ECONOMIST IMPACT

Can disruptive technologies bolster the competitiveness of North American Banks?

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North American banks are turning to digital technologies to modernise and secure their core infrastructure and processes as they compete with non-traditional players.

- Even more respondents in North America are convinced than those in other regions (90%, compared with 63% globally) that technology will be the trend to have the biggest impact on banks in their country in the next five years.
- Product agility and enabling embedded finance are bigger strategic priorities for North American banks than those in other regions in the next five years. Accordingly, they are investing more on agile technology delivery (DevOps) and blockchain technology.
- In order to best utilise emerging technologies and handle the exponential growth of data, banks are moving applications to the cloud. Banks in North America are prioritising moving domestic core banking much more so than those in other regions. They also have a stronger belief that a multi-cloud strategy will become a regulatory pre-requisite.
- More banks in North America see offering banking products and responsible lending to the unbanked and underbanked population as a strategic, actionable business opportunity for the next one to three years.

ABOUT THIS RESEARCH

Economist Impact conducted a study, commissioned by Temenos, to understand emerging trends in the banking industry. This report presents insights from a global survey of 300 executives in retail, commercial and private banking spanning Europe (25%), North America (23%), Asia Pacific (18%), Middle East and Africa (17%), and Latin America (17%). Respondents perform various job functions, such as IT, customer service, finance, marketing and sales, strategy and business development, and general management, among others. Half of the respondents are C-suite executives. This is the seventh year that Economist Impact has conducted this survey. The research also included interviews with industry practitioners to gain further insights.

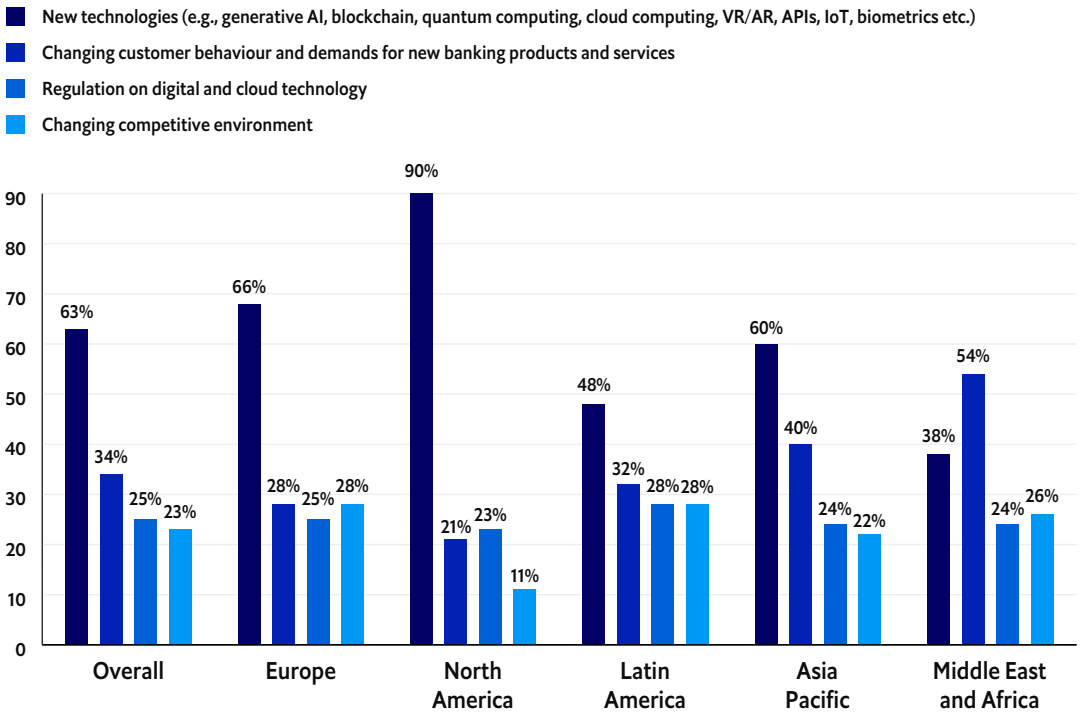
Betting big on technology

North American banks have lagged behind their European and Asian counterparts in adopting modern technology. This trend is shifting. North American banks overwhelmingly believe that technology will have the biggest impact on their industry—much more so than banks in other regions. Compared with 63% of banks globally, 90% of North American banks consider technology will be the biggest trend impacting their industry in the next five years (see Figure 1). They are already investing in a wide range of technologies such as artificial intelligence (AI) and blockchain, and technology-supported processes, such as agile technology delivery (DevOps), low code/no code (digital development platforms that require little or no coding knowledge) and cloud computing. These investments help banks to modernise legacy systems, enhance cyber security, prevent customer fraud, personalise customer experience and engagement, and improve product agility.

Almost a quarter of banks in North America (24%, compared with 18% globally) are focusing their technology investment on DevOps. This is helping banks to speed up changes to their core systems and back-office processes. Steve Dunn, head of innovation and fintech at Sumitomo Mitsui Banking Corporation (SMBC), based in New York, explains: "We are using new and emerging technology to transform our core—that's an ongoing activity for most institutions. It's modernising not just systems, but processes as well."

This includes experimenting with low-code and no-code development tools, which are

Figure 1: Which trends do you believe will have the biggest impact on banks in your country in the next five years?



particularly appealing to smaller banks that might struggle to attract and retain tech talent.[1] Even for a large bank like SMBC, it is proving helpful, particularly when partnered with AI. "We see low code/no code as an interesting technology to help us modernise and re-engineer back-office processes, and see the potential of large language models to supercharge low code/no code capabilities," says Mr Dunn. "It's an area that we plan to spend more time on, and I think that's consistent across the industry."

More North American banks see AI as a valuable tool for customer fraud detection than those in any other region (20%, versus 11% in Europe and 13% globally). AI applications play a crucial role in detecting and preventing fraud, with algorithms analysing vast amounts of data to identify users' behaviour, transaction history, patterns and anomalies to indicate potential fraud.[2] According to Deloitte, 70% of all financial services firms are using machine learning to fine-tune credit scores and detect fraud.[3] With fraudsters increasingly using AI themselves—AI-generated voice IDs are one of their latest scams—banks are seeing the need to up their game to stay one step ahead.

The same is true for using AI to prevent larger cybersecurity breaches that could put a bank's customer data and operating systems at risk. As automation increases, so does the extent of systematic cyber risk and, therefore, the need to use AI. AI can detect potential attacks by analysing large amounts of information to identify patterns and anomalies, and, using those same investigative capabilities, assess a bank's systems for weaknesses that need to be protected from attack. Cybersecurity has consistently been the top focus of technology investment for survey respondents since 2018, particularly in North America.

North American banks also are investing in blockchain more heavily than their counterparts in other regions, both as a fraud and cybersecurity tool and to simplify processes and reduce costs. Compared with 12% of banks globally, 17% of North American banks focus their technology investment in blockchain. As blockchain records are immutable, transparent and auditable, they are virtually impossible to hack, reducing the danger of identity theft, money laundering and fraudulent payments.[4] The decentralised ledger of blockchain also supports faster and cheaper payments by speeding up clearance and settlement transactions between financial institutions.[5]

Building a strong foundation in the cloud

Beyond DevOps, AI and blockchain, North American banks are using cloud technology to create a stronger and more secure core. Whereas data security was once a concern holding back the shift to the cloud, it is now a driver of greater cloud adoption. Part of the reason behind this change is that banks are seeing the investments that cloud providers are making to improve security.

"I spent much of my career working for government agencies, and even within that sector, the thinking about cloud has moved from, 'I would never put any data out' to 'there's a lot of people working on security in

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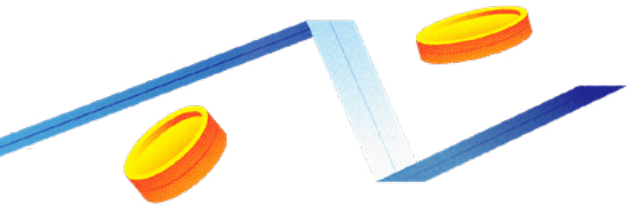
[1] biztechmagazine.com/article/2023/01/2023-tech-trends-banks-will-focus-automation-and-continued-push-cloud
[2] www.finextra.com/blogposting/24358/artificial-intelligence-in-banking-2023-how-banks-use-ai
[3] www2.deloitte.com/ce/en/pages/financial-services/articles/digital-banking-maturity-2020.html
[4] www.financemagnates.com/cryptocurrency/education-centre/will-blockchain-technology-mark-a-turning-point-in-fraud-prevention/
[5] www.fintechweekly.com/magazine/articles/Top-8-Ways-Banks-Benefit-From-Blockchain-Technology



More banks in North America (79%) believe that a multi-cloud strategy will become a regulatory pre-requisite in the next five years, compared with just 60% in Europe.

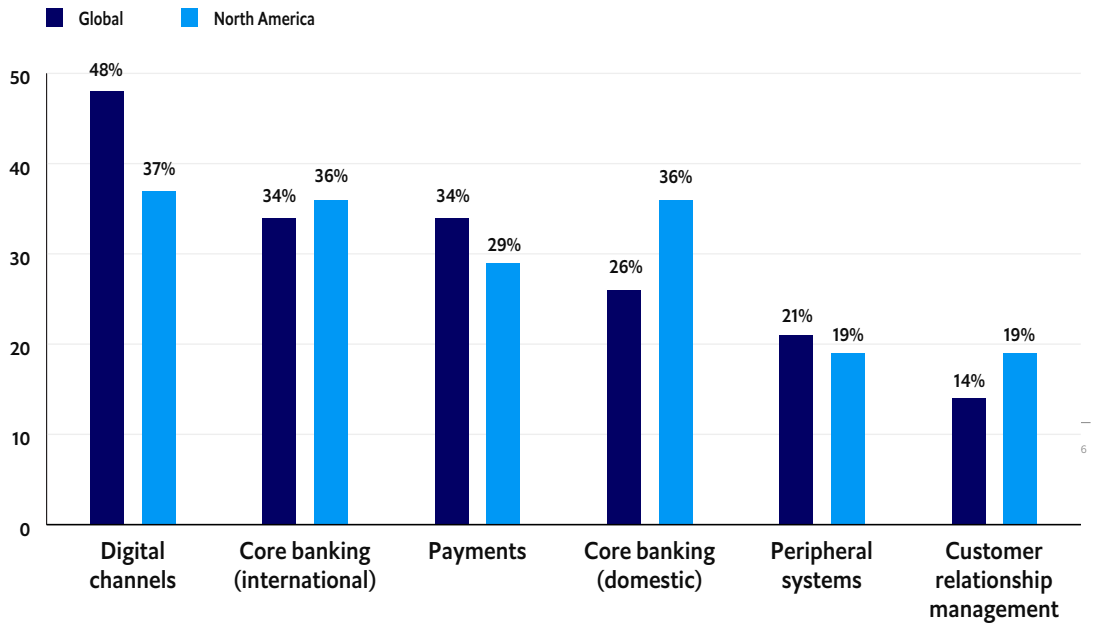
the cloud and I don't have so many', says Linda Powell, deputy chief data officer at BNY Mellon (BNYM). "The cyber technology in the cloud is constantly renewed and regenerated."

Greater cloud adoption is also driven by the exponential growth of data within banks and the need for strong data management. "Banking is all about data, it's one of our fundamental assets," says Ms Powell. "As the volumes and velocity of data have grown, the importance of the foundational best practice has also grown."

But the main driver of the shift to cloud is the need for a wider reconfiguration to replace legacy systems, which are often 30-40 years old, with modern and scalable services. A survey by Accenture found that 63% of top banks globally are either in the process of moving their core systems to the cloud or getting ready to do so.[6] "All of the banks that I'm aware of are exploring moving to the cloud, because you can go to scale faster," says Ms Powell. "If you build a good foundation for your data, you can bring in all sorts of technology on top of it to create insights and support execution. The lines of business can really accelerate and use the data to serve our clients and provide the services that they need."

Banks in North America are prioritising moving domestic core banking to the cloud much more so than those in other regions (see Figure 2). This may partly be motivated by an expected shift in regulatory requirements. More banks in North America (79%) believe that a multi-cloud strategy will become a regulatory pre-requisite in the next five years, compared with just 60% in Europe.

Figure 2: What type of applications do you believe banks will prioritise in moving to the cloud over the next 12-24 months?



www.accenture.com/content/dam/accenture/final/industry/banking/document/Accenture-Banking-Top-10-Trends-2023.pdf#zoom=40

Facing the competition with embedded finance

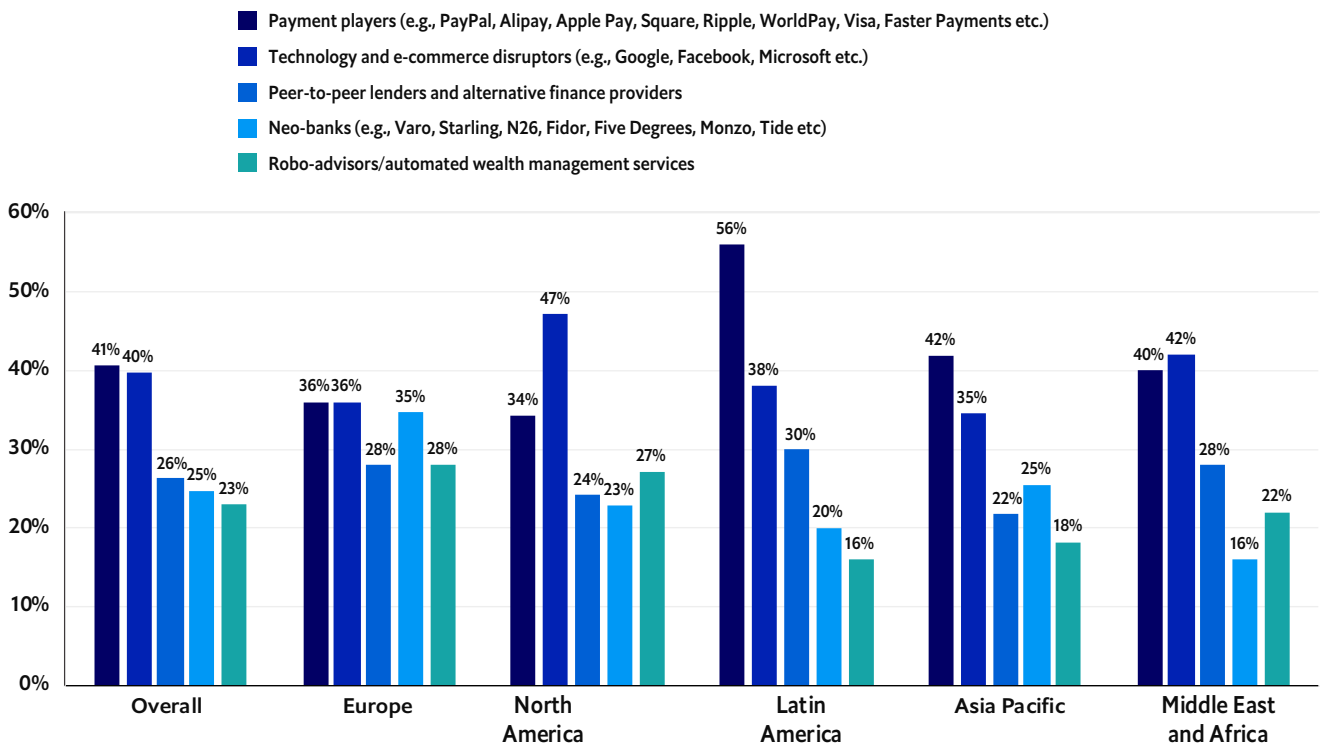
Banks know that they need to better harness the power of new technologies to vie with a wide range of non-traditional competitors. "We're trying to take a business-led approach to innovation—essentially driving strategic aligning and prioritising innovation activities that deliver value and build competitive advantage," says Mr Dunn.

While relatively fewer banks in North America expect competition from platform players, neo-banks and payment providers to impact the banking industry, they do see a threat from digital wallets of tech and e-commerce disruptors and robo-advisors (see Figure 3). About half of North American banks expect new entrants to gain the most market share in investments (self-executed or robo-advisory), compared with just a quarter of banks in Europe.

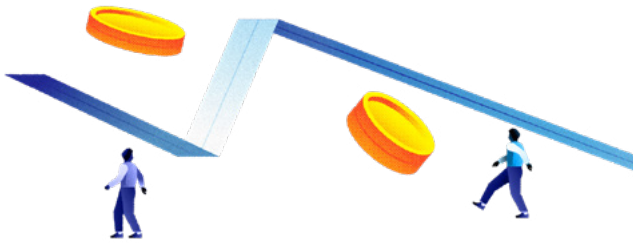
To compete with these non-traditional players, North American banks are prioritising improving personalised and embedded customer experience and engagement, as well as product agility (see Figure 4). Mr Dunn concurs: "As an innovation team, a large part of our mandate is to help the bank grow—to look at new business models and identify new revenue streams. Part of how we do that is by finding ways to enhance the customer experience, drive deeper engagement with our clients and offer them new opportunities."

Enabling embedded finance is also seen as a key priority to meet the challenge from non-traditional competitors. Many non-financial companies, such as e-commerce merchants, are offering consumers financial services such as credit and insurance to provide a frictionless customer experience. A recent survey by EY found that over 70% of financial technology leaders believe that more than half of financial

Figure 3: Which non-traditional entrants to the banking industry will be your company's biggest competitors in the next five years?



Fewer banks in North America expect regulation on climate change, sustainability, ESG and sustainable finance to impact banking than those in other regions.

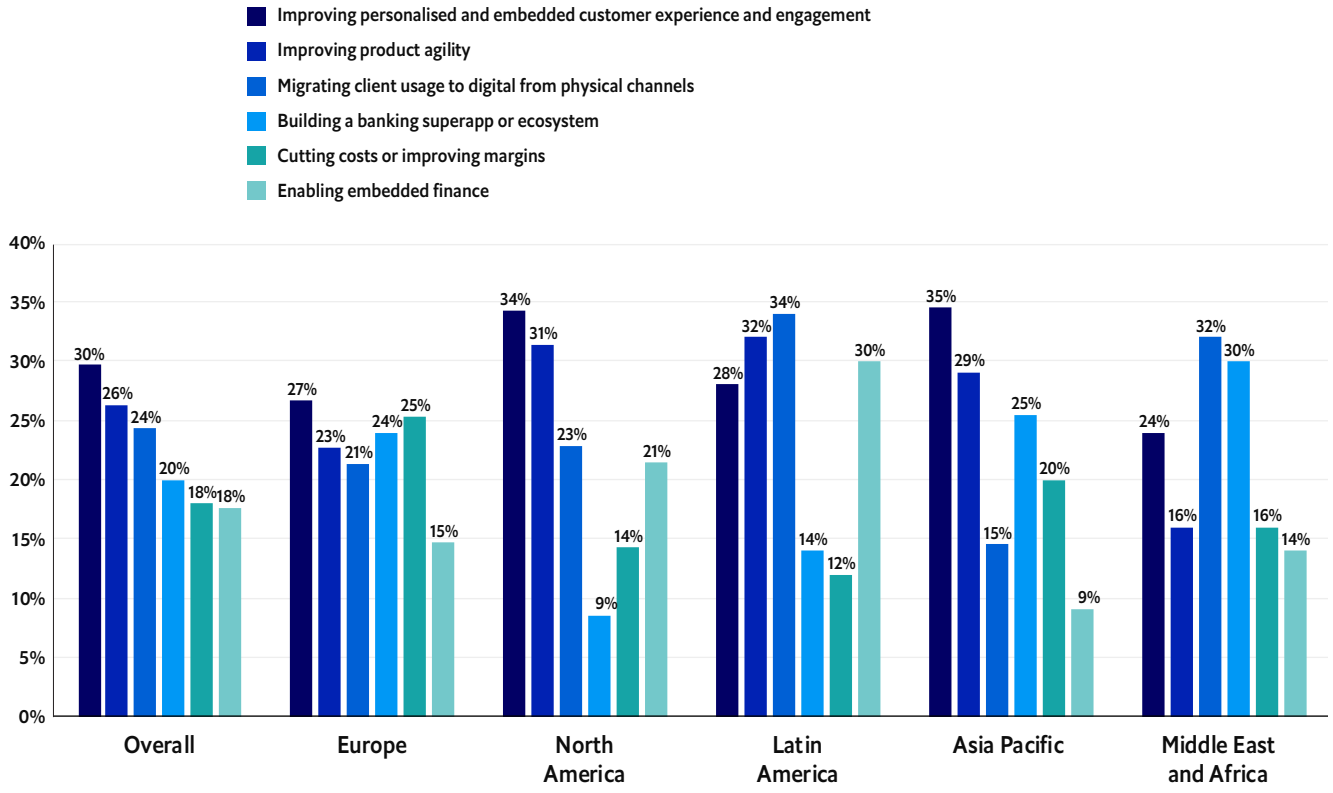


services will be offered via non-financial services platforms in the near future.[7] McKinsey estimated that embedded finance in the US generated US$20bn in revenue in 2021, a figure that is expected to double by 2025.[8]

In order to take advantage of the trend rather than being cut out of the equation, some North American banks are offering banking as a service (BaaS) or buying the competition. For example, in May 2023 US-based Fifth Third Bank acquired Rize Money, an embedded payment platform specialising in developing financial infrastructure and risk management, as part of its growth strategy (the bank sees embedded payments as an important component of its treasury management business).[9]

Collaboration is seen as central to taking on the competition. North American banks are participating in sandboxes with fintech and other technology providers to test new propositions, and they are doing so much more than banks in other regions (40% of banks, versus 32% globally). For example, BNYM has three different initiatives to drive collaboration with fintechs. According to Ms Powell, these initiatives are "an accelerator, a fintech express programme (a streamlined on-boarding process for emerging technology companies that allows for a faster

Figure 4: What are the top strategic priorities for your company in the next five years?



[7] www.ey.com/en_gl/banking-capital-markets/fintech-ecosystems/how-banks-are-staking-a-claim-in-the-embedded-finance-ecosystem
[8] www.mckinsey.com/industries/financial-services/our-insights/embedded-finance-who-will-lead-the-next-payments-revolution
[9] ffnews.com/newsarticle/fifth-third-announces-acquisition-of-rize-money-inc/

proof of concept or execution) and strategic investments in a portfolio of companies."

Focusing on the "S" in ESG

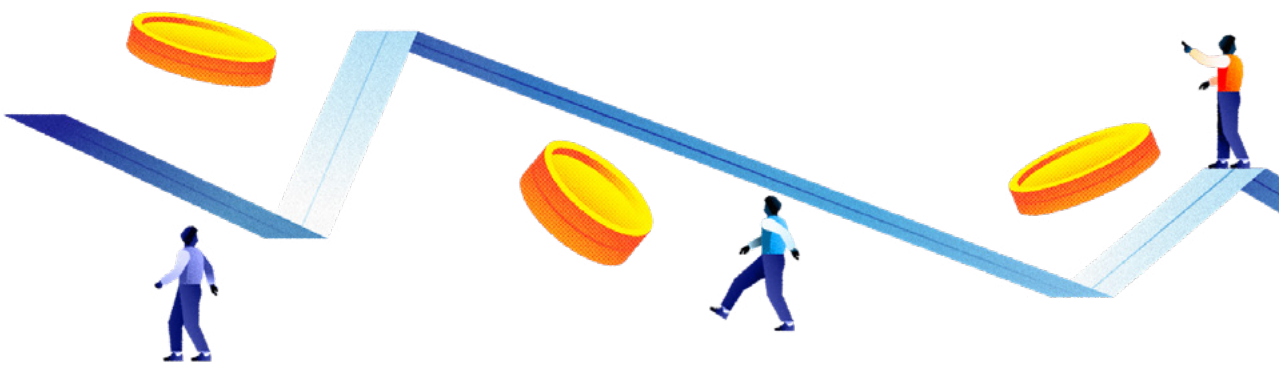
North American banks also see opportunity in another space that has been hotly contested by fintechs—offering banking products, such as deposits, basic and saving accounts, and responsible lending to the unbanked and underserved customer segments. Having seen how fintechs have used mobile banking, digital wallets, microfinance, blockchain and data analytics to reach and serve this population, banks are turning to the same technologies to expand their customer base.

This is a significant business opportunity in terms of the numbers of potential new customers. The Federal Deposit Insurance Corporation, a state-founded, independent provider of deposit insurance, estimates that 4.5% of US households (approximately 5.9m) were unbanked and an additional 14.1%, or 18.7m households, were underbanked in 2021.[10] Individuals in these households are not able to build a credit history and are vulnerable to fraud and predatory lenders who charge sky-high interest rates, as well as at the physical risk of having to carry large amounts of cash.[11] Expansion of banking to such households therefore serves the social purpose of improving financial inclusion.

While they focus on the "S"—social—in ESG, North American banks seem less interested in the «E" (environment; the "G" stands for governance) than their counterparts in other regions. Fewer expect regulation on climate change, sustainability, ESG and sustainable finance to impact banking than those in other regions. As a result, North American banks are less likely to invest in low-carbon technologies and start-ups working on decarbonisation.

Riding the wave of modern technology

North American banks are quickly adopting technologies such as AI and blockchain, and technology-supported processes such as DevOps, low code/no code and cloud computing. The goal is to modernise legacy systems, enhance cybersecurity, prevent customer fraud, personalise customer experience and engagement, and improve product agility. These changes also help banks to compete with fintechs and non-financial companies—both on banks' traditional turf and in newer spaces, such as embedded finance and financial inclusion, where their competitors have led the way. The fear of being left behind and missing out on new markets may push banks towards a greater adoption of disruptive technologies.



[10] www.fdic.gov/news/press-releases/2022/pr22075.html
[11] www.forbes.com/sites/forbesbusinesscouncil/2021/11/19/how-fintech-is-meeting-the-needs-of-the-unbanked---now-and-in-the-future/?sh=694c40131c20

ECONOMIST IMPACT

LONDON
The Adelphi
1-11 John Adam Street
London WC2N 6HT
United Kingdom
Tel: (44) 20 7830 7000
Email: london@economist.com

NEW YORK
750 Third Avenue
5th Floor
New York, NY 10017
United States
Tel: (1.212) 554 0600
Fax: (1.212) 586 1181/2
Email: americas@economist.com

HONG KONG
1301
12 Taikoo Wan Road
Taikoo Shing
Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
Email: asia@economist.com

GENEVA
Rue de l'Athénée 32
1206 Geneva
Switzerland
Tel: (41) 22 566 2470
Fax: (41) 22 346 93 47
Email: geneva@economist.com

DUBAI
Office 1301a
Aurora Tower
Dubai Media City
Dubai
Tel: (971) 4 433 4202
Fax: (971) 4 438 0224
Email: dubai@economist.com

SINGAPORE
8 Cross Street
#23-01 Manulife Tower
Singapore
048424
Tel: (65) 6534 5177
Fax: (65) 6534 5077
Email: asia@economist.com

SÃO PAULO
Rua Joaquim Floriano,
1052, Conjunto 81
Itaim Bibi, São Paulo,
SP, 04534-004
Brasil
Tel: +5511 3073-1186
Email: americas@economist.com

WASHINGTON DC
1920 L street NW Suite 500
Washington DC
20002
Email: americas@economist.com