HEARING ON DISRUPTIVE INNOVATION

-- Issues paper by the Secretariat --

16-18 June 2015

This document was prepared by the OECD Secretariat to serve as an issues paper for Session 3 at the 123rd meeting of OECD Competition Committee on 16-18 June 2015.

The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

More documents related to this discussion can be found at www.oecd.org/da/competition/disruptive-innovations-and-competition.htm
HEARING ON DISRUPTIVE INNOVATION

Issues Paper by the Secretariat*

1. Introduction

1. The Competition Committee has held several roundtables on innovation\(^1\) over the years, but it has not yet specifically addressed disruptive innovation. While disruptive innovations are very much in the news lately, they are not a new phenomenon; economic history contains many examples of disruptive innovation, such as assembly line manufacturing and the internal combustion engine. However, the speed and force with which some markets have been upended in recent years have drawn fresh attention to this subject. Underpinning disruptive innovation’s current cachet is its enduring, powerful impact on productivity and growth. Economists have long understood that innovation in general is the main engine of economic growth, responsible for most of the increase in material standards of living that has taken place since the industrial revolution.\(^2\) Disruptive innovation, then, which involves breakthrough ideas that restructure or create entire markets rather than incremental improvements that nudge the status quo, is especially valuable.

2. In light of those factors, the Committee decided to hold an introductory hearing to explore disruptive innovation and competition policy responses to rules and conduct that stand in its way. This paper provides the backdrop for that hearing by describing what disruptive innovation is, providing some examples, and using them to raise a number of questions for discussion. The paper, like the hearing, focuses on situations in which a potentially disruptive business encounters resistance, especially in the form of regulation.

2. Defining disruptive innovation

3. If “innovation” means “the successful development and application of new knowledge”\(^3\), then what is “disruptive innovation”?

4. First, disruptive innovations disrupt, which is to say they drastically alter markets. They are not incremental technological developments, like the introduction of a new pharmaceutical that is marginally more effective than current ones. They are not regular, predictable improvements, either, such as the gains in microprocessor speeds predicted by Moore’s Law. Instead, they are breakthroughs that bring radical changes which were unforeseen by the market and occur irregularly. Furthermore, disruptive innovations typically reduce or even destroy the market shares of incumbent firms (e.g. the displacement of established mobile handset leader Nokia by Apple’s iPhone and smartphones using Google’s Android system) or

---

* This issues paper was written by Jeremy West of the OECD Directorate for Science, Technology and Innovation, Digital Economy Policy Division.


2 OECD, Going for Growth (2006) at 56.

create new markets (e.g. television). Increases in digital cameras’ pixel density are not disruptive; the introduction of digital photography itself was.

5. Second, disruptive innovations include not only new products and manufacturing processes, but new business models, as well. Disruptors in the sharing economy like Airbnb and Uber, for example, are not new technologies so much as they are new business models that leverage the Internet and smartphones to match excess capacity in private durable goods with demand.

6. What does disruption look like? Exhibit 1 provides an example from the United Kingdom’s retail music sector, showing the waves of technological innovation that serially disrupted music formats and sales as the market shifted from LPs to cassettes, to CDs, then to digital downloads, and most recently, toward streaming:

**Exhibit 1. Disruption Illustrated: The Evolution of Music Sales in the United Kingdom, by Format, 1972-2012**

![Graph showing the evolution of music sales](source: International Federation of the Phonographic Industry (2013), Recording Industry in Numbers.)

The arrival of CDs was especially disruptive. They not only wiped out LPs and cassettes but dramatically increased overall industry revenue. But what CDs did to LPs and cassettes, streaming is now doing to CDs.

7. In a famous article from business literature, Joseph Bower and Clayton Christensen divided innovations into two types, sustaining and disruptive. Sustaining innovations tend to maintain a rate of improvement, giving customers “something more or better in the attributes they already value.” Disruptive technologies “introduce a very different package of attributes from the one mainstream customers historically value, and they often perform worse along one or two dimensions that are particularly

---

The regular improvements in the processing speeds of semiconductors are a good example of sustaining innovations. The authors mention Sony’s early transistor radios as a disruptive technology, noting that Sony sacrificed sound quality but created a market for portable radios by providing a set of new features (small size, light weight, and portability) that consumers grew to appreciate. The quality of the transistors then improved so much that they permeated and led the market for bigger, stationary radios, as well.

9. While transistor radios eventually caught up with vacuum tube radios’ sound quality in addition to surpassing them in convenience, the idea that disruptive innovations introduce a new set of features is central to the Bower/Christensen definition. Many disruptive technologies, they note, never exceed existing technologies in certain categories of performance. Instead, they succeed by offering new features plus enough of the old features that customers still want, perhaps at a lower price. Mainframe computer sales, Bower and Christensen point out, were not undermined by personal computers because the latter ever attained more computing power than mainframes, but because PCs were adequate to meet the needs of many organizations and individuals at a far lower cost.

Questions: The Bower and Christensen definition is narrow in that it focuses only on disruptive technologies to the exclusion of disruptive business models. Apart from that shortcoming, is their definition satisfactory? If not, what definition would be better?

3. Characteristics of disruptive businesses

10. When we think of disruptive innovators, we may tend to think of new businesses. While that may be the norm, incumbents sometimes disrupt their own market themselves. Nestlé disrupted the coffee market (which it already supplied with Nescafé and many other brands) with Nespresso, which spawned a host of other capsule-based coffee systems and changed the way millions of consumers prepare their daily coffee.

11. Moreover, established firms sometimes enter new markets and disrupt them. Apple, which previously had little to do with the music business, disrupted the music market when it introduced the iPod music player and the iTunes store, speeding the shift away from owning physical copies to downloading them. Likewise, Apple had never had anything to do with telephony before it premiered the iPhone, yet it seems like an understatement to say that the iPhone disrupted the handset market. Microsoft, already an established company at the time, disrupted the browser market almost immediately when it introduced Internet Explorer by integrating it in Windows. Nevertheless, it is undeniable that new firms are responsible for a substantial share – perhaps the great majority – of disruptive innovation.

12. Many disruptors take advantage of steep economies of scale or scope. Consider Airbnb, which is a prominent sharing economy business that provides a platform for short-term home rentals. While such rentals are not new, the speed and scale at which Airbnb has made commercial home sharing a common practice is unprecedented. Founded in 2008, Airbnb is now used by an average of 425,000 people every night. Reportedly valued at about US$20 billion earlier this year, Airbnb is worth about two-thirds of the Hilton hotel chain.

13. Another disruptive business that has grown with extraordinary speed is Uber, a ride service that rolled out in San Francisco in 2010. Uber now operates in 55 countries, has more than 160,000 active drivers, and is valued at more than US$40 billion, making it more valuable than Delta Airlines and nearly twice as valuable as Viacom. Uber is discussed in more detail below.

Id. at 46.
14. If those valuations seem impressive, consider Alibaba, a Chinese e-commerce group. Its market value, at about US$230 billion as of this writing, dwarfs that of Uber and Airbnb combined. Alibaba’s eBay-like, online marketplace logged US$300 billion in transactions in the first half of 2014 alone. Now it is plucking low-hanging fruit by attacking inefficiencies in huge Chinese markets that appear to be overly regulated, adding taxi hailing and financial services to its array of greatly scalable businesses.

15. The ability of these and many other disruptors such as Facebook to scale up to huge sizes very quickly has much to do with the fact that they add users and provide services through the Internet. The Internet is a highly scalable platform that provides quick access to a potentially global customer base. The costs of reaching and adding additional users to an Internet platform are very low, making it possible to grow quickly and inexpensively.

16. This chart from the Boston Consulting Group makes the point that the speed at which disruption is happening has greatly accelerated, thanks to the wide footprint of the Internet and smartphones.

Exhibit 2 | The Pace of Disruption Has Increased Exponentially

| Digital technologies have a huge reach and are spreading more and more quickly |
|-------------------------------|-----------------|----------------|
| For every 100 people in the world, there are… | Time to reach 100 million users worldwide | Year of launch |
| 95 mobile phone subscriptions | 16 years | 1999 |
| World Wide Web | 7 years | 1990 |
| iTunes | 6 years, 5 months | 2003 |
| Facebook | 4 years, 6 months | 2004 |
| Apple App Store | 2 years, 2 months | 2008 |
| WhatsApp | 3 years, 4 months | 2009 |
| Instagram | 2 years, 4 months | 2010 |
| Candy Crush Saga | 1 year, 3 months | 2012 |

Sources: ITU, Statista, BCG research. Telephone: ITU; mobile phone: ITU (the base year is considered the start of the first cellular network); mobiletelephonyhistory.co.uk; World Wide Web: Svetlana American; Internet Live Stats; iTunes: number of accounts, Fortune; Facebook: active monthly users, Facebook; Apple App Store: number of accounts, Coin X 2011; Venturesbeat; WhatsApp: active users, Wired; Digital Quarterly; Instagram: monthly users, TechCrunch; Candy Crush Saga: Facebook users only, AppAnji.com.

17. Nevertheless, not all disruptors that capitalize on scale economies are Internet businesses. IKEA disrupted the furniture market by, among other things, appealing to consumers who are willing to assemble furniture themselves in exchange for lower prices (an excellent example, incidentally, of a business model disruption rather than a technological one). IKEA has been the world’s largest furniture retailer since 2008.

18. Wal-Mart is another example of a non-Internet, disruptive business model. It revolutionized discount retailing long before it added an Internet site to its operations. Indeed, it became the most valuable

---

company in the United States at one point by achieving massive scale economies in supply and distribution and using them to overwhelm rivals who found it impossible to grow large enough to compete directly with it.

19. Another trait that seems to be common among disruptors is that they succeed by eliminating middlemen and other inefficiencies. Many disruptors reconfigure markets by identifying avoidable costs in the incumbents’ product or business model and attacking them with an approach that does not incur those costs. Uber, for instance, capitalized on the fact that most cars lie unused for most of every day. Consequently, cars are, for the most part, a huge investment in overcapacity. Uber took advantage of this situation by giving people a way to turn their spare vehicle capacity into cash. Airbnb did the same with homes. Netflix eliminated the cost of operating retail outlets by distributing movies directly to consumers, first through the post and then over the Internet (in that latter development, Netflix wisely disrupted itself).

20. Sometimes the costs targeted by disruptors stem from regulations. Some prominent disruptors are using digital technology to attack regulated areas of the service economy that have languished without much innovation for decades. Again, sharing economy upstarts exemplify this approach, using a combination of surplus labour or resources, Internet sites and smartphone apps. A company called Lending Club, for instance, allows individuals to make money from loans using their spare cash. But as we will see below, conventional competitors, like taxi associations, hotels, and banks, complain that if they have to follow the regulations, new competitors should have to do so, too.

Questions: What do firms like Airbnb and Uber have in common, other than that they both participate in the sharing economy? What other characteristics do disruptive entrants have that non-disruptive entrants do not have? Do competition law problems encountered by disruptive firms warrant more attention from competition authorities than non-disruptive entrants? Why or why not?

4. Characteristics of markets that are vulnerable to disruption

21. Without a doubt, some disrupted markets exhibit network effects, resulting in a very rapid growth phase for the disruptor. Consider Google’s growth after it disrupted the Internet search and advertising market. Google took over the number one spot among search engines in the US within 18 months of its launch. Facebook launched in 2004 as a social network for Harvard students, then grew virally and not only displaced MySpace as the leading American social network but far exceeded its reach and popularity, gathering in more than one billion users by 2012.

22. Google and Facebook disrupted their markets despite the fact that those markets already had strong network effects that had been insulating the incumbents. These two disruptors succeeded with a jujitsu style strategy that dislodged incumbents with the same network effects that had been working in the incumbents’ favour.

Questions: Was that unusual? Or are markets with network effects actually easier to disrupt than markets without network effects?

23. The regulatory environment seems to matter, too. Many disruptive businesses that have gone on to become global enterprises originated in the United States. Alberto Heimler has argued that this is a reflection of the less restrictive regulatory environment in the US. If he is right, then the successes of

---

those businesses provide a vivid illustration of what is at stake for countries that continue to enact and enforce regulations that protect incumbents and discourage disruption.

**Questions:**

- Does the abundance of prosperous, disruptive US businesses also have something to do with the fact that the US is one massive, integrated market governed by one system of federal laws and regulations, in contrast to the European market, which is also collectively massive but is legally, linguistically, and culturally more heterogeneous?
- What other distinctive characteristics do markets that are susceptible to disruption have?
- Is the Internet making it more common for markets that were previously unconcentrated to be disrupted and transformed into winner-take-all markets? If so, are the static price effects of greater concentration outweighed by the dynamic effects of Schumpeterian competition, in which rapid innovation enabled by technologies like the Internet and big data are leading to a series of monopolies that rise and fall as waves of disruption occur?
- What do the answers to those questions imply for the approach that competition authorities should take in situations where disruptors have the potential to gain very large market shares, but are encountering obstacles that prevent or retard their entry?
- Finally, what characteristics do markets that are invulnerable to disruption tend to have? Are any of the factors that render incumbents invulnerable to disruption in those markets addressable through competition law enforcement or advocacy?

5. **Obstacles to disruption that may raise competition issues**

5.1 **Regulation**

24. Regulations that block, deter, or retard entry by disruptive firms present competition authorities with a challenging task because a) actions taken pursuant to a regulation are sometimes immune from competition-law based challenges even when those actions harm competition; and b) regulations usually serve other, legitimate policy objectives even when they discourage entry. Making matters more difficult, incumbent firms sometimes respond to potential (or actual) disruption by lobbying for existing regulations to be applied to the new entrant even when existing regulations are not well-suited to its disruptive innovation. Rightly or wrongly, incumbents may claim that the disruptor will have an ‘unfair’ competitive advantage unless the regulations are applied to it. Incumbents may also lobby for new regulations that are simply a pretext for blocking entry.

25. Consequently, disruptive entry can create tensions between regulation and competition policy, particularly when the disruptive innovation arguably renders the regulation obsolete. If the innovation fully addresses or obviates the underlying policy concern(s) that prompted the regulation, then applying it to the disruptive entrant nonetheless may be unnecessarily harmful to competition.

**Example 1: Uber**

26. Uber’s success in competing with traditional taxi services has stirred debates over that issue in many countries and cities. Uber is a platform that matches drivers with riders through a smartphone app. People who want a ride open the app, enter their present location and desired destination, and the app notifies nearby Uber drivers who may be interested in providing the ride. Once a match is found, the driver receives the customer’s location and drives to the pick-up location. Meanwhile, the customer receives a picture of the driver, his/her name, a description of the vehicle, and, if desired, an estimate of the fare. When the ride is completed, no money changes hands. Instead, the customer’s credit card is billed through the app. *8*

---

8. Uber offers several types of ride services. Uber Black, for example, is more expensive than Uber Pop but provides a luxury car and a professional driver. Uber Pop costs less and matches riders with ordinary
27. One view is that taxi regulations were designed for a model that Uber has made obsolete: a limited number of taxi drivers, licensed to operate by local governments, charging inflexible rates set by a regulator. The purpose of the licenses is to ensure that taxis and their drivers are safe and trustworthy; the purpose of the price controls is to ensure that “fair” prices are charged. But, this view holds, Uber and similar services obviate the need for such regulations. Uber, like many sharing economy businesses models, relies on self-regulation via ratings and reviews. The reviews provide incentives for both sides to deliver on their promises. Furthermore, thanks to geolocation and Internet of Things technologies, each Uber car’s location and route is known to Uber at all times.

28. Moreover, Uber’s proponents argue, price controls are not only unnecessary, but ill-advised, as they prevent the market from matching supply with demand. Uber’s prices fluctuate to bring the two into equilibrium: when there are not enough drivers working to meet demand, fares rise to attract more drivers (and reduce demand), falling again when supply exceeds demand. Traditional taxi fare structures are fixed, which is why one may see long lines of customers waiting at taxi stands at certain times of day and long lines of taxis waiting there at other times.

29. On the other hand, another view holds, rating and reviews can suffer from shortcomings such as low response rates, incomplete information, or misleading ratings. Moreover, Uber’s surge pricing system can see customers paying extraordinary fares, even ten times the usual rate if demand is extremely high (e.g. on New Year’s Eve). In addition, some argue, drivers in some cities have paid a very substantial amount of money for the right to be allowed to operate a taxi. But that value has been diminished by Uber and other app-based ride services, which is “unfair”. Beyond that, regulations in some cities require traditional taxi drivers to buy insurance that is much more expensive than what ordinary drivers have to pay, and they have to maintain their vehicles to a certain standard. They argue that Uber’s drivers do not have to bear the cost of compliance with such regulations, but that they should.

30. The latter arguments have not fallen on deaf ears in some countries. Uber has been variously fined, banned, and targeted with new regulations in Canada, France, and Germany, for example.

31. Several competition agencies, however, including those in Canada, France, Germany, Italy, Spain and the US, have spoken up in favour of easing regulatory restrictions on Uber. They have issued official letters and reports urging reviews of taxi regulations to identify which ones are truly necessary, as well as reforms to permit app-based ride services to continue operating.¹

Example 2: Tesla

32. Another example of conflict between regulation and disruption is Tesla’s experience in the United States. Many drivers are now aware of Tesla’s sports cars and their silent, all-electric engines.

---

Tesla’s engine technology is potentially disruptive, in the long term, to the automobile industry. But what is less well-known is that its sales model is also potentially disruptive to automobile dealers.

33. Tesla cuts dealers out by operating its own showrooms and selling directly to consumers through the Internet. Dealers in some US states responded to this threat by lobbying for the enforcement of rather old regulations that were designed to ban direct distribution by auto manufacturers, and in some states, for new regulations that would eliminate any exceptions that might allow Tesla to circumvent the ban. While dealers have argued that such restrictions are necessary for public safety and to protect consumers, Tesla contends that the regulations are now obsolete, having nothing to do with public safety or protecting consumers and everything to do with protecting dealers.10

Questions: To determine whether a regulation unnecessarily restricts competition, competition authorities must consider the regulation’s stated policy aims (e.g. consumer health and safety) and how well-tailored the regulation is to achieving them. What are some situations in which there have been sound policy reasons behind regulations that are reasonably well-drafted but nevertheless make it harder or impossible for a potentially disruptive entrant to break into a market?

How have competition agencies dealt with such justifications?

Should competition authorities consider whether the expected disruption would cause a devaluation of incumbents’ regulated assets (e.g. licenses)?

Should competition authorities consider whether the welfare benefits from removing an unnecessarily anticompetitive regulation outweigh concerns related to other policy objectives and any devaluation in incumbents’ regulated assets? Or should such considerations be left up to the regulator? What if the regulator is captured by the incumbents?

5.2 Other Laws11

34. Like some regulations, certain laws reflecting particular policy concerns may stand in a disruptor’s way and it can be challenging for competition authorities to determine whether such laws are unnecessarily anticompetitive. Intellectual property laws might be considered the leading example. They can block or retard a disruptor’s entry or expansion, and they typically do so for sound reasons. (Consider Napster, an early and disruptive music sharing site, which was hobbled by copyright infringement lawsuits.) Some circumstances can raise competition concerns, though, such as when an incumbent ties up a potentially disruptive entrant with an infringement lawsuit of little or no merit. The entrant may not be able to fund a legal defence, particularly if it is an SME, or it may decide that doing so is simply too risky. It might then concede its disruptive advantage in a cross-licensing agreement, sell out to the incumbent, or withdraw from the market altogether. Such possibilities lead to concerns about issues that are outside the usual competition policy domain, like patent quality and the incentives created by the patent system’s legal apparatus.

35. Alternatively, disruption can be delayed or deterred by the burden of procuring licenses. The transaction costs of negotiating copyright licenses, for example, can slow down a disruptive innovation’s impact. Europe is a case in point, given the ongoing need to negotiate separate copyright licenses for each country in the EU. Consider, for instance, how long it took Netflix to enter Europe after its appearance in North America in 1997. The expense and difficulty of procuring separate licenses for each country in


11 The obstacles presented in this and subsequent sections are included for the sake of completeness, but because the discussion is meant to focus on regulatory obstacles, no questions are proposed.
comparison to being able to negotiate one cross-border European license is an issue that has attracted policymakers’ attention in recent years – but not necessarily competition officials’ attention.12

36. There have also been some cases in which copyright laws appear to have been used as a protectionist tool to lessen the impact that disruptors have, or at least to force them to share the fruits of their success. For example, several countries have enacted or proposed amendments to their copyright laws13 that create an ancillary copyright that benefits online publishers (such as traditional newspapers that also have Internet sites on which they publish their content). The amendments are aimed at Internet news aggregators. As a result of the amendments, certain material used by Internet-based news aggregating services may violate the copyright law and revenues are redirected from the news aggregators to the publishers.

37. For example, Spain’s law14 imposes a compulsory license whenever a web site provides even a small fragment of a newspaper article. It also requires permission from the news publisher for the reuse of any photo posted to a periodically updated website. Spain’s competition authority, the Comisión Nacional de los Mercados y la Competencia, quickly criticized the law when it was proposed.15 It noted that the main justification given for the proposal was to compensate the original news sites with “fair compensation” for the “direct competition” that occurs between them and the news aggregators, who do not share the costs that the “creative effort” entails. However, the competition authority found it questionable that there was any such direct competition, that any compensation was appropriate, or if there was, that it should flow toward the original sites. The latter point is a recognition that appearing in news aggregator results will drive more Internet traffic toward the original site than it would otherwise get. The authority also noted that the law would create a barrier to access for companies that want to enter the market for content aggregation.

5.3 Acquisitions

38. Incumbent firms sometimes react to a disruptive entrant by acquiring it. Such acquisitions can be thorny challenges for competition authorities. In particular, if the acquisition is proposed when the potential disruptor is still nascent, so that it has not yet had an opportunity to create a record of winning business for itself, a competition authority may have difficulty in establishing that the acquisition is likely to harm competition.

5.4 Unilateral Conduct by Incumbents

39. Incumbents may opt to use one or more of the potentially unlawful unilateral strategies that competition authorities are accustomed to investigating, such as predatory pricing, exclusive dealing, and raising rivals’ costs. However, such strategies may be less likely to succeed against a firm with a disruptive business model, product, or process than against an entrant using the traditional business model or technology. Disruptive firms can erode demand for the old model/product/service even if the incumbents become more price-competitive. Brick-and-mortar movie rental outlets, for example, may not have survived the entry of Netflix, which offered a far greater selection and more convenience, even if the outlets had lowered their prices to predatory levels.


13 Such laws have been enacted in Germany and Spain, are pending in Israel, and have been proposed in France.


15 Comisión Nacional de los Mercados y la Competencia, “La CNMC publica su Propuesta sobre la modificación del Proyecto de Ley de la Propiedad Intelectual”, Note de Prensa (28 May 2014).
5.5 Vertical Restraints

40. Another type of obstacle that can block or retard disruption is vertical restraints imposed by other firms in the chain of production. Resale price maintenance, territorial restrictions, and quotas placed on internet sales are some of the possibilities. The latter were discussed extensively in a recent roundtable. The effect of RPM on internet-based booksellers in some countries was also discussed in a previous roundtable.

6. What can competition authorities do?

41. Advocacy is always an option. Competition authorities have numerous ways to raise awareness of the benefits of competition, both in general and in specific matters. By issuing comments on proposed or existing regulations, appearing before lawmakers to discuss competition matters, conducting market studies, and publishing brochures and pamphlets about the importance of competition laws and compliance with them, competition agencies can influence legislators, regulators, and the general public.

42. When competition officials suspect that a regulation is unnecessarily hampering a disruptive innovation, advocacy may be their only viable choice as more direct action is typically impossible due to the legal authority behind the regulation. For example, under the state action doctrine in the US, state and municipal authorities have immunity from federal antitrust laws with respect to actions they take pursuant to a clear state policy that had foreseeable anticompetitive effects. Therefore, when a state approves and regulates certain conduct, even if it is anticompetitive, the federal government must respect the state’s decision. Consequently, in the Tesla matter described above, for example, the US Federal Trade Commission did not take any enforcement action but instead used a blog and comment letters to state legislators to recommend that they ease regulations preventing consumers from buying directly from auto manufacturers.

43. But is anything different about advocacy in cases where a disruptive entrant is being thwarted, as opposed to advocacy in cases where an ordinary entrant is being blocked? One major difference is that the stakes for consumers tend to be bigger. If we return to our definition of disruption and consider again the characteristics that disruptive firms and disruptible markets tend to have, we can infer a greater sense of urgency in making sure that disruptors have the full opportunity to reconfigure or create markets that they are entitled to have from a competition law perspective. When an entrant can offer consumers something that is so much better than what they are currently getting that the entrant can grow rapidly and displace the top firms in the market, that is a clear signal that it is offering consumers a substantial amount of value. The message that can be delivered to policymakers then becomes that much more compelling.

44. In cases where laws and regulations that unnecessarily block or deter disruptive innovation are not immune to competition law challenges, competition authorities can take enforcement actions to remedy them. The European Commission, for example, uses its powers to challenge national laws that conflict with EU competition law and could thwart disruption. The US antitrust agencies occasionally file lawsuits to nullify anticompetitive rules imposed by trade associations and licensing boards.

---

21 For instance, the development of online bookstores in Germany was likely facilitated by a settlement agreement with the European Commission that exempted direct, cross-border sales of German-language...
Box 1 contains a checklist of questions that competition agencies might consider when disruptive innovation appears to be hindered in regulated markets.

**Box 1. A Basic Checklist for Investigating Cases of Regulation Interfering with Disruption**

- What purposes does the regulation serve (e.g. consumer protection, consumer safety, environmental protection, national security)?

- Is the regulation tailored to its stated purpose? In particular, does it restrict competition as little as possible while still accomplishing its stated objectives?

- Is it possible to compare performance in markets with the regulation with performance in markets without it? If so, do it.

- What is the incumbent’s motive for wanting the regulation to be applied to the disruptor?

- What is the regulator’s motive for wanting the regulation to be applied to the disruptor?

- Are there legitimate reasons, or is the motive simply to keep the disruptor out of the market or to slow its entry?

- What is the disrupting firm’s argument for why it should be allowed to ignore the regulation?

- Would consumers benefit if the disruptor is permitted to ignore the regulation? How quickly and to what extent?

- Has the incumbent been innovating? If not, will keeping the disruptor out help them to avoid or delay investing in innovation?

- If there seems to be a competition problem, what options does the competition authority have to solve it?
  - Is the regulation (and actions taken under it) immune to competition law scrutiny?
  - If so, the competition authority can consider issuing an advisory opinion or other public comment on the regulation to recommend ways to lessen its impact on competition
  - The authority can also consider whether a market study would be useful for drawing attention to the problem
  - If the regulation is not immune to competition law, the authority can consider taking enforcement action to challenge it

**Questions:** What other courses of action are available to competition authorities besides advocacy and law enforcement when disruptive innovations are hindered to the detriment of competition? What approaches have worked well, and which ones have not worked so well?

---

books to customers in Germany from a national law that required RPM in the market for retail book sales. Buchpreisbindungsgesetz, section 4; Sammelbrevers und Einzelrevers, [2002] 4 CMLR 1278.

22 See, for example, North Carolina Board of Dental Examiners v. Federal Trade Commission, 135 S.Ct. 1101, 1112 (2015) (holding that when a controlling number of the decision makers on a state licensing board are active participants in the profession that the board regulates, the board can invoke state-action immunity to the antitrust laws only if the board is subject to active supervision by the state), available at: www.supremecourt.gov/opinions/14pdf/13-534_19m2.pdf; see also US Department of Justice, “Justice Department Announces Settlement with the National Association of Realtors,” press release (27 May 2008) (announcing settlement with association of realtors after having filed a lawsuit to challenge the association’s policies that allowed shared listing services to provide limited access to brokers who operated Internet sites enabling customers to review home listings on the Internet), available at: www.justice.gov/archive/opa/pr/2008/May/08-at-467.html.