



# REGULATION & SUPERVISION OF AI IN FINANCE, INTERPLAY AI-OPEN FINANCE, AGENTIC AI

RCE of the Financial Services Commission, Mauritius in  
collaboration with the Bank of Mauritius and the OECD

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# OECD INSIGHTS ON AI IN FINANCE



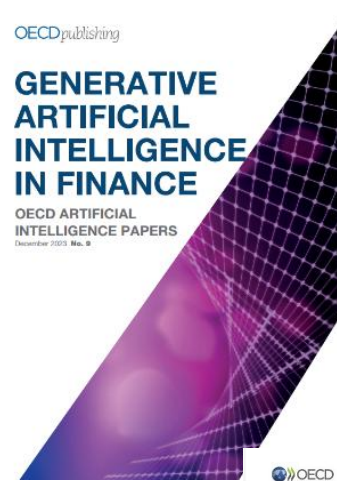
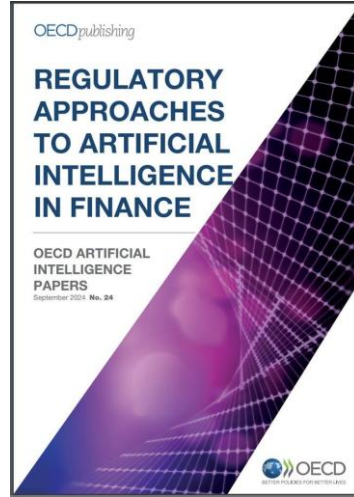
# AI in Finance @ OECD

- Artificial intelligence, machine learning and big data in finance

[OECD report \(2021\)](#)

- Generative AI in Finance
- [OECD report \(2023\)](#)

- Regulatory approaches to AI in Finance
- [OECD report \(2024\)](#)



OECD-FSB Roundtable (22 May 2024, Paris)

- [Key insights note](#) (Joint OECD - [FSB](#))

G20- OECD/FSCA Roundtable (17 July 2025, South Africa)

- [Key insights note](#) (Joint OECD - [FSCA](#))





# Regional Capital Markets Reports

- **Innovation facilitators** are increasingly supporting AI experimentation in finance.
- They can help address barriers to innovation and support capital market development.
- Careful design, along with closer cooperation at the national and regional levels, can increase their impact.



- AI in finance has potential to support **financial inclusion initiatives**
- Infrastructure supporting AI is critical for successful AI deployment and technological innovations





# AI in Italian Financial Markets Project



Funded by  
the European Union



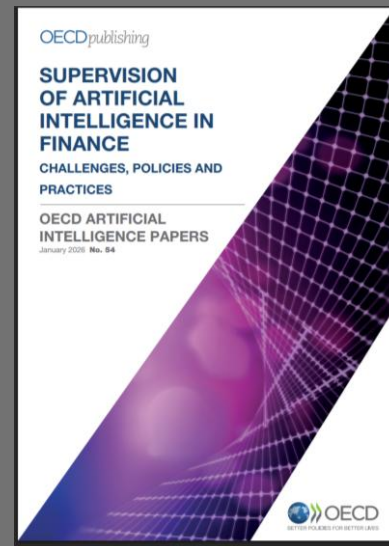
BANCA D'ITALIA  
EUROSISTEMA

- **Strengthening the Regulatory and Supervisory Framework and Market Practices for the use of AI in Italian Financial Markets**
- The project will **enhance the capacity of Banca d'Italia** to identify, understand, and address the policy and supervisory implications arising from **the use of AI along the whole financial markets' value chain**, ultimately contributing to improving their stability, resilience, and efficiency.
- Project funded by the European Union via the Technical Support Instrument, implemented with **SG REFORM** of the European Commission and the **OECD** as implementing partner
- Project webpage [Link](#)





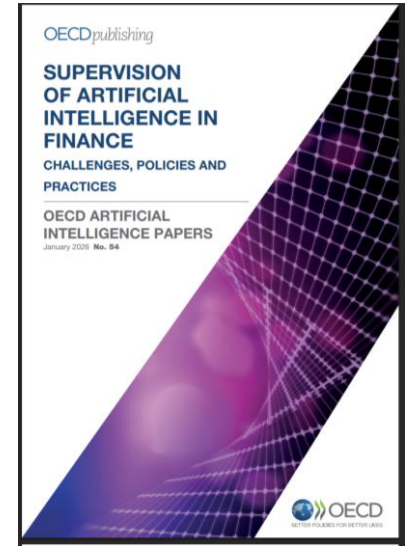
# SUPERVISION OF AI IN FINANCE





# Supervising AI in Finance: Challenges, policies and practices

- OECD Report: **Supervision of AI in Finance**
- Follow up to **AI Regulation in Finance**
- Objective:
  - Analyse current supervisory approaches
  - Examine reported challenges in oversight
  - Discuss supervisory approaches and practices to support responsible AI innovation





# Appropriate regulation on AI in Finance already in place

## ❖ Appropriate regulation in place in the vast majority of 49 jurisdictions examined

This includes:

- pre-existing rules or new regulation;
- binding or non-binding rules;
- finance-specific or cross-sectorial

\* All *non-mutually exclusive*

## ❖ Existing financial regulation, laws and guidance applies to activities *regardless of technology used*

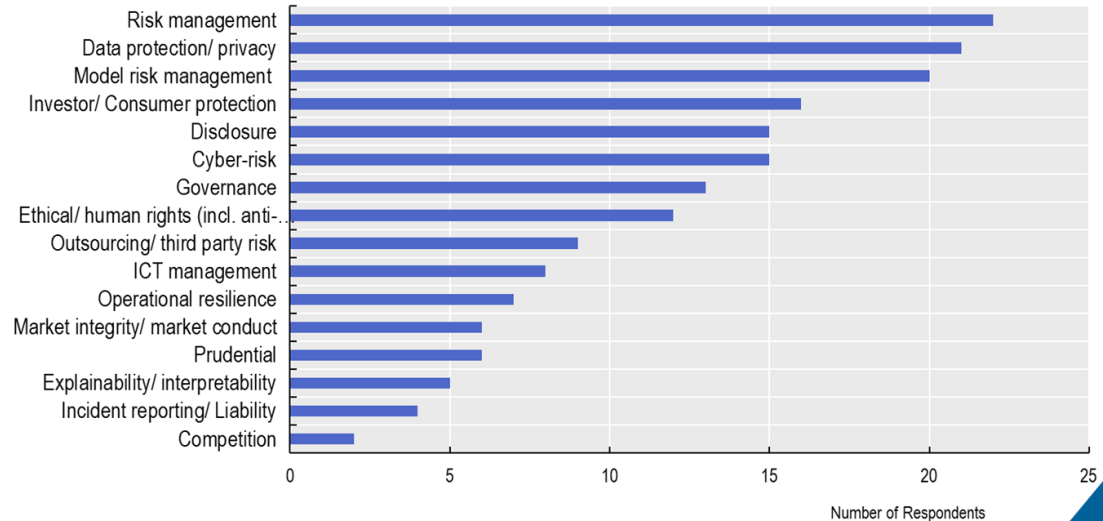
- Safety/ soundness standards
- Compliance requirements

## ❖ Technology-neutral approach

- Principles-based
- Proportional/ risk-based

## ❖ Supervisory efforts anchored on the same principles

Indicative examples of areas covered by existing financial sector rules



Source: (OECD, 2024) Regulatory approaches to Artificial Intelligence in finance, as reported by 49 jurisdictions responding to the OECD survey.



# Supervising AI in Finance: Translating regulation into effective oversight

Possible challenges at level of **practical interpretation and implementation** of applicable AI policies in finance, given:

## Interplay between *sectorial rules* and *new AI-specific policy* (where introduced)

- Potential overlaps / inconsistencies
- Compliance ambiguity and/or perceived burden

## Evolving institutional architecture (depending on the jurisdiction)

- Cross-cutting nature of AI (data protection; competition; new digital authorities; authorities beyond the financial sector)
- Cross-border dimension

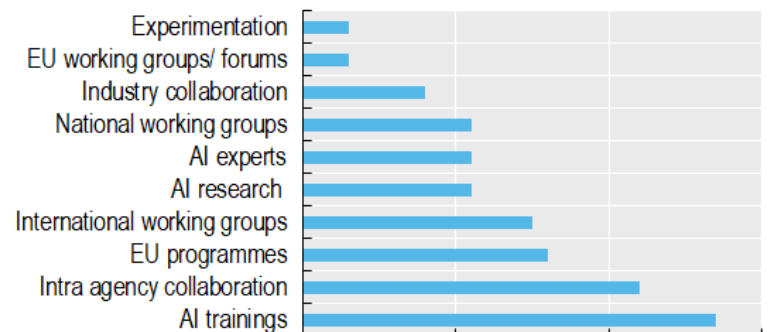
## Data gaps and monitoring tools

- Availability of recurrent granular data on AI adoption

## Developments in market structure (non-supervised entities)

- Growing role of technology providers

## Supervisory coordination efforts

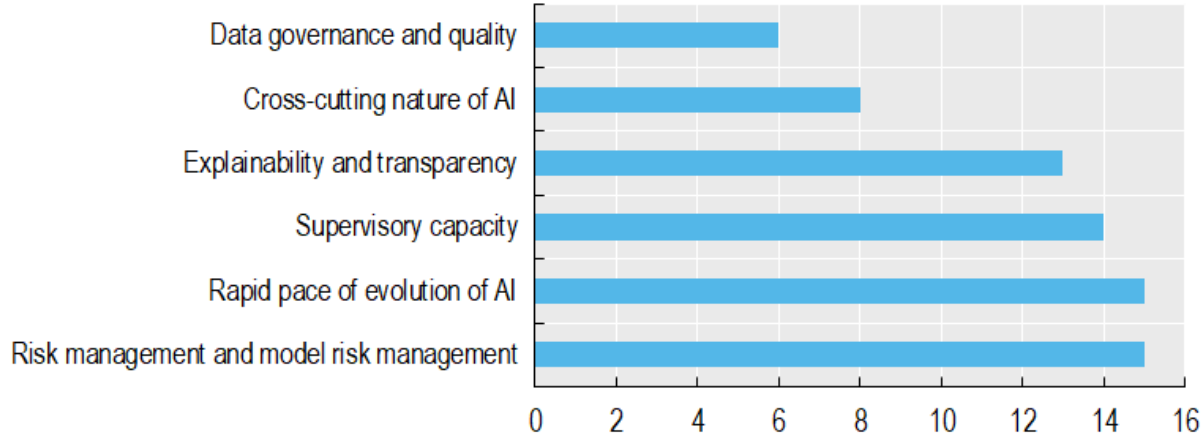


Source: 2024 OECD Survey on Regulatory Approaches to AI in Finance. Non-exhaustive list.

# Supervising AI in Finance: Reported challenges

- ❖ Challenges pronounced in areas of AI that are subject to supervisory expectations –
  - **Supervisory challenges mirror to a large extent compliance challenges; *and vice-versa***
- ❖ Possibly impeding the wider safe deployment of AI innovation in finance

## Examples of challenges reported by financial supervisors



Source: 2024 OECD Survey on Regulatory Approaches to AI in Finance. Non-exhaustive list.

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# Supervising AI in Finance: Reported challenges (cont'd)

## Distinctive characteristics and novel dimensions of AI

- Speed; complexity; opacity; autonomy

## Explainability, transparency and fairness

- Auditability and transparency requirements, assessment of robustness and fairness (+ Question of context)

## Model risk management, model validation and compliance assessment

- Existing *tech-agnostic* frameworks of model risk management continue to apply to AI models
- But, possible challenges in monitoring/ assessment of compliance with existing comprehensive model risk management frameworks (such as validation protocols, performance monitoring practices and regulatory compliance mechanisms)
  - e.g. ambiguity given lack of explainability, dynamic adaptability and recalibration of AI models, output robustness issues
  - What level of explainability is sufficient?
  - How fair is fair enough?

## Governance and data management

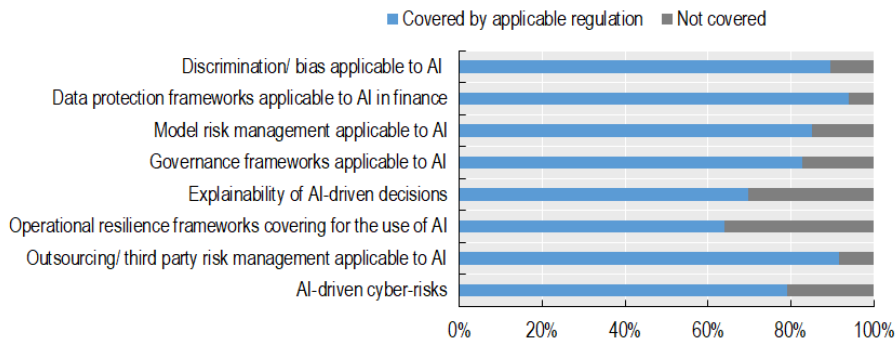
- Articulating how the concept of 'human in the loop' should apply in practice
  - depending on the context
- Challenges in assessing data governance practices
  - e.g. model opacity / difficulties to verify provenance, accuracy, completeness, relevance, and appropriateness of vast amounts of unstructured data



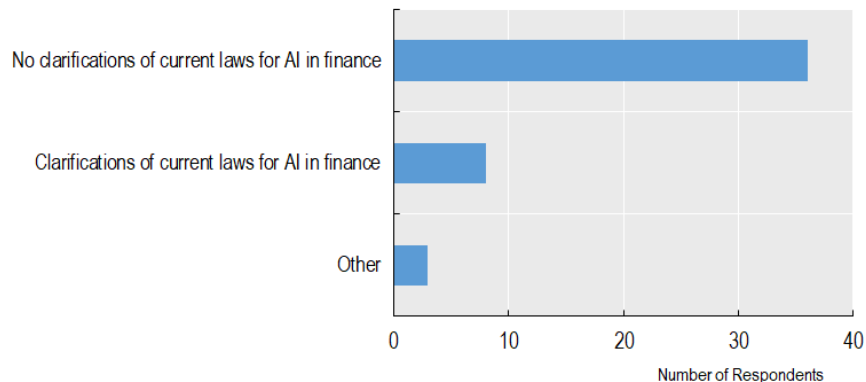
# Supervisory practices to balance innovation and stability: Additional supervisory guidance and clarifications

- ❖ Consider additional guidance on supervisory expectations/ supervisory guidance / clarifications
  - Both internal and public-facing
- ❖ Overcome *both* challenges in oversight and address perceived lack of clarity
  - Providing legal certainty for firms → increase investment and deployment of AI innovation
  - Promoting consistent regulatory outcomes

**Appropriate AI regulation in place to address areas related to reported supervisory challenges...**



**...however, clarifications around the applicability of these existing policy frameworks on AI applications in finance remain limited**



Source: 2024 OECD Survey on Regulatory Approaches to AI in Finance. Non-exhaustive.



# Supervisory practices to balance innovation and stability: **Public-private cooperation, novel AI model testing**

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- ❖ Consider reinforce and emphasize proactive and sustained public-private cooperation
  - ✓ Deepen supervisory understanding of AI deployment and operational contexts
  - ✓ Enhance authorities' capacity to identify and address emerging risks

- ❖ Novel initiatives to align supervisory expectations with industry practices

e.g. UK FCA AI Live Testing

- involving model testing, fostering mutual understanding, supporting model validation
- exploration of output-driven model assessment and validation methods
- bridge knowledge gaps and foster trust between regulators and AI developers

e.g. Supercharged Sandboxes

- multi-stakeholder engagement for testing purposes
- access to greater computing capabilities, enhanced datasets, and more advanced AI-related tooling

e.g. Public-private Forums (e.g. Japan)

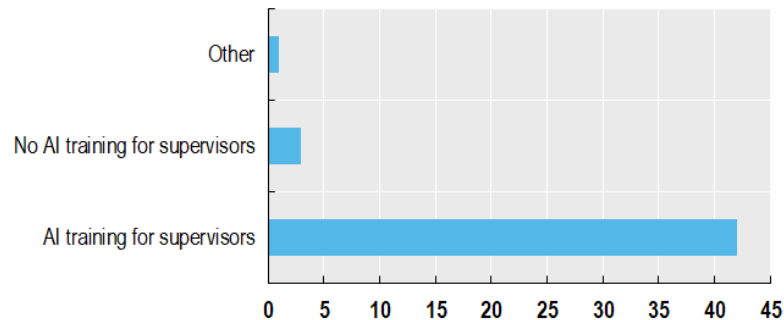
- promote discussion with industry and mutual understanding



# Supervisory practices to balance innovation and stability: Investment in supervisory capacity/upskilling, SupTech

- ❖ Invest in *sustained* and *continuous* upskilling and capacity building, rather than ad hoc/ one-off
- ❖ Enrich supervisory toolkit with AI SupTech tools:
  - Support effective oversight
  - Deepen practical understanding of AI systems
- ❖ Consider coordinated efforts among supervisory authorities
  - Enable strategic pooling of expertise and institutional capacity

## Supervisors already engaging in AI trainings



Source: 2024 OECD Survey on Regulatory Approaches to AI in Finance. Non-exhaustive  
Restricted Use - A usage restraint



# Supervisory practices to balance innovation and stability: Pushing the boundaries of tech neutrality

## Principles-based approach grants flexibility and adaptability

- However, could be perceived as ambiguous when it comes to highly complex AI models
- Increasing need for clarifications to help interpretation and operationalisation of policies

## In the future, supervisors may be compelled to delve into tech-specific methodologies

- e.g. methodologies or metrics for the assessment of acceptable robustness
- e.g. explainability or fairness levels for particular cases
- e.g. assessment of output robustness methodologies and techniques; of the adequacy of explainability tools used or of tools to ensure de-biased outputs of AI-driven models
- All depending on the context and the use-case involved.

## Assist supervisors in achieving delicate balance between fostering innovation and ensuring stability

- Openness to enrich and adapt supervisory tools to the realities and idiosyncrasies of AI innovation
- Proactive engagement with the industry (e.g. AI-specific model testing environments)
- Sustained and continuous upskilling and investment in supervisory capacity (incl. SupTech tools)



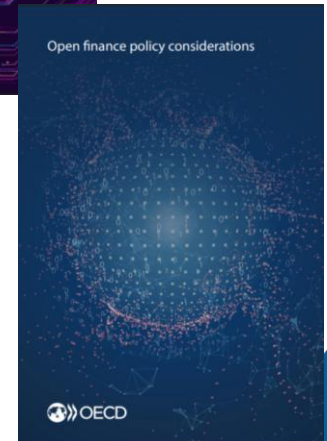
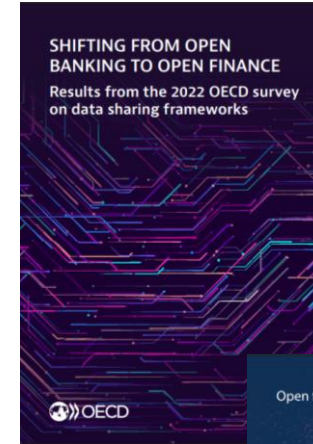
# INTERPLAY OF AI - OPEN FINANCE

## FORTHCOMING OECD REPORT



# Forthcoming report on the Interplay AI with Open Finance

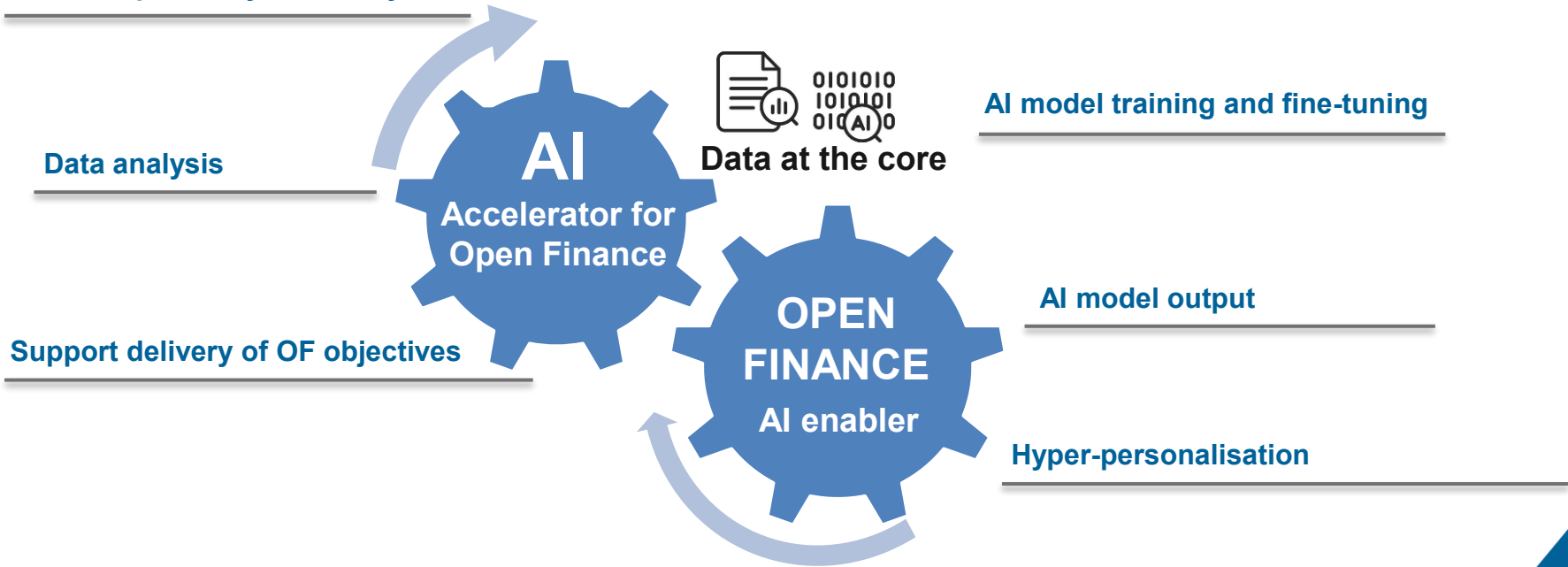
- Building on OECD work on AI, Open Banking/ Open Finance innovation
- Objective:
  - Analyse complementarities and synergies
  - Examine risks and unintended consequences
  - Analyse trade-offs and tensions
  - Discuss data sharing in a scenario of Agentic AI proliferation
  - Identify policy implications



# Interplay AI and Open Finance: Synergies and mutually reinforcing benefits

**CAVEAT:** materialised only if **safeguards** are in place

**OF interoperability and utility**





# Interplay AI and Open Finance: Amplified risks

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- ❖ **Interplay could amplify the *scale* and *complexity* of risks and unintended consequences**
  - Depending on the design of data sharing arrangement

Risk of impact of competition dynamics across the value chain of AI-related services

Amplification of data governance concerns

Risk of overreliance and other retail investors/ consumer risks

Cyber-security risk



Risk of inappropriate data usage



Thank you!

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<https://www.oecd.org/en/topics/sub-issues/digital-finance.html>