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*Artificial Intelligence in the Public Sector: A Focus on Economic Regulation**

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ABSTRACT Artificial intelligence is increasingly used to support various public functions, including market regulation, both in rule-making and enforcement. Techniques such as web scraping and sentiment analysis are being employed in regulatory authorities' fact-finding investigations, while AI is also used in public consultations to identify the most relevant or significant comments. Moreover, AI tools contribute to making enforcement activities more efficient.
Despite the many opportunities these systems offer – such as greater speed and accuracy in information gathering and, consequently, the enrichment of data sources – several critical issues arise. Among these, the opacity of decision-making processes and the potential 'impoverishment' of the regulatory process itself are particularly significant. After analysing some AI applications in market regulation in the Italian context, this paper will examine insights from the 'new safeguards' introduced by the EU Artificial Intelligence Act (AI Act).

KEYWORDS: Artificial intelligence - Public sector - Economic regulation

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1. *Introduction*

Artificial intelligence (hereinafter simply 'AI') in the public sector appears to be a pervasive phenomenon. Its legal and regulatory implications – in terms of transparency, non-discrimination, data protection, human oversight, and justiciability – have been widely discussed.[1] AI is now used in several areas of public administration, including tax controls,[2] law enforcement,[3] public procurement,[4] oversight of economic activities,[5] and the management of social

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[1] See, in the Italian legal literature, A. Avanzini, *Decisioni amministrative e algoritmi informatici*, Naples, Editoriale Scientifica, 2019; B. Marchetti, *Amministrazione digitale*, in *Enciclopedia del diritto. Funzioni amministrative*, Milan, Giuffrè, 2022; A. Di Martino, *Tecnica e potere nell'amministrazione per algoritmi*, Naples, Editoriale Scientifica, 2023; G. Gallone, *Riserva di umanità e funzioni amministrative. Indagine sui limiti dell'automazione decisionale tra procedimento e processo*, Padua, Cedam, 2023; L. Previti, *La decisione amministrativa robotica*, Naples, Editoriale Scientifica, 2022; L. Torchia, *Lo Stato digitale*, Bologna, Il Mulino, 2025; see also M.B. Armiento, *Pubbliche amministrazioni e intelligenza artificiale. Strumenti, principi e garanzie*, Naples, Editoriale Scientifica, 2024. For an in-depth analysis of the processing of personal data in public administrations and its legal implication, see S. Franca, *I dati personali nell'amministrazione pubblica. Attività di trattamento e tutela del privato*, Naples, Editoriale Scientifica, 2023.

[2] Tax authorities worldwide have experimented with the use of digital technologies and AI in the fight against tax evasion. Some data can be found in the recent OECD report, *Tax Administration Digitalisation and Digital Transformation Initiatives*, Paris, OECD Publishing, June 2025, which highlights several noteworthy examples in tax administration. One of the earliest analyses on this topic, with reference to the US experience, is by K. Houser and D. Sanders, *The Use of Big Data Analytics by the IRS: What Tax Practitioners Need to Know*, in *Journal of Taxation*, vol. 128, 2, 817 ff.

[3] The use of AI and digital technologies in law enforcement, particularly through predictive policing and facial recognition technologies, has been extensively analysed by legal scholars. See, among others, R. Van Brakel, *Legal, Ethical, and Social Issues of AI and Law Enforcement in Europe. The Case of Predictive Policing*, in N. Smuha (ed.), *The Cambridge Handbook of the Law, Ethics and Policy of Artificial Intelligence*, Cambridge, Cambridge University Press, 2025, 367. With a focus on facial recognition technologies in the Italian context, S. Del Gatto, *Facial Recognition Through the Lens of National Legislations – Italy*, in *European Review of Digital Administration & Law – Erdal*, 1, 2025, 69 ff.

[4] Article 30 of the Italian Public Contracts Code provides a legal framework for the use of AI and distributed ledger technologies in public procurement. Such uses must be guided by the principles of transparency, non-discrimination, and human supervision, as elaborated by the Italian Council of State in the well-known 'Buona Scuola' case-law. For a discussion of this provision, see B. Marchetti, *L'impiego dell'intelligenza artificiale nell'attività contrattuale dell'amministrazione pubblica*, in B. Marchetti and B.G. Mattarella (eds.), *La digitalizzazione dei contratti pubblici nel nuovo codice*, Turin, Giappichelli, 2024, 45-64.

[5] In Italy, Art. 9 of Legislative Decree No. 103 of 12 July 2024 sets out principles for the use of digital technologies in the supervision of economic activities (e.g., workplace safety inspections). These principles are the same as those identified by the Italian Council of

assistance benefits.[6] Nevertheless, AI could potentially be employed across the public sector as a whole. Generative AI, in particular, seems to offer virtually limitless opportunities. It is reported to assist in drafting laws and regulations[7] or even in participatory urban planning.[8]

Another interesting – although less explored[9] – application of AI concerns regulation of markets, especially the activities carried out by economic regulators.[10] How, and to what extent, can AI support this public function? The aim of this contribution is therefore to examine how AI (including generative AI) is used in these fields and to assess its legal implications.

From a methodological perspective, references to 'regulation of markets' should be understood broadly, covering the entire regulatory cycle.[11] Drawing on the theory of regulation as developed in English legal literature,[12] regulation can be defined according to the well-known OECD definition: 'the diverse set of instruments by which governments set requirements on enterprises and citizens. Regulations include laws, formal and informal orders and subordinate rules issued by all levels of government, and rules issued by non-governmental or self-regulatory bodies to whom governments have delegated regulatory powers'.[13]

This is indeed a broad definition, encompassing numerous regulatory tools and phases: from the drafting of rules and rulemaking to the enforcement of rules through inspections, controls, and sanctions.[14] This perspective must be combined with the emerging legal framework of algorithmic administration developed by the Italian Council of State.[15] According to a landmark judgment delivered in 2019, the use of digital technologies – and, in the long term, AI – by public administrations must be guided by principles of transparency, non-discrimination, and human oversight. In light of these principles, this contribution examines the emergence of AI in the various stages of market regulation.[16] Thus, in this contribution, also in the light of such principles, the emergence of AI in *rule-making* and *enforcement*[17] will be examined.

What rules govern the use of AI in market

State, with the addition of a principle of effective and efficient data management.

[6] One prominent example is the US Medicaid case, in which an algorithm led to the erroneous termination of benefits for individuals with disabilities. This case has been analysed in depth in the literature; see in particular H. Bloch-Wehba, *Access to algorithms*, in *Fordham Law Review*, vol. 88, 2020, 1265 ff.

[7] Significant applications of AI in law-making and rule-making, both in the European Union and globally, are discussed in the essay by N. Rangone and L. Megale, *Risks Without Rights? The EU AI Act's Approach to AI in Law and Rule-Making*, in *European Journal of Risk Regulation*, 2025, 1-16.

[8] See OECD, *Governing with Artificial Intelligence. The State of Play and Way Forward in Core Government Functions*, Paris, OECD Publishing, 2025, 232, which highlights the Finnish experience, where the City of Helsinki employed generative AI (UrbanistAI) to support participatory urban planning.

[9] Although interesting insights to such applications of AI in the exercise of technical discretionary powers by public administrations are given by L. Parona, *Poteri tecnico-discrezionali e machine learning: verso nuovi paradigmi dell'azione amministrativa*, in A. Pajno, F. Donati and A. Perrucci (eds.), *Intelligenza artificiale e diritto: una rivoluzione*?, vol. 2, Bologna, Il Mulino, 2022, 131 ff.

[10] One of the first empirical analyses of this phenomenon, although still at an early stage, can be found in OECD, *Shaping the Future of Regulators: The Impact of Emerging Technologies on Economic Regulators*, *The Governance of Regulators*, Paris, OECD Publishing, 2020. The report examines the impact of digital technologies on the activities of economic regulators, including those in Europe.

[11] For this methodology, see M. De Benedetto, M. Martelli and N. Rangone, *La qualità delle regole*, Bologna, Il Mulino, 2011, *passim*.

[12] See, for all, R. Baldwin, M. Cave and M. Lodge, *Understanding Regulation: Theory, Strategy, and Practice*, Oxford, Oxford University Press, 2011.

[13] OECD, *The OECD Report on Regulatory Reform. Synthesis Report*, Paris, OECD Publishing, 1997.

[14] According to OECD, *OECD Best Practice Principles for Regulatory Enforcement and Inspections*, Paris, OECD Publishing, 2024, the concept of enforcement encompasses 'all activities of state structures (or structures delegated by the state) aimed at promoting compliance and reaching regulations' outcome'. The expression regulatory enforcement is also used in the Anglo-Saxon literature (see e.g. B. Morgan and K. Yeung, *An introduction to law and regulation*, Oxford, Oxford Publishing, 2012, 151 ff.). Finally, within the Italian legislative framework, the aforementioned Art. 9 of Legislative Decree No. 103 of 12 July 2024 represents a landmark provision regarding the use of digital technologies in enforcement law.

[15] For this expression ('statuto della decisione automatizzata'), see M. Timo, *Algoritmo e potere amministrativo*, in *Diritto dell'economia*, no. 1, 2020, 765.

[16] In particular, reference must be made to the Judgement of the Council of State of 13 December 2019, no. 8472, 8473 e 8474, and to that of 4 February 2020, no. 881, concerning the algorithm used to enforce the mobility procedure introduced by the 'Buona Scuola' reform.

[17] For a reflection on the topic, see G. Corso, M. De Benedetto and N. Rangone, *Il diritto amministrativo effettivo. Un'introduzione*, Bologna, Il Mulino, 2022, 178-181, 209-213.

regulation, then? And what influence does the EU Artificial Intelligence Act have on these applications? The paper is structured as follows: paragraph 2 provides examples of how AI is used in market regulation in the Italian context in rulemaking, supervision, and enforcement. Paragraph 3 discusses the benefits and negative externalities of AI. Paragraph 4 considers potential insights from the European Regulation on Artificial Intelligence and whether the new safeguards introduced for AI systems and general-purpose AI models ('GPAIs') can be integrated with traditional administrative law guarantees. Paragraph 5 concludes with a general reflection on how AI may influence market regulation.

2. *AI Applications in Market Regulation*

AI is increasingly assuming a pivotal role in market regulation. This section examines its current applications within the European Union, with particular attention to the Italian experience. The first part considers the use of AI in rule-making; the second part analyses the deployment of AI in supervision and enforcement activities carried out by regulatory authorities.

2.1. *Rule-making*

Drafting market rules and consultation. In the rule-making activities of regulatory authorities, public consultation represents one of the most significant phases, given its ability to gather information and enhance the decision-making process:[18] it is therefore regarded as essential for achieving 'better regulation'.[19] A well-known example of the use of AI in this context – although not directly related to market regulation[20] – is represented by Doris+, implemented by the European Commission.[21] Doris+ supports the Commission by processing and analysing surveys published through the EU Survey platform and the Better Regulation Portal. The system allows users to examine all survey responses and provides a dashboard for visualising results. It is expected to be further enhanced through the integration of a large language model in the future.

In the case of Italian economic regulators, current applications appear more limited. The Bank of Italy – which has recently announced the use of generative AI to support its institutional functions[22] – has published research detailing several activities that may influence future regulatory measures.[23] These include: *i)* sentiment analysis of tweets to assess inflation expectations and analysis of newspaper articles to forecast selected macroeconomic variables;[24] *ii)* the use of machine-learning models to predict the probability of default of undertakings;[25] *iii)* the adoption of web-scraping techniques for analysing the real-estate market and forecasting unemployment.[26]

Additional examples can be found at the Italian Communications Authority (AGCOM) and the Italian Energy Regulator (ARERA). AGCOM has indicated that, by the end of 2024, it began using generative AI to assist its internal offices (although it has not specified which ones).[27] The Authority has also employed basic tools to detect hate-speech phenomena.[28] ARERA, for its part, has

[18] In this sense, see N. Rangone, *Improving consultation to ensure the European Union's democratic legitimacy: From traditional procedural requirements to behavioural insights*, in *European Law Journal*, vol. 28, 2022, 154 ff.

[19] Indeed, 'Stakeholder consultation is an essential element of policy preparation and review' (European Commission, *Better Regulation Guidelines*, Brussels, 3 November 2021 SWD(2021) 305 final).

[20] Although it could become instrumental to the adoption of EU Regulations/Directives that modify economic rules, for example in the areas of energy, electronic communications, or transport.

[21] Detailed information regarding the system discussed herein can be found at https://interoperable-europe.ec.europa.eu/collection/doris/solution/doris-plus?f%5B0%5D=solution_content_bundle%3Adocument.

[22] However, detailed information on the applications are not provided. See Bank of Italy, *Relazione sulla gestione e sulla sostenibilità – 2024*, 31 May 2025, 152.

[23] This is reported in F. Federico, J. Marcucci, M. Bevilacqua and D.J. Marchetti, *Rapporto 2/2021 – L'impiego dell'intelligenza artificiale nell'attività di Banca d'Italia*, in *Biolaw Journal*, 4, 2021, 229 ff.

[24] V. Astuti, M. Crispino, M. Langiulli and J. Marcucci, *Textual analysis of a twitter corpus during the Covid-19 pandemics*, no. 692, 17 June 2022.

[25] G. Cascarino, M. Moscatelli and F. Parlapiano, *Explainable Artificial Intelligence: interpreting default forecasting models based on Machine Learning*, 674, March 2022; and M. Moscatelli, S. Narizzano, F. Parlapiano and G. Viggiano, *Corporate Default Forecasting with Machine Learning, Expert Systems with Applications*, no. 61, 15, 2020.

[26] M. Loberto, A. Luciani and M. Pangallo, *The potential of big housing data: an application to the Italian real-estate market*, April 2018, 1171.

[27] See AGCOM, *Relazione annuale 2025 sull'attività e sui programmi di lavoro*, 16th July 2025, 141.

[28] See E. Chiti, B. Marchetti and N. Rangone, *Rapporto 1/2021 – L'impiego dell'intelligenza artificiale nell'attività di CONSOB, AGCOM e ARERA*, in *Biolaw Journal*, no. 4, 2021, 222-233. On such experimentation, see also S. Franca, *Il trattamento dei*

reported the use of data-analysis instruments, including for supporting regulatory review processes.[29]

AI may likewise be employed in fact-finding inquiries, which market authorities conduct when competition in a given sector may be threatened[30] or when an assessment of the state of a market is necessary to introduce or revise regulatory measures. An illustrative Italian example is provided by the Transport Regulation Authority (Autorità di Regolazione dei Trasporti – ART). In a fact-finding inquiry concerning the trucking and logistics sector, the Authority reported the extraction and analysis of data from the National Registry of Trucking Businesses through web-scraping techniques.[31]

2.2. *Supervision/Enforcement*

With regard to the supervision and enforcement of rules, it is essential to address the notion of 'Suptech'. The expression 'supervisory technology' (hence the crasis 'Suptech') is now widely used in legal scholarship.[32] It first appeared in the 2020 Digital Finance Strategy for the EU and it is defined as 'a sub-set of FinTech that uses of innovative technology to support supervision. It helps supervisory authorities to digitise reporting and regulatory processes'.[33]

Suptech is, however, a rather heterogeneous phenomenon. Digital technologies are employed to support traditional supervisory activities in financial markets,[34] to detect money-laundering and other criminal activities, and even to assist competition authorities in identifying cartels.[35]

The Bank of Italy may once again be considered a pioneer in experimenting with digital technologies in the field of Italian Suptech and its regulation. In 2022, it became the first Italian public administration to adopt a specific administrative regulation on the use of machine-learning systems.[36] This regulation concerns, in particular, the processing of personal data in the handling of customer complaints.[37] Building upon the legal framework established by the GDPR[38] – and anticipating certain rules introduced by the

dati nelle sperimentazioni di intelligenza artificiale riguardanti le pubbliche amministrazioni, in A. Pajno, F. Donati and A. Perrucci (eds.), *Intelligenza artificiale e diritto: una rivoluzione*?, vol. 2, Bologna, Il Mulino, 2022, 155 ff.

[29] See E. Chiti, B. Marchetti and N. Rangone, *Rapporto 1/2021 – L'impiego dell'intelligenza artificiale nell'attività di CONSOB, AGCOM e ARERA*, 211 ff.

[30] This is the case of the Italian Competition Authority. The legal framework governing fact-finding inquiries (established by Art. 12 of Law No. 287/1990 on competition law) was recently amended by introducing the so-called *New Competition Tool*. A critical discussion of this tool is provided by M. Libertini, *L'introduzione in Italia del New Competition Tool (all'insaputa del legislatore)*, in *Giornale di diritto amministrativo*, 3, 2024, 361 ff.; see also M. Ramajoli, *Peripezie passate e presenti della tutela della concorrenza*, in *Rivista della regolazione dei mercati*, 2, 2024, 335 ff.

[31] Authority for Regulation of Transport, *Inquiry on the trucking business and logistics fields*, 23rd September 2023, 5.

[32] The legal literature on Suptech is recently growing. On the topic, see P. Chirulli, *Fintech, regtech and suptech. Institutional challenges to the supervisory architecture of the financial markets*, in I. Chiu and G. Deipenbrock (eds.), *Routledge Handbook of Financial Technology and Law*, London, Routledge, 2021, 447-464; with a reference to the US context, see H.J. Allen, *Regulatory Innovation and Permission to Fail: The Case of Suptech*, in *New York University Journal of Law & Business*, vol. 19, issue 2, 2023, 237-308.

[33] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions, *Digital Finance Strategy for the EU*, Brussels, 24 September 2020, COM(2020) 591 final.

[34] Including banking sector, financial market *stricto sensu*, and insurance sector.

[35] References to such examples can be found in OECD, *The promises and pitfalls of SupTech for corporate governance-related enforcement*, OECD Going Digital Toolkit Notes, no. 10, Paris, OECD Publishing, 2021. Implications of Suptech have been also addressed by World Bank, *From Spreadsheets to Suptech Technology Solutions for Market Conduct Supervision*, 2018.

[36] For a comment to the administrative regulation, see M.B. Armiento, *Prove di regolazione dell'intelligenza artificiale: il regolamento della Banca d'Italia sulla gestione degli esposti*, in *Giornale di diritto amministrativo*, 1, 2023; see also S. Stacca and M. Elia, *Trattamento dei dati personali, strumenti di intelligenza artificiale e regolamentazione nell'attività della Banca d'Italia: ovvero quando disciplinare l'automazione è possibile*, in *Ianus*, no. 25, 2022, 93-106.

[37] The system (and the related project named 'Esptech') is also mentioned in Bank of Italy, *Relazione sulla gestione e sulle attività della Banca d'Italia*, 31 May 2023, 135-136; it also detailed in the recent paper by C. Benedetto, S. Crestini, A. de Gregorio, M. de Leonardis, A. del Monaco, D. Gulino, P. Massaro, F. Monacelli and L. Rubeo, *L'applicazione dell'intelligenza artificiale in Banca d'Italia a supporto della gestione delle segnalazioni regolamentari*, *occasional paper*, 927, 17 April 2025.

[38] The Italian Data Protection Authority issued an opinion to the Bank of Italy regarding the processing of personal data in the light of the art. 6, par. 1, lett. e) GDPR that states: 'Processing shall be lawful only if and to the extent that at least one of the following applies: […] processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller'.

Artificial Intelligence Act[39] –, the regulation sets out several 'new administrative safeguards'. It establishes organisational and technical measures governing the use of machine learning, including the retention and protection of system-generated logs, requirements regarding training data, and continuous monitoring aimed also at ensuring explainability of the system's functioning and underlying logic. Moreover, it requires the Bank of Italy to publish information on data processing practices pursuant to Article 13 GDPR. The Bank of Italy has also tested additional systems for enforcement purposes, including to support compliance with anti-money-laundering rules.[40]

Another noteworthy example in the field of financial-market supervision is provided by the Italian Companies and Exchange Commission (CONSOB), which, in collaboration with the University of Trento, has developed a system for detecting potential cases of greenwashing in green bonds.[41] According to CONSOB's own report, the system relies on a large language model, one of the first such applications in Italy. The model identifies environmental expressions and claims in documents such as sustainability reports and performs sentiment analysis on these statements, classifying them according to associated risk levels. The system is intended to support both supervisory activities and regulatory work. In the past, CONSOB has developed other tools to assist enforcement, particularly in detecting market abuses. For instance, in 2024, it collaborated with an Italian university to produce an unsupervised machine-learning system designed to identify potential insider-trading activities.[42]

3. *Benefits and Criticalities of AI in Market Regulation*

After examining the most significant uses of AI in market regulation, it is possible to identify both advantages and drawbacks. AI offers several clear benefits for market regulation. At least two may be highlighted. First, in rulemaking, AI enables regulators to strengthen their information base by selecting and processing data that would be impossible to gather solely through human capacities, while also identifying the most relevant information.[43] This is particularly useful, for example, in the regulation of transport or energy sectors. Similarly, AI can substantially enhance enforcement activities. In financial-market supervision, authorities must process large volumes of data (such as claims, reports, and notifications from clients)[44] before initiating a supervisory proceeding. AI allows for the clustering of such data – whether by origin or by topic – thus facilitating their analysis. In both rulemaking and enforcement, AI is also capable of reducing 'noise', errors, and biases associated with human activity, potentially leading to more objective and neutral decisions.[45]

Second, the use of AI enables economic regulators to target both rulemaking and enforcement more effectively. Because AI can infer patterns across different data sets,[46] it allows regulators to adopt better-informed regulations and decisions, thereby promoting genuinely evidence-based rulemaking and

[39] At the time of the adoption of the regulation, the Artificial Intelligence Act was not still in force.

[40] See the interesting paper by P. Cariello, M. De Simoni and S. Iezzi, *Un modello di machine learning per l'identificazione di aziende collegate alla criminalità organizzata in Italia*, 22, June 2024.

[41] A more detailed description of the system and its functioning can be found in S. Paterlini, A. Nicolodi, M. Gentile, V. Foglia Manzillo, M.R. Sancilio and P. Deriu, *Greenwashing alert system for EU green bonds. The CONSOB–University of Trento prototype*, July 2025.

[42] This is reported by CONSOB, *Relazione annuale sull'attività svolta nel 2024*, 2025, 36. Nevertheless, such employment is described in more details in P. Deriu and S. Racioppi, *Riflessioni in tema di intelligenza artificiale e attività di vigilanza*, August 2025.

[43] This aspect is highlighted by the influential 2020 report *Government by Algorithms*, which focused on the use of AI by US administrative agencies. The report illustrates how the US Federal Communications Commission employed machine learning in the so-called 'Net Neutrality Proceeding,' using natural language processing to analyze a large number of public comments.

[44] For instance, the Bank of Italy, in its 2024 *Relazione sugli esposti dei clienti delle banche e delle finanziarie* (June 2025), stated that the institution received more than 11,800 complaints from customers.

[45] Such argument is advanced by C.R. Sunstein, *Governing by Algorithm? No Noise and (Potentially) Less Bias*, in *Duke Law Journal*, vol. 71, 2022, 1175 ff. Sunstein contends that algorithms have the potential to eliminate unequal treatment and cognitive bias. However, he acknowledges that if the inputs are flawed, algorithms might nonetheless produce discriminatory outcomes; therefore, careful programming and oversight are essential.

[46] In line with the definition of AI provided by art. 3 (1), Reg. EU 2024/1689 and the Commission Guidelines on the definition of an artificial intelligence system established by Regulation (EU) 2024/1689 (AI Act), adopted in February 2025.

enforcement.[47]

However, AI in market regulation also presents 'new' drawbacks, which may differ from those traditionally identified by legal scholars and national courts. First, despite the potential to enrich the information base available to regulators, the use of AI may in fact impoverish the decision-making process, resulting in a breach of the principle of human oversight. It is well known that AI systems select information according to criteria derived from their training data. This may lead, for example, to the over-representation of certain viewpoints in public consultations, while marginalising comments that might offer valuable insights,[48] an effect aggravated by automation bias (whereby regulators may over-rely on AI outputs simply because '*the machine said so*').[49]

This leads to a second problem. If the decision-making process is made poorer and less-informed in the above-mentioned terms, this could reduce the transparency of the decision-making process.[50] It may become impossible to understand how certain rules or decisions were adopted, given the difficulty of determining how the system selects or evaluates comments submitted in public consultations or identifies relevant signals of potential unlawful activities.

Third, in the context of enforcement, the use of AI may lead to potential discrimination.[51] Algorithmic outcomes may be influenced by the way an AI system is trained,[52] which could result in the disproportionate monitoring of certain undertakings and the creation of categories of operators subjected to 'special surveillance'.[53] Similar risks arise in rulemaking: algorithmic design may lead to market rules that favour some operators over others.

Fourth, from a legal standpoint, rules governing market regulation are highly sector-specific (consider banking and financial regulation or public-transport regulation, which derive from both national and EU sources). At the same time, some general principles and guarantees of law No. 241/1990 on administrative procedure are sometimes recalled, particularly for final acts (such as sanctions, traditionally considered part of enforcement).[54] Unlike the adoption of traditional general administrative acts (such as tender notices), which are exempt from guarantees of reasoning, participation, and access, rulemaking is subject to special requirements (including ex ante regulatory impact assessment), while enforcement guarantees are generally reinforced (such as the right of defence).[55]

Within this framework, it is necessary to assess how these 'traditional' rules – already adapted to market regulation – can further adjust to the emergence of AI. At the same time, in line with recent indications from Italian administrative courts, 'new' rules are beginning to emerge. These rules, found in

[47] On the importance of an evidence-based regulation through consultation, see C.R. Sunstein, *Empirically Informed Regulation*, in *University of Chicago Law Review*, no. 78, 2011, 1349 ff.

[48] In fact, 'in the example of AI used at a stage that might precede regulation, an inadequate design of the algorithm can lead reports or complaints to receive less attention because of spelling mistakes or jargon' (N. Rangone, *Artificial Intelligence Challenging Core State Functions: a Focus On Law-Making And Rule-Making*, in *Revista de Derecho Público*, no. 8, 2023, 110).

[49] Some interesting and interdisciplinary insights on automation bias in public administration are given by H. Ruschemeier, L.J. Hondrich, *Automation bias in public administration – an interdisciplinary perspective from law and psychology*, in *Government Information Quarterly*, vol. 41, no. 3, 2024, 1 ff.

[50] The intertwined relationship between participation and transparency is highlighted by several legal scholars, including C. Coglianese, K. Kilmartin and E. Meldelson, *Transparency and Public Participation in the Rulemaking Process: Recommendations for the New Administration Authors*, in *The George Washington Law Review*, no. 77, 2009, 924 ff. Among the Italian legal scholars, see A.G. Orofino, *Openness of Public Data and Transparency of Administrative Action*, in *European Review of Digital Administration & Law – Erdal*, vol. 2, no. 3, 2022, 51 ff., and more extensively, A.G. Orofino, *La trasparenza oltre la crisi. Accesso, informatizzazione e controllo civico*, Bari, Cacucci, 2020, 47 ff.

[51] The literature on algorithmic discrimination is extensive. In particular, applications of AI designed to detect illicit activities, such as predictive policing or facial recognition technologies, are prone to causing discriminatory outcomes. See T. Nachbar, *Algorithmic Fairness, Algorithmic Discrimination*, in *Florida State Law Review*, vol. 48, 2021, 509 ff.

[52] In line with the principle 'garbage in, garbage out'. On the topic see S. Mayson, *Bias in, bias out*, in *Yale Law Journal*, vol. 128, 2018, 2218 ff.

[53] This expression is borrowed from N. Rangone, *Semplificazione ed effettività dei controlli sulle imprese*, in *Rivista trimestrale di diritto pubblico*, no. 3, 2019, 907.

[54] It is the case of the administrative regulation of the Bank of Italy on the management of complaints through AI.

[55] On the Italian authorities, see E. Chiti, *La disciplina procedurale della regolazione*, in *Rivista trimestrale di diritto pubblico*, no. 3, 2024, 679 ff.; M. Clarich, *Garanzia del contraddittorio nel procedimento*, in *Diritto amministrativo*, no. 1, 2004, 59 ff.

sector-specific legislation such as public-procurement law or the legislative decree on the simplification of enforcement in economic activities, are inspired by principles aimed not only at ensuring the legality of algorithmic decision-making, but also at addressing challenges such as system security, data protection, algorithmic transparency, and the requirement of human oversight. These principles may be inferred from the GDPR and, prospectively, from the AI Act.

This raises an additional question: how do these principles apply to the activities of economic regulators? So far, the only example of rules specifically adopted by an economic regulator is that of the Bank of Italy, which has issued the regulation mentioned above concerning the use of AI systems for managing customer complaints in support of supervisory activities. No comparable rules exist for rulemaking. In this field, it would be particularly challenging to adapt traditional safeguards to the use of AI. For instance: in the absence of explicit legislation, should a regulator disclose, during a consultation, that generative AI was used to collect or analyse comments? Should a regulator indicate, when adopting new rules, that AI assisted in their drafting? Moreover, the 'specialised' nature of each economic regulator and its institutional tasks suggests that personalised AI rules may be required.

4. *What Insights Does the Artificial Intelligence Act Offer for AI-driven Market Regulation?*

In August 2024, the EU Regulation on Artificial Intelligence came into force, becoming the first legislation in the world to establish a comprehensive legal framework for artificial intelligence and its externalities. Specifically, the Regulation prohibits certain practices listed in Article 5,[56] imposes special obligations on both providers and deployers of high-risk AI systems,[57] and sets transparency requirements for AI systems designed to interact directly with natural persons under Article 50. It also introduces specific rules for general-purpose AI models, such as generative AI, including transparency requirements,[58] adherence to copyright rules,[59] and stricter obligations for systems presenting systemic risks.[60]

A key question arises: what is the impact of these rules on AI in market regulation, and how do they integrate with national administrative rules, particularly those codified in law no. 241/1990 and sectoral legislation? At first glance, market regulation appears not to be directly addressed by the AI Act. For instance, activities that are not strictly considered 'market regulation,' such as combating tax evasion or implementing anti-money laundering measures, are not classified as 'high-risk'.[61] In financial markets, AI systems are only referenced in Annex III of the Regulation ('AI systems intended to be used to evaluate the creditworthiness of natural persons or establish their credit score, with the exception of AI systems used for the purpose of detecting financial fraud'). Beyond these examples, the Regulation does not explicitly mention regulatory or enforcement activities by independent authorities, nor does it directly address antitrust enforcement.[62] As a result,

[56] A criticism to the provisions dedicated to prohibited practices can be found in U. Ćemalović, *Prohibited artificial intelligence practices according to Article 5 of the European Union's regulation on AI—between the 'too late' and the 'not enough'*, in *International Journal of Law and Information Technology*, 32, 2024, 1 ff. According to the author, the provision 'does not go far enough, introducing a series of legal standards that would raise issues of interpretation, and thus potentially lead to its unsatisfactory level and quality of enforcement'.

[57] With reference to high system, the Regulation states: 'As regards stand-alone AI systems, namely high-risk AI systems other than those that are safety components of products, or that are themselves products, it is appropriate to classify them as high-risk if, in light of their intended purpose, they pose a high risk of harm to the health and safety or the fundamental rights of persons, taking into account both the severity of the possible harm and its probability of occurrence and they are used in a number of specifically pre-defined areas specified in this Regulation' (whereas 52, Reg. EU 2024/1689).

[58] Such specific rules are justified in the light of the fact that 'The notion of general-purpose AI models should be clearly defined and set apart from the notion of AI systems to enable legal certainty' (whereas 97, Reg. EU 2024/1689).

[59] See art. 53, Reg. EU 2024/1689.

[60] See artt. 51 and 54, Reg. EU 2024/1689.

[61] More precisely, the whereas 59 of the Regulation provided that 'AI systems specifically intended to be used for administrative proceedings by tax and customs authorities as well as by financial intelligence units carrying out administrative tasks analysing information pursuant to Union anti-money laundering law should not be classified as high-risk AI systems used by law enforcement authorities for the purpose of prevention, detection, investigation and prosecution of criminal offences'.

[62] The relationship between antitrust and AI Act is investigated by T. Schrepel, *Decoding the AI Act:*

such uses may not qualify as high-risk, which would leave them subject only to the transparency obligations under Article 50, requiring disclosure when AI interacts with humans. Given this legislative gap, three possible approaches can be envisioned.

De jure condendo solution. The first solution is modifying existing legislation. The list of high-risk systems in Annex III should not be seen as entirely rigid. Article 7 of the AI Act allows the European Commission to adopt delegated acts to modify Annex III, particularly when 'the AI systems are intended to be used in any of the areas listed in Annex III', and 'the AI systems pose a risk of harm to health and safety, or an adverse impact on fundamental rights, and that risk is equivalent to, or greater than, the risk of harm or of adverse impact posed by the high-risk AI systems already referred to in Annex III'.[63] Despite the ambiguity in this formulation (since both conditions must be met, it appears that, on the one hand, the 'list' in Annex III is pre-defined and rigid, while, on the other hand, it can still be modified if a system presents a risk greater than those of the systems already included),[64] the Commission could, in the future, include AI systems used by economic regulators or antitrust authorities in rulemaking and enforcement activities. This would ensure that datasets are of high quality, fundamental rights impact assessments are conducted, human oversight is maintained, and the right to an explanation under Article 86 is guaranteed.[65]

However, the application of high-risk rules is not automatic. The enforcement of such rules could be limited by some norms of the Regulation. In particular, exemptions exist for AI supporting a 'narrow procedural task',[66] to 'improve the result of a previously completed human activity',[67] to 'detect decision-making patterns or deviations from prior decision-making patterns and is not meant to replace or influence the previously completed human assessment, without proper human review',[68] or finally, 'to perform a preparatory task to an assessment relevant for the purposes of the use cases listed in Annex III'.[69] For example, let's consider an AI system used to help authorities cluster comments in a public consultation or categorise user complaints. It is not immediately clear whether such a system should be classified as a narrow procedural task or as a preparatory task. Anyway, this would result in several activities[70] being excluded from high-risk rules. On one hand, this may be beneficial, as it allows administrations to experiment with innovative solutions without being constrained by the rigorous and costly requirements of the AI Act, a situation that applies to many national regulators, with the exception of the Bank of Italy. On the other hand, however, this approach could reduce important safeguards for citizens, such as transparency and accountability.

Adoption of codes of conduct by economic regulators. The second solution involves economic regulators adopting codes of conduct, allowing them to voluntarily comply with high-risk rules under Article 95 of the AI Act. Since codes of conduct are voluntary, administrations would need incentives to adopt these codes,[71] and this approach is therefore not decisive.

Specific rules for general-purpose AI models. Finally, the third solution is limited to general-purpose AI systems. Sectoral analysis has shown that economic regulators have begun using these tools in both rule-making

Implications for Competition Law and Market Dynamics, in *Journal of Competition Law & Economics*, vol. 21, no. 3, 2025, 374 ff.

[63] Art. 7, par. 1. lett. a), b), Reg. EU 2024/1689. The decision to allow the Commission to modify Annex III through delegated acts has been criticised by M. Ebers, *Truly Risk-based Regulation of Artificial Intelligence How to Implement the EU's AI Act*, in *European Journal of Risk Regulation*, no. 16, 2025, 693, because it 'raises concerns in terms of power allocation'.

[64] It has been discussed, referring to law-making and rule-making in general, whether such uses could be considered part of the 'democratic process' category (N. Rangone and L. Megale, *Risks Without Rights? The EU AI Act's Approach to AI in Law and Rule-Making*, cit., 1092). However, the authors note that, from a textual perspective, the provision only includes 'the use by judicial authorities or alternative dispute resolution bodies', or the 'interference in elections, political campaigns or voting behaviours'.

[65] The right to an explanation, as set out in the AI Act, and its relationship with European safeguards has begun to be discussed in the legal literature. For instance, see M. Kaminski, G. Malgieri, *The Right to Explanation in the AI Act*, in *University of Colorado Law Legal Studies Research Paper No. 25-9*, 2025.

[66] Art. 6, par. 3, lett. a), Reg. EU 2024/1689.

[67] Art. 6, par. 3, lett. b), Reg. EU 2024/1689.

[68] Art. 6, par. 3, lett. c), Reg. EU 2024/1689.

[69] Art. 6, par. 3, lett. d), Reg. EU 2024/1689.

[70] See section 2 of this contribution.

[71] Whereas 165, Reg. EU 2024/1689: 'To ensure that the voluntary codes of conduct are effective, they should be based on clear objectives and key performance indicators to measure the achievement of those objectives'.

and enforcement activities. This means that GPAIs are subject to specific rules, including copyright compliance and transparency requirements, and therefore fall under the scrutiny of the European Commission.[72]

It is important to note that all three of the solutions mentioned above raise concerns regarding their relationship with the traditional safeguards of Italian administrative law. A significant example is the right to an explanation. What is the relationship between the right to an explanation and the reasoning behind administrative acts under Italian law[73] (which is guaranteed in the rule-making of independent authorities along with participation and disclosure of information)? It is intuitive that, even if AI systems in market regulation were classified as high-risk under the Regulation on artificial intelligence or if economic regulators adhered to codes of conduct, traditional administrative safeguards – although no longer sufficient on their own – cannot simply be replaced.

Moreover, another critical organizational aspect must be considered. As noted earlier, the AI Act subjects GPAIs to the exclusive scrutiny of the European Commission, while rules for other AI systems are enforced by national authorities.[74] For technologies deployed in financial markets, oversight falls to the national authorities responsible for financial supervision.[75]

What happens when a supervisory authority in financial markets (such as the Bank of Italy or CONSOB) uses a high-risk AI system in carrying out its tasks? In the absence of specific provisions in the Regulation, oversight would fall to the national authority. This could lead to fragmented enforcement, with different uses of AI (generative and non-generative) within the same institution being subject to different supervisory bodies.

5. *Final Remarks*

The sectoral analysis, focused on the Italian experience and on the benefits and challenges of such systems, has revealed several noteworthy trends. Two deserve particular attention.

First, it should be noted that national regulation of these systems remains at an embryonic stage and, in most cases, does not yet exist. This is partly due to differences between the legal regimes governing economic regulators. The AI Act, meanwhile, does not appear decisive in addressing these issues. Existing systems employed by economic regulators in Italy are not classified as high-risk under the Regulation. Nevertheless, it is possible that national authorities and courts may choose to derive rules and principles from the AI Act, as has already occurred with the GDPR.

Second, the analysis also indicates the early emergence of generative AI systems in market regulation. Generative AI introduces new and complex legal challenges for the public sector, which are still far from being fully resolved. For instance, public administrations must guarantee new levels of transparency, and rules concerning copyright and incident mitigation must be respected. Moreover, under the AI Act, the European Commission is the sole enforcer of the rules for GPAIs, including generative AI, albeit with some risks of fragmentation, which may contribute to greater uniformity in the practice of economic regulators across the Union.

In conclusion, it is probably premature to speculate on potential developments of these trends. Nevertheless, they will need to be carefully investigated to assess the impact of AI on market regulation.

[72] 'The Commission shall have exclusive powers to supervise and enforce Chapter V, taking into account the procedural guarantees under Article 94' (art. 88, Reg. EU 2024/1689).

[73] This point is effectively highlighted by B. Marchetti, *Intelligenza artificiale e Pubblica Amministrazione: l'importanza dei distinguo per comprendere rischi e opportunità*, in E. Happacher, C. Zwilling, P. Bussjäger, W. Obwexer and S. Parolari (eds.), *Digitalisierung und regionale Autonomie. Digitalizzazione e autonomia regionale*, Baden Baden, Nomos, 2025, 101-102.

[74] Such system has been defined a 'mixed enforcement system' ('sistema misto di esecuzione') by B. Marchetti, *L'esecuzione della regolazione digitale dell'Unione europea e il ruolo della Commissione*, in *Rivista trimestrale di diritto pubblico*, no. 4, 2024, 1097 ff.

[75] Art. 74, par. 6, Reg. EU 2024/1689.