



30 October, 2018

**Submission to the Israel Antitrust Authority concerning its
Inquiry into competition issues in the digital economy**

Dear Sir or Madam:

These comments are submitted in response to the Israel Antitrust Authority's (IAA) request for comments concerning competition issues in the digital economy.¹ The Computer & Communications Industry Association (CCIA)² commends the IAA for seeking a better understanding of the legal, economic and policy challenges that arise with the digitalization of the global economy and CCIA welcomes the opportunity to provide its views on the variety of competition issues raised. CCIA looks forward to furthering the dialogue with the IAA concerning the legal and policy challenges around competition matters relating to the digital economy.

Internet-enabled commerce represents a highly competitive, growing sector of the economy in the U.S. and around the world. Researchers have found that the Internet accounted for 21 percent of GDP growth in mature economies in recent years, and, on average, 3.4 percent of GDP across the large economies that make up 70 percent of global GDP.³ In numerous advanced economies, the Internet accounted for 10 percent of GDP growth over a 15-year period.⁴ In developed markets, the Internet economy has been projected to be one of the fastest growing sectors, with estimates anticipating that the growth rate will be "far outpacing just about every traditional economic sector, producing both wealth and jobs."⁵

¹ <http://www.antitrust.gov.il/eng/subject/177/item/35246.aspx>

² CCIA represents large, medium and small companies in the high technology products and services sectors, including computer hardware and software, electronic commerce, telecommunications and Internet products and services. Our members employ more than 750,000 workers and generate annual revenues in excess of \$540 billion. A list of CCIA members is available at <https://www.ccianet.org/members>.

³ McKinsey Global Institute, *The Great Transformer: The Impact Of The Internet On Economic Growth And Prosperity* (Oct. 2011) at 1, available at http://www.mckinsey.com/insights/high_tech_telecoms_internet/the_great_transformer.

⁴ Matthieu Pélissié du Rausas et al., *Internet Matters: The Net's Sweeping Impact On Growth, Jobs, and Prosperity* (May 2011) at 1, available at http://www.mckinsey.com/insights/high_tech_telecoms_internet/internet_matters.

⁵ David Dean et al., *The Internet Economy in the G-20: The \$4.2 Trillion Growth Opportunity*, Boston Consulting Group (Mar. 2012) at 6, available at http://img-stg.bcg.com/The_Internet_Economy_G-20_tcm9-106842.pdf.



In addition to contributing to the growth of the economy and GDP, there has also been measurable job growth in the tech sector, with today's leading technology companies creating more jobs than leading companies of the past. As economist Michael Mandel noted last year, "When we compare today's tech leaders with the employment leaders of the past at a similar stage of development, it turns out that the job creation performance of the tech sector looks quite good."⁶ Employees in these jobs are obtaining a greater share of gains from productivity.⁷ At the same time, technology companies are expected to invest increasing amounts in research and development, with spending expected to rise 24 percent this year, and capital expenditures expected to rise by 48 percent.⁸

In order for innovation in the technology market to continue driving the global economy, both competition policy and sound antitrust enforcement must play a crucial role in ensuring that competition exists across markets. Competition authorities should continue to enforce antitrust laws based on sound economic analysis that focuses on potential harm to competition and consumer welfare. It is difficult, if not impossible, to reconcile economic analysis with public interest considerations other than harm to competition and consumer welfare within the antitrust framework. Factoring other public interest concerns into the antitrust analysis could result in inconsistent application of competition norms and political intervention in the antitrust decision-making process.

1. Do you believe that increased scrutiny of mergers and acquisitions by large technology firms will have an effect on competition? Will it have an effect on incentives to invest in the tech sector? If so, what will the effect be?

Merger control, as part of the antitrust toolkit, remains a key element in ensuring that the economy remains dynamic. Competition authorities in Israel, the United States, Europe and abroad have applied merger control rules vigorously in recent years. This includes transactions where the merger effects on innovation and competition have been analyzed, particularly in the case of R&D intensive industries.

⁶ Michael Mandel, *An Analysis Of Job And Wage Growth In The Tech/Telecom Sector*, Progressive Policy Institute, (Sept. 2017), available at http://www.progressivepolicy.org/wp-content/uploads/2017/09/PPI_TechTelecomJobs_V4.pdf.

⁷ Michael Mandel, *Manufacturing, Tech/Telecom and the Falling Labor Share*, Progressive Policy Institute (Feb. 20, 2018), available at <http://www.progressivepolicy.org/blog/manufacturing-tech-telecom-falling-labor-share/>.

⁸ Dan Gallagher, *Big Tech's Growth Comes With A Big Bill*, WALL. ST. J. (July 17, 2018), <https://www.wsj.com/articles/big-techs-growth-comes-with-a-big-bill-1531819800>.



CCIA believes that antitrust authorities should continue to enforce merger control rules and evaluate transactions that focuses on real and potential harm to consumers' welfare. It is therefore crucial for Israel to continue to advocate for this evidence-based approach abroad when reviewing mergers concerning tech firms, including the acquisitions of start-ups by big tech companies.

1.1 Harm to Innovation

Evaluating the impact of a transaction on innovation, along with price and product quality, is not new. When applying merger control rules, competition authorities have long analyzed the impact that transactions could have on innovation, particularly when there are overlapping markets, as has been the case for many pharmaceutical deals.⁹ As such, the acquisition of start-ups by other bigger and more consolidated companies do not merit special rules from a merger review perspective.

While some competition experts have suggested that it is a difficult exercise to predict how innovation will be impacted by a particular transaction, antitrust authorities have managed to analyze harm to innovation in a number of cases. Authorities analyze harm to innovation on a case-by-case basis and, among other factors, industry-specific elements such as market concentration, R&D output, and innovation efforts from merging parties and competitors.

For example, the IAA reviewed the transaction whereby Intel acquired Mobileye. Mobileye develops sensors and artificial intelligence that allow a vehicle's onboard computer to know where it is in relation to other vehicles, pedestrians and the surroundings, the key technologies needed for cars to eventually safely drive themselves. One of the factors that was analyzed when reviewing such transaction was whether the combined entity would help to accelerate the development of autonomous vehicles.¹⁰

1.2. International Implications of Merger Review

The IAA must be cognizant of the international implications of a potential merger. In a globalized economy, many transactions are subject to multiple merger control rules. There is

⁹ Remarks of FTC Commissioner Deborah Majoras, Antitrust Enforcement in the Pharmaceutical Industry: Success and Challenges (May 16, 2007), https://www.ftc.gov/sites/default/files/documents/public_statements/remarks/051607aci_pharma.pdf.

¹⁰<https://www.prnewswire.com/news-releases/mobileye-announces-approval-under-israel-restrictive-trade-practices-law-300473946.html>



significant variation in merger review thresholds in terms of what types of transactions are subject to review, as well as significant variations in the merger review process in terms of the level of international cooperation, timeline, and information required. A lack of standardization in these thresholds and procedures injects unnecessary friction, costs, and complexity into mergers that span multiple jurisdictions.

In most cases, there is international convergence when dealing with merger control. Notwithstanding, there has been a recent trend of different nations' antitrust authorities expanding antitrust theories of harm in the context of merger reviews, which could impact negatively the incentives of international businesses to pursue efficient deals that benefit consumers. Divergence occurs, not only in the enforcement of novel theories of harm, but also with regard to the review of conglomerate effects theory of harm. This divergence is especially damaging to the technology industry where products and services are inherently global in nature.

Whereas U.S. competition authorities and tribunals have been skeptical towards conglomerate effects of mergers and other non-horizontal-based theories of harm, the same cannot be stated of all competition authorities. These divergent views on conglomerate effects (or lack thereof) in the context of the GE/Honeywell merger produced significant legal and political friction in 2001.¹¹

Recent cases seem to indicate a growing interest in conglomerate and non-horizontal theories of harm, especially with regard to merging parties selling complementary products. This concern includes the consideration of interoperability between one party's products and a rival's competing downstream product, to favor their own downstream product.

For example, the European Commission (EC) conditionally cleared the Broadcom/Brocade merger, with commitments covering non-discrimination measures and firewalls, to resolve concerns about technical degradation of interoperability and/or misuse of confidential information.¹²

CCIA believes that convergence in the antitrust field is key to enabling further innovation, and ensuring that consumers are offered better products and services. Asymmetric enforcement of merger control rules could severely damage incentives to invest in the tech sector. Regulatory asymmetries should not become a barrier to growth, and thus, the IAA's advocacy efforts should continue to strive for harmonized outcomes between jurisdictions.

¹¹ Michael Elliot, *The Anatomy of the GE-Honeywell Disaster*, TIME (July 8, 2001), <http://content.time.com/time/business/article/0,8599,166732-2,00.html>.

¹² Press Release, European Commission, Mergers: Commission Clears Acquisition of Brocade by Broadcom, Subject to Conditions (May 12, 2017), http://europa.eu/rapid/press-release_IP-17-1309_en.htm.



Ensuring that merger decisions regarding R&D-intensive markets such as tech transactions are grounded in strong evidence is fundamental to maintaining the right incentives for companies to innovate, but also for companies' to invest.

2. Should competition authorities, and the IAA in particular, consider unique characteristics of the digital economy when defining markets and evaluating market power? If so, how would you suggest doing so?

The Internet has allowed for many enterprises and new business models to emerge. This, in turn, has changed the economic landscape, fundamentally altering how we engage in commerce. An increasing number of consumers now use online services to acquire products and services also available in traditional brick and mortar spaces. As discussed further in sections 2.1 and 2.2, the current antitrust toolset already enables authorities to assess how these new services affect markets and the exercise of market power.

2.1 The consumer welfare standard and economic analysis and evidence

The promotion of consumer welfare through competitive markets is the economic model for decision-making employed by antitrust enforcers to determine whether a given business practice warrants antitrust enforcement or not. A competition system guided by the consumer welfare standard has as a goal the maximization of consumers' benefits, with 'consumer' being defined broadly to include both business and consumer purchasers.

The debate over the appropriateness of the consumer welfare standard is a healthy exercise, but significant changes should be considered with great caution. Antitrust norms should not be expanded to include other public policy factors unrelated to economics-based competition concerns.

First, the consumer welfare test best serves consumers' interests. Antitrust enforcement based on the consumer welfare standard targets harmful anticompetitive practices without penalizing practices that are pro-consumer, such as innovative strategies, or mergers that increase efficiencies. To achieve this, when enforcing the antitrust laws under the consumer welfare standard, the tradeoffs between various forms of competition and their effects are considered. As such, the evolution of economic thinking has allowed courts to decide antitrust cases with a very high degree of accuracy in order to avoid harming consumers. Ultimately, the consumer welfare standard has enabled antitrust enforcement to put consumers first.



Second, the consumer welfare standard enhances predictability and legal certainty by providing businesses with clear guidance regarding the test to which business practices are subjected. In contrast, a chaotic interpretation of antitrust as inclusive of all manner of undefined public policy consideration risks comparing apples to oranges (i.e. employment opportunities vs. impact on prices), and would not provide clarity to companies with respect to what practices are acceptable to antitrust enforcers before introducing them to the market, undermining due process norms.

Third, since the consumer welfare standard is an economic analysis-based test — non-economic considerations are not factored in — enforcement coherence is preserved. Weighing non-economic factors against economic considerations risks inviting discretionary and unjust results.

2.2 Alternatives to the consumer welfare standard and the ‘administrability’ challenge

In the U.S., the Supreme Court consistently enforces the consumer welfare standard as the guiding principle for antitrust analysis. However, some observers do not see the consumer welfare standard as the solution for antitrust enforcement, and claim that other public policy considerations should factor into the antitrust analysis. These calls for changes to the consumer welfare standard are misguided, and could create business uncertainty and hinder economic growth if followed.

Non-competition policy objectives once were conflated into U.S. antitrust enforcement decisions, but modern enforcement decision-making relies upon economic analysis, a change which is generally regarded as having brought greater intellectual coherence and predictability to the antitrust framework.

In 2003 the OECD recognized that the inclusion of conflicting objectives, including public policy interest considerations other than consumer welfare, would undermine the public good. It stated that rooting antitrust in multiple competing policy rationales

increases the risks of conflicts and inconsistent application of competition policy. The interests of different stakeholders may severely constrain the independence of competition policy authorities, lead to political intervention and in a relatively minor way, compromise and, adversely affect one of the major benefits of the competitive process namely, economic efficiency.¹³

¹³ Organisation for Economic Cooperation and Development, *The Objectives of Competition Law and Policy* (2003), [https://one.oecd.org/document/CCNM/GF/COMP\(2003\)3/en/pdf](https://one.oecd.org/document/CCNM/GF/COMP(2003)3/en/pdf).



The application of economic analysis has been instrumental to the advancement of the competition system, and it should continue to play a key role, especially given the digitalization of the economy. Whereas it is fortunate that many jurisdictions have adopted and committed to a market economy and created competition systems for that purpose, the failure to fully embrace the application of economic analysis to law enforcement remains detrimental to consumers.

3. Do you believe that increased enforcement of behavioral remedies, such as unbundling applications and operating systems, duties to provide data and so forth, would be beneficial to competition? Could such measures aid early-stage firms - and firms in general - in innovative market segments? Is the thread of market foreclosure currently a bar to the development of innovative products and services in the tech sector?

Competition authorities such as the IAA have, as part of its toolkit, the option to order remedies that include a wide variety of obligations such as disinvestments, interoperability obligations, and access to essential inputs. Worldwide authorities impose remedies on a case by case basis, with the aim of ensuring that competition is effective in a given market. Competition authorities should not, in any case, impose such remedies with the goal of protecting market participants, *i.e.*, competitors.

In the context of a merger review or an investigation into abuse of market power, it is important that the IAA focuses on enforcing competition law with the aim to maximize consumer welfare. That is, regulators should impose remedies only in those cases where consumers are being harmed and need protection.

Should competition enforcement be aimed at protecting start-ups or other competitors, such actions could potentially run against the interest of consumers, and might be seen as the IAA is intervening the economy in the form of industrial organization, rather than enforcing competition provisions.

The following section will explore the nature of data, including concerns related to imposing obligations to provide access to data.

4. Do you consider access to data a competition concern for the technological sector? What, if any, measures, would you suggest competition authorities, and the IAA in particular, should consider in dealing with possible market foreclosure due to the competitive advantage of such data?



4.1 “Data as a dimension of competition”

For tech-related innovation to drive the economy, both competition policy and sound antitrust enforcement play a crucial role in ensuring that competition exists across markets. The development of Internet data-driven enterprises has raised antitrust commentary concerning the viability of the current antitrust framework to address such concerns. CCIA believes that the antitrust norms aimed at maximizing consumer welfare provide the right framework to enable agencies to address any competition challenge that arises in the digital economy. To this end, CCIA considers it crucial to understand the nature of data and how businesses use such assets to do business.

Intervention in data-driven markets without evidence of harm to competition could harm consumers and deter innovation, especially when based on a misunderstanding or incorrect understanding of the role data plays in these markets. Therefore, understanding the nature of data usage in Internet and technology services is crucial.

Competition frameworks based on the consumer welfare standard that relies on evidence-based analyses, should be applied to data-driven markets. The value of data depends on its commercial utility, and does not present special characteristics as a dimension of competition. Authorities should therefore assess data as any other non-rivalrous asset that companies use to compete in the market under the existing competition framework.

4.2 Data is an asset like any other

Data itself should not be seen as a barrier to entry, or to automatically grant a competitive advantage in the market. Data is characterized by the so-called “Four Vs”, namely:

- **Volume:** The amount of data available, which is infinite and non-rivalrous.
- **Velocity:** The speed of data generation, which requires business to update datasets.
- **Variety:** The diverse forms of data that are available to companies.
- **Veracity:** The trustworthiness of data.¹⁴

The mere accumulation of data, in and of itself, is useless and not of importance to compete effectively. In addition to the Four Vs, data must be analyzed before it becomes useful. As such, the value of data only appears once companies have processed such data. As economists Anja Lambrecht and Catherine Tucker note:

¹⁴ See IBM, The Four V’s of Big Data - Infographic, *available at* <http://www.ibmbigdatahub.com/infographic/four-vs-big-data> (last visited July 20, 2018).



Our analysis suggests that big data is not inimitable or rare, that substitutes exist, and that by itself big data is unlikely to be valuable. There are many alternative sources of data available to firms, reflecting the extent to which customers leave multiple digital footprints on the internet. In order to extract value from big data, firms need to have the right managerial toolkit. The history of the digital economy offers many examples, like Airbnb, Uber and Tinder, where a simple insight into customer needs allowed entry into markets where incumbents already had access to big data. Therefore, to build sustainable competitive advantage in the new data-rich environment, rather than simply amassing big data, firms need to focus on developing both the tools and organizational competence to allow them to use big data to provide value to consumers in previously impossible ways.¹⁵

The authors further conclude that the tools used to analyze the data and ‘provide value to consumers’ confer a ‘sustainable advantage’ to companies rather than the mere possession of data.¹⁶

The key to gaining a competitive edge is not data, but rather, the capacity to analyze and monetize data. In other words, human capacity and better products such as improved algorithms, rather than data or scarcity thereof, is what is necessary to compete in data-driven markets.

4.3 Data as a singular competition concern

The IAA has requested comment on the role that data plays in whether a company expands in a relevant market, and in particular whether it raises any competition concern. The key element is to better understand whether incumbents that have accumulated data over the years may expand or maintain market power for the mere possession of historic data. Like any other factor of production, there is empirical evidence to prove that there are diminishing returns to the mere *accumulation* of data.

Stanford University conducted a study to analyze whether increased accumulation of data improves the outcomes of the analysis performed on such data. The Stanford Dogs Dataset contains images of 120 breeds of dogs from around the world.¹⁷ This dataset was constructed for the purpose of fine-grained image categorization. Researchers used this dataset for classifying

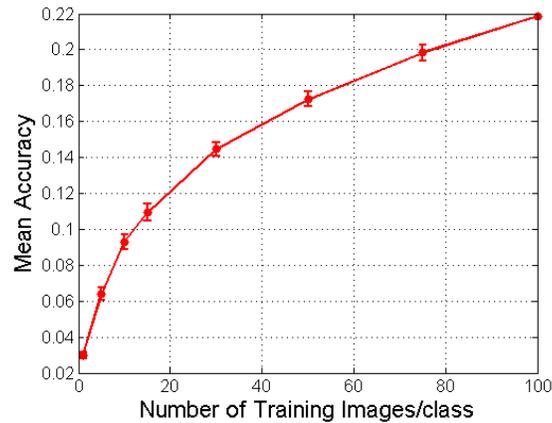
¹⁵ Anja Lambrecht & Catherine Tucker, *Can Big Data Protect a Firm from Competition* (Dec. 18, 2015), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2705530.

¹⁶ *Id.*

¹⁷ Stanford Dogs Dataset, available at <http://vision.stanford.edu/aditya86/ImageNetDogs/>.



breeds of dogs in images, and calculated the mean accuracy for identification as the number of images in the dataset increased. The results showed that additional access to data provided diminishing returns to the accuracy of classification results (see chart below).¹⁸ In short, a growing dataset provided diminishing returns as it grew.



Similarly, economists David Evans and Richard Schmalensee found that across technology companies, data did not grant incumbents the power to strangle competition. Their research highlighted that:

A number of previously dominant companies all had user data — so-called “attention platforms” such as AOL, Friendster, Myspace, Orkut, Yahoo!, Blackberry in mobile, as well as numerous search engines including AltaVista, Infoseek, and Lycos. This data did not give the incumbents the power to stifle competition in their respective markets, nor is there any evidence that data increased the network effects for these firms in a way that gave them a substantial lead over challengers.¹⁹

University of Florida Professor Daniel Sokol and Central University of Finance and Economics School of Law (China) Professor Jingyuan (Mary) Ma conclude that little, if any, user data is required as a starting point for most online services. They noted that:

The data requirements of new competitors are far more modest and qualitatively different than those of more established markets. Little, if any, user data is required as a starting point for most online services. Instead, firms may enter with

¹⁸ *Id.*

¹⁹ David S. Evans & Richard Schmalensee, *Network Effects: March to the Evidence, Not to the Slogans*, Antitrust Chronicle (Aug. 2017) at 9, available at <http://mitsloan.mit.edu/shared/ods/documents/?DocumentID=4243>.



innovative new products that skillfully address customer needs, and quickly collect data from users, which can then be used towards further product improvement and success.²⁰

This research shows why the accumulation of data alone is not a tool for companies to shut out competitors, and is unlikely to lead to decreased competition in the relevant market.

4.4 The IAA remedial authority

Under its antitrust mandate, the IAA may, as part of its remedial actions, require a firm to cease certain conduct. The Israel competition system recognizes the so-called “essential facilities” doctrine.²¹ Therefore, it is important to highlight that because of the nature of data, it cannot be classified as an essential input.

Proposals to classify data as an essential input are unfounded and rest on a misunderstanding of the concept of data that is, among other things, non-rivalrous. The scenario where the accumulation of data by a firm would raise an antitrust concern under the essential facilities doctrine is very unlikely, if not implausible.

Therefore, should the IAA impose quasi-structural remedies on data-driven businesses, it would limit incentives to innovate, to the detriment of consumer welfare.

²⁰ D. Daniel Sokol & Jingyuan (Mary) Ma, *Understanding Online Markets and Antitrust Analysis*, 15 NW. J. TECH. & INTELL. PROP. 43 (2017), available at <https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1267&context=njtip>.

²¹ <https://www.oecd.org/competition/50104572.pdf>