MIT Technology Review Insights

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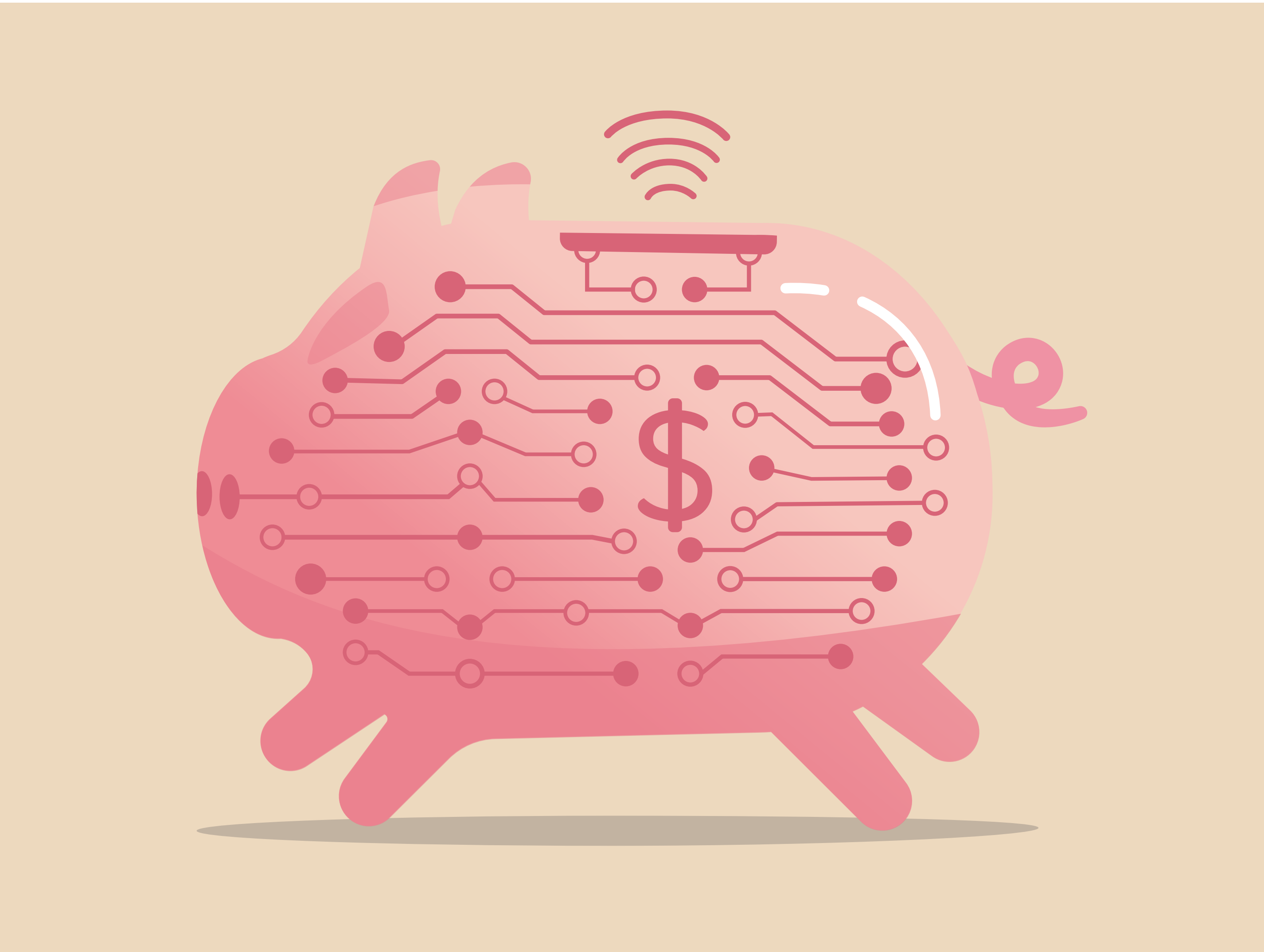
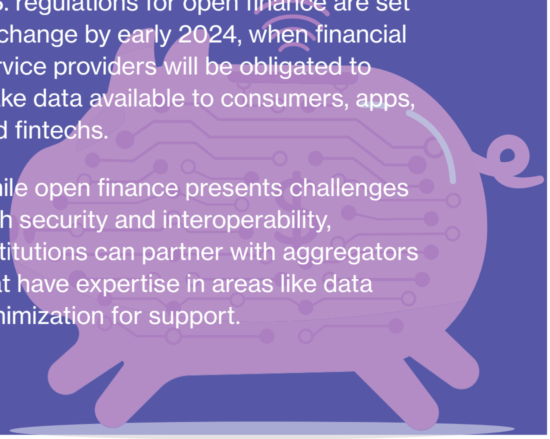
Fintech innovations may hold the key to increasing customer demands, evolving regulatory reform, and ample opportunity.

Open finance heralds a new era



Key takeaways



1 Open finance aims to provide more inclusive services for minorities and immigrants, more trust and transparency for consumers, and simplified and personalized product offerings.

2 U.S. regulations for open finance are set to change by early 2024, when financial service providers will be obligated to make data available to consumers, apps, and fintechs.

3 While open finance presents challenges with security and interoperability, institutions can partner with aggregators that have expertise in areas like data minimization for support.

Open banking, which allows consumers to securely share their banking data with third-party providers (TPPs), continues to transform financial services. A new generation of financial technology (fintech) companies – peer-to-peer payment services, mobile banking apps, and trading platforms – offer consumers **powerful tools** to manage their money and extend their banking capabilities. According to the online data platform Statista, the worldwide number of consumers using open banking services is projected to reach **132.2 million** by 2024.

With open finance, the next iteration of open banking, consumers can control and share their financial information securely with TPPs or financial institutions, accessing **an array of financial services** including digital banking, lending, payments, renting property, and investing. For consumers the services promise fairness, new products, safety, transparency, convenience, and choice – the ability to control and manage their own data for their own benefit. To deliver, open finance requires strong guardrails for cybersecurity, regulations, and education to ensure consumers can make sound financial decisions.

Inclusive financial services

For many, access to financial services like credit is essential for autonomy and economic freedom. However, the credit system's rigid categories and controls leave out some consumers. According to a TransUnion 2022 **global study**, 8.1 million people in the U.S. (3% of adults) are considered credit unserved, and another 37 million are considered credit underserved (14% of adults); in Canada, 9.6 million people are either credit unserved or underserved, more than 30% of adults.

Systems that evaluate consumer data can be fraught with biases. In the UK, the Financial Conduct Authority (FCA) found **individual credit information** is significantly different across its three large credit reference agencies (CRAs). It reports relatively low understanding about credit among consumers, and found it is difficult to access credit information, or to raise disputes.

Similarly, a 2015 U.S. Consumer Financial Protection Bureau (CFPB) study looked at **"credit invisibles"** – individuals with no credit or a limited credit history who are less likely to be approved for loans based on the data provided by the three nationwide credit reporting agencies (NCRAs). The CFPB concludes this bias disproportionately affects Black and Hispanic financial consumers.

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Immigrants encounter bias in credit score calculations as well. Raja Chakravorti, universal access lead at financial services company Plaid, says Fair Isaac Corporation (FICO) score calculations do not consistently pull data properly across borders, something he hopes open finance can help fix. "One of the hopes and advantages of open banking or open finance is that we are creating more of that positive trajectory, and over time, financial services would become more inclusive," he says.

50%

percentage of U.S. states requiring an economics course to complete secondary school

Source: Compiled by MIT Technology Review Insights with data from the Council for Economic Education

Chakravorti says traditional credit bureau data is not the only way to find out whether a consumer is a good financial risk. Alternate data – such as investments, loans, utility payments, and subscription payments – can show a person's financial behavior and also indicate financial health, he says. How a consumer manages personal finances, like paying bills on time and consistently, can show how likely they are to meet financial responsibilities, he says.

Trust and transparency

From wealth management apps to money transfers, open finance companies are making transparency a critical offering. More tools and controls for sensitive financial data means better visibility into finances. This includes the power to grant and revoke data access.

Wise, a London-headquartered fintech, views this as a differentiator. "We are transparent about how money works, how it moves, what the cost is, and we show customers the fees at every step." says Sharon Ann Kean, who leads global products and international expansion at Wise. Many financial institutions are not transparent, she says, impacting trust, and making it hard for consumers to choose providers.

Customer ease and convenience

Open finance promises to bring together diverse financial products that today are scattered across many apps and websites. With fintech innovations, users can access more financial data from a single application, streamlining the user journey. This relieves consumers of having to log into multiple sites to authorize sharing. This simplification will help consumers choose the best app for their purposes, says Kean.
Open finance also promises more personalized financial services and a wider variety of providers. A TPP that can focus on a consumer's individual data to introduce and recommend services or specific products the consumer might not otherwise discover, such as better credit card options or loans that match their expenses and income, also known as cash-flow lending. This makes it easier for consumers to make good choices, says Penny Lee, president and CEO of the Financial Technology Association, a U.S.-based trade association.

No uniform approach to regulation

Governments are creating regulations to encourage innovation for open banking and open finance, although approaches differ. This may help the global industry discover the most effective processes, Kean says. "Different regions are learning from each other and realizing that there is something they need to adopt," she says.

The UK's Competition and Markets Authority (CMA) law was the first major open banking regulation. It primarily focuses on customer visibility of accounts and fintech products, but some payments remain manual, via banks.

Percent of accounts linking to financial services

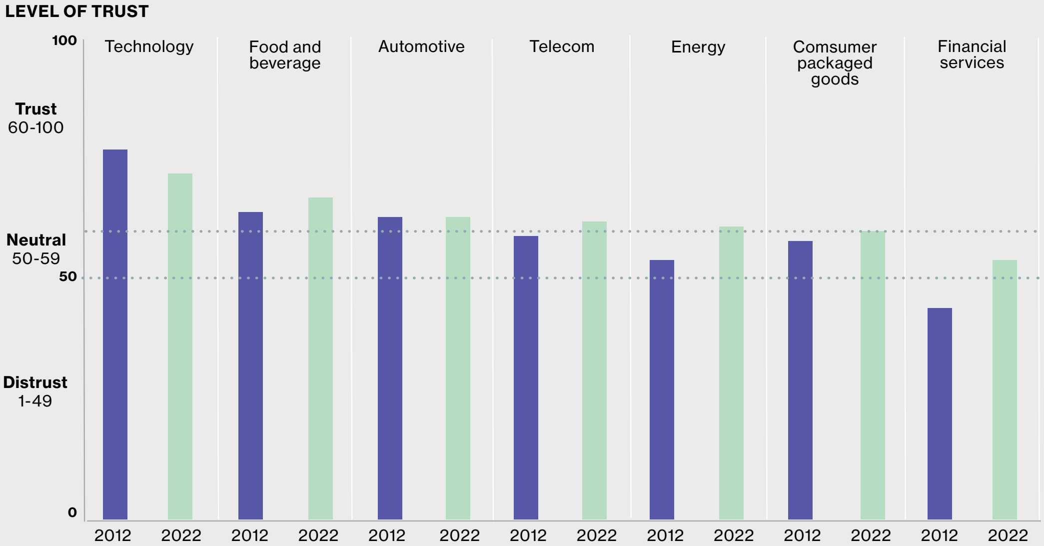
77% CANADA

81% UNITED STATES

Source: Compiled by MIT Technology Review Insights based on data from MasterCard, 2023

Trust in industry sectors, 10-year trend

A global survey asked respondents to rate specific industries for trustworthiness.



Source: Compiled by MIT Technology Review Insights based on data from Edelman Trust Barometer, 2023.

"That is starting to change because open banking now allows you to send and receive money," says Kean.

Other UK regulatory efforts include the Open Banking Implementation Entity (OBIE) which built the Open Banking Standard industry guidelines, and the Joint Regulatory Oversight Committee (JROC), which develops roadmaps and recommendations for **Open Banking Limited**, the nonprofit entity that controls the UK's open banking standards and systems.

Open banking in the EU is regulated under the Payment Services Directive 2 (PSD2). Financial institutions must allow regulated TPPs to access customer account data and initiate payments with customer consent. PSD2 helped "launch open banking at scale," Chakravorti says. For now, scope is limited to payment accounts: financial services and products such as savings, investments, mortgages, and pensions are excluded.

There is no specific regulatory architecture for open banking in the U.S., leading to some concern about security, says Kean. Paradoxically, connectivity between financial apps is far higher in the U.S., thanks to market-driven infrastructure, a rich fintech ecosystem, and high consumer interest. U.S. regulations are set to change in late 2023 or early 2024, based on Section 1033 of the Dodd-Frank Act, which obliges consumer financial services providers to make customer data available to consumers, apps, and fintechs. "We have a robust rulemaking process that's in place now, with support from industry and leaders on both sides of the aisle in Washington, and CFPB Director Chopra prioritizing rules that guarantee consumers' rights to their financial data," says Lee.

U.S. regulatory tailwinds ahead

In the U.S., the CFPB's Required 1033 Rulemaking on **Personal Financial Data Rights** will move the U.S. closer to open banking and open finance, "obligating financial institutions to **share consumer data upon consumer request**, empowering people to break up with banks that provide bad service, and unleashing more market competition," says Rohit Chopra, director of the CFPB. The CFPB notes the outline is "not explicitly an open banking or open finance rule," but signals a move forward for regulation, activating authority under Section 1033 of the Consumer Financial Protection Act.

The new rules will be enforced when the agency finishes defining the regulation. There is apprehension, Lee says, that onerous security regulations could undermine the efficiencies of frictionless finance. Regulators must also consider how financial data might be, properly or improperly, monetized and sold. Fintech regulation should ensure the industry bases its business on delivery of a service, not selling personal financial data, she says, to prevent predatory pricing in open finance.

The industry is also minimizing data risks by deploying more identity verification solutions, including information and document verification, user verification, and behavioral analytics. Network approaches to fraud prevention are also emerging. For example, Plaid launched Signal, which analyzes more than 1,000 risk factors for a given transaction, including insights from the Plaid network, to help companies better identify risk. Card networks and large banks have adopted these network-based approaches, but they are now becoming more accessible to companies of all sizes.

Embracing changes

Banks traditionally built businesses by nurturing long relationships with customers, developing a set of products, and keeping the customer within an ecosystem. Open finance topples that applecart, says Chakravorti. “What you thought was your data, what you thought was proprietary, is no longer the case. The data belongs to the consumer.”

Incumbent banks are recognizing that in order to stay relevant in open finance, they must adapt. According to a 2022 study by Cognizant, the CM9 banks – the UK’s nine largest banks, as determined by the government – believe the primary benefits of open finance will be reduced operating cost and accelerated digital transformation, serving broader needs and new

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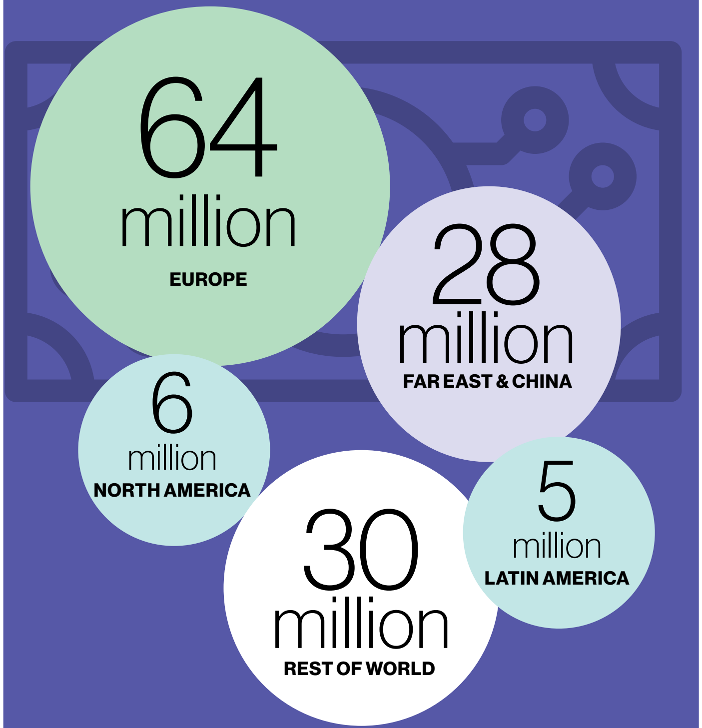
> Sharon Ann Kean, Global Products and International Expansion Lead, Wise

Consumer use of open banking services is growing globally

Projected users by 2024 (in millions)



Source: Compiled by MIT Technology Review Insights with data from Statista, 2023

Open finance aims to create access for millions

8.1 million people (3% of all adults) are considered credit unserved

37 million people in the U.S. (14% of all adults) are considered credit underserved

Source: Compiled by MIT Technology Review Insights with data from TransUnion, 2023 revenue models, acquisition of new customers, and encouraging innovation. The report said almost half of respondents (decision-makers in financial institutions) agreed they will be left behind if they do not follow the open finance trend.

Technology and cost are intertwined

Uptake is also affected by the capacity of financial players of differing sizes. Plaid, for instance, has data access agreements with top financial institutions, but thousands of U.S. financial institutions lack the technology teams needed to build capacity, Chakravorti says. "We want a schema that every aggregator can leverage so smaller financial institutions don't have to manage multiple APIs or develop these complicated relationships," says Chakravorti.

Plaid developed a connectivity solution called **Core Exchange** for small and regional financial institutions, Chakravorti adds, that offers management tools and uses an API connection to its network. It can connect to more than 8,000 Plaid-powered apps and services. So far, more than 2,000 financial institutions have adopted it, including TAB Bank. Nick Craven, senior vice president of TAB Bank says, "Plaid's Core Exchange's easy-to-use APIs allowed us to plug in, start testing, and deliver meaningful solutions to our customers in no time at all. The integration could not have been any easier."

47%

percentage of consumers who are not confident about their knowledge of financial products and services

Source: Compiled by MIT Technology Review Insights based on data from Woodhurst Consulting, 2023

Lee adds that some smaller institutions are still catching up from a cost perspective. "There is a cost when you adopt a technology. Many of the larger banks have the budget and are able to afford this kind of technology transfer, including the adoption of APIs, to have a secure network and be able to share that data," Lee says.

Chakravorti adds that the API ecosystem needs to advance to allow development and deployment. Apps and fintechs must be integrated. It is a technical challenge to forge connections and perform main-tenance and upkeep to ensure connections work all the time. "Companies like Plaid are doing a great deal to help with that. They want to make sure that when you hit Plaid, everything behind the scenes works and connects," says Kean. Without significant support, it's a large amount of effort, she says. In the UK, Wise connects directly with banks. "Each one has its own technical team and priorities. If they change something one day, it might break that connection, so maintenance is constantly a challenge. The more companies you integrate with and the more prolific this open finance becomes, the greater the challenge." Kean says.

Financial institutions can partner with aggregators to support security with expertise in areas like data minimization. "Ultimately, we [aggregators] give

> "As there are more products and services in the marketplace, it's on all of us to continue the financial education so consumers know how to use the products in a proper way."
>
> Penny Lee, President and CEO, Financial Technology Association

value back to the financial institutions by creating interoperability and ensuring that they don't have to build something for one vs. another. They would rather have a simplified framework that can be followed," says Chakravorti.

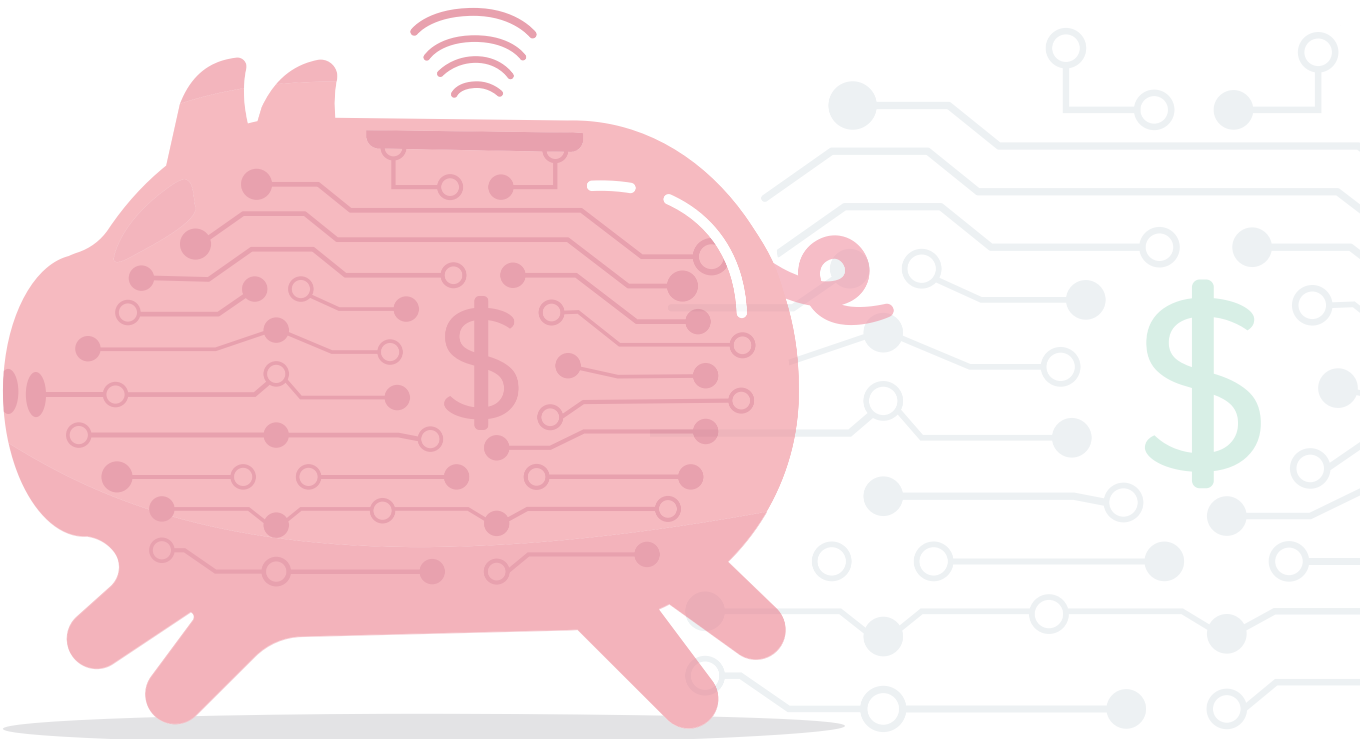
Reaping the fruits of open finance through financial education

Although open banking and open finance present convenience, new products, and more control over personal finances for consumers, they also present risks. As with traditional financial services, customers may not grasp the complexity of the products and services offered, or may over-rely on digital tools, trusting apps to avoid hazards for them. This increases the possibility that consumers will make poor financial choices. Woodhurst Consulting finds 47% of consumers are **not confident** about their knowledge of financial products and services.

However, data from **The Fintech Effect 2022**, a Plaid report produced with The Harris Poll, found that using digital financial apps helped people feel more in control of their finances (48%), weather economic challenges (61%), and reduce financial fear and stress during the past year (34%).

On the need for further education, Woodhurst and others point to efforts by the financial services industry to offer financial education tools, such as apps that teach financial literacy like Step and GoHenry, debit card products for children and an adult guardian. To reach outside financially savvy families, Woodhurst Consulting urges primary and secondary educators to prioritize financial education. The Council for Economic Education (CEE), a nonprofit advocating for financial literacy, finds just **25 of 50 U.S. states** require an economics course to complete secondary school.

Many financial institutions offer financial literacy tools as well. Lee says consumer education ensures a fintech-rich ecosystem does not lead to bad outcomes such as scams, frauds, or unsustainable financial behaviors such as excessive debt. Financial education can help maximize the benefits of open finance for all consumers. Lee explains: "As there are more products and services in the marketplace, it's on all of us to continue the financial education so consumers know how to use the products in a proper way."



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