

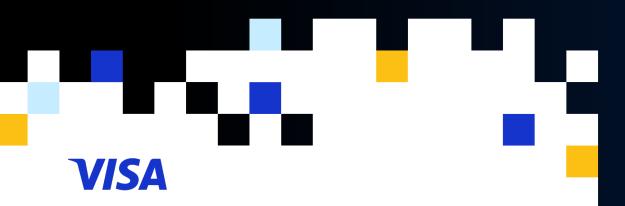
COMMERCE OFTOMORROL TODAY

Pushing the boundaries of commerce



Disclaimers

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About this project How to use this report

This report doesn't predict what will happen. Instead, it explores possible futures that merchants, banks and consumers may face in the next 10 years. These possibilities are based on trends we see today — from new technologies to changing consumer behavior.

Each story in this report describes a potential future scenario. As you read, consider:

- How would we adapt to this future?
- What would our role be if this happens?
- What should we do now to prepare?

Use these stories to spot new opportunities and challenges ahead. They're designed to help you think differently about the future and plan accordingly.

About IFTF

Institute for the Future (IFTF), founded in 1968, is the world's longestrunning futures research organization. The forecasts here don't predict the future — no one can. Instead, they provoke insights and inspire action by presenting Visa's future challenges and opportunities in finance.

About Visa

Visa is a world leader in digital payments, facilitating transactions between consumers, merchants, financial institutions and government entities across more than 200 countries and territories. Our mission is to connect the world through the most innovative, convenient, reliable and secure payments network, enabling individuals, businesses and economies to thrive. We believe that economies that include everyone everywhere, uplift everyone everywhere and see access as foundational to the future of money movement.



Commerce of Tomorrow, Today

Pushing the boundaries of commerce

Commerce touches the daily lives of billions worldwide, and its future is too complex to predict precisely. However, as we look ahead, we can see four major trends that are likely to reshape how people buy and sell in ways even more significant than the digital revolution of the past two decades. These changes will transform not just how we shop, but the entire structure of business and consumer behavior.

The Trust Principle

Our personal identity and financial activities will continue to expand across our smart devices and digital networks, requiring advanced trust networks to protect against increasingly sophisticated cyber threats.

AI Agent: Reporting for Duty

Al assistants will transform how individuals budget, save and spend with better data-driven insights.

Gen Alphas Adulting

The youngest generation (born after 2010) will approach money differently, shaped by their experiences engaging with complex decision making through video games, social media dashboards and Al tools. **To be released at a later date.**

Valuing the Future

As our planetary resources become easier to identify and quantify, new markets will emerge focused on reducing environmental damage and creating sustainable value. **To be released at a later date.**

The Trust Principle

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The Trust Principle The big story – exploring the

The big story — exploring the boundaries of identity and security

In the coming decade, as our online world keeps changing, everyone involved in buying and selling — from shoppers to store owners to banks — will likely face three major shifts in how we prove who we are and keep our information safe:

- ✓ We'll expand who we are through AI assistants that act like digital versions of ourselves. These helpers will shop, negotiate prices and handle payments for us — like a trusted personal shopper available 24/7.
- Proving who we are will become smoother and more secure. Instead of typing passwords or showing ID cards, our devices will recognize us through unique characteristics like how we talk, move or use our devices. Most of the time, we won't even have to think about proving our identity.
- As our tools get better, so do the tools of criminals. The same Al technology that makes our lives easier will create more sophisticated scams. These attacks will be harder to spot and could happen much faster than before.

Within three key jobs, advanced trust networks will be vital to keep everyone safe and transactions running smoothly:

Watch dogs

Trust networks will make sure everyone is who they claim to be and constantly watch for anything that seems out of place, like someone pretending to be you.

Safety nets

They'll watch out for Al systems that discriminate against certain people or break rules. When Al makes mistakes, the trust networks will catch and fix them before anyone gets hurt.

Digital bodyguards

They'll keep money transfers secure, even as hackers get better tools. As new technologies like quantum computers arrive, these networks will use advanced security methods to stay one step ahead of criminals.

With these protections in place, trust networks will help everyone feel confident about using AI for their daily financial tasks, knowing their money and identity are safe.





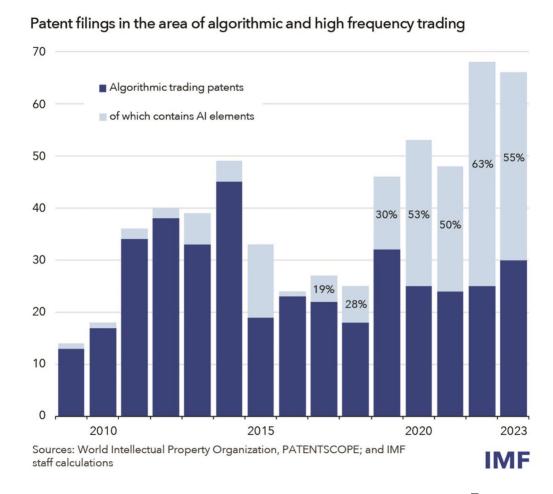
Drivers

Trust in governments and institutions has experienced generational decline across the globe

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Al's impacts on markets will be dramatic and unpredictable in the medium-term

Al adoption in trading applications is accelerating





Drivers continued

Trust in governments and institutions has experienced generational decline across the globe

A 2024 study assessed trends of global decline in people's trust in governments and institutions across six different countries. The authors identified a so-called "recession generation" whose low perceptions of institutions' ability to support their lives was shaped by events like the 2008 recession.¹

While trust in governments, media and large business has broadly declined in many countries, trust in small businesses and regional governments has in many cases persisted or even risen with time. In any case, it has never been more important to build and maintain trust with customers and communities facing uncertainty in their daily lives.

Al's impacts on markets will be dramatic and unpredictable in the medium-term

The IMF's 2024 Global Financial Stability Report suggests that while AI can enhance risk management, liquidity and market efficiency by processing vast amounts of data instantaneously, enabling faster and more accurate trading decisions, it may also amplify market volatility during times of stress, increase herdlike behaviors, and make markets less transparent and harder to regulate, especially as nonbank institutions with fewer constraints adopt these technologies more readily.² As AI-driven trading gains traction, particularly in liquid assets like equities and bonds, regulators are urged to strengthen oversight, update volatility response mechanisms, and enforce transparency among nonbank financial intermediaries to mitigate risks while reaping AI's benefits.

VISA



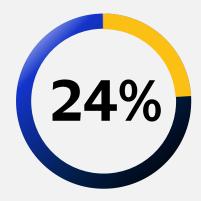
The Trust Principle

As we venture deeper into this new era of identity and security, we should expect to see seemingly contradictory extremes in customer expectations and standards for developing and maintaining trust with commercial partners:

- As Al-augmented identity validation becomes mainstream, algorithms can be perceived as too complex and opaque. It will be the jobs of the computer systems and financial entities to preestablish trust with consumers and ensure there is transparency in how their systems operate.
- As AI and sensor technologies advance, identity verification is shifting toward live assessment of physical elements and surroundings, using real-world data to confirm authenticity.
- Al-powered asset verification serves two key purposes: enabling non-traditional items to be used as financial collateral (like using future crops as loan security), while also protecting against sophisticated automated fraud attempts.

While cryptocurrencies and decentralized finance continue to develop, their core promise of eliminating the need for trust in transactions remains largely unrealized despite years of investment.

The next generation of financial networks has a chance to serve both the disillusioned users of traditional banking and the unbanked population. While about two billion people (24 percent of the global population) still lack access to digital financial services, emerging digital identity and trust systems could help bring these underserved communities into the financial mainstream, creating opportunities for economic growth in developing regions.



of the global population still lacks access to digital financial services



Glimpses of future possibilities



What if we trusted our vehicles and infrastructure to manage their own efficiency?

Lin speeds her autonomous car through the A10 across Germany, where her vehicle's integrated payment system fluidly interacts with the urban grid. As she passes through automated tolls across different European countries, recharges the vehicle at the recommended charging stations, and makes pit stops at drive-through restaurants, every transaction is executed seamlessly through an advanced trust network, verified by her vehicle's multi-factor authentication that combines biometric signatures and behavioral patterns. When she finally arrives at her destination in Hannover, her vehicle pulls into an available parking spot near the local train station, briefly signaling the per-hour rate on the dashboard screen before finalizing the transaction (since it was below the cost threshold Lin had previously established). Just before getting out, she flicks her eyes across the screen, noting happily that the vehicle has just acknowledged receipt of a carbon rebate for following the efficiency lane and parking outside of the city proper.



What if we trusted our homes and appliances to initiate their own repairs?

Mike drops his grocery bags on the kitchen counter, noticing a message from his home's smart hub. 'Your water heater's anode rod is showing accelerated corrosion patterns. Replacement part held from Henderson Supply, tentatively scheduled for installation next Tuesday by Thompson Plumbing — they had the highest reliability rating for this repair in your area. Cost: \$285, within your home maintenance threshold. Should I proceed?' Above the request, Mike sees the reassuring presence of three checkmarks, meaning the home's smart hub has already pre-vetted the suggested course of action. As he confirms the order, Mike thinks back to the flooding disaster his neighbor faced last winter from a burst water heater, which had resulted from a botched AI-suggested repair. The smart home hubs had developed a spotty reputation before the establishment of the advanced trust networks. Mike hasn't heard of any big issues since then, but they remind him to remain attentive. Satisfied, he calls his daughter to help him put the groceries away while he peppers her with fatherly questions about her new relationship.





Watching the horizon

Potential disruptions past the 10-year timeframe



Building an Al-augmented portfolio

As AI agents become commodified in the coming years, they'll integrate with our asset management strategies in empowering new ways. For those looking to maximize their financial advantages, AI advisors will continuously monitor our assets for market value and leverage opportunities. Not using your autonomous vehicle all the time? Let a decentralized taxi service employ it for rentals while you're at work. Remember that box of old collectibles in the attic? A niche antique show is coming to town where they might fetch a higher value.

With the assistance of AI advisors, people will have more help than ever before in managing the day-to-day of their finances. But no matter how effective AI becomes, individuals and families will still need to determine their own financial goals, as well as how much risk they're willing to engage with to achieve them.



Al scams could force a return to in-person commerce

The rise of AI-powered fraud presents an unprecedented threat to digital commerce. Advanced deepfakes will enable scammers to impersonate trusted contacts — including family members — building relationships over extended periods before executing their schemes. As voice and video become unreliable for identity verification, traditional security measures may prove inadequate.

If next-generation identity verification can't keep up with these sophisticated attacks, digital marketplaces might become too risky for vulnerable users, particularly those with limited tech savvy. This security crisis could erode trust for some consumers.





Critical considerations for leaders in an emerging landscape



Thinking about international regulatory complexity

Privacy regulations vary significantly worldwide — creating a patchwork of compliance requirements for global operations.

Thinking about cultural attitudes toward automation

While most regions embrace Al's role in future commerce, CEMEA markets show greater resistance. Their perspective suggests continued skepticism towards fully delegating financial decisions to Al systems — highlighting the need for balanced automation approaches.

Thinking about trust establishment

Building financial trust remains crucial across all regions, with emerging technologies facing heightened scrutiny especially in areas with historically weak institutional trust. New systems must demonstrate reliability before gaining widespread adoption.

Thinking about the evolution of transaction models

Real-time payments are challenging traditional authorizationsettlement systems, particularly in Asia-Pacific and EU markets. This shift toward instant settlement demands stronger trust frameworks, clearer regulations and enhanced transparency between parties.



Al Agent: Reporting for Duty

Al assistants will transform how individuals budget, save and spend with better data-driven insights.



Al Agent: Reporting for Duty

The big story transcending the boundaries of digital finance During the past 50 years, digital technology has transformed how we handle money — from paying with phones to trading stocks online to using cryptocurrencies.

Until now, we've had to adapt to these digital systems, learning new skills and following their rigid rules. This creates barriers for many people trying to grow their wealth or run a business.

But today, we're seeing the start of a major shift. Instead of us adapting to technology, new AI systems are learning to adapt to us. These systems, though still early, can understand and work with humans more naturally than ever before.

Within 10 years, almost everyone — regardless of their background — will have access to personal digital financial advisors available 24/7, naturally woven into their daily lives and customized to their needs and goals. Thanks to advances in AI, these digital assistants will chat with us in everyday language, talk with us through video calls (even matching our preferred accent and way of speaking), and guide us through financial decisions with understanding and care.





Al Agent: Reporting for Duty

The big story transcending the boundaries of digital finance

Unlike today's tech, these Al assistants won't just come from big companies. They'll be widely available in many forms, creating a network of digital helpers around every transaction:



People will have their own personal Al assistants that work for them and protect their interests.



Banks will provide AI helpers for their customers — these will often work directly with customers' personal AIs.



Governments will employ AI to ease the friction of complying with legal and financial regulations, offering more real-time guidance over sporadic manual audits.



Businesses and organizations will use AI to handle their dayto-day operations, automating much of the transactional work that humans do today.





Drivers Generative AI has fastest tech adoption in history

A 2024 report from the World Bank reported that as of March 2024, the top 40 generative AI tools received nearly three billion visits per month, with ChatGPT alone commanding 82.5 percent of that traffic, equating to 500 million monthly users, or 12.5 percent of the global workforce. Middleincome economies already contribute more than 50 percent of ChatGPT traffic, surpassing highincome countries, while low-income economies contribute less than one percent, highlighting a persistent digital divide.³

As these tools quickly gain global prominence, it is imperative that we shape their usage towards outcomes that benefit economies and customers across the global economy. A 2024 report from the World Bank reported that as of March 2024, the top 40 generative AI tools received nearly three billion visits per month to the top 40 generative AI tools in 2024.³



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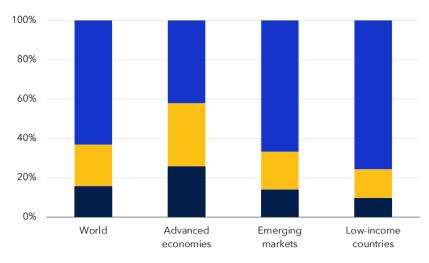
Drivers

Job transformations from AI will be particularly heavy in advanced economies

According to the International Monetary Fund, about 60 percent of jobs in advanced economies could be transformed by AI soon, compared to just 30 percent in low-income countries.⁴ Office workers and professionals are most likely to see changes as AI tools become part of everyday work.

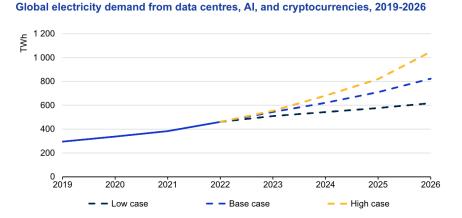
Employment shares by AI exposure and complementarity

High exposure, high complementarity
High exposure, low complementarity
Low exposure



Al boom drives massive surge in power demand

The AI revolution comes with a hefty energy price tag. As companies train more AI models and build more data centers to run them, power consumption is soaring. The International Energy Agency predicts these new technologies could double their energy use within just a few years.⁵





Al Agent: Reporting for Duty continued

We're witnessing a shift from digital finance to agentic finance, where success depends less on financial literacy and more on how well people and AI can work together to achieve goals. This shift could revolutionize how families, small businesses and communities access financial opportunities:

- Consumers will gain sophisticated AI advisors for budgeting, investment decisions and comprehensive financial planning – similar to having a personal financial advisor available 24/7.
- Small businesses can compete with larger firms by using Al agents for financial modeling and strategy, effectively gaining the capabilities of an entire finance department.
- Setting up business relationships and contracts will become faster and cheaper through AI automation, opening opportunities previously limited by administrative costs.

 Al agents will accelerate business deals and coordination between multiple parties, fundamentally changing how economic relationships form and operate. However, this AI-driven financial world brings serious risks alongside its benefits. As these systems become more sophisticated, we'll face complex challenges:



Malicious AI agents will target vulnerable people with sophisticated scams, potentially maintaining deceptive relationships over long periods while posing as trusted advisors or family members.

Early AI systems will make mistakes and generate false information, potentially raising difficult questions about who's responsible when AI-guided financial decisions go wrong.



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> We'll need new systems to handle disputes between AI agents representing different parties, as traditional conflict resolution may not work.



Access to high-quality AI will vary significantly based on cost and data availability, potentially creating new forms of financial inequality even as it helps mitigate some existing ones.

Glimpses of future possibilities



What if AI assistants helped us not just with our financial logistics, but also our anxieties?

After 40 years in traditional banking, James finds himself struggling with retirement portfolio decisions in a world he barely recognizes. James has previously indicated that he is not ready to trust these machines with his life's savings. Per his previously set rule, the system understands his skepticism, and switches to a mode that acknowledges his background while gently highlighting modern market complexities. I understand your caution, Mr. Thompson,' it responds, using the formal address he prefers. Instead of pushing new investment tools, it draws parallels to the banking principles he taught others for decades, showing how automated systems now protect against the very risks he used to warn clients about. As his vocal tension eases, the Al carefully introduces contemporary concepts, relating each to his extensive experience. By session's end, they've created a hybrid management approach that combines his traditional wisdom with new safeguards, scheduling monthly reviews that respect his preference for thorough, old-school analysis.



What if AI assistants help us to connect and coordinate more productively with other humans?

When Mira's personal AI assistant detects unusual wear patterns in her vehicle's sensor data, it doesn't just schedule a repair – it launches into action as her proxy. The AI evaluates Mira's calendar, budget constraints and historical preferences, then engages with a network of human mechanics it has vetted through thousands of previous interactions. After negotiating with three different shops' systems, it contracts a highly-rated human specialist for a complex transmission issue that automated repair systems still struggle with. The AI handles everything from appointment scheduling to payment terms, even arranging a temporary vehicle swap with another client in Mira's neighborhood. All Mira sees is a simple notification: 'I've handled your car situation within your preferred budget and timeline. Tap here if you'd like the details.' Behind the scenes, her AI has orchestrated a web of human-AI collaborations, each participant – human and digital – playing to their unique strengths.





Watching the horizon

Potential disruptions past the 10-year timeframe





Rogue agents outpace beneficial AI services

The rise of AI agents will likely spark an arms race between scammers and security systems. While AI will enhance fraud detection and regulatory oversight, bad actors — from lone criminals to state-sponsored groups — may initially move faster than protective measures. If early scams severely damage public trust, it could force heavy-handed regulations that limit AI's financial capabilities and require more human oversight of transactions.

The rise of B2AI: Business-to-AI

Financial institutions have long focused on educating and persuading human customers about their services. But as AI assistants become the primary source of financial guidance, this dynamic will fundamentally shift. Rather than marketing directly to consumers, banks and financial firms may need to optimize their offerings for AI agents — much like websites today optimize for search engines. This could spawn new "Business-to-AI" (B2AI) strategies, where financial institutions design products and services specifically to be recommended by AI advisors based on broader market analysis and trends.



Critical considerations for leaders in an emerging landscape

Thinking about complexities of international regulation

Countries are taking different approaches to AI regulation with some favoring a responsible innovation approach over prescriptive governance, and vice versa. Financial institutions, traditionally cautious about regulatory risk, are likely to move more slowly in deploying AI services than other sectors. As less-regulated sectors forge ahead, banks may wait for clearer frameworks before launching ambitious AI initiatives. Thinking about how trust levels shape Al banking adoption

Countries already comfortable with digital services, like Singapore and the UAE, are moving faster to test AI in banking. However, worldwide comfort levels vary when it comes to letting AI handle money. Most people will want to see these systems prove themselves reliable before trusting them with financial decisions.

Thinking about customer segmentation

As Al assistants become standard in financial services, traditional service models may invert. While Al support will likely dominate affordable banking tiers, human interaction could become a premium offering — turning what was once standard personal service into a luxury banks can charge more for.

Thinking about who controls the AI agents

A key question emerging for financial services: who will control the Al assistants handling our money? Whether these digital agents are controlled by customers, banks or outside companies will affect both trust and adoption. Customers will likely care deeply that they have control over their Al helper and can indicate their preferences at any time.





Sources

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