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Mr. Chairman and Members of the Subcommittee, I am grateful for the opportunity to testify here today. I laud the Subcommittee in undertaking a serious review of the antitrust laws in general and how they apply to digital markets in particular. Antitrust law has evolved many times since the Sherman Act was enacted in 1890, and periodic review has often played an important role.

In sifting through the various reform proposals that have been suggested, I would encourage the Subcommittee to keep in mind two key precepts. The first is the importance of maintaining antitrust’s longstanding commitment to protecting consumers over competitors and to promoting innovation. The second is that many remedies work far worse in practice than they sound in theory. I will do so by examining two proposed reforms: the imposition of line of business restrictions and mandating data portability and interoperability.

Line of Business Restrictions

One commonly advanced proposal is to restrict companies' ability to a single line of business. This would require successful online companies to stick a single line of business and not be permitted to vertically integrate into complementary businesses.

Firms engage in constant decisions about whether to make particular inputs themselves or buy them from third party providers. Although economic theory has hypothesized a wide range of scenarios in which vertical integration could possibly harm consumers, surveys of the peer-reviewed empirical literature conducted by antitrust enforcement officials from both parties have concluded that vertical integration is likely to benefit consumers or be neutral the vast majority of the time.¹ These real-world findings underscore how much promoting consumer welfare depends on insisting on data-driven analyses of economic effects instead of resorting to abstract possibility theorems identifying that may or may not actually occur.

Line of business restrictions also have important implications for innovation. Decisions about vertical integration are likely to change over time, depending on the management costs, underlying technology, and consumer demand. Indeed, many scholars now believe that competition between different business models represents one of the most important sources of innovation in the modern economy.² Restricting companies to a single line of business risks ruling certain types of business model innovation out of bounds. Worse yet, the language of

¹ James C. Cooper et al, *Vertical Antitrust Policy as a Problem of Inference*, 23 INT'L J. INDUS. ORG. 639, 648 (2005); Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. ECON. LIT. 629, 680 (2007); Francine Lafontaine and Margaret Slade, *Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy*, in HANDBOOK OF ANTITRUST ECONOMICS 392, 408-09 (Paolo Buccirossi ed., 2008).

² CLAYTON M. CHRISTENSEN ET AL., SEEING WHAT'S NEXT: USING THE THEORIES OF INNOVATION TO PREDICT INDUSTRY CHANGE 16 (2004); Raphael Amit & Christoph Zott, *Creating Value Through Business Model Innovation*, MIT SLOAN MGMT. REV., Spring 2012, at 41; Mark W. Johnson et al., *Reinventing Your Business Model*, HARV. BUS. REV., Dec. 2008, at 50, 52.

those restrictions will be applied to technological contexts that no one could have possibly anticipated at the time they were drafted. How those words will apply to new contexts that no one envisioned is largely accidental.

Anyone familiar with the proposed imposition of line of business restrictions will recognize it as the approach that dominated telecommunications law during the 1980s and 1990s. That experience raises a number of cautionary notes. As an initial matter, line of business restrictions raised difficult definitional problems.³ The problem of characterizing the precise limits of a line of business is difficult under the best of circumstances, but it becomes unmanageable in industries undergoing rapid technological change. The inflexibility of the line of business restrictions harmed consumers to the tune of over \$1 billion per year.⁴

This history illustrates how line of business restrictions can harm innovation. Consider further the history of mobile operating systems. In 2005, just fifteen years ago, the U.S. market was dominated by Palm, Blackberry, Symbian, and Microsoft.⁵ Apple iOS appeared on the scene in 2007, with Android following in 2008. These new entrants employed innovative new business models that expanded beyond their original lines of business: iOS embraced vertical integration and required consumers to pay significant prices, while Android did not charge for its system and relied on third-party payments.⁶ In so doing, these new entrants shook up what had become a sleepy category in ways that provided tremendous benefits for consumers. Total

³ Robert Cannon, *The Legacy of the Federal Communications Commission's Computer Inquiries*, 55 FED. COMM. L.J. 167 (2003)

⁴ Jerry A. Hausman, *Valuing the Effect of Regulation on New Services in Telecommunications*, 1997 BROOKINGS PAPERS IN ECON. ACTIVITY: MICROECONOMICS 1, 14-15 (1997).

⁵ *Smartphone Operating System Market Share: 2005-2013*, OPINIONS 101 (June 8, 2014), <https://opinions101.com/2014/06/08/smartphone-operating-systems-market-share-2005-2013/>.

⁶ Randal Picker, *Google Android Antitrust: Dominance Pivots and a Business Model Clash in Brussels*, CPI ANTITRUST CHRON., Dec. 2018, <https://www.competitionpolicyinternational.com/google-android-antitrust-dominance-pivots-and-a-business-model-clash-in-brussels/>.

smartphone sales exploded, growing 50% annually for the next five years.⁷ This history provides a prime example of how consumers benefit when companies have the freedom to experiment with different approaches rather than being locked into a single approach. It also shows how consumers benefit when different providers compete by trying different business models.

Data Portability and Interoperability

Another commonly advanced proposal is to require data portability and interoperability. Interestingly, large platforms such as Google and Facebook already provide for data portability, and yet consumers almost never avail themselves of this feature. The difficulties faced by past attempts to impose portability and interoperability mandates help explain why data portability has proven so hard to implement.

For a data portability regime to be meaningful, the data must be configured in a standardized format, otherwise the data generated by one system will not be useful to any other system. The problem is that different companies structure their data in radically different ways. In addition, reconfiguring data is typically prohibitively expensive. The choice of data format thus threatens to unleash a difficult fight over how to standardize the data and to create significant disadvantages for whoever loses that fight.

In addition, standardizing data formats create significant risks of depriving consumers of the benefits of innovation. The structure of data largely determines what types of uses are and are not possible. Forcing data into a particular format would inevitably preclude important types of innovation.

⁷ S. O’Dea, *Number of smartphones sold to end users worldwide from 2007-2021*, STATISTA (Sept. 2, 2020), <https://www.statista.com/statistics/263437/global-smartphone-sales-to-end-users-since-2007/>.

Mandating interoperability requires more than just standardizing data formats. It also requires a mutual understanding of how the other components will respond to different scenarios. Such solutions depend on interfaces that are relatively simple, are easy to monitor, and require little information.⁸ Although there are some interoperability success stories, such as the Federal Communications Commission's Part 68 rules, the history of telecommunications law is littered with failed attempts to mandate interoperability, such access to unbundled network elements under the Telecommunications Act of 1996 and the use of CableCARDs to support set-top box interoperability just to name two. Data seems to present the complex interface that is not amenable to mandating interoperability.

The Proper Scope for Antitrust Law

In closing, I would like to emphasize the benefits of limiting antitrust to its proper scope. Even though modern antitrust law is designed to protect competition and the operation of markets, many advocates are tempted to ask it to protect a wide range of other goals, such as redressing poverty, empowering labor, and mitigating climate change, just to name a few.

This Subcommittee should bear in mind that there are limits to how many problems any one law can properly solve. In addition, antitrust remains a relatively blunt instrument that is often not well suited to making fine distinctions. These considerations serve as cautionary notes against asking antitrust law to do too much and suggest that U.S. citizens would be best served if antitrust continues to maintain its traditional focus on promoting consumer welfare.

⁸ Gerald R. Faulhaber, *Policy-Induced Competition: The Telecommunications Experiments*, 15 INFO. ECON & POL'Y 73, 77-86 (2003).