

Testimony of Horacio Gutierrez Head of Global Affairs & Chief Legal Officer, Spotify U.S. Senate Judiciary Committee Subcommittee on Competition Policy, Antitrust, and Consumer Rights April 21, 2021

Introduction

Good afternoon Chairwoman Klobuchar, Ranking Member Lee, and Members of the Subcommittee on Competition Policy, Antitrust, and Consumer Rights. My name is Horacio Gutierrez, and I am the Head of Global Affairs and Chief Legal Officer of Spotify. Thank you for the opportunity to testify before the Subcommittee today.

Before I begin, I want to extend my condolences to the Capitol Hill community and the families of Officer Evans, Officer Sicknick, and Officer Liebengood following the tragedies that occurred in recent months. On behalf of Spotify, please accept our deepest sympathies and our profound gratitude to these brave public servants, and many others, for defending our democracy.

We applaud the Subcommittee for its focus on competition concerns in the technology sector and in particular for holding this hearing on the critical issue of unfair and anticompetitive app store practices.

The growth of our economy depends on continued innovation and expansion of consumer choice—and government action to prevent app platforms' unprecedented abuse of market power is as necessary today as it was at other pivotal moments in America's economic history:

- Congress in 1890 passed the Sherman Act in response to concerns about the ability of trusts to gain control of key segments of the economy, and that law was successfully invoked to eliminate the anticompetitive practices of Standard Oil that gave it iron-fisted control over the American oil industry.
- The government in the 1970s brought an antitrust action against AT&T culminating in a settlement that opened the telecommunications system to competition just as advances in technology were enabling dramatic innovations that increased consumer options and lowered costs.
- And the Microsoft case in the 1990s similarly addressed restraints that would have limited the technological progress promised by the internet.

The explosion in the app economy opens the door to innovation that will confer huge benefits on consumers and our entire society. But those benefits will not be realized if platforms are allowed to continue to abuse their unprecedented power to interfere with the relationships between third-party app developers and their customers—which is inflicting serious harm on both consumers and competitors. Our economy is changing at internet speed, and legislative action is urgently needed to give antitrust enforcement agencies the

tools they need to prevent platforms from consolidating their domination over this critical, vibrant marketplace.

My testimony today focuses on three key points.

First, the use of mobile apps is exploding and apps increasingly are consumers' preferred method for purchasing an ever-widening variety of goods and services.

Second, Apple—which controls the leading mobile app platform—is abusing its complete power over the apps available to owners of Apple devices to hurt consumers. Apple's actions are preventing competition on the merits and imposing rules that unfairly advantage Apple's own services and disadvantage competitors. If Apple is permitted to continue to unfairly insert itself as a gatekeeper between third-party app developers and their customers, and reap the resulting unjustified profits, other platforms inevitably will follow its lead.

Third, we appreciate and welcome the broad antitrust reform proposed by Chairwoman Klobuchar along with Senators Blumenthal and Booker because it will make Section 2 cases less daunting for the government to bring. Senator Hawley recently proposed a bill with a number of similar and very important reforms. Such legislation would be a welcome and important part of what needs to be done, but it alone is not enough. The threats and harms posed by Apple's practices are immediate and ongoing and we urge the Subcommittee to consider additional legislation focused specifically on prohibiting platforms' abusive practices.

The Exploding App Economy

Apps today are an essential means by which consumers can, and do, conduct all of the activities of daily life. Stopping platforms from abusing their control over app stores to improperly and unjustifiably restrict competition—and thereby limit consumer choice—is therefore critical to ensure the proper functioning of our economy.

The Supreme Court recently explained that "'apps' enable iPhone owners to send messages, take photos, watch videos, buy clothes, order food, arrange transportation, purchase concert tickets, donate to charities, and the list goes on. 'There's an app for that' has become part of the 21st-century American lexicon."

-

¹ Apple, Inc. v. Pepper, 139 S. Ct. 1514, 1518 (2019).

Consumers worldwide spent more than \$120 billion through apps in 2020—which is more than double the amount spent in 2016.² In the United States alone, they downloaded 13.4 billion apps, and spent 136.4 billion hours on their smartphones.³

The pandemic has only increased consumers' use of and reliance on apps. As Apple itself explains, "[a]pps have become even more critical to Americans' everyday lives as they seek out new and safe ways to learn, work, and stay engaged with friends and family during the pandemic. The App Store provides support for remote ordering from restaurants, vibrant and impactful remote learning for students, telehealth for patients and doctors, and digital commerce for small businesses."

<u>Apple's App Store Control—And Apple's Abuses Of That Power That Are Producing</u> Serious Consumer Harm

The source of Apple's unprecedented market power is the company's total control over access to its App Store, which is the only way that app developers can reach Americans who own more than 202 million Apple iPhones—as well as the users of the 1.65 billion Apple devices worldwide.⁵

Ironically, it was app developers—the very group now subject to Apple's ever-increasing abusive restrictions—that enabled Apple to acquire this power in the first place.

When Apple first introduced the smartphone in 2007, it did not permit third parties to develop apps. But the very limited functionality provided by Apple-developed apps failed to attract consumers.

Apple quickly announced that it would release information enabling third parties to develop apps, and the App Store opened in July 2008 with 500 third-party apps. There were ten million downloads on the App Store's first weekend of operation and Steve Jobs lauded the contribution of third-party developers, stating that they had created "extraordinary

² ACT| The App Association, *State of the App Economy* 4 (2021), https://actonline.org/wp-content/uploads/2020-App-economy-Report.pdf.

³ App Annie, *State of Mobile 2021*, https://www.appannie.com/en/go/state-of-mobile-2021/.

⁴ Apple, *iOS app economy creates 300,000 new US jobs as developers adapt during pandemic* (Sept. 2020), https://www.apple.com/newsroom/2020/09/ios-app-economy-creates-300000-new-us-jobs-as-developers-adapt-during-pandemic/.

⁵ Statista, *Installed base of the Apple iPhone in the United States from March 2016 to September 2019* (Jan. 22, 2021), https://www.statista.com/statistics/948712/united-states-apple-iphone-installed-base/; Stephen Nellis, *Apple sees revenue growth accelerating after setting record for iPhone sales, China strength*, Reuters (Jan. 27, 2021).

https://www.reuters.com/article/us-apple-results/apple-tops-wall-street-expectations-on-record-iphone-revenue-china-sales-surge-idUSKBN29W2TD?il=0.

applications."⁶ Apple then launched its "[t]here's an app for that" advertising campaign, pointing to innovative third-party apps as the reason consumers should purchase Apple devices; the number of third party apps increased rapidly; and sales of Apple devices grew dramatically.⁷

Today more than four million third-party apps are available through the App Store.⁸ And the huge variety of goods and services that these apps make available to consumers is the critical reason for the popularity of Apple products.

From the beginning, Apple used its control over access to the App Store to exercise unilateral, unreviewable authority to set the rules governing apps available to Apple device owners. Initially those rules were not constraining—because Apple wanted to attract developers who would provide the expanded functionality needed to convince customers to purchase Apple devices.

But as the number of Apple device users skyrocketed, Apple became increasingly aggressive in adopting restrictive App Store rules. Those restrictions have not been imposed uniformly; to the contrary, they have been targeted on companies that are, or might become, Apple's competitors in downstream markets for providing goods and services to consumers. The result: consumers' choices for these goods and services are artificially limited by the increased costs and restrictions that Apple imposes on those competitors.

Apple's treatment of Spotify provides a case study of Apple's abusive practices. But Spotify's experience is not at all unique: numerous other app developers—that offer on-line gaming, video streaming, access to ebooks, and myriad other applications—have suffered the same treatment. Indeed, I have spoken with dozens of developers who have looked on with frustration as Apple has engaged in exclusionary and predatory conduct without any accountability. Many of them are afraid to speak publicly, fearing retribution from Apple that could end their businesses.

⁶ See Philip Elmer-Dewitt, Steve Jobs: Apple Will Open iPhone to 3rd Party Apps in February, http://fortune.com/2007/10/17/steve-jobs-apple-will-open-iphone-to-3rd-party-apps-in-february/

⁷ See Apple Press Release, iPhone App Store Downloads Top 10 Million in First Weekend, https://www.apple.com/newsroom/2008/07/14iPhone-App-Store-Downloads-Top-10-Million-in-First-Week end/.

⁸ Statista, *Number of available apps in the Apple App Store from 2008 to 2020* (Feb. 4, 2021), https://www.statista.com/statistics/268251/number-of-apps-in-the-itunes-app-store-since-2008/.

⁹ A number of these businesses have banded together to create the Coalition for App Fairness, which advocates common sense principles to establish and maintain fairness for developers, consumers and the owners of the app stores. *See* https://appfairness.org/.

Providing the Subcommittee with a detailed description of Apple's treatment of Spotify will, I hope, serve as an example of the many unjustified, unfair actions targeting app developers.

Spotify provides streaming audio services, primarily music and podcasts, to millions of Americans. Our mission is to unlock the potential of human creativity by giving a million creative artists the opportunity to live off their art and billions of fans the opportunity to enjoy and be inspired by these creators. Over 345 million customers world-wide use Spotify to listen to music and podcasts.

In February, Spotify CEO Daniel Ek described his motivations for founding the company as follows: "For Spotify, audio is our history—and it's our future. In 2006, the music industry was collapsing. Piracy was killing it. The idea that all music should be free for the taking, no matter the cost and effort, destroyed the careers of a lot of working artists. We believed there had to be a better way. And we knew our platform had to be nothing short of revolutionary if we were going to stand a chance of getting people to abandon piracy and pay for music again. Today if you're an artist or a podcaster with a song to share, an album to drop, or a story to tell, we want Spotify to be your best place to find an audience. It's connecting listeners with the audio they love and connecting creators with the fans who'll find meaning in their art, and who won't just follow their career, but will sustain it."

Over the past two decades, streaming has fundamentally changed the audio ecosystem. It's lowered barriers to entry and it's democratized access to audio for listeners.

Spotify recognized that consumers would want to listen anywhere, and at any time, and that mobile devices therefore would be an essential path for providing music to consumers. Spotify accordingly developed an app making its streaming services available over Apple devices, which was added to the App Store in September 2009.

Spotify offers two basic types of streaming services. Our "Free," is free to the consumer but includes advertisements interspersed with the consumer's streaming selections. Our "Premium," offers ad-free music and offline listening and carries a \$9.99 monthly charge. Most consumers at first select the Free service, but many—after experiencing the benefits of Spotify's service—switch to Premium in order to take advantage of its benefits.

For the first two years that Spotify's app was in the App Store, Apple did not offer any in-app purchasing functionality for digital subscription services like Spotify. Accordingly, there were no rules preventing Spotify from directing its users to its web site to subscribe to our Premium service directly with Spotify.

Page 6 of 15

¹⁰ In the U.S., Spotify also offers Premium Student for \$4.99/month for eligible college students and Spotify Premium Family for \$14.99/month for up to 6 family members who live together.

Two years later—in 2011—Apple dramatically changed the rules applicable to Spotify's app.

It adopted a new rule requiring Spotify to use Apple's payment processing system, which Apple calls "in-app Purchase" or "IAP," for any in-app payments. And it prohibited links to any payment mechanisms located on the seller's website or anywhere else outside the app. Apple charges 30% of the purchase price for use of this system—an amount dramatically greater than the 3-5% that other payment methods typically charge sellers. ¹¹

The reason for this new rule was to enable Apple to eliminate competitors for downstream services provided by Apple. That is clear from contemporaneous emails between Steve Jobs and his subordinates:¹²

- In November 2010, Philip Schiller, an Apple executive, reported to Jobs regarding a television advertisement for Amazon's Kindle electronic book reader that depicted a consumer using her iPhone to purchase and then read a book, and then switching to an Android phone and continuing to read the same book. He observed that the ad's primary message was that "there are Kindle apps on lots of mobile devices," but that the secondary message was "that it is easy to switch from iPhone to Android." In a subsequent message the next day, Schiller observed that Apple had anticipated that users typically "would be buying books on a Kindle device and later accessing them on an iPhone," but "more often Kindle app users are purchasing digital books right on their phones" and therefore should be required to use IAP. Jobs responded by suggesting that the appropriate response was that Amazon "must use our payment system for everything, If they want to compare us to Android, let's force them to use our far superior payment system."
- In another exchange several months later, Jobs was more explicit: "iBooks is going to be the only bookstore on IOS devices. We need to hold our heads high. One can read books bought elsewhere, just not buy/rent/subscribe from IOS without paying us, which we acknowledge is prohibitive for many things."

Spotify at first sought to comply with Apple's new rule by making it impossible for customers to purchase Premium service from a link within the app—and requiring them

¹¹ In addition, requiring the use of IAP enables Apple to prevent app developers from establishing a direct billing relationship with their customers, and instead lets Apple capture sensitive customer information. The App Store rules make clear that Apple may use that information for any purpose. *See* Section 9.3 of Apple's Developer Program License Agreement.

¹² Hartley Charlton, *Emails Reveal Why Steve Jobs and Phil Schiller Blocked In-App Purchase of Kindle Books*, MacRumors (July 31, 2020), https://www.macrumors.com/2020/07/31/emails-apple-blocked-kindle-purchases/.

instead to go to Spotify's website to make such purchases. That artificial arrangement significantly disadvantaged Spotify by making it much more difficult for customers to sign up for Premium service. And Apple repeatedly pressured Spotify to adopt the IAP system, eventually taking the position that Spotify's failure to incorporate the IAP payment violated its rules even if all purchases took place outside of the app.

In 2013, Apple threatened to ban Spotify from the App Store unless it incorporated IAP into its app. Spotify in 2014 therefore incorporated IAP and—to cover Apple's 30% tax—raised the cost of Premium to \$12.99.¹³

It was not a coincidence that at the same time Apple was forcing Spotify to use IAP, Apple (also in 2014) acquired a music streaming service, Beats Music. In 2015—a year after Apple had effectively forced Spotify to increase its price—Apple introduced Apple Music, a streaming service competing directly with Spotify, priced at \$9.99. Apple, of course, did not have to bear the cost of the 30% tax it imposed on Spotify.

Spotify recognized that it could not compete with Apple's lower price and in May 2016 eliminated IAP, which required it to forgo any in-app purchases of Premium and any in-app upgrades from Free to Premium. After Spotify removed IAP, it gave app users an opportunity to click on an "Email Me" button that would send an email informing the customer of an opportunity to upgrade to Premium at a discount. Apple unilaterally added new App Store restrictions, barring not only links to outside-app payment services but also any "calls to action that direct customers to purchasing mechanisms other than IAP."

In other words, Apple retroactively outlawed Spotify's defensive move by unilaterally changing the rules that govern the App store. Apple repeated this pattern over the years, broadening its view of prohibited conduct both in the language of its rules and in their abusive enforcement, in order to punish app developers who chose not to implement Apple's IAP.

Spotify is prohibited even from informing its customers about the opportunity to sign up for Premium on Spotify's own website. And Apple interprets this restriction broadly, to prohibit Spotify from advertising promotions in its app (for example, opportunities to sign up for Premium at a discounted price) and, more remarkably, from using non-app communications (such as email) to make such offers to consumers.

The bottom line is that Apple's unfettered and unilateral power to impose its web of restrictions effectively prevents head-to-head competition between Spotify and Apple

¹³ Spotify could not absorb the IAP tax without raising its prices, because a large component of its costs are the licensing fees paid to record labels and music publishers. Apple, of course, would have been well aware of that cost structure because it also is in the music streaming business.

Music based on consumers' assessments of the quality of the two services. Apple instead has aggressively used its App store policies to handicap Spotify in numerous ways: forcing Spotify to choose between a price increase that would render its offering uncompetitive, and restrictions that make it much more difficult to communicate discount offers and other opportunities and, more generally, anything that would enable customers to purchase its service. One doesn't need a Ph.D. in economics to recognize that Apple is hurting consumers by forcing competitors either to charge higher prices or preventing competitors from communicating offers of discounts or other promotional offers.

Consumers are harmed because they are prevented from making informed choices: Apple deprives them of information relevant to their choice of streaming provider, such as the availability of discounts. And Apple's actions reduce innovation, because Apple's competitors have reduced incentives and financial ability to innovate.¹⁴

Apple's treatment of Spotify has *not* been applied across-the-board to all apps in its App Store. Rather, Apple singles out apps that compete with Apple's own products—music streaming, video streaming, on-line games, and others. The IAP requirement does not, for example, apply to tickets from Ticketmaster or an airline; a mobile coffee order at Starbucks; every single physical good consumers "buy now" on Amazon's app; food ordered from GrubHub; a ride on Uber; and numerous other apps that do not provide for online delivery of services purchased by the customer.¹⁵

The reason for this starkly different treatment is clear: Apple is leveraging its App Store power to insert itself as a gatekeeper between these app developers and their customers—and impose added costs and communication restrictions that make Apple's competing downstream services more attractive to those customers. Numerous analysts have explained that the market for Apple devices is saturated and Apple's opportunities for future growth lie in convincing consumers to purchase downstream services like Apple Music. Apple therefore is using its control over the App Store to artificially disadvantage its downstream competitors and to give itself an artificial advantage.

¹⁴ Apple recently changed its IAP tax—it charges 30% for the first year and then reduces the amount to 15% once a recurring subscription has been active for more than a year. This change does not meaningfully ameliorate the adverse impact of Apple's revenue share. At the decisive moment—a consumer's initial purchase—the 30% fee still applies. That is particularly problematic for developers whose apps compete with Apple's own services, because Apple is unencumbered by the tax and is therefore able to price more competitively at the very point in time when a consumer chooses which app to use.

¹⁵ Remarkably, in the midst of the COVID pandemic Apple decided that home education apps and exercise apps were subject to these fees and restrictions, even though before the pandemic they were not. Jack Nicas and David McCabe, *Their Businesses Went Virtual. Then Apple Wanted a Cut.*, N.Y. Times (July 28, 2020), https://www.nytimes.com/2020/07/28/technology/apple-app-store-airbnb-classpass.html.

Indeed, one analyst frankly recognized Apple's ability to use its control over hardware devices to succeed in the services market: "Apple has evolved from a hardware company to a platform play that cross sells services into a growing installed base" and "is in a unique position of being able to drive Services growth by leveraging its 1.65 billion active user installed base." ¹⁶

Apple's naked use of its App Store power to disadvantage competitors dwarfs the abuses of market power that have been condemned in the past. For example:

- Standard Oil controlled the price and availability of oil. It did not condition the availability of fuel to purchasers of gas furnaces or automobiles on the payment to Standard of 30% of the purchase price of those furnaces or cars and/or restrict the ability of furnace and car manufacturers to communicate with their customers.
- AT&T was accused of using its power over local telecommunications networks to
 make it difficult for competing equipment and long distance services providers to
 access customers. AT&T did not contend that it could condition access to customers
 on payment of 30% of its competitors' revenues for sales of equipment and long
 distance services or prevent those competitors from offering discounts or other
 favorable terms to their customers.
- Microsoft did not demand a 30% cut of all revenues obtained through a Netscape browser or other applications that ran on Windows. And it did not attempt to regulate communications to consumers from the websites reached through the browser or from other applications.

Apple's abuse of power is thus dramatically greater, and reaches far more broadly into the economy, than past conduct that was seen to clearly violate fundamental antitrust principles by unjustifiable leveraging market power.

Apple has made a few attempts to justify its actions, but they are transparently false.

For example, Apple often accuses developers like Spotify of complaining about App Store terms that we originally agreed to and have been in place already for years. Quite the opposite is true. In fact, what developers experienced was a classic "bait and switch." As I've explained, Apple changed the rules after it had attracted third-party developers and used

¹⁶ Chris Forrester, *Bank: "Apple moving from hardware to services,"* Advanced Television (Mar. 29, 2021), https://advanced-television.com/2021/03/29/bank-apple-moving-from-hardware-to-services/; *see also* Kirk McElhearn, *How Apple is changing from a hardware company to a services and media company*, Intego (Nov. 13, 2018),

https://www.intego.com/mac-security-blog/how-apple-is-changing-from-a-hardware-company-to-a-services -and-media-company/.

their innovative products and services to drive sales of Apple devices. And it changed the rules in order to increase costs of competitors in downstream markets—thereby preventing competition on the merits.

Second, Apple claims that its App Store restrictions protect user privacy and security. Those concerns are important, and Spotify works hard to protect its users' privacy and to provide strong security.

But Apple can't seriously contend that its IAP requirement, and associated 30% tax, are necessary for privacy and security when Apple itself admits that 70% of the applications in the App Store utilize alternative payment systems every day—in millions of transactions. By recognizing that those alternative payments systems provide privacy and security protections satisfactory to Apple, those app developers, and their customers, Apple makes clear that its privacy and security claims have no basis in reality.¹⁷

Apple's motivation is clear. It wants to force consumers to utilize Apple's own downstream services in order to obtain increased services revenues to compensate for stagnating hardware revenues and also to prevent consumer defections to other platforms. Thus, a recently-disclosed statement by an Apple executive observed that consumers were less likely to "leave[] Apple's products once they've bought apps, music, movies, etc." Or, as Steve Jobs put it: Apple wants to "tie all of its products together, so [Apple] further lock[s] customers into [its] ecosystem." 18

Finally, and even more incredibly, Apple argues that it has no market power—asserting that consumers could switch to Android devices if Apple abused its unlimited App Store authority. But simple common sense demonstrates that such a switch is highly unlikely. One factor is the high up-front cost of purchasing an iPhone, which makes a consumer reluctant to discard the iPhone and purchase an Android phone. The other is the significant costs of switching, such as (1) the need to replace accessories that are incompatible with other mobile devices or that work better with Apple devices (such as the Apple Watch or AirPods); (2) the difficulty of transferring pictures, music, contacts, text messages, and other data to a new mobile device; (3) losing the benefits of interoperability between Apple

¹⁷ Apple's "security and privacy" claims are further undermined by information uncovered in Epic Games' antitrust action against Apple. For example, the human review process takes thirteen minutes for new apps and six minutes for updates to existing apps; reviewers are expected to review 50-100 apps per day and their "productivity" is tracked; and the team responsible for detecting fraud and abuse described the review as the equivalent of "bringing a plastic butter knife to a gun fight". Findings of Fact and Conclusions of Law Proposed by Epic Games, Inc. ¶¶ 521.a. & b., 529.a. & b., *Epic Games, Inc. v. Apple Inc.*, No. 4:20-cv-05640-YGR-TSH (N.D. Cal.) (Dkt. 407).

¹⁸ *Id*. ¶¶ 72, 53.

devices (such as iPhones and iPads); and (4) the opportunity cost of learning how to operate that new mobile device. Academic studies confirm that conclusion.¹⁹

There can be no serious debate that Apple has tremendous market power, which it is abusing to benefit itself and harm consumers and competitors.

Congressional Action Is Urgently Needed

Given Apple's obvious abuses, it is reasonable to ask whether current antitrust principles can be invoked to prevent Apple's anticompetitive use of its App Store authority. We believe they can and should be, and have been urging U.S. authorities to take action for years.

Indeed, I was a lawyer at Microsoft during the heyday of its antitrust woes. As a senior lawyer and eventually the company's General Counsel, I took the lessons from that case seriously. Apple's behavior is exponentially worse than anything that had given rise to the "case of the century" that I witnessed at Microsoft.

Unfortunately, antitrust principles applicable to unilateral conduct by dominant firms have evolved to the point where courts are often overly deferential to even clearly anticompetitive conduct. And, conscious of the uncertainty in the courts, our enforcement agencies may hesitate to bring cases to stop such conduct. Fearing the consequences of over-enforcement errors, we've instead bearing the adverse consequences of under-enforcement errors.

Spotify has reached out to the European Commission for help. In March 2019, we filed a complaint detailing Apple's anticompetitive acts and behavior, and the harm inflicted on both consumers and competition. Since that time, the Commission has opened an investigation and we are optimistic that formal charges against Apple are coming soon.

Recognizing the limitations on the speed at which traditional antitrust enforcement actions can be resolved, and the reality that their pace often renders them ineffective in fast-changing technology markets, European lawmakers are now considering the "Digital Markets Act" that would establish a clear set of prohibitions and obligations for the conduct of dominant digital gatekeepers. We welcome that development and see it as an important step to address some of the shortcomings of traditional enforcement.

I strongly believe the time for Congress to act is now. I urge you to enact legislation that constrains the power of these dominant technology platforms, and puts control and choice back in the hands of the people.

¹⁹ See, e.g., Lukasz Grzybowski & Ambre Nicolle, Estimating Consumer Inertia in Repeated Choices of Smartphones 30 fig. 3 (CESifo, Working Paper No. 7434, 2018), https://papers.ssrn.com/sol3/-papers.cfm?abstract_id=3338788

We appreciate and support the broad antitrust reform proposed by Chairwoman Klobuchar along with Senators Blumenthal and Booker because it will make Section 2 cases less challenging for the government. The proposed legislation would reset the law to recognize the considerable power that dominant firms exercise in the real world, empower enforcers, and set courts on a path which would enable them to better address abusive unilateral conduct. We believe this legislation would be a welcome and important part of what needs to be done. Senator Hawley recently proposed a bill that incorporates a number of similar approaches.

However, that reform alone is not enough.

Realizing the benefits of these changes in basic antitrust law will take a considerable time. Just as the law took decades to evolve to its current state, the changes contemplated by the proposed legislation would similarly take many years to work their way through courts and cases.

Moreover, traditional antitrust enforcement often comes too late and too slow, with inadequate clarity and deterrent effect, and therefore is often ineffective at preventing serious and often irreversible harm to competition, consumers, and competitors. Relying on litigation grounded in general antitrust principles runs the risk of turning competition enforcement efforts—no matter how well-intentioned—into a kind of "archeological expedition," where enforcers dig up the bones of a dinosaur and try to determine whether a meteor or another dinosaur killed it. By then the harm to competition in the market is irreparable.

App markets simply are too important to the economy for corrective action to be delayed until after irremediable harm has already occurred. And with rapid adoption of new platforms and interfaces like voice assistants, virtual reality and the internet of things, we can anticipate the same patterns of conduct by these gatekeepers to leverage their power to control these new technologies as well. The tools available to antitrust enforcement authorities should enable timely and effective intervention.

Some state legislatures have begun to recognize the legislative vacuum and have begun debating the need for targeted legislation to address app store abuses. Among Apple's objections to this legislation is that it should be adopted at the federal level. We agree. You should take them up on that challenge and seize leadership on this issue to bring clarity to the market.

In our view, changes are necessary to improve speed, efficacy, and clarity of application of the law. We have decades of learning and experience about dominant digital platforms and what conduct and behaviors tend to deter competition and protect and increase the market

power of these platforms. In fact, while the specifics of the technological platforms vary, the basic pattern of behavior is always the same, with the platform owner succumbing to the temptation to tilt the platform rules to its own advantage.

Enacting a clear set of rules would provide a certainty to the marketplace and improve the speed and efficacy that competition law investigations and enforcement actions sometimes fail to deliver.

When a dominant platform owner also competes on the platform, there is a major conflict of interest. Rather than delivering choice and competition to consumers, the platform has the incentive to protect its monopoly power and limit the development and growth of competing services.

When it comes to Apple's app store, in the absence of structural relief to address conflicts of interest, narrowly tailored refinements can go a long way to preserving competition. Specifically, we recommend:

- Prohibiting terms that require developers to use the platform's payment system exclusively for in-app purchases.
- Prohibiting the platform from imposing contractual gag orders that prevent developers from marketing lower prices, promotions, and new innovations to their own consumers.
- Requiring the platform to use open and documented interfaces to ensure that the platform owner's services interoperate on the same terms as its rivals.
- Prohibit unfair self-preferencing for example, when users search for products in an app store.
- Prohibit retaliation through abusive app submission review processes.

Without immediate help and specific rules, Apple and other gatekeepers will entrench their monopolies and control innovation in adjacent markets for decades to come.

Conclusion

We are at a time in history where the need for action to rein in the power of these digital giants has become clear to almost everyone. The health of the digital economy and competitive landscape is at stake. Consumer choice is at stake.

You can act now, both to reset the antitrust laws, and to enact targeted prohibitions that will stop abusive conduct by app stores that today is harming consumers and our entire economy.

Thank you, and I look forward to answering the Subcommittee's questions.