BANCA D'ITALIA
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Artificial Intelligence in Finance

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The use of artificial intelligence (AI) can bring substantial benefits to financial services. It has the potential to improve the quality and efficiency of services in areas like personalised financial advice, credit risk assessment, customer support, claims handling, and surely many more. It can strengthen fraud detection and improve the security of transactions. It can help authorities in tasks such as prudential supervision, market surveillance, market abuse monitoring, complaints processing and sanctions screening. It can assist market institutions in ensuring regulatory compliance, including in the field of anti-money laundering.

To reap those benefits in full, both private agents and authorities need to take due care of the risks that AI, like all new technologies, entails.

Issues that are often mentioned in this respect concern the opacity of models (a point that includes the quality, accuracy and representativeness of the data on which models are trained), the macro risks potentially arising from increased interdependence, cybersecurity vulnerabilities (to technical failure or malicious action), and the fair treatment of customers. On the last point, AI's reliance on personal data raises questions around consent and appropriate data governance, not least in respect of the possibility of systemic bias, that need to be managed effectively.

Intermediaries often rely on third-party providers to acquire innovative technologies. This also raises several issues: the need to ensure the robustness of legal and technical arrangements; the risk that many actors become dependent on a limited number of providers, with potential systemic vulnerabilities; the geographic concentration of providers.

In Italy, like everywhere else, the adoption of AI by supervised financial intermediaries has accelerated markedly in recent times. Investments by Italian intermediaries in projects incorporating AI-based techniques have more than quadrupled over the last two years, with GenAI leading both in terms of total investment and number of new initiatives launched. More generally, data from our biennial FinTech Survey show that investments by Italian banks in the most innovative technological projects grew from less than 0.5 per cent of operating costs in 2017-18 to almost 1.5 per cent in 2023-24.

Financial services businesses are exploring, investing in, and implementing AI at a much faster rate than other industries.

Banks and other intermediaries are benefiting from the ability of AI to process a broader and more diverse set of information than traditional models, improving among other things their ability to assess credit risk and to detect early signs of loan deterioration. About three-quarters of 'significant' (larger) banks are using AI and big data technologies for assessing creditworthiness, with another 10 per cent having projects under development. Customers are benefiting too. We have evidence that AI can improve access to credit for businesses with shorter credit histories or fragmented information.[1] Furthermore, banks that make extensive use of these technologies tend to support the most dynamic businesses more actively.[2]

On the regulatory side, the OECD shows that many jurisdictions have rules in place that are assessed as appropriate. The EU has adopted a comparatively prescriptive approach. The European AI Act entered into force on 1 August 2024, though most of its requirements will only be applicable starting from 2 August 2026. The Act establishes a comprehensive risk-based, legally binding framework to ensure a high level of protection against the possible harmful effects of AI-based techniques, and an elaborate enforcement mechanism. It is important that European and national authorities ensure its smooth operation, avoiding any regulatory overlaps and effectively coordinating surveillance actions.

Some observers fear overregulation, and some stakeholders are worried that the AI Act may impair their ability to innovate. There are always trade-offs in the regulation of innovative activities. In the performance of our institutional duties, we are committed to ensuring the safety of the financial system and the protection of users' rights while creating the best conditions for encouraging fast, productive innovation. We favour a pragmatic and flexible approach, one that quickly adapts to advances in technology and fully preserves the benefits of the single market.

As conduct oversight authorities, the Bank of Italy and Ivass, the BdI's sister institution entrusted with insurance supervision, need to ensure that AI works for consumers, helping to create a more inclusive, transparent, and equitable financial system. Conversational interfaces can facilitate users' decisions about budgeting, saving, digital banking, and loan options. Tools based on machine learning can propose personalised solutions for savings plans, insurance, small loans, and other financial products that are tailored to individual needs. Importantly, AI can bring down barriers that exclude underserved populations from financial services. It can also be instrumental in increasing digital literacy and financial inclusion. Authorities should promote financial education initiatives to stave off new forms of technological exclusion, ensure that products are offered in a fair and appropriate way, and help empower customers to exploit the new opportunities in full.

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1 N. Branzoli, E. Rainone, I. Supino and A. Fuster, *Screening and monitoring by banks that use AI and big data*, Banca d'Italia (forthcoming).

2 S. Del Prete, S. Schiaffi and G. Soggia, *Birds of a feather flock together: the coupling of innovative banks and innovative firms*, Banca d'Italia (forthcoming).

Authorities, too, can benefit from the use of AI, especially by improving their data analysis toolkit. The Bank of Italy and Ivass are working on this. Ongoing projects include structured assistance to analysts in identifying complex ownership structures, evaluating corporate governance issues, conducting fit-and-proper assessments, comparing on-site evidence across intermediaries. Detecting improper conduct by financial companies and processing consumer complaints are other promising areas. Investments in such tools are growing. At the same time, we are determined to preserve the key role of the critical judgement and experience of human supervisors.

European authorities are themselves subject to the AI Act. We are working on our innovative supervisory tools to ensure compliance with the legal provisions in all respects.

The Bank of Italy has started a joint project with the OECD and the European Commission on AI in the Italian financial markets. Four key areas are being considered: improving the regulatory framework; strengthening supervisory approaches; promoting innovation through catalytic initiatives, such as innovation facilitators; and increasing the efficiency of authorities' internal processes through the use of AI.

The OECD-EC project combines structured dialogue with the financial industry, targeted exchanges with public authorities, and evidence-based analysis. It engages experts from both the private and public sectors in Italy and other advanced economies. This open and cross-jurisdictional process is intended to foster cooperation and peer learning, and to help identify areas where regulation can be improved and simplified. Though based on the Italian context, the approach and findings may be scalable and transferable to other jurisdictions.

The project aims to understand how AI can improve the efficiency of financial markets and make them more accessible to businesses and households, thereby strengthening the competitiveness of the financial industry and its ability to promote sustainable growth and job creation. As the largest spender on ICT services and products, the financial services sector has the potential to act as a catalyst in mobilising private investment in AI. The challenge for the authorities will be to strike the right regulatory and supervisory balance.

AI is very much the subject of the day in many circles. It sparks passionate debates, just as with other powerful innovation waves in the past. The voices in these debates range in tone all the way from the apocalyptic to the messianic. The extreme fears that some harbour are likely to be misplaced, but authorities must be alert to the concrete, sometimes insidious risks that may arise from various sides. We must also be ready to adapt our judgement and priorities as the new technology develops and as we learn more about it. At the same time, we should never lose sight of the great welfare-improving potential that an industrial revolution like this is likely to have, and of the need to unlock human inventiveness and creative economic initiative so that this potential can be discovered and brought to fruition.

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