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COMPETITION COMMITTEE**

Artificial Intelligence, Data and Competition – Summaries of contributions

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This document reproduces summaries of contributions submitted for Item 4 of the 143rd OECD Competition Committee meeting on 12-14 June 2024.

More documents related to this discussion can be found at
www.oecd.org/competition/artificial-intelligence-data-and-competition.htm

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Austria

The purpose of this paper is to provide some preliminary views on selected aspects relevant to the discussion on 'Artificial Intelligence, data and competition'. In particular, this paper examines the increasing impact artificial intelligence ('AI') deployed by large, well-resourced companies from a competition point of view.

AI, including machine learning and related technologies, is transforming businesses across a wide range of industries.¹ Its ability to analyse large amounts of data, automate tasks and provide valuable insights can deliver significant benefits to large organisations. However, these benefits also raise competition concerns about the potential for AI to distort market forces and jeopardise fair competition.

¹ Georgieva, AI Will Transform the Global Economy. Let's Make Sure It Benefits Humanity, IMF Blog, 14.01.2024, <https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity>.

BIAC

Business at OECD (BIAC) welcomes the opportunity to provide its views to the OECD Competition Committee for the hearing on artificial intelligence (AI), data, and competition. The rapid growth of Generative AI (GenAI) tools and the development and successful deployment of AI foundation models (FMs) in the past few years raise legitimate and important questions about competition policy and enforcement in this field, the scope, need and timing for intervention by competition authorities, and any appropriate regulatory tools.

A meaningful discussion of these topics requires a thorough understanding of the structure and successive layers of the value chain of the GenAI industry, the business models that are being deployed, the nature of competition and the critical inputs that are required to compete in the various segments of the GenAI value chain and how the deployment of GenAI FMs and services interacts with competition on other (digital) markets. BIAC therefore appreciates the valuable work that many authorities have already undertaken to better understand the market for AI foundation models and very much welcomes this hearing.²

Although different categories of AI tools have rapidly been developed, GenAI models in particular have become extremely popular and achieved widespread adoption by millions of users worldwide. GenAI are a subset of AI foundation models that can produce content in response to user prompts in the form of text, images, audio, video, or computer code based on existing data or models. As such, it has tremendous potential to create opportunities and benefits to improve existing solutions and create new products and services in a wide range of industries (e.g., healthcare, finance, education, music, legal, advertising). Large Language Models are the most prominent FMs. They include GTP 3.5/4/4o (Open AI), LLaMA3 (Meta) Gemini (Alphabet) and Claude 2 (Anthropic).

Nonetheless, AI also has the potential to result in undesirable effects, including issues involving safety, security, privacy, intellectual property, and copyright.³ It is important to

² BIAC notes that in May 2023, the UK Competition & Markets Authority (CMA) launched an initial review of the market for AI foundation models, publishing an initial report in September 2023, and an updated report in April 2024 (see <https://www.gov.uk/cma-cases/ai-foundation-models-initial-review#initial-report> and <https://www.gov.uk/cma-cases/ai-foundation-models-initial-review#update-paper-and-technical-update-report>, respectively). In November 2023, the Portuguese Competition Authority published an issues paper mapping the key determinants of competition in GenAI (see <https://www.concorrencia.pt/en/articles/adc-warns-competition-risks-generative-artificial-intelligence-sector>). In January 2024, the Hungarian Competition Authority announced that it was conducting a market analysis on the impact of AI on competition and consumers' transactional decisions (see https://www.gvh.hu/en/press_room/press_releases/press-releases-2024/gvh-launches-market-analysis-on-the-impact-of-artificial-intelligence). That same month, the European Commission issued two calls for contributions on competition in virtual worlds (see https://ec.europa.eu/commission/presscorner/detail/en/IP_24_85). In February 2024, the French Competition Authority launched an ex officio inquiry and public consultation on the strategies implemented by large tech companies aimed at consolidating or leveraging their existing market power to expand in the value chain (see <https://www.autoritedelaconurrence.fr/en/press-release/generative-artificial-intelligence-autorite-starts-inquiries-ex-officio-and-launches>). It had previously published a market study on competition in the cloud sector (see <https://www.autoritedelaconurrence.fr/en/press-release/cloud-computing-autorite-de-la-conurrence-issues-its-market-study-competition-cloud>) and conducted dawn raids at the offices of Nvidia on account of potential anti-competitive practices (see <https://www.reuters.com/technology/nvidias-french-offices-raided-cloud-computing-competition-inquiry-wsj-2023-09-28/>).

³ This submission does not purport to exhaustively identify undesirable effects outside of competition law and policy.

acknowledge that there may therefore be a significant role for policymakers to address AI-related concerns, but that competition law is not the appropriate vehicle to address those wider societal or ethical concerns unrelated to market competition.⁴

Currently, GenAI is characterized as being a very dynamic sector with extraordinary growth and many new entrants coming to the market across the value chain.⁵ As discussed in more detail below, these structural factors themselves may militate against early competition law intervention, notwithstanding the advisability to monitor the evolution of the sector.⁶ At the same time, BIAC notes that there are important uncertainties regarding the future development of AI foundation models.⁷ In the midst of these uncertainties, a fundamental question is whether theoretical concerns can already be translated into rational, welfare-enhancing competition law enforcement. This is important, because premature, disproportionate, or out-of-scope intervention by competition agencies may well prove detrimental to the realization of efficiencies, competition, and innovation in the AI space.⁸ By the same token, legal uncertainty, including in the application of merger control rules, can disincentivize potential investments and growth, especially in markets that are undergoing rapid change.

In any event, BIAC is of the view that if, upon proper inspection, genuine competition law risks materialize, the current competition rules, if used effectively, are sufficiently flexible and adaptable to address any potential anticompetitive conduct arising in the AI value chain. Recent enforcement initiatives confirm that authorities have already begun to explore whether conventional competition law concepts can meaningfully be applied to GenAI-related issues.⁹ As a corollary, BIAC believes that it is too early to assume that there

⁴ BIAC notes the recent adoption of the EU AI Act, which is a first comprehensive regulation on AI by a major regulator which assigns applications of AI to three risk categories. The EU AI Act will enter into force 20 days after its publication in the Official Journal of the European Union. While some of its provisions will become applicable sooner, the EU AI Act will become fully applicable two years thereafter. *See* Regulation (EU) 2024/ of the European Parliament and of the Council on laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), PE-CONS 24/24 (May 14, 2024), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CONSIL:PE_24_2024_INIT. *See also* OECD, *The State of Implementation of the OECD AI Principles Four Years On* (OECD Artificial Intelligence Papers, No. 3, 2023), <https://doi.org/10.1787/835641c9-en> (generally on principles that should govern the use of AI).

⁵ However, some companies take the view that certain GenAI sectors are characterized by a level of concentration. *See., e.g.*, AUTORIDADE DA CORRÊNCIA (ADC), ISSUES PAPER: COMPETITION AND GENERATIVE ARTIFICIAL INTELLIGENCE (Nov. 2023), <https://www.concorrencia.pt/en/articles/adc-warns-competition-risks-generative-artificial-intelligence-sector>.

⁶ *See infra*, § **Error! Reference source not found.**

⁷ *See* CMA, AI FOUNDATION MODELS: SHORT VERSION ¶ 1.43 (Sept. 18, 2023) [hereinafter CMA SHORT REPORT 2023]. *See also infra* ¶¶ **Error! Reference source not found.**-**Error! Reference source not found.**

⁸ *See* CMA SHORT REPORT 2023, *supra* note 7, ¶ 1.85 (“Overly burdensome regulation may make it unnecessarily difficult for competition and innovation to flourish, and at worst may lead to concentration and become a significant barrier . . . in its own right.”). BIAC submits that the same applies to competition law intervention. *See also* OECD, *The Role of Innovation in Enforcement Cases – Note by BIAC*, DAF/COMP/WD(2023)100 (Nov. 29, 2023), [https://one.oecd.org/document/DAF/COMP/WD\(2023\)100/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2023)100/en/pdf); OECD, *The Relationship Between Competition and Innovation – Note by BIAC*, DAF/COMP/WD(2023)56 (June 2, 2023), [https://one.oecd.org/document/DAF/COMP/WD\(2023\)56/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2023)56/en/pdf); and OECD, *Competition Enforcement and Regulatory Alternatives – Note by BIAC*, DAF/COMP/WP2/WD(2021)18 (May 31, 2021), [https://one.oecd.org/document/DAF/COMP/WP2/WD\(2021\)18/en/pdf](https://one.oecd.org/document/DAF/COMP/WP2/WD(2021)18/en/pdf).

⁹ For example, the European Commission and the CMA have announced investigations into the reviewability of Microsoft’s investment in OpenAI under merger control rules. *See* Press Release, Eur. Comm’n, Commission Launches Calls for Contributions on Competition in Virtual Worlds and Generative AI, (Jan. 9, 2024),

is an enforcement gap or that the current competition enforcement tools are inadequate to deal with GenAI-related issues and should be expanded, modified or be replaced by new instruments.¹⁰ By the same token, BIAC does not disagree with the notion that competition law enforcement may, by default, intrinsically contribute to the protection of democratic societal values but is skeptical about any suggestion of explicitly expanding competition authorities' mandates to address policy goals unrelated to market competition.¹¹

Section II briefly discusses the main layers of the GenAI industry with an emphasis on the GenAI value chain, including the key inputs required for the creation of AI Foundation Models (FM), i.e., computing power, data, and expertise. Section III summarizes the key competition law implications, while Section IV includes a number of general observations in relation to the enforcement of the competition law rules.

https://ec.europa.eu/commission/presscorner/detail/en/IP_24_85; and *Microsoft / OpenAI Partnership Merger Inquiry*, COMPETITION & MKTS. AUTH, <https://www.gov.uk/cma-cases/microsoft-slash-openai-partnership-merger-inquiry#:~:text=8%20December%202023%3A%20The%20CMA,that%20situation%20may%20be%20expected>. In 2023, the German competition authority opened a similar investigation but ultimately determined that the partnership was not reviewable under German merger control rules. *See* Bundeskartellamt, Case summary: Bundeskartellamt examined whether partnership between Microsoft and OpenAI was subject to notification obligation under merger control, File number: B6-34/23 (Nov. 15, 2023), https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Fusionskontrolle/2023/B6-34-23.pdf?__blob=publicationFile&v=6. Bundeskartellamt President Andreas Mundt also reportedly suggested at a GCR conference on Antitrust in the Digital Economy taking place on April 9, 2024 in Washington, D.C., that acquisitions of teams of AI engineers and developers should be scrutinised very closely (Nicholas Hirst, *Microsoft's AI hires resemble 2017 case evading merger veto, Germany's Mundt says*, MLEX (Apr. 9, 2024), <https://content.mlex.com/#/content/1555121>).

¹⁰ *See, e.g.*, Diane Coyle, *Preempting a Generative AI Monopoly*, PROJECT SYNDICATE (Feb. 2, 2023), <https://www.project-syndicate.org/commentary/preventing-tech-giants-from-monopolizing-artificial-intelligence-chatbots-by-diane-coyle-2023-02>; and Maurice E. Stucke & Ariel Ezrachi, *Antitrust & AI Supply Chains* (Mar. 11, 2024), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4754655.

¹¹ This suggestion was reportedly made at a February 19, 2024, Renew Europe forum on “How to Avoid Big Tech’s Monopoly on AI.” *See* By [Théophane Hartmann](#), *Ensuring Competition in AI Will Also Preserve Democracy, Experts Say*, EURACTIV (Feb. 21, 2024), <https://www.euractiv.com/section/competition/news/ensuring-competition-in-ai-will-also-preserve-democracy-experts-say/>. Note however that within BIAC some companies are supportive of the expansion of merger control rules to capture nascent, sub-threshold concentrations.

Greece

Nowadays, Artificial Intelligence (AI) is the emerging technology that provides easy access to knowledge, enters every market domain, and enables content creation and the automation of processes. With the advent of Natural Language Processing (NLP) and Generative AI (GenAI), non-experts have access to vast amounts of information in a human-friendly way. The rapid development of AI products and services leads to the creation of a stand-alone digital market for AI and GenAI. The AI value chain includes several interconnected components which are tightly related with other digital markets. Initially, AI-powered applications rely on computing infrastructure and specialized hardware to accelerate the training and inference of AI models to meet the user-specific requirements. Most AI services are developed and deployed on cloud premises leveraging the high on-demand computing and networking resources, following mainly the Software or Platform as a Service model. Focusing on the development of AI services, access to high-quality Big Data is of major importance for the distribution of successful AI models. The development of an AI model is at the heart of the AI ecosystem, where multiple actors across the value chain must collaborate. State-of-the-art models, *e.g.*, Large Language Models (LLMs) and Foundation Models (FMs), are developed for several text processing tasks and are applicable in many business activities, including competition investigations and enforcement. Finally, model deployment implies that the final AI application must be integrated with other affiliated services, thus enhancing its capabilities.

Similarly to other digital markets, the rapid emergence of AI supply raises new challenges for competition and regulatory authorities. The competition between firms exists in every stage of the AI value chain. Established tech companies, like Google and Microsoft, offer AI and GenAI solutions in their portfolio of cloud services. Since these companies have access to huge datasets, there may arise risks regarding monopolies in key inputs and biased AI models. Furthermore, the integration of AI products with specific cloud platforms always raised interoperability issues. All these concerns could create barriers to startups and SMEs entering this growing market. This is an interdisciplinary matter that requires cooperation among competition authorities, regulators and stakeholders to ensure that diverse (and possibly competing) legitimate interests such as contestability of the GenAI markets, undistorted competition, fairness, data protection, cybersecurity, etc. are served. As a first step, competition authorities and regulators should conduct thorough studies in order to understand the fundamentals of AI and GenAI markets and identify potential risks. From a regulatory standpoint, agencies should strike the right balance between too much and too little intervention. From a competition law standpoint, competition authorities must remain agile. In light of the fast pace of AI development, traditional *ex post* competition tools might not provide effective or timely protection of undistorted competition; instead, alternative competition tools should be considered. In the field of merger control, minority stakes that fall short of control, acquisitions of start-ups that fall under the authorities' radar, vertical integration and possible conglomerate/ecosystem-type effects should be carefully considered. Finally, European competition authorities could leverage the inference capabilities of AI and GenAI to develop novel investigatory tools for an effective and efficient competition law enforcement.

Peru

This contribution briefly explores the main characteristics of the process of AI adoption in Latin American countries, with emphasis in the Peruvian experience. We report recent trends and perspectives about the AI adoption and discuss the main challenges related to competition policy.

In general, AI adoption is increasing vigorously in Latin American companies, but for the case of Peru it is still conservative. However, there is a big potential to promote its growth. Recent legislation has been given to promote AI adoption.

Main competition concerns are related to the high concentration in the segments of AI industry as well as the vertical relationship between companies. For instance, concentration levels for cloud computing market in Latin America, and specifically, for Peru, follow the world trend; with three companies (Amazon Web Services, Microsoft Azure, and Google Cloud) concentrating 50% of the Latin American market, and the same three companies concentrating more than 60% of the Peruvian cloud computing market.

Competition policy in the AI industry requires a deep understanding of all segments of its chain value, and how companies are using AI solutions in their business models. Consequently, INDECOPI needs to strengthen its capabilities and attract specialized human capital to keep track of industry developments and their implications for competition dynamics. Additionally, INDECOPI needs to strengthen its capabilities to investigate and tackle anticompetitive conduct related to the use of AI solutions by companies in their business models.

Singapore

To develop a conducive ecosystem for the trusted adoption of artificial intelligence (“AI”), Singapore recognizes that AI must be developed in a safe and responsible manner, so as to manage the risks of AI systems being abused or mismanaged.

Hence, the Competition and Consumer Commission of Singapore (“CCCS”) has taken steps to ensure that our competition framework and toolkits remain robust and future-ready to manage competition risks arising from AI. At the same time, CCCS considers that AI has the potential to enhance competition enforcement. By leveraging on AI, CCCS can more effectively identify and address anti-competitive behaviour, which ultimately leads to a more competitive marketplace and better outcomes for consumers.

The written contribution outlines CCCS’s response to AI developments in three parts. The first part examines CCCS’s work in engaging industries to deploy AI in a manner that is explainable, transparent, fair and human-centric. In this regard, CCCS is working closely with other public agencies to empower undertakings to assess risk arising from their use of AI systems and provide guidance through updating relevant industry standards. The second part examines CCCS’s work in scaling up internal capabilities to strengthen its work on digital markets and data science, through the establishment of its “Data and Digital” Division. The third part examines how CCCS has integrated AI into its enforcement tools, such as using natural language processing and machine learning techniques to bolster its complaint analytics capabilities.

Türkiye

In recent years, artificial intelligence (AI) has seen remarkable progress in various domains of learned perception and inference. Recent developments in the field of AI have significantly expanded the application areas of AI, making it a focal point for competition authorities. AI technologies not only enable businesses to make faster decisions but also enhance marketing strategies. In examining the AI value chain, concepts such as infrastructure, modeling and deployment, as well as key elements like data, computing power, and technical expertise, emerge as crucial in understanding primary competition issues.

However, despite the numerous advantages of AI systems, there are also some competitive risks to effective competition that it brings. Accessibility to key inputs, in particular, can be vital to operating and competing in those markets. However, competition law is closely related not only to the core components of AI, but also to the process of AI development. These potential competitive risks to effective competition in AI systems may arise in the form of collusive or abusive conduct and concentration transactions. In terms of collusion, AI models can be used solely as a facilitator, or there may be cases where AI is a direct decision-maker and implementer. Another competitive concern raised by authorities and researchers is that AI could be used by dominant firms to implement anti-competitive strategies. Concerns about possible abusive behavior in AI systems can be discussed in the context of different harm theories. Also, the control mechanism regarding mergers and acquisitions, which aims to prevent the creation of a dominant position, plays an important role in this sense.

Regulatory authorities face challenges in addressing these issues in the context of rapid AI developments. In addition, there are also a variety of strategies and actions that competition authorities can consider implementing to overcome these challenges, such as new enforcement tools and human resources, adaptation of the legal frameworks, international cooperation, collaboration with other regulators, harmonization of different regulations and competition advocacy. Turkish Competition Authority (TCA) may encounter similar challenges when attempting to intervene in competitive concerns regarding AI, as may all competition authorities worldwide. TCA will thus keep a careful eye on the digital markets through various sector inquiries and investigations.