

Large AI Models Reshape the Financial Industry Through Intelligent Transformation

Financial technology researcher Mingliang Ao analyzes how large AI models are driving innovation, risk control, and efficiency in modern finance.

LOS ANGELES , CA, UNITED STATES, November 10, 2025 /EINPresswire.com/ -- Large AI Models Reshape the Financial Industry Through Intelligent Transformation

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Artificial intelligence (AI) large models are transforming the financial sector from an efficiency-driven system into a strategically intelligent ecosystem. Their value now extends far beyond automation, fundamentally redefining the logic of financial services, risk management, and resource allocation. The integration of large-scale AI models marks a paradigm shift—from experience-based operations to data-and-knowledge-driven decision-making, and from standardized supply to personalized innovation.

Core Application Areas of Large AI Models in Finance

1. Intelligent Investment Advisory

Traditional investment advisory services face challenges of high labor costs and limited client coverage. AI-powered advisory systems can process vast internal and external data to generate personalized, real-time asset allocation strategies.

For instance, one major fund company developed an AI-driven system that integrates investor profiles, macroeconomic indicators, and market trends to deliver customized investment recommendations. Investors using this system achieved annualized returns 2–3% higher than those served by human advisors, while portfolio volatility dropped by 15%. Real-time response and continuous monitoring have dramatically improved both efficiency and user experience.

2. Supply Chain Finance

For small and medium-sized enterprises (SMEs), financing difficulties often stem from information asymmetry. Large AI models can connect multi-source data across supply chains to construct comprehensive corporate credit profiles.

A joint initiative between a national bank and a technology firm built an AI model that analyzes

transaction records, logistics data, tax payments, and business relationships using graph neural networks. The system evaluates enterprise credibility, supports automated credit scoring, and enables rapid loan approval. By the end of 2024, the model had served over 23,000 SMEs with cumulative loans of RMB 87 billion and maintained a non-performing loan rate below 0.8%, significantly lower than the traditional average.

3. Anti-Fraud and Risk Prevention

As financial fraud becomes more sophisticated, AI large models play an essential role in real-time anomaly detection and dynamic risk control.

A leading payment platform in Asia developed a “Tianshu” anti-fraud model capable of integrating multi-modal data—device fingerprints, geolocation, spending habits, and behavioral trajectories. When detecting abnormal logins or atypical transactions, the system can identify and block high-risk activities within 0.1 seconds. During the 2024 shopping festival, it intercepted 127,000 suspicious transactions and prevented over RMB 320 million in potential losses, improving fraud detection accuracy by 40% while cutting false alarms by one-third.

Key Enabling Technologies

The evolution of financial AI models depends on three core technologies:

- **Multimodal Learning:** Enables AI systems to process text, audio, image, and video data in combination, breaking information silos. For instance, automated insurance claims processing can now verify medical reports, receipts, and photos simultaneously, reducing approval time from one week to less than two days.
- **Federated Learning:** Allows multiple institutions to jointly train AI models without sharing sensitive data, ensuring privacy compliance. A consortium of 12 regional banks in China used federated learning to build a joint credit risk model that improved prediction accuracy by 18%.
- **Reinforcement Learning:** Empowers financial models to adapt dynamically to market volatility, optimizing quantitative trading strategies. One brokerage’s AI trading system used reinforcement learning to limit drawdowns to under 8% while outperforming major market indices by over 10%.

Policy and Development Recommendations

To ensure the healthy application of large AI models in the financial industry, three actions are essential:

1. Build shared infrastructure and model bases under government or industry alliances to reduce the technological gap among institutions.
2. Establish risk-based application frameworks that classify scenarios into restricted, semi-automated, and fully autonomous domains to ensure accountability and safety.
3. Strengthen regulatory technology (RegTech) to promote transparency, auditability, and algorithmic responsibility through standardized evaluation systems.

Conclusion

AI large models are redefining how financial institutions create value and manage competition. Beyond improving efficiency, they enable personalized services, dynamic risk control, and inclusive finance. Yet, challenges remain in reliability, data governance, and ethical standards. Future progress depends on collaboration between institutions, regulators, and researchers to balance innovation with responsibility and build a smarter, safer financial future.

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