and only apps expressly approved by Apple would be allowed on the App Store.

32. Developers who wished to have their apps on Apple iOS devices (principally iPhone, but later the iPad tablet) had to submit their apps to Apple for its review and approval, and had to sign an agreement with Apple in order to get their software on the iPhone. As smartphones became more ubiquitous in (and integral to) American life, with iPhone far and away the market leader, Apple's total control over its application ecosystem has caused increasing concern amongst app developers, hardware competitors, consumers, and regulators, but Apple has maintained its walled garden restrictions to this day—and indeed refined these restrictions to deliberately preference its own products and those of chosen co-conspirators, as in the iOS Peer-to-Peer Payments space.

C. Peer-to-Peer Payments and the Meteoric Rise of Venmo

33. With the rise of the smartphone—an Internet-connected device assigned to a unique person, which traveled around wherever that person did—came a new possibility in the field of electronic payments: one smartphone user could pay another directly using an app, as both users went about their day, without the involvement of a bank, or a home computer, or email.

34. An app called Venmo stepped in to fill this void.

35. In 2009, two friends from the University of Pennsylvania, Andrew Kortina and Iqram Magdon-Ismail, created an app that merged social networks with payments. The app, which Kortina and Magdon-Ismail named "Venmo," focused on peer-to-peer payments (payments from one regular person to another), and it allowed users to see a "stream" of payments by other Venmo users—including connected friends.

36. As Fast Company explained in an April 18, 2017 article:

> Magdon-Ismail and Kortina . . . launched Venmo in 2009 as a fee-free, digital way to ferry money between friends. The app pioneered the idea of social payments by publishing users' transactions and memos in an emoji-filled conversational stream—catnip for millennials. Former Braintree CEO and now PayPal COO Bill Ready says it was the "crazy genius" of this stream—where you can see friends paying one another for pretzels and beer, roommates exchanging money for utilities and rent, and couples divvying up date-night expenses—that drew him to the app in 2012, despite the fact that it had only 3,000 users.

37. Venmo—which launched publicly on Apple's App Store in 2010—was the first iPhone app that allowed regular people to seamlessly make payments to their friends and acquaintances, and it provided a social feed of others' payments to keep users engaged. In 2012, electronic payments company Braintree acquired Venmo for $26.2 million.

38. In 2013, PayPal—then part of eBay—saw the business potential in Venmo's socially-enabled peer-to-peer payments app and acquired Braintree for $800 million. Venmo was the centerpiece of the acquisition, and PayPal made plans to monetize the peer-to-peer mobile transactions flowing through the app.

39. By 2017, Venmo had grown by leaps and bounds under parent company PayPal. That year, the Venmo App processed approximately $18 billion in peer-to-peer payments. As Fast Company recounted:

> Today, Venmo is the service to beat in the growing peer-to-peer payments space. It shuttled nearly $18 billion between people last year—$5.6 billion in the final quarter alone, up 126% from the previous year. (Though Venmo doesn't release user figures, Verto Analytics estimates it has more than 7 million active monthly users, which still pales next to PayPal's 197 million accounts.) The app's growth is all the more remarkable for the fact that the product itself has remained relatively unchanged since joining the PayPal fold in 2013. For although Venmo's founders had a prescient

> understanding of the millennial mind-set, they knew little about the financial regulations that applied to their product. For the past few years, Venmo has been consumed with turning itself from a move-fast-and-break-things kind of company into something more upstanding—and substantial.

40. By 2019, Venmo had grown large enough to rival banks in terms of the number of dollars flowing through its product. In the first three months of 2019, Venmo saw transactions of approximately $21.3 billion. As the Wall Street Journal recounted in an April 24, 2019 article titled, "Venmo Has 40 Million Users, Outnumbering Most Big Banks":

> Still, with more than 40 million active accounts, Venmo can claim more users than some of the largest U.S. financial institutions. Bank of America Corp. reported that its active base of digital users was 37 million in the first quarter. Wells Fargo & Co. counted 29.8 million active digital users.
>
> The only big U.S. bank with a larger digital footprint than Venmo was JPMorgan Chase & Co., which reported 51 million digital users in the first quarter.

41. Venmo makes money by charging fees for certain transactions performed on or through its app.

42. For example, Venmo charges a percentage fee for so-called "instant transfers"—sending money from a user's Venmo balance to a bank account or debit card in a short amount of time. As Venmo explains on its website, "[i]nstant transfers with Venmo allow you to send money to any eligible U.S. bank account or Visa/Mastercard debit card, typically within 30 minutes." Venmo's instant transfer fees are, as of November 2023, 1.75% of the money transferred, with a minimum fee of $0.25 and a maximum fee of $25.

43. Venmo also charges a fee to send money to other people using a credit card. As of August 2023, this fee is 3% of the amount sent from a credit card.

44. As of November 2023, Venmo's other fees include a 1% fee (minimum $5 fee) for adding money to Venmo by depositing a payroll or government check, and a 5% fee (minimum $5 fee) for adding money to Venmo by depositing a non-payroll/non-government check.

45. Additionally, as of November 2023, Venmo charges a transaction fee to receive a payment sent to a business profile, a charity profile, or a payment sent to a personal Venmo account that is

identified by the sender as for goods and services. As of November 2023, this transaction fee is either 1.9% + $0.10 or 2.29% + $0.09, depending on circumstances.

46. The fees charged by Venmo—both the number of transactions triggering a fee, and the amount of those fees—have repeatedly increased over the past few years.

47. Venmo's first major fee hike occurred in October 2018. As TechCrunch reported in an October 12, 2018 article:

> If you're a frequent Venmo user, you might want to double-check your settings because the company just changed up their fee structure for instant transfers and it may result in more of your balance slipping away.
>
> The fee for instant transfers where a user would move their Venmo balance to their bank account via debit card used to be just $0.25, but the company shared in an email to users late Friday that the fee is increasing to 1 percent of the transferred amount with the company taking at least a $0.25 fee.
>
> So, basically, if you're transferring any more than $25 in the future via this method, you're going to end up paying Venmo more thanks to this new fee structure.
>
> A PayPal spokesperson tells TechCrunch, in part, that "The change reflects the value that Venmo's services offer—providing speed and convenience for customers that want to transfer their funds to their bank accounts in 30 minutes or less."

48. In June 2021, Venmo raised prices again, adding new fees and significantly hiking the amounts of existing fees, such as those for instant transfers. Fast Company recounted the price increase in a June 25, 2021 article, stating:

> Venmo users received an unexpected email this week titled "New and upcoming changes to Venmo." The mobile payment service, which is owned by PayPal, wants you to know that it will begin charging fees on common transactions:
>
> - **"Goods and services" transactions will now cost sellers 1.9% plus 10 cents** beginning July 20. The transactions were previously free (though credit card transactions had a 3% fee).
> - **Instant money transfers from a Venmo account to a bank or debit card account will be charged 1.5%** (25 cent minimum, $15 maximum) beginning August 2. The prior fee was 1%. Slow transfers, which typically take 1-3 business days are still free.

(Boldface in original.)

49. Less than a year later, Venmo again increased its prices—as did Venmo's corporate parent PayPal. As TechCrunch reported on April 21, 2022:

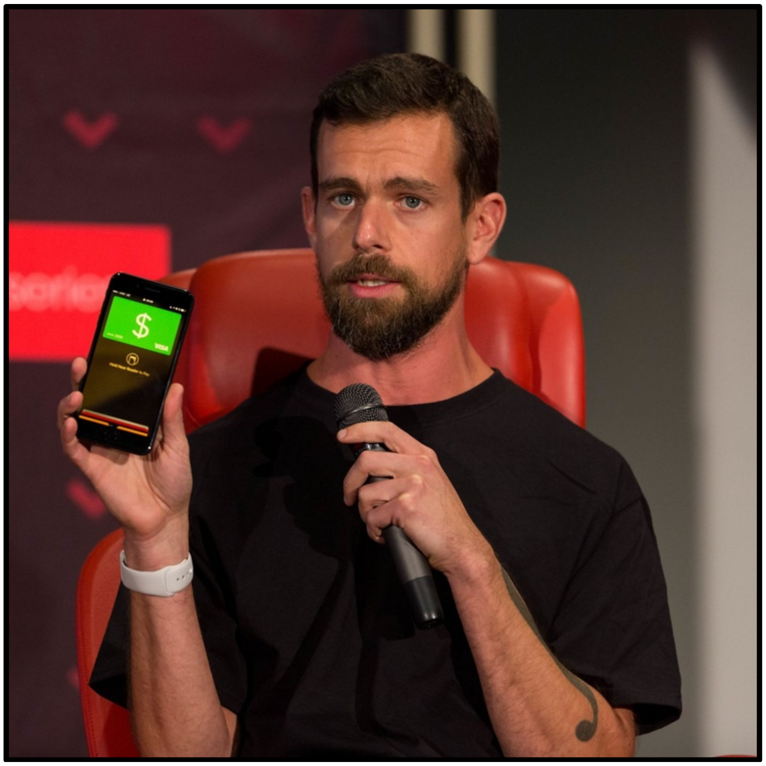
> PayPal and Venmo are increasing their instant transfer fees for both consumers and merchants in the United States in the coming weeks, PayPal announced on Thursday. Instant transfers allow customers to transfer their money instantly to a bank account or debit card for a fee.
>
> For personal accounts on PayPal and consumer and business profiles on Venmo, users will pay 1.75% of the transfer amount, with a minimum fee of $0.25 and a maximum fee of $25. Prior to this change, the instant transfer pricing for personal accounts on PayPal and consumer and business profiles on Venmo was 1.5% of the transfer amount, with a minimum fee of $0.25 and a maximum fee of $15. . . .
>
> The new pricing change will go into effect on May 23 for Venmo customers and June 17 for PayPal customers. In a blog post about the announcement, PayPal said it's making the price changes "to be more in line with the value we provide."
>
> For people using PayPal and Venmo as a way to process big payments quickly or get some much needed cash into their accounts, the new changes will result in more getting scraped away by fees. The standard bank transfer feature on PayPal and Venmo is still free, but typically arrives 1-3 business days after you request the transfer.
>
> PayPal and Venmo first announced their instant transfer features back in 2017. Although PayPal had been operating in the peer-to-peer payments business for nearly two decades, the company had been challenged by a number of newcomers whose key advantage had been the ability to "cash out" your bank account instantly, leading PayPal to implement its own version of the feature.

50. Remarkably, Venmo's repeated price hikes came during a period of (seemingly) heated competition among iOS Peer-to-Peer Payment applications—including from Apple itself.

D. Venmo's Rise Attracts Competitors

51. The rapid growth of Venmo—and the new mobile peer-to-peer payment paradigm it augured—attracted significant attention and interest, both from new companies and from old-guard banks.

52. The first major rival to Venmo was Square Cash, a peer-to-peer payments app launched in 2013 by Square, Inc., an electronic payments company founded in 2009 by Twitter co-founder Jack Dorsey.



53. Like Venmo, Square Cash focused on person-to-person money transfers via smartphone, particularly on the U.S. market-leading iPhone. After struggling for several years to develop a user base comparable to its rival Venmo's in 2017, Square Cash—now renamed to Cash App—finally found its footing in the mobile peer-to-peer payments space. As The Motley Fool explained in a March 2018 article:

> Square released some interesting details about Cash App—its peer-to-peer payments app—with fourth-quarter earnings results. The headline is that it now has 7 million monthly active users. For reference, PayPal's Venmo—Cash App's chief competitor—had about 10 million users last August, according to an estimate from Verto Analytics. . . .
>
> Cash App started the year around 123rd in the App Store. It ended the year around No. 35, and it was the No. 1 finance app in the fourth quarter.

54. Square's Cash App targeted the same transaction flow as Venmo—peer-to-peer payments made via smartphone—and monetized them in the same way as Venmo, through fees for certain transactions (for example, "instant deposit," the Cash App counterpart to Venmo's "instant transfer").

55. After steady growth since 2018, Square's Cash App really found its footing in 2020, as the COVID-19 pandemic transformed the way that Americans paid for things—and used physical money.

56. Cash App revenues skyrocketed in 2020, and as the app's revenues surged, so did Square's stock price. As the *Wall Street Journal* reported in a September 2, 2020 article, titled "Cash App's Surge During Covid-19 Pandemic Fuels Square Stock":

> Square shares have rallied 28% in the past month and are up 166% since the start of the year, while bank stocks have fallen sharply. The run-up is mostly due to the popularity of its Cash App offering, which lets consumers send money to one another via smartphone, purchase things with a prepaid debit card and invest in bitcoin and slices of individual stocks, analysts and investors said.
>
> Those businesses took off during the coronavirus pandemic. Cash App revenue more than doubled to $325 million, excluding sales of bitcoin, in the second quarter from a year earlier.
>
> Thanks in part to Square's making it easy for individuals to accept their stimulus checks and unemployment benefits in Cash App, the amount of money stored there reached $1.7 billion in the second quarter, 3½ times more than in the same period last year. Monthly active users topped 30 million in June.

57. Cash App, like Venmo, monetized payments with transaction fees:

> Cash App isn't reliant on lending or in-store payments. Analysts estimate its biggest source of revenue comes from a 1.5% fee it charges users who want to transfer funds out of their accounts instantly. Cash App also earns a fee when users make a purchase with the prepaid debit card that is linked to their accounts, transactions that Square encouraged during the pandemic by offering discounts when people used popular services like DoorDash Inc.

58. Cash App also raised its prices in tandem with Venmo (and PayPal). In September 2022, shortly after Venmo and PayPal both increased instant transfer fees, Cash App increased its instant deposit fee to 1.75% (with a $0.25 minimum fee).

59. As of November 2023, the fee for sending money from a credit card via Cash App is 3%.

60. Cash App also, as of November 2023, deducts a 2.75% fee on each payment received to a Cash for Business account.

E. The Banks Use Zelle to Rebrand Bank-to-Bank Transfers

61. In September 2017, America's largest banks—Bank of America, Truist, Capital One, JP Morgan Chase, PNC Bank, US Bank, and Wells Fargo—launched a mobile payment system, which they called Zelle.

62. The new Zelle product was a joint effort owned and controlled by these large banks through a joint venture called Early Warning LLC.

63. Zelle was designed to use the Automated Clearing House ("ACH") network, which was formed in the 1970s to cut down on the number of checks banks sent one another. The ACH network is used for bank deposits and withdrawals by mobile peer-to-peer payment products like Venmo and Cash App, but not for peer-to-peer payments themselves. Indeed, the banks' creation with Zelle differed substantially from Venmo and Cash App in how money was actually moved—and who could participate.

64. While Venmo, Cash App, and other mobile peer-to-peer apps transfer money directly between mobile users, relying on ACH only if a user wants to deposit money in or take money out of a linked bank account, Zelle transfers occur entirely between banks (and often within a single bank)—not from mobile user to mobile user. As the Wall Street Journal explained:

> The biggest banks launched Zelle with much fanfare—a star of the musical "Hamilton" touted the app in a prime-time commercial—but it was more of a reincarnation of an older network than a brand new one. In 2011, Bank of America Corp., JP Morgan Chase & Co. and Wells Fargo & Co. debuted a service called clearXchange that let their consumers send money among themselves, but it failed to achieve mass appeal. Only a few additional banks ever joined, and the service never made a coordinated effort to alert potential users to its capabilities, in part because each bank gave it a different name.
>
> When the banks relaunched the service as Zelle in 2017, with more banks and a new, unified brand, the basics were the same: Users can send money using a cellphone number or email address, without knowing the other person's bank account number or even their bank.

65. A bank account in an enrolled institution is, in fact, a hard requirement for Zelle, unlike mobile peer-to-peer payment services like Venmo and Cash App. This is because Zelle is, in fact, just a reskinned bank-to-bank transfer, using a joint venture owned by the biggest U.S. banks. And not just a transfer *between* banks—in most Zelle transfers, the funds never leave the sender's bank at all:

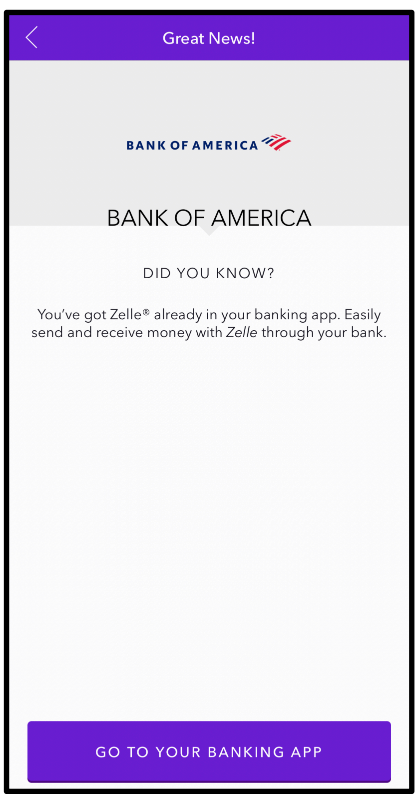
> Ms. Alexander, of Early Warning Services, said she likes that Zelle runs on the ACH system. "It's tried and true," she said.
>
> Most Zelle transactions don't leave the sender's bank. More than 70% of the transfers are between two customers who have accounts at the same institution, Ms. Alexander said. Each time a bank customer sends money through Zelle, the sending bank is charged, which means banks are often paying Zelle for transactions to move within their own systems.

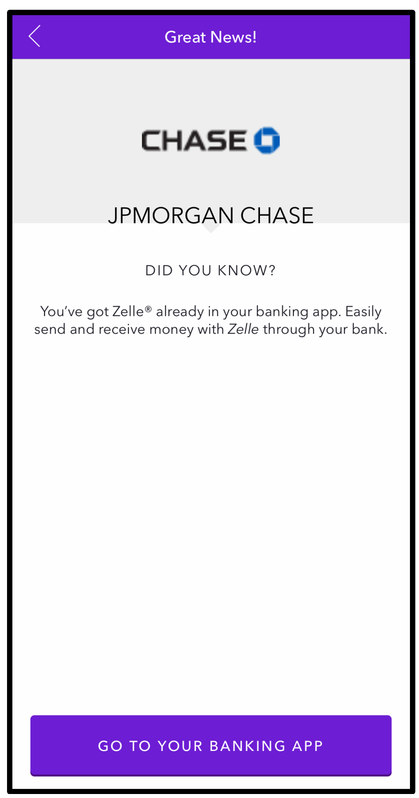
66. Zelle was marketed as the banks' answer to Venmo, Cash App, and other mobile peer-to-peer payment products but in reality, it was just a new wrapper on traditional bank-to-bank (and, for the most part, intrabank) transfers. Rather than offering a new product—or even one interchangeable with Venmo, Cash App, and other mobile peer-to-peer payment apps that cut banks out of the everyday peer-to-peer equation, Zelle simply cannibalized existing bank-to-bank transactions that occurred through ACH.

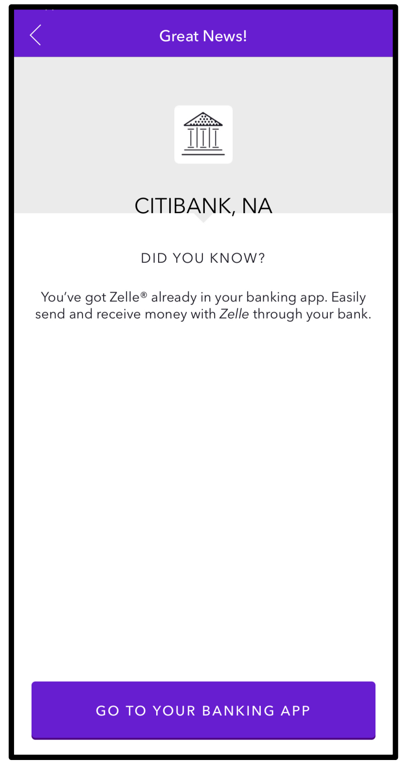
67. Unlike mobile peer-to-peer payment products like Venmo and Cash App, Zelle did not (and does not) allow a user to tie payments to a credit card.

68. Additionally, unlike Venmo, Cash App, and other mobile peer-to-peer payment products, Zelle was designed to work through existing banking apps, rather than through a consistent, standalone interface separate from the bank enrolled in the service.

69. In fact, Zelle's mobile app for iPhone does not even allow users from the nation's largest banks to transfer money or make payments outside of those banks' respective mobile applications. Shown below are screenshots from the Zelle iPhone app as of August 2023, redirecting users from each of the U.S.'s four largest banks to "Go To Your Banking App" in order to use Zelle:







70. Zelle lacks fraud protections provided by mobile peer-to-peer services like Venmo and Cash App. It is essentially the same as sending an ACH transfer through a banking app. When fraud occurred, the banks offering Zelle disavowed any responsibility. And users were learning the hard way that Zelle was simply branding for bank-to-bank transfers.

71. As the New York Times reported on March 6, 2022:

> It is not clear who is legally liable for such losses. Banks say that returning money to defrauded customers is not their responsibility, since the federal law covering electronic transfers—known in the industry as Regulation E—requires them to cover only "unauthorized" transactions, and the fairly common scam that Mr. Faunce fell prey to tricks people into making the transfers themselves. Victims say because they were duped into sending the money, the transaction is unauthorized. Regulatory guidance has so far been murky.
>
> When swindled customers, already upset to find themselves on the hook, search for other means of redress, many are enraged to find out that Zelle is owned and operated by banks.

72. More problematic, Zelle did not even offer consistent security settings. Because Zelle was simply a wrapper for a bank's in-app ACH transfers, security settings could be customized by the banks carrying the product as part of their apps. As the New York Times explained:

> The Zelle network is operated by Early Warning Services, a company created and owned by seven banks: Bank of America, Capital One, JPMorgan Chase, PNC, Truist, U.S. Bank and Wells Fargo. Early Warning, based in Scottsdale, Ariz., manages the system's technical infrastructure. But the 1,425 banks and credit unions that use Zell can customize the app and add their own security settings.

73. Thus, although Zell does not charge users fees (apart from what individual banks may charge), the service is simply a bank-to-bank transfer of money. Because the money never leaves the system of banks, there are no gateways (such as a transfer from Venmo to a bank account) at which to charge a fee for user transactions.

74. Although Zelle is free, users of Venmo and the Cash App and other P2P Payment apps, continue to pay transactions fees because unlike Zelle, apps such as PayPal, Venmo, and the Cash App provide a consistent user interface on mobile phones and provide fraud protections. Moreover, a tranfer on these apps does not require a bank account on both ends of the transaction.

75. Put simply, users who pay fees for non-bank P2P products, such as Venmo and the Cash App, do not view such apps fungible with Zelle, which is essentially a bank transfer.

II. APPLE ENTERS THE MARKET WITH ITS OWN PRODUCT

76. In late 2014, Apple launched support for mobile credit cards on its iPhones as part of a service called Apple Pay. However, by early 2017, as Venmo and Cash App had become increasingly popular, Apple had not itself launched a mobile peer-to-peer payment product.

77. This changed in June 2017, when Apple announced that it would directly compete with Venmo, Cash App, and other mobile peer-to-peer payment apps on Apple mobile devices.

78. Vox reported on the announcement in a June 5, 2017 article titled "Apple just announced its own Venmo competitor built into iMessage":

> Apple announced on Monday that it is launching a money-transfer service that could challenge Venmo and other competitors, letting iPhone and iPad users send money digitally to each other via a text.

79. As the article noted, the new service would pit Apple against Venmo, Cash App, and PayPal on the iPhone:

> The new Apple money-transfer service will go up against competing offerings from PayPal, PayPal-owned Venmo, Square Cash and popular bank services like Chase QuickPay. But unlike many competitors, Apple's

> cash-sending feature is limited to users of iPhones, iPads and Apple Watches.

80. On November 7, 2017, Apple "soft launched" its new mobile peer-to-peer payment product, Apple Pay Cash, by releasing it as a beta version.

81. As Tech Crunch reported in a November 7, 2017 article:

> Apple is soft-launching direct, person-to-person payments in an iMessage today with the Apple Pay Cash beta. The feature, which was announced earlier this year, allows you to send and receive cash inside the Messages app on iPhones.

82. The Apple Pay Cash product was to be available only to users of Apple mobile devices, and would leverage Apple's native iMessage service to facilitate peer-to-peer payments to other mobile users.

83. On December 5, 2017, Apple officially released Apple Pay Cash for users of Apple's iOS mobile devices (iPhones and iPads). As expected, Apple leveraged its entrenched position in mobile messaging by offering mobile peer-to-peer payments through the native iMessage application.

84. Observers saw the launch of Apple Pay Cash as a serious concern for existing iOS peer-to-peer payment solutions. When Apple had previously entered iOS product markets with first-party applications or services (from maps to cloud storage to eBooks), the company had leveraged its total control over its mobile devices—from hardware, to operating system, to the App Store—to swiftly obtain a dominant position, at times even raising antitrust concerns.

85. With the announcement of Apple Pay Cash, there was widespread sentiment that Apple's new product would capture significant market share from then-market leaders Venmo and Cash App. As Mashable reported in a November 8, 2017 article titled "Apple Pay Cash review: I think Apple just killed Venmo":

> Hello $3. That was easy. Venmo, you're screwed.
>
> Apple Pay Cash is a super simple person-to-person payment system that works exactly where millions of us already live our lives: text messaging. Apple teased it during its Worldwide Developers Conference (WWDC) in the spring, but didn't release the feature until Tuesday when it debuted in the iOS 11.2 beta. A day later, I took it for a test run.

86. As Slate noted in a December 5, 2017 article titled "Apple Pay Cash Is Coming For Venmo's Business":

> With the release of iOS 11.2 this week, Apple hasn't just fixed a handful of pesky bugs. The second major update to iOS 11 introduces a potential Venmo killer: Apple Pay Cash. Apple's new peer-to-peer payment service has a chance to upset existing leaders in the space, including PayPal, Square Cash, and the aforementioned poster child of peer-to-peer payments, Venmo.

87. At the same time, there were some competitive headwinds for Apple as it sought to enter the iOS peer-to-peer payment market in late 2017. Most notably, Venmo and Cash App—entrenched incumbents in a network market—would benefit from switching costs and lock-in effects.

88. As Slate's December 5, 2017 article explained:

> The incumbents have large and dedicated user bases. Venmo, which accounted for $18 billion in transactions in 2017 has an estimated 7 million users. Its parent company PayPal has more than 197 million users. Square Cash recently passed both in the App Store's top downloads charts. And then there's Zelle, the cash transfer service built directly into banks' apps—banking's stab at the peer-to-peer transaction market. Apple, with 85.8 million iPhone owners in the U.S. alone, could jump to the top of this space if only a fraction of its users adopt Apple Pay Cash. However, once people

> have developed a relationship, and a friend base, using a particular app, they may not be easily swayed to another platform.

89. On March 25, 2019, Apple changed the name of its iOS peer-to-peer payments service from Apple Pay Cash to "Apple Cash." With the name change, Apple removed support for funding mobile peer-to-peer payments with a credit card (debit cards would still be allowed). As MacRumors reported the next day:

> With the updates, Apple has ended support for sending money through Apple Pay Cash using a credit card (including the upcoming Apple Card).
>
> Previously, users could link their credit card to fund person-to-person payments in Messages, which are then linked to Apple Pay Cash in the Wallet app. Now, Apple has stopped accepting credit cards as funding options for Apple Pay Cash effective March 25, 2019.

90. MacRumors also discussed Apple Cash's then-current fees for instant transfers:

> In the same email, Apple discusses Apple Pay Cash Instant Transfers, which lets [sic] users quickly transfer money from an Apple Pay Cash balance to an eligible Visa debit card in the Wallet app. These transfers are processed within minutes and a 1 percent fee (minimum fee of $0.25 and maximum fee of $10) is deducted from the amount of each transfer.

91. In August 2021, shortly after Venmo significantly raised its fees, so too did Apple Cash. Effective August 26, 2021, Apple Cash charges an Instant Transfer fee of 1.5% of the transaction amount, with a $0.25 minimum and a $15 maximum.

III. THE THREAT OF DECENTRALIZED PAYMENTS

A. Cryptocurrencies Come of Age

92. As Venmo, Cash App, and Apple moved aggressively to monetize mobile peer-to-peer payments, a threat to their entire business model for doing so was coming of age—cryptocurrency.

93. Cryptocurrency, sometimes just called "crypto," uses computer networking and cryptographic algorithms to facilitate direct exchange of value between senders and recipients—without the need for a trusted intermediary like a bank. In short, cryptocurrencies cut out central authorities like banks or governments from exchanges of digital value. In doing so, they also cut out the ability for an intermediary to charge intrusive fees.

94. The first cryptocurrency was Bitcoin. Invented anonymously under the pseudonym Satoshi Nakamoto, Bitcoin was proposed as part of a 2008 whitepaper titled, "Bitcoin: A Peer-to-Peer Electronic Cash System."

95. Satoshi's whitepaper proposed something radical: electronic payments without any intermediaries. The abstract to the Bitcoin whitepaper summarized the central premise of the new technology:

> A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending. We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work.

96. Bitcoin threatened to eliminate financial institutions from digital payments. And it was quickly deployed in the real world: the Bitcoin whitepaper was implemented—and the "ongoing chain of hash-based proof-of-work," which would come to be known as the blockchain, launched—on January 3, 2009. This created the Bitcoin cryptocurrency, traded as BTC, that remains viable (and immensely valuable) today.

97. In 2017, the price of Bitcoin skyrocketed, moving from $1000 per Bitcoin in the beginning of 2017 to $2,000 by May of that year. The end of the summer 2017 saw another doubling of BTC's price to $4,000. By the end of 2017, each Bitcoin had reached a staggering $19,000 in value.

98. By 2018, Bitcoin had become a viable form of digital payments, requiring no third-party intermediary and no financial institutions. Moreover, the rise in BTC's price against the US dollar and other principal "fiat" currencies meant that Bitcoin was serving as a store of value, threatening the utility of a bank account.

99. Many other cryptocurrencies followed in Bitcoin's wake. Cryptocurrencies such as XRP and Ether emerged as potential means of making digital payments without centralization. And the blockchains underpinning these currencies had independent technological value, which itself served to back the worth of their related cryptocurrencies. Most notably, the Ethereum blockchain, which underlies

the Ethereum cryptocurrency (ETH), doesn't merely track ETH transactions, but allows developers to build "smart contracts"—computer programs that run on the decentralized blockchain.

100. With the rise in value and utility of Bitcoin and other cryptocurrencies, banks went on the attack. The coordinated attack from Wall Street's largest legacy depository institutions began early in Bitcoin's rise, when it first appeared that BTC may pose a serious threat to the long-prevailing financial winds. As the New York Times recounted in a November 1, 2021 article, titled "Banks Tried to Kill Crypto and Failed. Now They're Embracing It (Slowly)":

> In 2014, as regulators in New York were exploring ways to control Bitcoin, executives at Wall Street's biggest banks fretted that regulating cryptocurrencies would also legitimize them—and that could threaten the finance industry. So they tried to sow doubt.
>
> At the World Economic Forum in Davos that year, Jamie Dimon, the chief executive of JPMorgan Chase, the nation's largest bank, called Bitcoin as "terrible" store of value that was also being used for illicit purposes. At a meeting to discuss violations of Iran sanctions, H. Rodgin Cohen, the finance industry's pre-eminent lawyer, warned the state's regulators that the federal government was "very worried" about Bitcoin and its use.
>
> Those efforts failed. New York's Department of Financial Services began issuing licenses for Bitcoin businesses in 2015. There are now more than 75 million users of Bitcoin, up from around three million seven years ago, and the number of digital currencies has exploded. Globally, 220 million people use cryptocurrencies, according to a July report by Crypto.com.

101. JPMorgan's Dimon was calling Bitcoin a "fraud" in 2017. As CNBC reported on September 12, 2017:

> CEO Jamie Dimon took a shot at bitcoin, saying the cryptocurrency "is a fraud." It's just not a real thing, eventually it will be closed," Dimon said Tuesday at the Delivering Alpha conference presented by CNBC and Institutional Investor.

102. Dimon continued his condemnation of Bitcoin by comparing the cryptocurrency to infamous past financial bubbles:

> "It's worse than tulip bulbs. It won't end well. Someone is going to get killed," Dimon said at a banking industry conference organized by Barclays. "Currencies have legal support. It will blow up."
>
> Dimon also said he'd "fire in a second" any JPMorgan trader who was trading bitcoin, noting two reasons: "It's against our rules and they are stupid."

103. The aggressive attack on Bitcoin was unsurprising. The new technology threatened to remove banks—and their fees—from the person-to-person electronic transfer calculus. Recognizing a thread to their bottom line, banks scrambled to simultaneously condemn cryptocurrencies and to develop a source of revenue from them should they become widely adopted. As the New York Times recounted:

> Digital currencies, which let individuals bypass banks in money transfers, sales and business collections by connecting people instantly without an intermediary, are threatening to take away the central role banks play.
>
> Outwardly, top executives at the biggest U.S. banks have shown little enthusiasm for digital currencies. Mr. Dimon continued to be skeptical, calling Bitcoin a "fraud" in 2017. More recently, he declared it "worthless." And three years ago, Bank of America's chief executive, Brian Moynihan, barred the giant company's wealth managers from putting any client money into cryptocurrency-related investments.
>
> But some individual bankers were getting curious. After spending years privately ridiculing Bitcoin, Thomas Montag, Bank of America's chief operating officer, asked a friend of his for a tutorial of cryptocurrencies and

> spent hours listening to lectures, reading books and meeting with executive from cryptocurrency businesses, according to a person familiar with the discussions who spoke on the condition of anonymity.
>
> Last year, engineers at Bank of America filed the biggest number of patent applications in the bank's history, including hundreds involving digital payments technologies. It's unclear how exactly the banks plan to use its technology, but it was partly driven by the desire to keep customers within the bank's system rather than lose them to scrappy cryptocurrency startups that allow them to transfer money free.

104. Indeed, faced with rapidly increasing cryptocurrency interest, adoption, and value in the second half of the 2010s, banks began to announce their own ostensible forays into "blockchain" technology. For example, in 2019 JP Morgan announced its own "cryptocurrency," JPM Coin, to run on a JP Morgan-controlled "blockchain." Unlike Bitcoin, JPM Coin was centralized, and it required payments to be made through the banking system—defeating the central purpose and raison d'être of cryptocurrency, decentralized payments without an intermediary.

105. JPMorgan's cryptocurrency—and the blockchain underlying it—was, like "cryptocurrencies" and "blockchains" announced by other major banks, simply a stylized central database, owned and controlled by a bank (here, JP Morgan). As the New York Times explained:

> But soon after JPM Coin went live, regulators began calling, said a person familiar with the matter who was not authorized to speak publicly. They worried that the movement of the coins around the financial system could cause a buildup of risk because they were tied to the dollar, sparking a panic and leading to the 21st century version of a bank run. The bank had to cut back on the scope of JPM Coin's use.
>
> Now, JPM Coin cannot be used to transfer value outside JPMorgan's internal systems. Bank customers can use it to move dollars and other assets back and forth inside the bank almost instantly, but it is meaningless in the wider world.

106. As Bitcoin and other cryptocurrencies matured, they became a clear alternative to both banking and bank-controlled transfers. They also threatened peer-to-peer payment apps, like Venmo and Square's Cash App.

B. Cryptocurrencies Solve the Throughput Problem

107. By 2018, cryptocurrencies had shown that electronic funds could be reliably, effectively transferred without a centralized, trusted authority. They had also viably functioned as stores of value.

However, many cryptocurrencies (particularly Bitcoin) were slow, and some cryptocurrencies (such as Ethereum) had transaction costs that increased significantly with the number of transactions running through the blockchain at a given time.

108. As cryptocurrencies increased in popularity, demand, and value in 2017 and 2018, engineers and cryptocurrency developers scrambled to solve the serious transaction speed problem with Bitcoin and its brethren. Bitcoin transaction speeds were, at the time, simply too slow to compete with legacy payment processors such as Visa. The blog "Towards Data Science" explained the problem in a January 30, 2019, post:

> The battle for a scalable solution is the blockchain's moon race. Bitcoin processes 4.6 transactions per second. Visa does around 1,700 transactions per second on average (based on a calculation derived from the official claim of over 150 million transactions per day). The potential for adoption is there but is bottlenecked currently by scalability.
>
> A study published by Tata Communications in 2018 showed that 44% of organizations in its survey are adopting blockchain, but also alludes to the universal problems that arise from deploying new technologies. From an architectural level, the unsolved problem of scalability is emerging as a bottleneck to blockchain adoption and practical applications.
>
> As Deloitte Insights puts it, "blockchain-based systems are comparatively slow. Blockchain's sluggish transaction speed is a major concern for enterprises that depend on high-performance legacy transaction processing systems." The world received a taste of the scalability problems in 2017 and 2018: severe transfer delays and high fees on the Bitcoin Network, and the notorious Cryptokitties app that congested the Ethereum blockchain network (a network that thousands of decentralized applications rely on).

109. The solution came for many cryptocurrencies in the form of "layer 2" payment protocols. By the end of 2019, a layer 2 payment protocol was implemented for Bitcoin, called "lightning." In February 2019, tests of the lightning network began. Square's CEO, Jack Dorsey, was among those participating in early tests, which included a game called "lightning torch"—designed to put the layer 2 protocol through its paces. As CNBC explained in a February 6, 2019 article:

> Dorsey also promoted a social media game called "lightning torch," where users add funds to a bitcoin payment and then send the "torch" along to another person so they can add funds and so on.
>
> "Cool example of #BitcoinTwitter experimenting on the Lightning Network," Dorsey said, before passing the "lightning torch" onto Elizabeth Stark, CEO of Lightning Labs, a blockchain company he has invested in.

> The game is part of an effort to promote the so-called "Lightning Network," an update to the bitcoin network that would work as an additional layer to the existing distributed ledger that underpins bitcoin. The upgrade would, in theory, make bitcoin transactions cheaper and faster.

110. Lightning continued to mature across 2019, 2020, and 2021. By 2022, it allowed Bitcoin throughput to scale far past even Visa and Mastercard. As Cointelegraph reported on August 24, 2022:

> Payments giants like Visa and Mastercard are used to process payments worldwide. Mastercard's network is estimated to process up to 5,000 transactions per second, making it far superior to Bitcoin's seven per second.
>
> Visa's transaction throughput is even more impressive, being able to process up to 24,000 transactions per second. In a recent interview, Visa chief financial officer Vasant Prabhu said that the network could, in theory, handle up to 65,000 transactions per second.
>
> The Lightning Network goes much further, however, processing up to 1 million transactions per second, making it the most efficient payment system in the world in terms of transaction throughput.

111. By mid-2022, Bitcoin's layer 2 solution, Lightning, had dwarfed Visa and Mastercard throughputs. It was plainly a viable means of direct, peer-to-peer payments without centralization or financial intermediaries. Bitcoin, using Lightening, could now be used to send transactions faster than the banks, without the banks' involvement, and at far lower transaction costs.

112. Other cryptocurrencies also solved the throughput problem. The cryptocurrency Ada, which runs on the Cardano Blockchain, for example, could process 257 transactions per second. Ripple's XRP was processing approximately 1,500 transactions per second. Cryptocurrency EOS was processing 2,351 transactions per second in July 2018.

113. Ethereum 2.0, the next iteration of Ethereum, which began its phased launch in 2023, will allow for 100,000 transactions per second—far exceeding Mastercard and even Visa.

114. By 2020, cryptocurrencies offered—and in many contexts were actively providing—a viable alternative to mainstream, centralized payments systems. However, there remained one significant impediment to their widespread adoption among those made peer-to-peer payments on their iPhone: Apple's total control over what software can run on its mobile devices.

IV. APPLE'S APP STORE AGREEMENTS PREVENT USERS FROM REMOVING THE MIDDLEMAN FROM IOS PEER-TO-PEER PAYMENTS

A. Apple Controls All Apps that Run on iPhones through the App Store

115. There are approximately 1.36 billion iPhone users worldwide. There are around 136 million iPhone users in the United States. Indeed, nearly 50% of Americans who have smartphones use iPhones.

116. With its massive user base, the iPhone is the ideal platform for mobile peer-to-peer payments. Decentralized payments would allow iPhone users to send payments to each other without any intermediary at all—and with transaction costs far lower than what Venmo, Cash App, and Apple ultimately charge to move money to and from bank accounts and credit cards.

117. Despite the obvious utility, there is no means to make decentralized payments on the iPhone. This is because of Apple's control over every app installed—and installable—on iPhones through its App Store.

118. Since the device's inception, Apple has required that all apps installed or installable on the iPhone be approved by Apple. Since 2008, Apple has exercised this control over the software that can run on iPhones through its App Store. Apple's App Store is the only way to install an app on the iPhone, and only apps expressly approved by Apple are allowed on the App Store. Moreover, Apple can remove an app from the App Store at any time. The company's control over what software can run on its iPhones is absolute, and is enforced at the operating system and indeed hardware level.

119. Apple specifically prohibits iPhone users from "side loading" apps, meaning loading them on iPhones without going through Apple, and the company has engineered hardware-level checks—placed in every modern iPhone—to enforce this prohibition.

120. Apple uses its complete control of what software can be installed on its iPhone to extract money from developers (and, ultimately, from users), demanding a 30% share of all purchases through the App Store—or purchases ***made through*** App Store-installed apps.

121. Apple aggressively enforces its exclusivity over application software on the iPhone by, among other things, prohibiting "jailbreaking" iPhones—modifying iPhone system software and/or hardware to allow apps to be sideloaded without using the App Store. Indeed, Apple considers any

attempt to do so a violation of its software license for the iOS and iPadOS operating systems. As Apple's support page warns:

> Apple strongly cautions against installing any software that modifies iOS. It is also important to note that unauthorized modification of iOS is a violation of the iOS and iPadOS Software License Agreement and because of this, Apple may deny service for an iPhone that has any unauthorized software installed.

122. Would be iPhone developers must undergo a process call "app review"—wherein a developer must submit all code, resources, and other material for a proposed iPhone app to Apple, which has a sole and opaque right of rejection—before an app is allowed on Apple's App Store. If an app fails Apple's app review, the app cannot be installed or run on any non-developer iPhone, anywhere.

123. The Apple Developer Program License Agreement requires app review not only when an app is submitted for the first time, but every time an app is updated or changed. And every time an app is launched on an iPhone (even after installation), Apple's mobile operating system checks at runtime to make sure that the app has been expressly approved by Apple, enforcing a "digital signature" requirement.

124. Apple requires developers to follow the App Store Review Guidelines. Even after approval, apps that do not comply with the guidelines are removed by Apple—often without notice.

125. Apple exercises its removal power with full discretion. In 2019, Apple came under scrutiny for removing apps from the App Store that competed with Apple's own applications. As TechCrunch reported on July 29, 2020. in the wake of an antitrust hearing before Congress:

> Last year, Apple removed a number of screen time and parental control apps from its App Store, shortly after the company had released its own first-party screen time solutions with the launch of iOS 12. At today's antitrust hearing, Apple CEO Tim Cook was questioned about the move, given the anti-competitive implications.
>
> Shortly after Apple debuted its own Screen Time feature set, several third-party app makers suddenly saw their own screen time solutions come under increased App Store review. Many apps also saw their app updates rejected or their apps removed entirely. The impacted developers had used a range of methods to track screen time, as there was no official means to do so. This had included the use of background location, VPNs and MDM-based solutions, and sometimes a combination of methods.
>
> Apple defended its decision at the time, saying the removals had put users' privacy and security at risk, given that they required access to a device's location, app use, email accounts, camera permissions and more.

> But lawmakers questioned Apple's decision to suddenly seem to care about the user privacy threats coming from these apps—many of which had been on the market for years.

126. Apple also prevents developers from getting around its App Store guidelines with so-called web apps—applications that run through a browser—by carefully limiting the web browsers (and indeed, web browser technology) that are permitted to run in its mobile devices. Using its App Store review and approval process to micromanage the web browser technology permitted on its iPhone and iPad devices, Apple requires that all web browsers (including in-app browsers) on iOS devices use the WebKit rendering engine—developed by Apple—to display and execute webpages and web applications.

127. As a result, every app that accesses the web on an Apple iPhone—whether Apple's proprietary Safari browser or some Apple-approved alternative—operates as a reskinned version of Apple's Safari browser, which relies on WebKit to render webpages. This allows Apple to lock down its iPhones against applications that might seek to operate through a web browser as an alternative to Apple's onerous, notoriously capricious App Approval process.

128. Software developers have balked at the restriction. As 9to5Mac reported on March 1, 2022:

> Apple has been facing multiple accusations of anti-competitive practices in recent years, and it seems that there's more to come. This time, a group of developers has launched a project called "Open Web Advocacy" that challenges Apple to allow other browser engines on iOS.
>
> The group wants developers to have access to the same features available in the iOS version of Safari. At the same time, it asks Apple to open up iOS to third-party browser engines.
>
> For those unfamiliar, iOS relies on the WebKit engine, which not only powers Safari but all web content on Apple's operating system. That's because, unlike MacOS, iOS apps are required to use WebKit as their browser engine. In other words, every web browser or web app you see on iOS is basically Safari running underneath another "skin."

129. Put simply, Apple leverages its App Store review process—and its total dominion over what software can executive on its mobile devices—to control not just what apps can be installed through the app store, but what web apps can operate on its iPhones, and how.

B. Apple Agrees with other Mobile Peer-to-Peer Payment Apps to Keep Decentralized Payments Off of iPhones and iPads

130. Apple, which is a horizontal competitor (through its Apple Cash product) with Venmo and Cash App, enters into developer agreements with its competitors that prevent the use of decentralized cryptocurrency transactions on iPhone.

131. Apple does so through its App Store Guideline 3.1.5, which states:

> 3.1.5 Cryptocurrencies:
>
> (i) Wallets: Apps may facilitate virtual currency storage, provided they are offered by developers enrolled as an organization.
>
> (ii) Mining: Apps may not mine for cryptocurrencies unless the processing is performed off device (e.g., cloud-based mining).
>
> (iii) Exchanges: Apps may facilitate transactions or transmissions of cryptocurrency on an approved exchange, provided they are offered only in countries or regions where the app has appropriate licensing and permissions to provide a cryptocurrency exchange.
>
> (iv) Initial Coin Offerings: Apps facilitating Initial Coin Offerings ("ICOs"), cryptocurrency futures trading, and other crypto-securities or quasi-securities trading must come from established banks, securities firms, futures commission merchants ("FCM"), or other approved financial institutions and must comply with all applicable law.
>
> (v) Cryptocurrency apps may not offer currency for completing tasks, such as downloading other apps, encouraging other users to download, posting to social networks, etc.

132. Section 3.1.5(iii), in particular, is designed to prevent payment apps, such as Venmo and the Cash App, from implementing decentralized cryptocurrency transfers. All transfers must run through an intermediary, such as Coinbase, which maintains custody of the cryptocurrencies and handles transfers and purchases in exchange for fees.

133. Specifically, the provision is designed to prevent cryptocurrency stored on an iPhone wallet to be transferred from iPhone to iPhone without going through an intermediary.

134. In conjunction with Apple's other App Store guidelines, its App Review process, and its technological measures to prevent the installation or execution of non-approved applications—even web applications—on iPhones, Section 3.1.5 of Apple's App Store Guidelines effectively prohibits apps from introducing or offering decentralized cryptocurrency transactions on iPhone.

135. Venmo, Cash App, and other mobile peer-to-peer payment providers have agreed—and agree—with Apple to restrict their mobile peer-to-peer payment offerings on iPhone in accordance with the above provision. Moreover, Apple imposes the same prohibition on any potential iOS Peer-to-Peer Payments Market entrant, preventing any new or existing competitor from offering decentralized peer-to-peer payments on American iPhones. This has had, and continues to have, the purpose and effect of preserving the horizontal agreement among Apple, PayPal (Venmo), Block/ Square (Cash App), and other iOS Peer-to-Peer Payments Market providers not to facilitate decentralized payments.

136. The effect of this horizontal agreement among iOS Peer-to-Peer Payments Market providers has been to rapidly and significantly inflate the fees charged by the agreeing parties, including by Apple Cash, Venmo, and Cash App.

137. Cash App, in particular, posed a threat of introducing decentralized peer-to-peer payments on iPhone absent an express agreement to the contrary. Indeed, Cash App was developed by a company called Square—which in December 2021 changed its name to Block as part of a large bet on cryptocurrencies.

138. Block's CEO Jack Dorsey has been a zealous advocate of decentralized payments. As TechCrunch reported on December 1, 2021:

> The name Block is also a nod to the company's growing interest in blockchain technology and cryptocurrency. The existing Square Crypto product will also be renamed to Spiral.

139. Despite Block's focus on blockchain technology and its CEO's zeal for Bitcoin and other decentralized cryptocurrencies, the company's Cash App does not facilitate decentralized cryptocurrency transfers on iPhone.

140. It is quite evident why: Block has entered into an agreement with its horizontal competitor Apple not to introduce such a feature on iPhone, including in Block's legacy Cash App.

141. No other iOS Peer-to-Peer Payments Market participant has offered a decentralized payment product or feature. Indeed, to date, no other significant iOS Peer-to-Peer Payments Market provider has even publicly attempted to introduce such a feature. This despite the fact that decentralized

payment technology has matured, would have immediate demand, and would allow an iOS Peer-to-Peer Payments Market provider that introduced it to profitably undercut competitors on fees.

142. As with Cash App specifically, the reason the entire iOS Peer-to-Peer Payments Market has declined to offer such an obviously attractive, differentiable product—one seemingly purpose-built to disrupt an increasingly concentrated and fee-heavy iOS Peer-to-Peer Payments Market—is readily ascertainable: every participant in the iOS Peer-to-Peer Payments Market, including PayPal (Venmo) and Block (Cash App), has expressly agreed with their horizontal competitor Apple not to introduce such a product/feature.

143. This horizontal agreement to restrict product development and output in the iOS Peer-to-Peer Payments Market—and to exclude from the iPhone any would-be competitor that attempts to diverge or defect from the agreement—has allowed the market leaders, including PayPal, Block, and Apple itself, to repeatedly and significantly increase fees in their iOS Peer-to-Peer Payments Market applications.

C. The Anticompetitive Agreements Have Excluded Potential Entrants

144. Apple's agreements with its competitors in the iOS Peer-to-Peer Payments Market, including with PayPal and Block, impose restrictions not just on existing competitors, but on potential entrants as well. A payment app that seeks to provide mobile peer-to-peer payments on iPhone ***must*** enter into a mirroring agreement with Apple to enter the market. There is literally no alternative—and Apple enforces this not merely through contractual restrictions, but through technological measures built into the iPhone itself.

145. Apple's contractual prohibition on decentralized peer-to-peer payments within iPhone apps has prevented several potential entrants from competing with Apple Cash, Venmo, Cash App, and other iOS Peer-to-Peer Payment Market applications by offering decentralized peer-to-peer payments to iPhone users.

146. For example, in June 2023, Apple's Apple Developer agreements prevented cryptocurrency wallet apps Zeus and Damus from providing decentralized payments on iOS and iPadOS devices. As Gadgets 360 reported on June 15, 2023:

> Apple, despite having faced brutal criticism for maintaining stringent anti-crypto policies, has found itself in a spat with Web3 players again. Two

> Bitcoin wallet providers—Zeus and Damus have called out the iPhone-maker for restricting their operations on Apple's App Store. While Apple has given reasons behind its step, the wallet players argue that because of Apple's undecided stance on crypto, they are losing spot on the App Store, that has clocked over 650 million average weekly users from around the world.
>
> Evan Kaloudis, the founder of Zeus digital wallet app took to Twitter to share his woes with Apple earlier this week. Kaloudis shared a screenshot that showed Apple's 'Guideline 3.1.5', that addresses matters around business, payments, and cryptocurrencies.
>
> "Your app facilitates the transmission of a virtual currency, but was not submitted by a corresponding exchange or recognized financial institution," Apple said in its notification to Zeus.

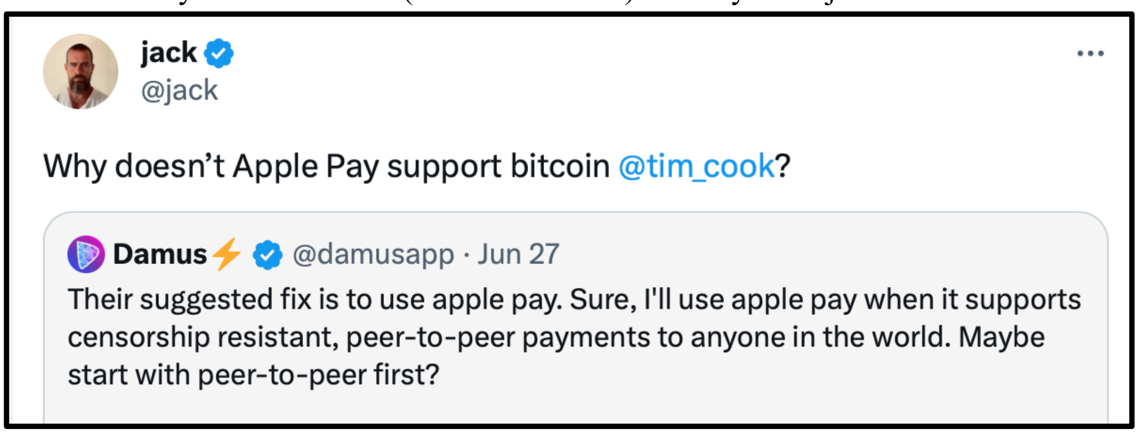
147. These crypto wallet apps, which sought to introduce decentralized peer-to-peer payment functionality on iPhone, threatened the output-restricting agreement Apple had entered with its horizontal competitors PayPal (Venmo) and Block (Cash App)—and with every other existing iOS Peer-to-Peer Payment Market competitor. In doing so, they also threatened the Apple-led cartel's profits from inflated, repeatedly-increased transaction fees.

148. Damus, the other app excluded pursuant to Apple's agreements, was backed by Block CEO, Jack Dorsey. The app was a decentralized social network that allowed tipping. The problem for Apple and its co-conspirator iOS Peer-to-Peer Payment Market apps was that Damus allowed decentralized cryptocurrency transfers as part of a "tipping" feature.

149. As Forbes reported on June 26, 2023:

> Damus, a decentralized social networking app backed by Twitter co-founder Jack Dorsey featuring bitcoin transaction features, will be removed from the App Store over non-compliance of Apple's payment guidelines after the tech giant followed through on threats to take down the app over a dispute around Damus's tipping feature.
>
> Key Facts
>
> - Damus's tipping feature allows users to trade bitcoin without involvement from other apps—a function that drew pushback from Apple, which takes a 30% fee for in-app purchases and said tips "connected to" digital content have to sue in-app purchase in accordance with its guidelines.
> - Damus will appeal the decision, calling the guideline it's based on "abused and misapplied," arguing that no digital content is unlocked when users are tipped.
> - The tipping feature could be used through posts and users' profiles, but after Apple threatened to take down Damus earlier this month, the app limited the feature to profiles—a change it believed would make it compliant with Apple's guidelines.

150. Dorsey took to Twitter (his own creation) to decry the injustice:



151. Tellingly, Apple's suggestion to Damus was to use Apple's mobile peer-to-peer payments product—Apple Cash—instead of the decentralized peer-to-peer payment technology it had designed, coded, and sought to implement in an already-shipping product.

152. Because of Apple's agreements with all existing iOS Peer-to-Peer Payments Market providers—including PayPal (Venmo) and Block (Cash App)—as well as the Apple-imposed mirroring requirement on any potential entrant to the market, no existing or new entrant has to date been able to offer decentralized peer-to-peer payment functionality on iPhones or iPads.

153. By directly excluding this technologically mature, widely-demanded technology simply because of its disruptive potential, Apple and its co-conspirators have maintained supracompetitive prices in the iOS Peer-to-Peer Payments Market, including by raising fees repeatedly over the Class Period without competitive check.

V. THE RELEVANT MARKET

154. The relevant market is the United States iOS Peer-to-Peer Payments Market. The iOS Peer-to-Peer Payments Market consists of applications that run on Apple devices running the iOS operating system—namely, the Apple iPad and iPhone.

A. The iOS Peer-to-Peer Payments Market Is a Distinct Submarket

155. The iOS Peer-to-Peer Payments Market is a distinct submarket of the smartphone payment app market. Several relevant factors indicate that the iOS Peer-to-Peer Payments Market is distinct from other markets, including the overall market for smartphone payment apps.

156. ***Industry and public sources recognize the iOS Peer-to-Peer Payments submarket as a separate economic entity, and iOS Peer-to-Peer Payments have peculiar characteristics and uses.*** To begin with, industry and public sources recognize that he iOS Peer-to-Peer Payments Market is market is limited to apps that run on Apple's mobile devices and are distributed through Apple's App Store.

157. Apple's iPhone is its flagship mobile device. It also manufactures and sells iPads, tablet devices that run apps similar to those that run on iPhone. Both types of devices have relatively small profiles and are powered by a rechargeable battery.

158. Apple designs and distributes a proprietary operating system, iOS, for its mobile devices. This operating system is designed for mobile applications, with a priority on power management and a design tailored for limited multitasking. On the iPad, Apple distributes a variant of iOS, called iPadOS, which Apple announced in June 2019. Apple uses technological measures, including cryptographic signatures baked into hardware in its iPhone and iPad devices, to require that these devices run the iOS operating system, and only the iOS operating system.

159. Unless a user has superuser access (sometimes called "root" access) to an Apple iPhone or iPad, she is unable to install or run apps other than through Apple's App Store. Apple, however, locks down all its production iPhones and iPads, preventing users from accessing root functionality on their

Apple devices. As a result, consumers that have iPhones or iPads can use only one operating system (Apple's iOS) and can install and run apps from only one source (Apple's App Store).

160. Apple has leveraged its control over the apps that can run on its mobile devices into a lucrative business model, charging a tax on all apps sold on its App Store as well as on purchases made within those apps (so-called in-app purchases), including subscriptions.

161. Because Apple strictly controls the apps that run on its mobile devices, and its App Store is the sole gateway for almost every iPhone or iPad user to install mobile apps, payment apps that run on iOS and iPadOS do not run on non-Apple smartphones.

162. Public sources recognize this aspect of the market. Indeed, in June 2020, the United States House of Representatives Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary issued a report—prepared after lengthy study of Apple and its industry, including by requesting documents and taking testimony—titled "Investigation of Competition in Digital Markets" (the "House Report"). The New York Times reported on the House Report findings regarding Apple on June 11, 2021, in an article titled "12 Accusations in the Damning House Report on Amazon, Apple, Facebook and Google":

> **Apple**
>
> - Apple has a monopoly on the app marketplace on iPhones and iPads, enabling the company to take an excessive cut of app developers' sales and "generate supra-normal profits." Apple has charged a 30 percent commission on many app sales since it introduced the fee more than a decade ago, forcing many developers to raise prices for consumers or reduce investment in their apps.
>
> - Apple has used its control over the App Store to punish rivals, including by ranking them lower in search results, restricting how they communicate with customers, and removing them outright from the store. Apple is the sole enforcer of sometimes opaque App Store rules, leaving developers few options to complain.
>
> - Apple favors its own apps and services on its devices by pre-installing them and making them the default options for a variety of actions. For instance, when iPhone users click a link to a webpage, a song or an address, their devices will typically open Apple apps. Such an advantage, combined with the services' deep integration into Apple's software, making it difficult for third-party apps and services to compete.

163. As part of its agreements with developers, Apple limits the ability to transfer funds using decentralized cryptocurrency technology. Only apps approved by Apple are (or can be) distributed through the App Store, and Apple itself provides Apple Cash as a payment service on every iPhone and iPad it sells in the United States.

164. As recognized in the House Report, Apple's rules are opaque. Apple does not disclose to consumers prior to purchase of their iPhones or iPads that it maintains agreements with competitors to restrict the technology used as part of payment apps—namely, apps that use or facilitate decentralized cryptocurrency transfers.

165. Apps available through other mobile application stores, such as Google's Play Store, cannot be installed, loaded, or executed on Apple's mobile devices. For at least this reason, apps that run on non-Apple mobile devices are not reasonably interchangeable with those that run on Apple's mobile devices, iPhone and iPad.

166. As Lambdatest, an industry site, recognizes, Android apps, which are deployed as Android Package Kit ("APK") files, are not interchangeable with iOS/iPhoneOS app package ("IPA") files, which run on Apple iPhones and iPads:

> APK files are used on the android platform, while the iOS operating system uses IPA files. Installing an APK on an iOS device is impossible as both platforms are incompatible. . . .

167. Users are also unable to "sideload apps"—load apps directly on their iPhone or iPad without using the App Store—without "jailbreaking" their Apple mobile devices (*i.e.*, without breaking Apple's multi-layered technological protections (and legal prohibitions) against obtaining root access to its mobile devices).

168. Put simply, the only apps that run on Apple's mobile devices are those that run on iOS and iPadOS, and those apps must be approved by, and distributed through, Apple's App Store.

169. Apple further entrenches its total dominion over what apps can run on its mobile devices by strictly controlling what web browser technology—including within apps—can be used on iPhones and iPads. As part of its Developer Agreement, Apple requires that all apps use Apple's own browser engine, Webkit, to access the Internet. This means that every in-app browser—and every web browser

app, including Firefox for iOS and Chrome for iOS—on an Apple iPhone or iPad is in reality Apple's Safari web browser.

170. As a result of Apple's strict technological and contractual control of what apps—including web apps—can run on its iPhones and iPads, the relevant payments market is restricted to app developers that agree with Apple to abide by the company's terms, including by agreeing not to use decentralized cryptocurrency technology to make payments.

171. Apple's restrictions on browser technology further entrench this prohibition. Because cryptocurrency transfers require the use of JavaScript or other web-based libraries that must run on a device's browser engine, Apple's WebKit agreements with its developers, including its horizontal competitors, ensures that no browser in an iPhone or iPad, whether in a third-party app or elsewhere, can use decentralized cryptocurrency technology.

172. As Apple explains in Section 2.5.6 of its App Store Review Guidelines: "Apps that browse the web must use the appropriate WebKit framework and WebKit JavaScript." The developers of Venmo, Cash App, and other iOS P2P Payment apps have all agreed with Apple to use WebKit, and only WebKit, for browser functionality on iOS and iPadOS.

173. Apple imposes no such restriction on its desktop and laptop computers. In fact, Apple's Macintosh computers permit the installation of apps that provide decentralized payment transactions using cryptocurrencies.

174. As the maker of the Trust Wallet on iOS realized in May of 2020, Apple's rules prohibit apps from even interacting with a cryptocurrency blockchain. Trust Wallet announced its removal from the App Store on its blog:

> We had to remove the decentralized application (DApp) browser from Trust Wallet on iOS. This was required to comply with the new App Store Guidelines and to continue offering and improving our services on iOS.

175. Public and industry sources recognize Venmo, Cash App, and Apple's Cash as horizontal competitors in the iOS Peer-to-Peer Payments Market. Indeed, these apps are often directly compared with each other by public sources and publications.

176. Forbes.com, for example, published a comparison in a May 16, 2022 article titled, "Cash App vs. Venmo." The article featured a table comparing the two products.

Cash App vs. Venmo at a Glance

	Cash App	Venmo
Platforms	Android, iOS, web browser	Android, iOS, web browser
Cost to open an account	None	None
Fees	• $0 for sending money from a linked bank account, debit card or Venmo account balance • 3% fee for sending money via credit card • $2 fee per ATM transaction (Cash App reimburses fees for up to three ATM withdrawals per 31-day period, up to $7 per withdrawal, for users with at least $300 in total direct deposits each month)	• $0 for sending money from a linked bank account, debit card or Venmo account balance • 3% fee for sending money via credit card • $2.50 fee per ATM transaction at ATMs with the Mastercard, PULSE, Cirrus or MoneyPass marks.
Transaction limits	• $1,000 sending limit per 30-day period • $1,000 receiving limit per 30-day period • Users can verify their account through Cash App to potentially access higher sending and receiving limits	• $299.99 weekly spending limit for unverified accounts • Combined weekly spending limit of $6,999.99, including Venmo Debit Card, merchant and P2P payments • $4,999.99 weekly spending limit for P2P payments
Availability	Available in the U.S. and U.K.	Available in the U.S.

177. When Apple's iOS Peer-to-Peer Payment product was announced, the industry press recognized Apple as competing with Venmo and Cash. For example, CNN Money reported in a June 5, 2017 article titled, "Apple taking on Venmo with peer-to-peer payments":

> Apple is taking on Venmo and Square Cash with peer-to-peer payments.
>
> At WWDC, Apple's developer conference, Monday, Apple (AAPL) said Apple Pay is coming to Messages in iOS 11. Soon, you'll be able to send fellow Apple users money through an app that's integrated into iMessage, the default messaging app on Apple's mobile devices.

178. As explained above, Zelle is not recognized as a comparable product to Venmo, Cash App, and Apple Cash, including because Zelle is a white label of bank ACH transfers. Indeed, Zelle directs users to their banks for use, and banks each implement Zelle as part of their own systems and applications. Moreover, the Zelle service is not implement through a self-contained app, like Venmo or Cash App, for customers of each of America's biggest banks. It is implemented by each bank, through the bank's own

app—and a bank customer trying to use the Zelle app to transfer money will be directed to their banking app, as illustrated earlier in this Complaint. Zelle also lacks many of the features of peer-to-peer apps, including sending money from a credit card or sending money to a peer outside of Zelle's network of banks. Zelle additionally lacks fraud protections available through Cash App, Venmo, and Apple Cash.

179. ***Unique production facilities.*** iOS Peer-to-Peer Payment apps require unique production facilities. The apps themselves must be developed for the iOS platform. Developers are unable to write applications for iOS and other mobile platforms at once. Indeed, Apple requires that iOS apps be written in Apple's own Swift programming language, and using Apple's own XCode development environment.

180. Because iOS Peer-to-Peer Payment apps currently use decentralized cryptocurrencies, these apps require the ability to make transfers to and from bank accounts and credit cards. Doing so requires agreements with banks and credit card companies.

181. Rapid transfers through iOS Peer-to-Peer Payment apps require the extension of temporary credit while back-end transfers of funds are settled. This and fraud protection offered through these apps requires purpose-trained machine learning systems to evaluate temporary creditworthiness in real time and to identify fraudulent transactions; a trove and sources of relevant data to be fed to those machine learning systems; and a communication system designed to effectively contact users in real time to alert them of fraudulent transactions and credit requests.

182. Because funds can be rapidly transferred out of accounts, iOS Peer-to-Peer Payment apps must implement security measures, including encryption and two-factor authentication. These measures must comport with Apple's Developer Agreement and App Guidelines and must fit within the technical constraints imposed by mobile devices, such as limited processing power and battery life available for encryption/decryption tasks.

183. ***Distinct customers/consumers.*** iOS Peer-to-Peer Payment Market customers are distinct from customers of other payment apps and services. As an initial matter, iOS Peer-to-Peer Payment Market customers are locked into the Apple ecosystem, including its App Store, and cannot install or use apps from other sources. Because of the significant investment required to purchase Apple mobile devices (*e.g.,* iPhone and iPad), and because of the ecosystem-dependent adjacent services Apple offers (*e.g.,*

iCloud, iMessage, Apple Music, Apple Books, Apple Home, Apple Watch integrations, AirPlay, etc.), customers in the iOS Peer-to-Peer Payments Market suffer from high switching costs.

184. With respect to iOS Peer-to-Peer Payment apps themselves, these apps do not require that a sender or recipient have a bank account or have a bank account that is part of a network (like Zelle).

185. Customers of iOS Peer-to-Peer Payment apps are willing to pay fees for transactions rather than send cash through bank wires or ACH transfers. Timing constraints or the lack of access to a bank account by one of the parties to a peer-to-peer transaction do not make conventional means of transfers, such as checks or ACH transfers, reasonably interchangeable with peer-to-peer transfers performed on iOS Peer-to-Peer Payment apps.

186. ***Distinct prices and sensitivity to price changes.*** Mobile peer-to-peer payment apps charge fees when money is transferred quickly to or from a bank account from the app, and when money is sent from a credit card.

187. As explained above, Venmo, Cash App, and Apple Cash charge these fees, and despite price increases, these apps remain distinct from other means of sending money electronic from peer to peer, including means available on platforms other than iOS.

188. There has been no meaningful price check in the market, as Apple's agreements with Venmo, Cash App, and other iOS Peer-to-Peer Payment apps prevent the entrance of new competitors, and further restrain the features that can be offered marketwide, no matter how much iOS Peer-to-Peer Payment consumers might want them, or benefit from them (such as the availability of blockchain-mediated transactions in iOS Peer-to-Peer Payment apps). As such, the fees charged by iOS Peer-to-Peer Payment Market providers (including Venmo, Cash App, and Apple Cash) have increased repeatedly with no downward competitive pressure exerted upon them.

189. Venmo, Cash App, Apple Cash and other market participants in the iOS Peer-to-Peer Payments Market have not engaged in price competition to lower fees. Indeed, after Apple's entrance into the market, prices did not materially decrease (or indeed, decrease at all) on Venmo, CashApp, or elsewhere in the iOS Peer-to-Peer Payment Market.

190. Moreover, as a result of Apple's agreements with its horizontal competitors, including Venmo and Cash App, Apple is able to exclude new entrants, and indeed new features from existing

competitors, that seek to use valuable new technology, such as decentralized cryptocurrency technology, to facilitate transactions. For example, Apple's agreements with its horizontal competitors in the iOS Peer-to-Peer Payments Market have resulted in the exclusion of apps such as Zeus and Damus that sought to use decentralized cryptocurrency technology, and have and continue to restrain existing competitors and potential new entrants that would seek to introduce such technology in existing or new iOS Peer-to-Peer Payment apps. This has resulted in the total exclusion from the iOS Peer-to-Peer Payments Market of applications and in-application technology/features that are mature, readily available, desired by customers, and would bring down prices and otherwise improve consumer welfare among customers in the iOS Peer-to-Peer Payments Market.

191. ***Specialized vendors.*** Specialized vendors exist to service and enhance the use of iOS Peer-to-Peer Payment apps and services. For example, the accounting company, QuickBooks provides support for integrating Venmo, including services that allow users to distribute and fulfill invoices using these apps. Websites, blogs, and consultants exist to help small businesses use Venmo and Cash App for marketing and payment support. For example, DIY Marketers publishes a webpage called, "How to use Venmo for Small Business Branding," and United Capital Source offers "Cash App For Business: The Essential Guide" online. These sites discuss the importance and use of brand visibility and social connections with customers as part of small business marketing using Venmo and the benefits, drawbacks, and how-tos of marketing and integrating Cash App in a small business.

B. Market Participants and Market Concentration

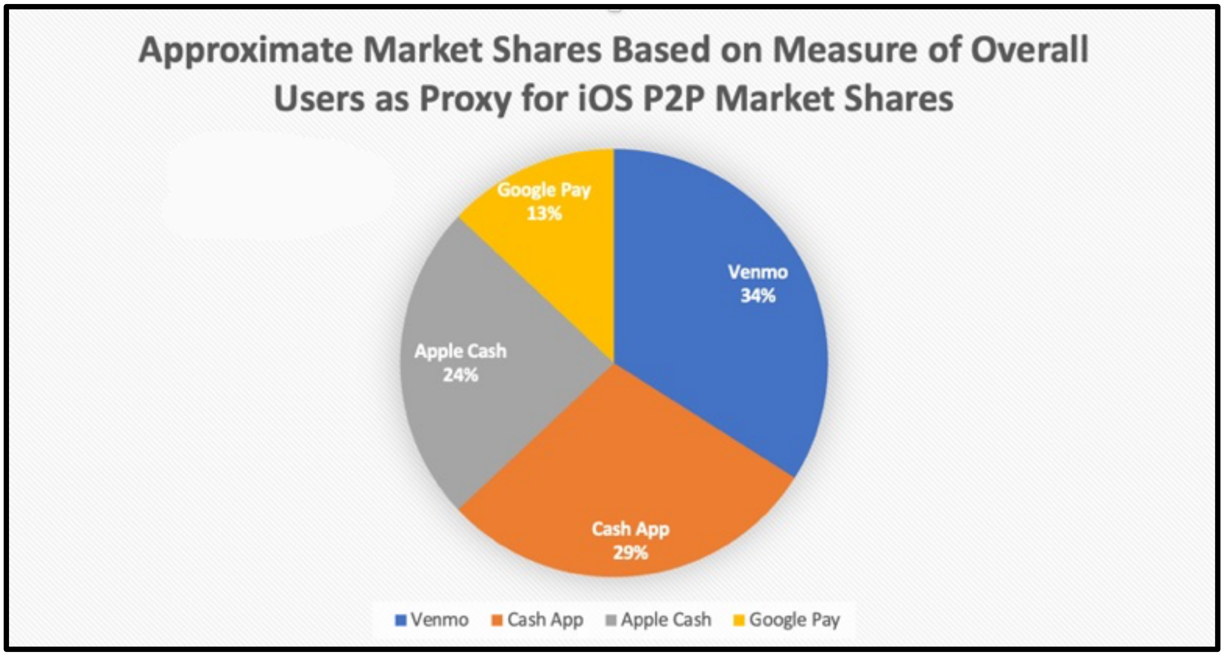
192. The iOS Peer-to-Peer Payments Market consists of several market participants. The primary market participants are PayPal's Venmo, Block's Cash App, Apple's Apple Cash, and Google's Google Pay.

193. Absent Apple's anticompetitive agreements, iOS Peer-to-Peer Payment Market participants would include apps that allow decentralized peer-to-peer transfers. These apps are not, however, presently in the market.

194. The number of users for each app on iOS and the volume of transactions on iOS devices is not reasonably available without discovery. However, iOS Peer-to-Peery Payment Market shares can be approximated using the number of active users each service has across all platforms as a proxy. In

2023, Venmo had 62.8 million monthly active users (MAU); Cash App approximately 53 million MAU; Apple Cash had approximately 43.9 million MAU (though some use Apple Pay without Apple Cash); and Google Pay had 25.2 million MAU (without disaggregating iOS vs. Android users).

195. Using the total number of cross-platform users as a proxy, the relevant market shares are are as follows: Venmo (39.9%), Cash App (28.6%), Apple Cash (23.7%), and Google Pay (13.6%). If disaggregated for iOS users, Google's share is likely to be significantly less.



196. Based on the above figures, the Herfindahl-Hirschman Index (HHI) for this market is approximately 2725. The United States Department of Justice Horizontal Merger Guidelines classifies markets with HHIs above 1800 as highly concentrated. Thus, even without disaggregation for iOS, the iOS Peer-to-Peer Payments Market well exceeds the "highly concentrated" threshold. As noted above, disaggregating for iOS users would likely significantly decrease the Google Pay market share percentage, driving up the HHI even further than its already elevated 2725 in a near-three-firm oligopoly thanks to Apple's agreements with its iOS Peer-to-Peer Payment Market competitors and its contractual restraints on would-be entrants.

C. The Relevant Geographic Market

197. The relevant geographic market is the United States. Mobile peer-to-peer payment apps and services designed for customers in the United States are not reasonably interchangeable with those

designed for customers outside of the United States. Indeed, even apps that are branded similarly must meet unique, bespoke regulatory requirements in the United States that are different from such requirements in other countries and geographic territories.

198. Because of differences in regulatory requirements, iOS Peer-to-Peer Payment apps and services must themselves restrict use of their U.S. services to users within the United States. For example, as Venmo's page states:

> # Requirements
>
> **What are the requirements for using Venmo?**
>
> There are a few requirements for using Venmo, and additional products and services such as the Venmo Mastercard Debit Card and Teen Account may have additional eligibility criteria:
>
> - You must be physically located in the United States
> - You must have a U.S.-based cell phone that can send and receive text messages from short codes. This number can't be on file with another Venmo account.
> - You must be at least 18 years old (or the age of majority in your state)
> - Your Venmo app must be updated to version 7.38.2 or newer

199. Cash App likewise has U.S. territorial restrictions:

> You must be a resident of the United States, at least 18 years and the age of majority in your State of residence, and you must register for an account (your "Account") to use the Service. Certain features of the Service may only be available for use in the United States. Some features, such as the ability to send money to another Cash App customer with the balance in your Account, may be available only if you provide us with certain information about you and we are able to verify your identity. We verify your identity on our own behalf and to facilitate certain of our partners, including our banking partners, in meeting their own obligations.

200. Apple, for its part, maintains a localized version of the App Store for customers in the United States.

201. The geographical market is thus limited to United States users of iOS Peer-to-Peer Payment Market products.

D. Market Power

202. Apple's cartelized agreements with direct horizontal competitors, including PayPal (Venmo), Block (Cash App), and Google (Google Pay) imbues Apple with market power over the price of transactions and services in the iOS Peer-to-Peer Payments Market.

203. These agreements have allowed Apple and the cartel of leading iOS Peer-to-Peer Payment products, including Venmo and Cash App, to consistently raise prices without sacrificing significant market share. Moreover, there appears to be no price or feature competition among the cartel of leading iOS Peer-to-Peer Payment apps, including among Venmo, Cash App, and Apple Cash. These products, and the companies that develop them, maintain an oligopolistic structure and stable market shares—all while collectively increasing prices and transaction costs for iOS Peer-to-Peer Payment Market consumers.

204. Absent Apple's anticompetitive agreements, new apps with distinct, desirable features (*e.g.,* the ability to make peer-to-peer payments through intermediated blockchain/cryptocurrency transactions) could enter the iOS Peer-to-Peer Payments Market, reducing prices—and/or existing competitors in the market could incorporate such desirable features into their existing products, similarly introducing downward price and upward feature competition in the cartelized iOS Peer-to-Peer Payments Market. But for the market power obtained from Apple's anticompetitive agreements, Apple and its co-conspirators could not sustainably raise prices, the oligopolistic market structure that currently prevails would become unstable, and competition on the merits would be the norm.

205. Apple's anticompetitive agreements also prevent members of the cartel from engaging in competition on the merits, including Block, which would incorporate decentralized cryptocurrency technology in the iOS Peer-to-Peer Payments Market (either in its existing Cash App, in a new iOS Peer-to-Peer Payments app, or both) but for Block's agreement with Apple restraining the features it can introduce on the iOS mobile platform (including through web technology). Indeed, Block's CEO and co-founder, Jack Dorsey, is responsible for attempted competitive entry by apps seeking to use decentralized

cryptocurrency technology, such as Damus. Apple removed Damus's app from the App Store when Dorsey's company attempted to enter at scale using decentralized cryptocurrency technology.

E. The App Store Barrier to Entry

206. The iOS Peer-to-Peer Payments Market is protected by a powerful barrier to entry, which arises from Apple's ability to control whether an app feature—whether native or browser-based—can be distributed on iPhones and iPads. As described throughout this Complaint, Apple uses technological measures and contractual restraints on developers to strictly control what mobile peer-to-peer payment apps can be installed on its iOS/iPadOS devices, and indeed to control the specific features available through those apps (including through in-app browser technology).

207. Moreover, the number and quality of apps available on Apple's App Store increase the value of the iPhone and iPads Apple sells. The critical mass of apps reinforces Apple's ability to control the App Store and its ability to sell devices locked into the App Store.

208. The result is the App Store Barrier to Entry (the "ASBE"), which arises from Apple's control of the apps in the App Store; the critical mass of apps available on the App Store; Apple's anticompetitive developer agreements restricting the features that can be introduced on apps distributed through the App Store (including its restraint against the introduction of decentralized cryptocurrency transfer features in iPhone and iPad apps); and Apple's control over the browser engine run on its iOS and iPadOS devices.

209. The ASBE creates a moat around the iOS Peer-to-Peer Payments Market. Each mobile peer-to-peer payment app that agrees with Apple not to introduce otherwise desirable features like decentralized cryptocurrency technology into their iPhone/iPad products, and thereby is granted entry into Apple's walled garden ecosystem, is protected from competition from new entrant apps (or improved legacy apps/services) that could leverage such technology to increase product quality, lower prices, and reduce overall costs in the iOS Peer-to-Peer Payment Market. And Apple itself, which operates one of the leading services in the iOS Peer-to-Peer Payment Market, is similarly prevented from such competition.

210. The result of this ASBE moat is that Apple and its cartel counterparts, including PayPal (Venmo), Block (Square Cash), and Google (Google Pay) are insulated from feature and price

competition and have been able to raise—and have raised—raise prices for transactions and services in the iOS Peer-to-Peer Payment Market without competitive check.

211. A new iOS Peer-to-Peer Payment app or service incorporating decentralized cryptocurrency technology, which could introduce price and feature competition into the cartelized, price-inflated existing market, cannot traverse the ASBE because Apple can bar the entrant from almost every iPhone and iPad in the United States. Similarly, an existing product (*e.g.,* Cash App) that seeks to incorporate restrained features such as decentralized cryptocurrency transfers in its iOS Peer-to-Peer Payment app cannot do so due to existing competitors' agreements with Apple and Apple's total control over its iOS and iPad application ecosystem. This same power allows Apple to bar any entrant or legacy competitor from using new and more efficient technology that threatens the iOS Peer-to-Peer Payment cartel—and the price premium and absence of feature competition that cartel members, including Apple itself, currently enjoy.

212. The ASBE has directly excluded several iOS Peer-to-Peer Payment apps that have attempted competitive entry using decentralized cryptocurrency technology, including Zeus and Damus. At the same time, it has directly restrained feature competition, including based on improvements in decentralized payment technology, among legacy and would-be new entrants in the iOS Peer-to-Peer Payment Market.

VI. HARM TO COMPETITION

213. The harm to competition resulting from Apple's anticompetitive agreements with its horizontal iOS Peer-to-Peer Payment Market competitors, including PayPal (Venmo), Block (Cash App), and Google (Google Pay), is straightforward.

214. To begin with, Apple's agreements with its direct iOS Peer-to-Peer Payment Market competitors strengthen the ASBE protecting the iOS Peer-to-Peer Payments Market, restraining cartel members from feature competition, including by prohibiting cartel members (and all would-be entrants) from incorporating decentralized cryptocurrency technology to provide more efficient and lower cost transactions. This prevents the introduction and/or development of a technological price check on inflated transaction and service prices in the iOS Peer-to-Peer Payment Market, and precludes beneficial feature competition in a stagnant, cartelized market. Consumers in the iOS Peer-to-Peer Payment Market are

injured as a result, paying transaction and service prices that are higher than they would be in a but-for world where Apple had not agreed with its horizontal competitors to restrain feature competition, including with respect to decentralized blockchain/cryptocurrency technology. Consumers in the iOS Peer-to-Peer Payment Market are injured by the higher prices caused by Apple's restraints, and are further injured by the absence of desirable features prohibited by Apple's restraints, such as the ability to perform faster and cheaper peer-to-peer transactions built upon decentralized blockchain/cryptocurrency through iOS Peer-to-Peer Payment apps and services.

215. Apple's agreements with its horizontal iOS Peer-to-Peer Payment Market competitors also eliminate the possibility of competitive entry, as a new entrant would not only face existing ASBE barriers, but cannot introduce product-differentiating features such as decentralized payment technology to provide a unique value proposition to iOS Peer-to-Peer Payment Market consumers. In short, Apple's restraints on feature competition in the iOS Peer-to-Peer Payment Market favor legacy products, and further seal off any possibility of new market entrance—or successful expansion within the existing market, including against Apple's own iOS Peer-to-Peer Payment product, Apple Cash.

216. Moreover, members of the iOS Peer-to-Peer Payment Market actively restrain feature introduction, expansion, and development in their own products to maintain their agreement with Apple, reducing product and feature choice across the market and impairing overall consumer welfare among iOS Peer-to-Peer Payment Market customers. Block, for example—the developer of Cash App—does not offer an iOS Peer-to-Peer Payment app or service that incorporates decentralized cryptocurrency technology because of its agreement with its horizontal competitor Apple, which operates Apple Cash.

217. In addition, Apple's agreements, coupled with the ASBE, have directly excluded would-be entrants to the iOS Peer-to-Peer Payment Market. For example, as explained above, Apple's agreements, coupled with its technological and contractual restrictions on app access to iPhone and iPad devices, have directly excluded iOS Peer-to-Peer Payment apps that sought to incorporate decentralized blockchain/cryptocurrency technology, including Zeus and Damus.

218. Apple's anticompetitive agreements with its horizontal iOS Peer-to-Peer Payment Market competitors have resulted in increased prices paid by iOS Peer-to-Peer Payment Market consumers, including users of Venmo and Cash App. As set forth above, Apple and members of the iOS Peer-to-Peer

Payment Market cartel have repeatedly raised prices for transactions and services with no competitive check. But for Apple's anticompetitive agreements restraining feature competition and entry, new entrants would compete on the merits, including by introducing desirable features such as decentralized settlement technology, reducing prices. This competition would reduce prices not only in new-entrant apps offering currently-restrained features like decentralized cryptocurrency technology, but also in legacy apps like Cash App, Venmo, and Apple Cash, which would see prices driven down by competitive pressure from these new, feature-differentiated entrants (and would likely engage in feature competition as well, thus lowering prices and improving products marketwide).

219. Apple's anticompetitive agreements also restrict the supply of apps and services available in the iOS Peer-to-Peer Payments Market. They function as a supply and output restraint on such products. Indeed, Apple's anticompetitive agreements have already reduced the supply of competitive apps in the iOS Peer-to-Peer Payments Market, including by removing from the market actual entrants such as Damus and Zeus.

220. Apple's agreements with horizontal competitors PayPal (Venmo), Block (Cash App), and Google (Google Pay) have also reduced the output of transactions in the iOS Peer-to-Peer Payments Market. Indeed, Layer 2 cryptocurrency technology now outpaces even credit cards in transaction speeds, yet Apple's horizontal restraints on feature competition have directly prevented adoption of this technology, even as an alternative product feature, by any iOS Peer-to-Peer Payment Market entrant or existing participant.

221. The harm to competition resulting from Apple's agreements well outweighs any procompetitive benefits. Indeed, Apple's agreements impose restrictions that Apple does not impose on its Macintosh desktop and laptop computers. As such, Apple's agreements are not narrowly tailored to any procompetitive purpose—they are far more restrictive than necessary.

222. Nor are Apple's anticompetitive agreements required for the functionality or quality of the iOS Peer-to-Peer Payment products. New entrants (or existing competitors) could, absent Apple's restrains, incorporate decentralized cryptocurrency technology into their mobile peer-to-peer payment apps and services while offering theft and fraud protection, extending credit, providing a clean and intuitive user experience, and complying with regulatory requirements. Indeed, this was (and remains)

the avowed desire of Jack Dorsey, Block's founder, with the Damus app—which Apple blocked from the market. Apple's restraints throttle feature competition across the iOS Peer-to-Peer Payment market, without specifically and narrowly advancing functionality or quality enhancement in the market.

CLASS ACTION ALLEGATIONS

223. The proposed class's claims all derive directly from a course of conduct by Apple, and Apple has engaged in uniform and standardized conduct toward the proposed class. Apple did not materially differentiate in its actions or inactions toward members of the proposed class. The objective facts on these subjects are all the same for all proposed class members. Within each Claim for Relief asserted by the proposed class, the same legal standards govern. Accordingly, Plaintiffs bring this lawsuit as a class action on their own behalf and on behalf of all other persons similarly situated as members of the proposed class pursuant to Federal Rule of Civil Procedure 23.

224. This action may be brought and properly maintained as a class action because resolution of the questions it presents is one of a common or general interest, and of many persons, and also because the parties are numerous, and it is impracticable to bring them all before the court. Plaintiffs may sue for the benefit of all as representative parties pursuant to Federal Rule of Civil Procedure 23.

The Nationwide Class

225. Plaintiffs bring this action and seek to certify and maintain it as a class action under Federal Rule of Civil Procedure 23 on behalf of themselves and a class defined as follows:

> All persons, including business associations, entities, and/or corporations, in the United States who paid fees through Venmo or Cash App from November 17, 2019 to the present (the "Class Period").

226. Excluded from the nationwide class are Apple and its co-conspirators (including PayPal, Block, and Google), including their employees, officers, directors, legal representatives, heirs, successors, and wholly or partly owned subsidiaries or affiliates; and the judicial officers and their immediate family members and associated court staff assigned to this case.

Numerosity and Ascertainability

227. The members of the class are so numerous that a joinder of all members would be impracticable. Indeed, there are at least millions of class members that have paid anticompetitively inflated fees.

228. The class is ascertainable. The class definition identifies groups of unnamed plaintiffs by describing a set of common characteristics sufficient to allow a member of that group to self-identify as having a right to recover based on the description. Other than by direct notice, alternatively proper and sufficient notice of this action may be provided to the class members through notice disseminated by electronic means, through broadcast media, and published in newspapers or other publications. Moreover, Apple and its co-conspirators all possess customer contact information, including phone numbers, as well as home and e-mail addresses.

Predominance of Common Issues

229. A well-defined community of interest in questions of law or fact involving and affecting all members of the proposed class exists, and common questions of law or fact are substantially similar and predominate over questions that may affect only individual class members. This action is amenable to a classwide calculation of damages, or the establishment of fair and equitable formulae for determining and allocating damages, through expert testimony applicable to anyone in the proposed class.

230. The most significant questions of law and fact that will decide the litigation are questions common to the proposed class, or to definable categories or subclass thereof, and can be answered by the trier of fact in a consistent manner such that all those similarly situated are similarly treated in the litigation. The questions of law and fact common to the Plaintiffs and proposed class members, include, among others, the following:

a. Whether Apple's Agreements are *per se* unlawful;

b. Whether Apple's Agreements violate the Rule of Reason;

c. Whether the anticompetitive effects of Apple's Agreements outweigh their procompetitive benefits, if any;

d. Whether the members of the proposed class are entitled to trebled damages, attorneys' fees, costs, and other monetary relief under the antitrust laws; and

e. Whether the members of the proposed class are entitled to injunctive relief.

Typicality

231. Plaintiffs' claims are typical of the members of the proposed class. The evidence and the legal theories regarding Apple's alleged wrongful conduct are substantially the same for Plaintiffs and all of the proposed class members.

Adequate Representation

232. Plaintiffs will fairly and adequately protect the interests of the proposed class members. Plaintiffs have retained competent counsel experienced in antitrust and class action litigation to ensure such protection. Plaintiffs and their counsel intend to prosecute this action vigorously and have the financial resources to do so. Neither Plaintiffs nor their counsel have interests adverse to those of the proposed class.

Superiority

233. This action satisfies the requirements of Fed. R. Civ. P. 23(b)(2) because Apple has acted and refused to act on grounds generally applicable to the proposed class, thereby making appropriate final injunctive and/or corresponding declaratory relief with respect to the proposed class as a whole.

234. This action satisfies the requirements of Fed. R. Civ. P. 23(b)(3) because a class action is superior to other available methods for the fair and efficient adjudication of this controversy. The common questions of law and fact regarding Apple's conduct and responsibility predominate over any question affecting only individual proposed class members.

235. Because the damages suffered by each individual member of the proposed class may be relatively small, the expense and burden of individual litigation would make it very difficult or impossible for individual class members to redress the wrongs done to each of them individually, such that most or all class members would have no rational economic interest in individually controlling the prosecution of specific actions, and the burden imposed on the judicial system by individual litigation by even a small fraction of the class would be enormous, making class adjudication the superior alternative under Fed. R. Civ. P. 23(b)(3)(A).

236. The conduct of this action as a class action presents far fewer management difficulties, far better conserves judicial resources and the parties' resources, and far more effectively protects the rights of each proposed class member than would piecemeal litigation. Compared to the expense, burdens, inconsistencies, economic infeasibility, and inefficiencies of individualized litigation, the challenge of managing this action as a class action are substantially outweighed by the benefits to the legitimate interests of the parties, the court, and the public of class treatment in this Court, making class adjudication superior to other alternatives, under Fed. R. Civ. P. 23(b)(3)(D).

237. Plaintiffs are not aware of any obstacles likely to be encountered in the management of this action that would preclude its maintenance as a class action. Rule 23 provides the court with authority and flexibility to maximize the efficiencies and benefits of the class mechanism and reduce management challenges. The Court may, on motion of Plaintiffs or on its own determination, certify nationwide, statewide, and/or multistate classes for claims sharing common legal questions; utilize the provisions of Rule 23(c)(4) to certify any particular claims, issues, or common questions of fact or law for classwide adjudication; certify and adjudicate bellwether class claims; and utilize Rule 23(c)(5) to divide any class into subclasses.

REALLEGATION AND INCORPORATION BY REFERENCE

238. Plaintiffs reallege and incorporate by reference all the preceding paragraphs and allegations of this Complaint, as though fully set forth in each of the following Claims for Relief asserted on behalf of the class.

CLAIMS FOR RELIEF

COUNT ONE:
(on behalf of Plaintiffs and the Nationwide Class)
Violation of Section 1 of the Sherman Act, 15 U.S.C. § 1

239. Plaintiffs bring this count against Apple on behalf of themselves and the putative Nationwide Class under Section 1 of the Sherman Act.

240. Apple has entered into anticompetitive agreements with direct horizontal competitors, including PayPal (Venmo), Block (Cash App), and Google (Google Pay) that restrict each party's ability to compete on the merits, including through restrictions on incorporating decentralized cryptocurrency technology to facilitate peer-to-peer mobile payments. These agreements have the purpose and effect of

restricting feature competition and reducing supply and output in the United States iOS Peer-to-Peer Payments Market.

241. Apple's agreements, and its requirement that a developer enter into such an agreement with Apple as a condition of installing and running a mobile peer-to-peer product on Apple iPhones and iPads, have directly excluded—and continue to exclude—new entrants in the iOS Peer-to-Peer Payments Market that seek to introduce feature competition and improved transaction throughput by relying on restricted-by-Apple technologies—*e.g.,* decentralized cryptocurrency technology. As such, Apple's agreements prevent the entry of new rivals that could engender feature competition and a price check in the iOS Peer-to-Peer Payments Market, and ultimately restrict the supply and output of products in that market.

242. Moreover, Apple's agreements place identical, mirroring restrictions on the features and technology that can be implemented by existing competitors in the iOS Peer-to-Peer Payments Market, including Apple's horizontal competitors PayPal (Venmo), Block (Cash App), and Google (Google Pay), which directly compete with Apple's Apple Cash product in the iOS Peer-to-Peer Payments Market. These agreements have the purpose and effect of preventing Apple's horizontal competitors from introducing desired, beneficial features and technologies—for example, decentralized cryptocurrency technology—in iOS Peer-to-Peer Payments products to improve feature competition, consumer choice, transaction throughput, and to lower prices in the iOS Peer-to-Peer Payments Market, including by re-introducing meaningful competition in a cartelized market that has been held technologically stagnant by Apple's agreements with its horizontal competitors and the requirement of a mirrored agreement with Apple to enter the iOS Peer-to-Peer Payment Market.

243. Because Apple's Cash product directly and horizontally competes with companies that have agreed not to develop iOS Peer-to-Peer Payment products (whether as new apps or services, or as a feature expansion of existing apps or services, such as Venmo or Cash App) that use restricted-by-Apple technologies, including decentralized cryptocurrency technology, and these agreements restrict output in the iOS Peer-to-Peer Payment Market where Apple and these companies horizontally compete, the agreements are *per se* unlawful.

244. However, even if evaluated under the rule of reason, Apple's agreements restricting entry and competition in the iOS Peer-to-Peer Payment market are anticompetitive and unlawful. To begin with, the agreements harm competition by excluding entry, strengthening the ASBE, reducing supply and output of products in the iOS Peer-to-Peer Payment Market, increasing prices for consumers in that market, reducing consumer choice and feature competition in the iOS Peer-to-Peer Payment Market, diminishing quality of the products and services in that market, reducing efficiency, and increasing transaction costs.

245. There are no procompetitive justifications for Apple's challenged agreements. Apple's ban of products relying on, or using, decentralized cryptocurrency technology to facilitate iOS peer-to-peer payments is not narrowly tailored to any reasonable purpose, nor are the agreements required for the functionality of any app or service in the product market. Indeed, Apple imposes no such constraints on its Macintosh computers.

246. Moreover, new entrant iOS Peer-to-Peer Payment apps—or redesigned legacy iOS Peer-to-Peer Payment Apps—incorporating decentralized cryptocurrency technology can and would provide fraud and theft protection, credit pending settlement, a clean and appealing user experience, and rapid transfers. This is, indeed, what Block's Jack Dorsey has publicly sought to roll out on iPhones and iPads, reintroducing feature competition, product differentiation, and technology-driven price competition into a stagnant and price-inflated market in which Apple itself is a legacy competitor. Apple's agreements with its horizontal competitors are in no way necessary to these functions and features, which are a staple of products in the iOS Peer-to-Peer Payment Market, and would be an important part of any new or redesigned product incorporating decentralized cryptocurrency technology or another Apple-restricted feature to improve throughput, efficiency, and consumer choice, and ultimately lower transaction prices, in the iOS Peer-to-Peer Payment Market. The anticompetitive effects of Apple's challenged agreements plainly outweigh their procompetitive benefits—if there are any at all.

247. Plaintiffs and proposed class members have been and continue to be injured by the anticompetitive effects of Apple's agreements, including by paying fees to Venmo and Cash App that were and remain inflated by Apple's agreements with the companies that own and operate those apps and ASBE restricting entry by new competitors in the iOS Peer-to-Peer Payments Market.

248. Plaintiffs' overpayment as a result of Apple's anticompetitive conduct is precisely the sort of harm the antitrust laws were meant to prevent and protect against. Indeed, it is unmistakable that Apple's conduct has resulted in a marketwide increase in fees, which price inflation continues unabated to this day.

249. But for Apple's anticompetitive agreements, the transaction and service fees paid by Plaintiffs and the proposed class members through Venmo and Cash App would have been lower, including as a direct result of competition and through the erosion of the ASBE.

250. To mitigate and prevent further harm to Plaintiffs and members of the proposed class in the iOS Peer-to-Peer Payment Market by reintroducing feature and price competition, Plaintiffs and members of the proposed class seek injunctive relief barring Apple from continuing to enter into and enforce its anticompetitive agreements restraining the technology and features that can be introduced by iOS Peer-to-Peer Payment Market competitors and would-be entrants, including Apple's restraints barring iOS apps from incorporating decentralized cryptocurrency technology to facilitate peer-to-peer payments.

251. Plaintiffs and members of the proposed class also seek injunctive relief requiring Apple to segregate or divest its Apple Cash business, to prevent further harm to consumers, including Plaintiffs, in the iOS Peer-to-Peer Payment Market.

252. Plaintiffs and the proposed class members seek, to the extent available, treble damages and prejudgment interest to compensate them for the money they overpaid to Venmo and Cash App as a result of Apple's anticompetitive agreements, including its agreements with the horizontal competitors that own and operate the Venmo and Cash App products.

253. Plaintiffs and the proposed class members seek to recover their costs of suit, including attorney fees.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs request that judgment be entered against Apple and that the Court grant the following:

A. Determine that this action may be maintained as a class action pursuant to Rules 23(a), (b)(2), and/or (c)(4) of the Federal Rules of Civil Procedure, and direct that reasonable notice of this action, as provided by Rule 23(c)(2), be given to the proposed class, and declare Plaintiffs as the representatives of the proposed class;

B. Enter a judgment against Apple in favor of Plaintiffs and the proposed class;

C. Grant permanent injunctive relief to remedy the ongoing effects of Apple's unlawful and anticompetitive conduct;

D. Award Plaintiffs and the proposed class actual and/or trebled damages;

E. Award Plaintiffs and the proposed class their costs of suit, including reasonable attorney fees as provided by law; and

F. Award such further and additional relief as the case may require and the Court may deem just and proper under the circumstances.

JURY DEMAND

Plaintiffs demand a trial by jury on all claims so triable as a matter of right.

Dated: November 17, 2023

Respectfully submitted,

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