Breaking Up Is Hard to Do: The Implications of Restructuring and Regulating Digital Technology Markets

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Recent proposals to breakup, or restructure, the large U.S. digital technology companies have received mixed reviews in the antitrust community.¹ These proposals highlight a number of issues that pose a conundrum for antitrust. For example, breakup proponents advocate for antitrust as the major policy tool for solving the economic, social, and even political problems raised by the large digital technology companies.² While many antitrust advocates have long called for stronger antitrust enforcement in the digital technology sector, they generally have stopped short of calling for wholesale restructuring.³ They warn that antitrust should not be pressed into service to accomplish goals for which it was not designed, or called on to advance claims that are incompatible with antitrust law. A more effective approach to addressing concerns, they argue, will require a comprehensive “portfolio” of policy tools that includes antitrust, some forms of regulation, and standard-setting for interoperability on digital platforms.

The animating theme for breakup proposals for the digital technology sector is the revival of the comprehensive structural remedy that emerged from the historical Standard Oil and AT&T antitrust cases.⁴ Here again, experts suggest caution. Antitrust breakup remedies have been used rarely


and few industries have been subject to full structural separation as part of sectoral regulatory reform initiatives. The few instances where these steps have been taken involve companies with significantly different forms of economic organization than those of digital technology firms. The services and functionality these firms provide are the product of highly integrated business-to-consumer (B2C) and business-to-business (B2B) markets, the totality of which form an interconnected digital ecosystem. Many digital technology markets feature strong network effects. Connectivity across markets is driven by leveraging user data that is enhanced by machine learning and artificial intelligence. Given these features, applying comprehensive structural remedies to the digital technology sector will require significantly more analysis than what appears to motivate breakup proposals.

Also absent from these proposals is an assessment of the costs and benefits of breaking up digital technology companies—an essential part of any legislative breakup or restructuring initiative. This is particularly important for a sector featuring some market segments with characteristics that resemble an essential facility, alongside adjacent more competitive markets. For example, in some industries, the forces of natural monopoly account for a larger proportion of the total delivered cost to the consumer or user than do the forces of competition. However, the efficiency gains from restructuring are likely to be lower in the natural monopoly case than in the competition scenario. Without analysis of this dynamic in digital technology markets, the case for breakups remains cloudy.

Other major questions raised by proposals to break up the large digital technology market players include the following: the appropriateness of the threshold criteria for mandated restructuring; how breakups change incentives surrounding competition and innovation; how antitrust is implicated in addressing violations of any new breakup law; and the implications of a mixed regime of permissible integration, mandated structural separation, competition, and regulation. In light of the foregoing issues, some unpacking of breakup proposals can usefully guide future discussions about the role of antitrust in restructuring digital technology markets.

This article pieces together several critical discussions that should lead to both healthy skepticism regarding the use of breakup remedies and the need for a more coherent policy approach for the digital technology sector. It begins by assessing the role of antitrust in breakup proposals. Next, the article turns to the potential consequences of breakup proposals. The article closes by explaining the importance of a policy portfolio approach in addressing the diverse set of concerns in digital technology markets.

Unpacking the Role of Antitrust in Breakup Proposals

Breakup proposals invoke a sweeping precedent and role for antitrust in restructuring digital technology companies. They feature underlying assumptions that should be carefully examined for potential conflicts with antitrust, including the marked contrast between blunt breakup remedies and antitrust’s exacting law enforcement focus.

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Breakup Proposals Rely on Enforcement of Antitrust for Existing and New Laws. Proposals for restructuring the digital technology sector, like that advanced by Senator and Presidential candidate Elizabeth Warren, cannot easily be dismissed simply as political messaging. The proposal, and the premises upon which it rests, relies heavily on antitrust law as the precedent and major tool for restructuring digital technology markets. To fully appreciate the implications of these assumptions, it is important to translate the concern that underlies breakup proposals into antitrust terms. Namely, large digital technology companies allegedly possess durable monopolies in parts of their ecosystems and have thwarted competition through structural and conduct-related impediments, including high market share, barriers to entry, network effects, interoperability restrictions, and exclusion of rivals.

The modern equivalent of the monopoly network or essential facility that was the focus of historical antitrust breakup cases is a “platform.” Platforms are the set of technologies with which other technologies, applications, or processes interoperare. While this engineering definition is agnostic as to whether the platform owner also owns businesses that operate on the platform, the economic definition of a platform is not. As discussed later, the economic incentives attached to ownership of a standalone platform differ materially from those associated with ownership of the platform and affiliated commercial interests.

Breakup proposals invoke antitrust as a tool to address concerns over large digital technology firms in three major ways. One is a call for invigorated anti-monopolization enforcement under Section 2 of the Sherman Act. Section 2 cases are difficult to bring, due in large part to the heavy burden associated with proving the possession and maintenance of monopoly power. The U.S. Department of Justice and Federal Trade Commission have brought only a handful of monopolization and attempted monopolization cases in the last two decades. This stands in contrast to hundreds of merger cases brought under Section 7 of the Clayton Act and conspiracy cases under Section 1 of the Sherman Act. Second, breakup proponents suggest challenges to consummated mergers under Section 7. This includes unwinding controversial deals such as Google-Waze, Facebook-Instagram, and others.

Finally, breakup proponents rely on legislatively mandated restructuring and regulation for certain digital technology players. The “platform utility” is the centerpiece of this concept in the Warren proposal. It is a more specific version of a platform that involves a marketplace on which the owner also competes with third-party rivals (e.g., Google and Amazon). Under this concept, some platform utilities would be prohibited from owning both a platform utility and affiliated businesses that operate on the platform (i.e., restructuring requirements).

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8 Warren, supra note 2. The proposal refers four times to antitrust: (1) breaking up Standard Oil; (2) Microsoft (which was not broken up); (3) undoing consummated mergers; and (4) generally the adverse effects of weak antitrust enforcement.

9 See, e.g., Allison Schrager, A Nobel-Winning Economist’s Guide to Taming Tech Monopolies, QZ.COM (June 27, 2018), https://qz.com/1310266/nobel-winning-economist-jean-tirole-on-how-to-regulate-tech-monopolies/ (“[A]t the platform level, competition confronts the existence of large returns to scale and/or network externalities, leading to natural monopoly situations and a winner-take-all scenario.”).


13 Hughes, supra note 2, Warren, supra note 2.

14 Warren, supra note 2. Google Ad Exchange, Google Search, and Amazon Marketplace would all be deemed platform utilities.
would be additionally subject to a standard of fair, reasonable, and nondiscriminatory (FRAND-type) dealing with participants on the platform and from sharing data with third parties (i.e., regulation requirements). The Warren proposal appears to create a “savings clause” for antitrust that preserves federal, state, and private rights to sue if a company violates the requirements of a new law.

Assumptions Underlying Breakup Proposals Are Potentially in Tension with Antitrust Principles. Antitrust has the starring role in breakup proposals. But the stark contrast between blunt breakup remedies and the reality of the procedural and exacting nature of antitrust raises several questions. These issues highlight potential conflicts between the basic assumptions underlying breakup proposals and the anticipated role for antitrust. First, the Warren proposal sets forth two pathways to restructuring that are tied to company size. Companies with an annual global revenue of $25 billion or more and that operate a platform utility would be required to comply with restructuring and regulatory requirements. For companies with between $90 million and $25 billion in global revenue, their platform utilities would only be required to comply with regulatory requirements. It is not surprising that companies with $25 billion or more in global revenues comprise the 2019 Fortune 500. But a size threshold for breakups is potentially in conflict with antitrust principles. Absent specific and potentially illegal forms of activity, antitrust, particularly in the United States, is indifferent to how firms become big and even acknowledges the merits of organic growth through business acumen, technological innovation, and access to low cost resources.

Second, breakup proponents do not distinguish between the legal and illegal exercise of market power. For example, some digital markets feature zero-price metrics of exchange. In these settings, the exercise of market power may manifest in requirements that users provide more data; quality of service that is positively related to provision of data; and requirements to interact with a platform in ways that impose additional costs on the user. Regardless of whether adverse effects are revealed in high prices, lower quality, or less innovation, they do not constitute a violation of the antitrust laws unless accompanied by exclusion, an illegal agreement, or an illegal merger. As explained by Former DOJ Assistant Attorney General Donald Turner, for example:

To hold unlawful the charging of a monopoly price by a monopolist, or the maintaining of noncompetitive prices by oligopolists, would be to invoke a purely public utility interpretation of the Sherman Act. Congress [did not intend the courts] to act much like public utility commissions in order to cure the ill effects of noncompetitive oligopoly pricing.

Third, breakup proposals do not appear to recognize that some assumptions about competition in digital technology markets may not parallel those that we see in conventional markets. The

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15 Id.
16 Id.
Warren proposal states, for example: “With fewer competitors entering the market, the big tech companies do not have to compete as aggressively in key areas like protecting our privacy.” The role of user data in fueling digital ecosystems is a central component of their overall value proposition. Given the value derived from processing user data by all digital technology firms, it is not clear how more competition, created through antitrust-style breakups, would change incentives to protect user privacy. As a result, breakups may not be the most suitable tool to address broader privacy concerns, particularly in social networking markets.

Fourth, breakup proposals do not adequately frame problems in a way that is compatible with antitrust, which requires a theory of harm, evidentiary support through fact-finding, and judicial review. The Warren proposal states, for example: “They’ve bulldozed competition, used our private information for profit, and tilted the playing field against everyone else.” The proposal also states that Amazon, Google, and Facebook have “achieved their level of dominance” by using mergers and proprietary marketplaces to limit competition. While these claims are not necessarily wrong, they have not been adequately supported for the purposes of antitrust. As Chief Justice White wrote in Standard Oil, “[B]oth sides agree that the determination of the controversy rests upon the correct construction and application of the first and second sections of the Anti-trust Act.” A failure to motivate breakup proposals in a way that is compatible with the substance and process of antitrust is likely to limit support for legislative mandates in the digital technology sector.

Finally, the Warren proposal states that there is a “long tradition” of breaking up U.S. companies. The reality, however, is that breakup remedies are rare. For example, the structural separation of large corporations into smaller, independent entities has only been used in two instances—the U.S. government’s antitrust cases against Standard Oil and AT&T. To be sure, there may be circumstances where a comprehensive breakup remedy is warranted. But the austerity of their use historically suggests that their future use in the digital technology sector may be difficult, particularly since such a remedy must be tied to an identified theory of harm. Moreover, the hundreds of merger and non-merger civil cases brought by the U.S. government over the last several decades feature an array of narrowly crafted remedies. These range from civil penalties, to structural remedies such as targeted and line-of-business divestitures, and behavioral conditions. The narrowly constructed remedies that are likely available to enforcers suggests that the role of antitrust in achieving wholesale restructuring of digital technology companies is likely to be more limited than what is envisioned by breakup proposals.

The Antitrust Approach Is More Surgical Than Blunt Breakup Remedies. The exacting methodological and evidence-based approach is a central feature of antitrust enforcement. A brief

23 Warren, supra note 2.
24 See, e.g., Garcés, supra note 6, at 2.
26 Warren, supra note 2.
27 221 U.S. 1, 62 (1911). See also Supreme Court Decision Breaking Up Standard Oil, UPI (May 16, 1911), https://www.upi.com/Archives/1911/05/16/Supreme-Court-decision-breaking-up-Standard-Oil/7121733901841/.
28 In United States v. United Shoe Machinery Corp., 391 U.S. 244 (1968), the company was forced to divest assets after a court-order remedy failed. See also Matthew Lane, The Great Antitrust Breakup: Often Threatened, Rarely Executed, Disco (Mar. 13, 2018), http://www.project-disco.org/competition/031318-the-great-antitrust-breakup-often-threatened-rarely-executed/#.X7CbfS2ZM6V.
journey through the key issues that would require resolution before obtaining any remedy in an antitrust case involving digital technology markets highlights the contrast with blunt breakup remedies. For example, absent strong, direct evidence of adverse price, quality, or innovation effects, an antitrust inquiry into digital technology markets will look carefully at market definition. Central to this inquiry is asking how users view different digital services as substitutes for obtaining the experiences they want. This includes, for example, choices between ecosystems for the purposes of advertising, online retailing, or social networking. Once markets are defined, assessing their structure provides vital information for exploring a potential competitive problem.

For example, the market for image-based social networking features Facebook, Pinterest, and Twitter, among others. Apple and Google both offer locational services through their mapping apps and functionality. These services are differentiated by each ecosystem’s business model, e.g., Apple’s connectivity across user devices or Google’s focus on machine learning. Most Big Tech firms also compete in luring businesses onto their advertising platforms. In both the Google-AdMeld and Google-DoubleClick cases, enforcers examined the potential effect of the acquisitions in markets for online advertising channels but challenged neither transaction. Finally, Amazon, Microsoft, and Google all compete in differentiated computing markets.

To be sure, some antitrust concerns involving digital technology may implicate multiple relevant markets, particularly in cases that involve the potential leveraging of market power. Where violations are shown, antitrust is likely to consider remedies that are tailored to clearly defined competitive problems in narrowly defined relevant markets. In Google-ITA Software, for example, the DOJ was concerned that Google’s acquisition of the leading independent provider of airfare pricing and shopping systems increased its incentive to foreclose rivals in the market for comparative flight search services. To address these concerns, the DOJ took a remedy that required Google to license ITA software to rivals. Looking forward, mergers involving the rapidly consolidating cloud infrastructure market could be subject to remedies that require interoperability

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34 See, e.g., DOJ Statement in Google-Admeld, supra note 32 (“Given Google’s significant presence in search, as previously noted during our 2010 investigation involving Microsoft/Yahoo! and 2008 investigation involving Google/Yahoo!, the Antitrust Division also carefully evaluated whether Google’s acquisition of Admeld would enable Google to extend its market power in the Internet search industry to online display advertising through anticompetitive means.”).


between cloud systems to facilitate user switching. These examples highlight that antitrust remedies do not often include comprehensive structural de-integration but rather target specific harms in narrowly defined markets.

Assessing the Potential Consequences of Breakup Proposals
The preceding discussion highlights how breakup proposals pose a challenge for antitrust. This is because they carve a sweeping role for antitrust without appropriate attention to its underlying principles or the details of the enforcement process. This section takes the discussion in another important direction, namely how loosely framed breakup proposals could have unintended consequences.

Size Thresholds Could Lead to Broad Restructuring and Regulation. Legislative breakup proposals raise a number of questions that highlight their potential unintended consequences. A major issue is the use of firm size thresholds as the criterion for determining which firms are restructured and regulated. For example, size thresholds for breakups in the Warren proposal are insensitive to the fact that revenues generated by operating a platform utility can account for a mere fraction of global revenues for a company that exceeds the $25 billion threshold. This approach could lead to the restructuring and regulation of firms that are perhaps not the intended target of breakup proposals.

For example, Microsoft had $110 billion in global revenue in 2018. It owns LinkedIn, a platform for business networking, and also owns affiliated businesses that interact with it, including its suite of Office products. LinkedIn had annual revenues of about $5.3 billion in 2018, or 5 percent of Microsoft’s total global revenue. Under the Warren proposal, Microsoft would be deemed a platform utility and required to separate LinkedIn from its affiliated businesses. LinkedIn would also be subject to FRAND-type regulation. Similarly, Walmart had global revenues in 2018 of about $500 billion. It operates Walmart Marketplace, an online retail exchange where it sells its own products alongside those of rivals. Walmart Marketplace competes with Amazon. Revenues for Walmart’s e-commerce sales (of which the Marketplace is a part) were about $21 billion in 2018. Under the Warren proposal, Walmart also would be deemed a platform utility and required to separate its marketplace from affiliated businesses. Walmart Marketplace would also be regulated under FRAND standards.

Other firms could avoid the ownership prohibition for platform utilities but still be required to comply with platform utility regulation. For example, Twitter operates in the social networking market. It has a 7 percent market share, competing with Facebook, which has about 37 percent of the market, and others. Twitter had revenue of about $3 billion in 2018 and hosts both rivals’

42 Kallas, supra note 30.
content and its own content on its platform through affiliates like Snappy TV. Under the Warren proposal, Twitter would be deemed a platform utility and required to comply with FRAND regulation. Finally, E-Bay is an online marketplace that competes with Amazon and others. It offers users access to third-party sellers and also sponsors its own businesses. E-bay had revenue of about $11 billion in 2018 and would also be required to comply with platform utility regulation.

The examples above highlight the fact that a size-based criterion could subject smaller, emerging, disruptive, or expanding rivals to the same restructuring and regulatory requirements as the large players that are the intended target of the Warren proposal. This could have important implications for competition and consumers. These concerns therefore prompt the following questions: How are post-restructured markets likely to evolve and competitive dynamics shift in response to breakups? How does the imposition of restructuring and regulatory requirements affect rivals that may be in a position to challenge larger incumbent firms like Google, Amazon, and Facebook? How would a new law potentially affect the playing field by creating a mixed regime of permissible integration, mandated structural separation, competition, and regulation? Answers to these questions are essential before breakup proposals move forward.

Market Dynamics Created by Restructuring and Regulation Deserve Careful Consideration. Breakup proposals do not appear to consider the broader dynamics created by prohibition on ownership of a platform utility and affiliated businesses. For example, the Warren proposal could potentially discourage buyers from purchasing assets from digital technology companies. A company with an existing platform utility that purchases an affiliated business could run afoul of the dual ownership restriction, based on size criteria. The same is true of a potential buyer that purchases a platform utility but owns businesses that operate on a platform. And if potential buyers fall below the size thresholds that prohibit dual ownership, legal restrictions under any new law could discourage growth and expansion of an innovative and disruptive market player.

In light of the incentives that are likely to be created by the Warren proposal, platform utilities may be more likely to be sold to a standalone platform operator. Likewise, affiliated businesses may be more likely to be divested to firms operating similar businesses. In the latter case, concerns about horizontal concentration or vertical foreclosure could arise in antitrust merger reviews. The same is true of divesting a platform utility to an existing platform operator, which might increase concentration in the platform market, raising concerns around mega-platform operators and, eventually, non-trivial questions of regulatory capture. In both cases, finding viable buyers to maintain sophisticated assets and inject the competition that is the goal of breakup proposals is likely to be difficult, particularly if markets are concentrated.

Restructuring, coupled with regulation, may also result in weaker incentives to maintain a standalone platform utility and continue to innovate—problems that could undermine the claimed effectiveness of restructuring proposals. Two lessons are illustrative. First, the Regional Transmission Operator (RTO) entity was created as part of wholesale electricity market restructuring in the United States in the 1990s. The Federal Energy Regulatory Commission opted to pur-

sue “functional,” rather than structural separation of generation and transmission. RTOs, which are subject to public utility regulation, are tasked with independently operating transmission networks (which continue to be owned by electric utilities) in various regions of the United States. They have grappled with governance and access pricing issues. Moreover, studies have revealed that the benefits of maintaining standalone RTOs are unclear.

Second, standalone operators of regulated networks or utilities typically have weak incentives to maintain a platform or invest in upgrading it. The spinoff of the British railway system to an independent operator in the United Kingdom in the 1990s is instructive. The new network operator experienced safety problems in the wake of restructuring, and numerous modifications have been made to the original ownership and operation scheme. These problems all pose potential costs on competition and consumers.

**New Regulatory Regimes for Platform Utilities Will Require Significant Thought.** Breakup proposals would ideally also consider the details and implications of developing and implementing a FRAND-type system of regulating a standalone or integrated platform. Borrowed from the standard essential patent context, FRAND regulation has three basic components. One is to set “fair” terms of dealing between the platform utility and third parties operating on it. This prohibits anticompetitive terms of access such as exclusivity conditions and requiring third parties to buy or engage services that they do not want in order to access the platform. A second condition is that access prices are “reasonable,” or that the aggregate rate does not raise industry costs. At the same time, the price should reward the platform utility for maintaining and innovating on the platform. A third principle focuses on terms and prices that are “nondiscriminatory,” or embody the concept of treating all parties (including the platform utility’s own businesses) in the same manner.

A roadmap for achieving a system of FRAND-based regulation of standalone and integrated platform utilities requires significant thought, particularly in terms of how regulation interacts with antitrust. Lessons from the standard essential patent context are relevant for the use of FRAND-based regulatory systems in other sectors. Regulation of platform utilities on the scale envisioned by the Warren proposal would also require a new regulatory oversight authority for the sector (e.g., on Online Technology Markets Regulator, or similar). Presumably, a new sector regulator would have legislatively mandated oversight authority and would collaborate with the antitrust agencies.

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49 Pittman, supra note 7.


51 See, e.g., Mark A. Lemley & Carl Shapiro, A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents, 28 BERKELEY TECH. L.J. 1135, 1137–38 (2013), https://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=2003&context=btlj. The authors note: “FRAND commitments have taken on increasing importance in recent years as courts have been called upon to decide what they mean, and as the Federal Trade Commission has brought antitrust actions to enforce those commitments. This litigation is largely a function of ambiguities and omissions in the FRAND system used by most SSOs. The effectiveness of the FRAND commitment has been undermined by these ambiguities and omissions, especially for standards in the information technology sector.”
on technical matters that affect the agencies competition mandate. But breakup proposals do not discuss a sector regulator, a concerning void given the complexity and implications of putting into place a new regulatory regime.

In light of these concerns, policymakers should be aware that crafting a restructuring and regulation regime for platform utilities raises many questions about the costs and benefits that accompany market interventions and displacement of competition with regulation. These questions, which should be resolved in advance of any legislative breakup mandate, would focus on changes in incentives for platform utilities to innovate if separated from affiliated businesses. Questions would also address incentives for third parties that operate on platform utilities to enter markets. Breakup proposals should also consider effects on consumers. This includes any changes in the value consumers derive from services and experiences in pre- to post-breakup markets. Finally, policymakers should ask the vitally important question: How will antitrust operate in digital technology markets post-breakups and will it play an effective role in addressing the competitive problems that arise?

A “Policy Portfolio” Approach Can Best Address Online Technology Markets

The major takeaway from the foregoing discussion is that “breaking up is hard to do.” This is particularly true if antitrust is tasked primarily with accomplishing the job. The consequences of breakup proposals are potentially significant. One class of concerns revolves around the higher probability of failure associated with poorly framed and justified breakup proposals. Another class of concerns focuses on the consequences for antitrust if it is burdened with solving problems for which it was not designed. This includes, among others, weakening antitrust through a surge of failed “test cases” prompted by restructuring and associated litigation; judicial interpretations of savings clauses in any new law; and other unintended spillover effects.

Many of these issues might be more constructively addressed by a “policy portfolio” approach. This means that other policy tools should be added to the mix to achieve well-defined goals for addressing identified problems in the digital technology sector. Those policies can be framed to complement antitrust. For example, social regulation is likely to be an important tool moving forward, given widespread concerns over the abuses surrounding user privacy. Antitrust can and has addressed privacy as a non-price dimension of competition in cases such as Google-DoubleClick. But experience to date also highlights that broader, more systemic privacy concerns surrounding treatment of user data are not reachable under antitrust and therefore require a different policy tool.

Standard setting and interoperability will likely also be needed to address concerns surrounding digital technology markets. Interoperability is central to facilitating competition on a single network, and across multiple networks. The issue has arisen with frequency in electricity, railroads, telecommunications, and natural gas transportation—industries that have grappled with similar questions posed by digital technology market breakup proposals. For example, advocates

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53 FTC Statement on Google/DoubleClick, supra note 32.

have pushed for interoperability conditions for Facebook, designed to address user interfaces, privacy-based choice of services, and policies that determine content and editorial control.\textsuperscript{55} To be sure, antitrust plays a key role in promoting competition and consumer welfare in digital technology markets. But it is also clear that the scope of the competition, social, and political concerns in these markets is vast. Accordingly, more than one policy tool should be deployed as part of a constructive and coherent approach to the sector.

**Conclusion**

The foregoing analysis highlights the many questions and concerns raised by proposals to restructure and regulate digital technology markets. Antitrust advocates by and large support strengthening antitrust and deploying it for the purposes for which it is intended. This article makes clear that without answers to a number of critical questions, loosely defined breakup proposals could result in a failed experiment. The costs of failure are potentially high for competition, consumers, and innovation. A more coherent public policy approach is therefore necessary. Before that, however, it will be vital to define the goals for various approaches to addressing concerns surrounding the digital technology markets, identify the appropriate tools to address them, and sensibly predict how those tools will interact.