

BIS Bulletin

No 85

From financial inclusion to financial health

Carlos Cantú, Jon Frost, Tirupam Goel and Jermy Prenio

BIS Bulletins are written by staff members of the Bank for International Settlements, and from time to time by other economists, and are published by the Bank. The papers are on subjects of topical interest and are technical in character. The views expressed in them are those of their authors and not necessarily the views of the BIS. The authors are grateful to Cecilia Franco and Pietro Patelli for excellent analysis and research assistance, and to Louisa Wagner for administrative support.
The editor of the BIS Bulletin series is Hyun Song Shin.
This publication is available on the BIS website (www.bis.org).
© Bank for International Settlements 2024. All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.
ISSN: 2708-0420 (online) ISBN: 978-92-9259-751-1 (online)

Carlos Cantú Jon Frost Tirupam Goel Jermy Prenio carlos.cantu@bis.org jon.frost@bis.org tirupam.goel@bis.org jermy.prenio@bis.org

From financial inclusion to financial health

Key takeaways

- To successfully manage their financial obligations and have confidence in their financial future (financial health) people need to access and use financial services (financial inclusion).
- Yet inclusion alone may not be sufficient: financial health can suffer if the quality of use of financial services is poor (eg issues with provision such as scams or a lack of financial literacy and know-how on the part of the consumers).
- Public policy can boost financial health by promoting financial consumer protection, advancing financial literacy and enacting foundational policies like sound regulation and open finance.

Introduction

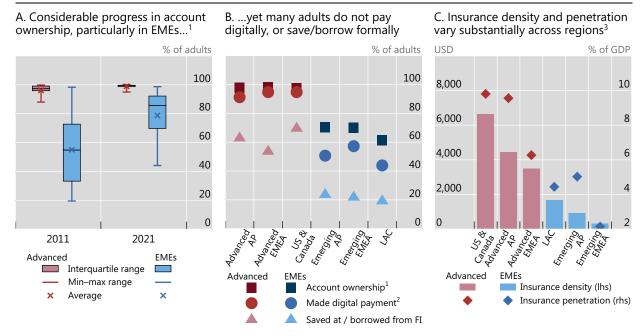
"Financial health" can be defined as the extent to which a person or family can successfully manage their financial obligations and have confidence in their financial future. Financial health has at least four elements, namely that individuals can: (i) manage day-to-day expenses; (ii) absorb and recover from financial shocks; (iii) progress towards their financial goals; and (iv) control and feel secure about their finances. This concept has been developed by a group of experts from the public, private and non-profit sectors (UNSGSA (2021)). As may be expected, a host of factors shape an individual's financial health, including the level and stability of personal income, social safety nets and the business or financial cycle.

Financial health can be contrasted with the related notion of financial inclusion. Inclusion is defined as *access* to and *use* of reasonably priced financial services (CPMI and World Bank Group (2020)). As such, inclusion provides individuals with tools to manage their financial health. For instance, the ability to borrow, accumulate and draw on savings, or buy insurance, can help individuals deal with financial shocks. That said, issues with the provision of financial services – such as unethical business practices or scams – or a lack of financial literacy and know-how on the part of consumers could adversely affect financial health. Therefore, whether financial inclusion improves financial health depends on the *quality* of use.

This bulletin looks at available measures of financial inclusion and financial health for both advanced economies (AEs) and emerging market economies (EMEs). It then sketches the factors that may undermine financial health. Finally, it describes policy approaches to address these challenges.

Trends in financial inclusion and financial health

Access to financial services and products from regulated institutions has improved globally. Ownership of accounts reached 76% of the world's adult population in 2021 – up from 51% in 2011 – while the gap between AEs and EMEs has narrowed (Graph 1.A). Use of financial services has also risen but lags behind improvements in access. For example, use of digital payments is lower than account ownership, especially in EMEs (Graph 1.B).

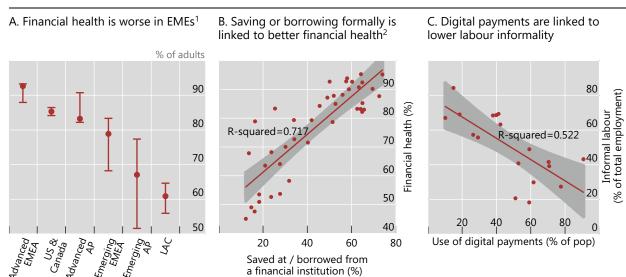


AP = Asia-Pacific; EMEA = Europe, Middle East and Africa; LAC = Latin America and the Caribbean. See the annex for the list of countries.

Sources: World Bank, Global Financial Inclusion (Global Findex) Database; Swiss Re Institute; BIS.

Financial inclusion tends to promote financial health in EMEs

Graph 2



AP = Asia-Pacific; EMEA = Europe, Middle East, and Africa; LAC = Latin America and the Caribbean. See the annex for a list of countries.

Sources: Aguilar et al (2024); World Bank, Global Financial Inclusion (Global Findex) Database; BIS.

¹ Financial institution (FI) or mobile money account. ² Digital payment includes mobile money, credit and debit cards or using a mobile phone or the internet to make a payment. ³ Insurance density is defined as premiums per capita in 2022. Insurance penetration is defined as premiums as a percentage of GDP in 2022. This includes life and non-life premiums (including health insurance premiums).

¹ Median and interquartile range across economies. Financial health is measured as one minus the average fraction of survey respondents who are very worried about medical expenses, saving for old age, paying bills and affording education, or who rely on family and friends for funds in case of an emergency. ² Each dot represents a country in 2021.

The share of adults saving or borrowing formally is even lower – about 62% in AEs and around 21% in EMEs. The use of insurance is also lower in EMEs, both in terms of the per capita value of premiums and relative to GDP (Graph 1.C and Graph A.1 in the annex).

Measuring financial health is less straightforward. Most metrics are survey-based, and they tend to aggregate self-assessments of the four elements of financial health mentioned in the introduction. The most geographically comprehensive measure is from the World Bank Findex. This focuses on specific aspects such as worries about expenses, sufficiency of savings for old age and reliance on friends for emergency funds. A metric built with these data shows that a large share of adults – especially in EMEs – are in poor financial health (Graph 2.A). Several countries have developed national financial health indicators (see Graph A.2 in the Annex for examples from the United States, Brazil and Kenya). Some show a recent worsening in financial health, in part due to the pandemic and rising interest rates.

Overall, financial health is better in economies where a higher share of adults borrow or save via formal institutions (Graph 2.B). At a macro level, digital payments can help firms and individuals to access financial services beyond payments (Aguilar et al (2024)). They can also help formalise previously informal activities (Graph 2.C), which can further improve financial health via stable wages and social protections.

Challenges to bolstering financial health

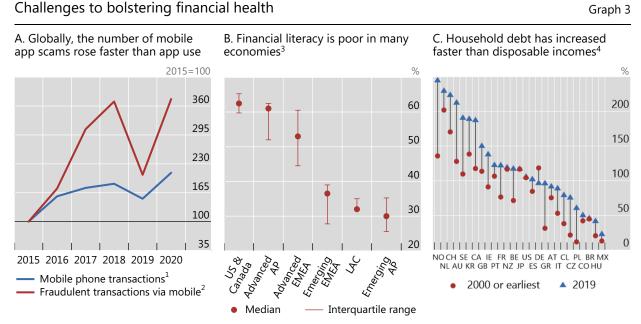
Nevertheless, financial inclusion may not always improve financial health. On one hand, if access does not lead to adequate use of financial services, then inclusion is *partial* and thus unlikely to improve financial health. Low use can be due to the high cost of or a lack of familiarity with financial services. For instance, lenders may serve newly included borrowers with insufficient credit history or collateral only at prohibitively high interest rates (Chen et al (2022)). Discomfort with digital distribution channels can also impede use. This is more common among the old, the poor and the less educated, who may prefer physical distribution points such as a bank branch or ATM. In some regions, the availability of such distribution points has stagnated or even declined amid rapid digitalisation (Khera et al (2021)). This results in some individuals using financial services infrequently – even if they have access.

On the other hand, even if access does lead to use, financial health can suffer if the *quality of use* is poor. Both supply side (ie financial service provider) and demand side (ie user) factors can play a role. For one, financial service providers may engage in unethical business practices. They may target new or less experienced users with products that are not suitable for them (eg sell unsecured loans to new borrowers) or keep the conditions of financial contracts obscure to users. There may also be outright scams. Fraudulent lending apps are a prominent example. They can trick users and access their personal information to harass them when loan repayments are delayed. By some measures, mobile app scams have risen faster than overall app use (Graph 3.A). The increasing sophistication of scams means that even experienced users can fall prey. According to industry estimates, losses due to fraud scams and bank fraud schemes globally reached \$485 billion in 2024 (Nasdaq (2024)).

New financial products can also be risky. For example, the rapid rise of the peer-to-peer lending ecosystem in China culminated in a wave of defaults and losses for many consumers (Ding et al (2020)). Similarly, the crypto sector featured Ponzi schemes that lured many users worldwide. Bouts of volatility and defaults in this sector resulted in large losses for stakeholders (BIS (2023)).

On the user side, a key determinant of financial health is financial literacy. Less than a third of adults globally are aware of core financial concepts (Graph 3.B). While the issue is more pronounced in EMEs, many adults in AEs also lack financial know-how. Limited financial literacy – combined with behavioural biases – can hurt users. For instance, some users consume most of their income and save little for their future. Some rely on repeated micro loans without understanding the high accrued interest costs. More fundamentally, users may not appreciate that, while credit can help overcome short-term liquidity shortfalls, it cannot be a remedy for low income. Buy-now-pay-later services and credit cards with reward

programmes are also known to encourage excessive spending (Cornelli et al (2023)). Meanwhile, lack of awareness about dispute resolution channels can make financial accidents more damaging.



AP = Asia-Pacific; EMEA = Europe, Middle East and Africa; LAC = Latin America and the Caribbean. See the annex for a list of countries.

Sources: Chalwe-Mulenga et al (2022); Klapper and Lusardi (2020); Outseer Fraud and Payments Report, Q2 2021; RSA Quarterly Fraud Reports, Q1 2018 and Q3 2020; World Bank, Global Financial Inclusion (Global Findex) Database; OECD; BIS calculations.

Crucially, the combination of user and service provider-specific factors can result in excessive borrowing. Even users with past financial experience may end up falling into a debt trap (Yue et al (2022)). During the last two decades, household debt has risen faster than disposable income in many economies (Graph 3.C). While much of this may reflect financial deepening and productive credit, it can also contribute to over-indebtedness, which in turn can hurt personal consumption. Indeed, some studies find an inverted U-shaped relationship between credit and economic growth – ie beyond a point, greater indebtedness can be harmful (Cecchetti and Kharroubi (2012)).

Policy

Authorities are addressing these challenges to financial health along multiple fronts.

First, authorities target financial service providers. Here, financial consumer protection (FCP) rules are key. Various jurisdictions adopted legal frameworks for FCP between 2017 and 2022. The G20/OECD *High-level principles on financial consumer protection* (2022) outline the main elements that the frameworks should address (eg ensuring competitive markets, fair treatment of consumers, responsible business conduct, ethical financial products, disclosures and dispute resolution mechanisms). Among concrete requirements, the most common are standards for complaint handling and disclosure requirements. Those addressing customer over-indebtedness more directly, eg debt-to-income (DTI) and loan-to-value (LTV) ratios or restrictions on multiple borrowings, are less common overall (Graph 4.A), but they are more prevalent in EMEs.

As with other policies, the degree of effectiveness of these requirements depends on their design and calibration as well as on the quality of enforcement. For instance, DTI ratios have been found to be more

¹ As a share of digital payment transactions. ² As a share among all digital payment scams. ³ An adult is considered financially literate if they understand at least three of the following four financial concepts: interest rates, interest compounding, inflation and risk diversification. Interguartile ranges shown. ⁴ Ratio of household debt to household disposable income.

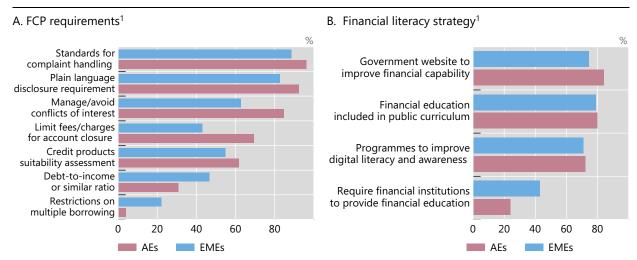
effective than LTV caps in moderating household credit growth and leverage (Millard et al (2021)). Meanwhile, the effectiveness of tighter LTV limits depends on their initial level (Alam et al (2019)). In the case of disclosure policies, they may have limited impact if financial literacy or trust is low.

Second, authorities are supporting users by giving them tools to make sound financial decisions. Promoting financial literacy and awareness is a key element of the G20/OECD Principles (2022). A rising number of jurisdictions, particularly EMEs, enacted financial capability and literacy strategies between 2017 and 2022. Among specific initiatives, financial education via government websites and school curriculums is the most common (Graph 4.B). Given the shift to digital financial services, many jurisdictions have also implemented digital literacy and awareness programmes. In addition, many jurisdictions have issued warnings to consumers on novel financial products, such as cryptoassets, and some have even issued outright bans.

Evidence on the impact of financial literacy education on consumers' behaviour is mixed. Kaiser et al (2022) find that financial education programmes improve financial knowledge and behaviour. By contrast, Fernandes et al (2014) find that interventions to improve financial literacy do not really contribute to changes in financial behaviour. Some studies find that financial literacy leads to overconfidence and does not necessarily improve financial ability (eg Willis (2008)). Lab experiments in Mexico and Peru report that presenting simplified statements of key facts about financial products has a higher correlation with good financial decisions than financial literacy (Demirgüç-Kunt et al (2022)).

FCP frameworks and financial literacy strategies are increasingly common

Graph 4



Based on a survey of 23 AEs and 72 EMEs. Data for 2022.

Source: World Bank.

Third, certain foundational policies promote access and use of financial services. These include regulatory environments that foster safe, trustworthy, inclusive and user-friendly solutions. For example, central banks in many jurisdictions are involved in either mandating or encouraging open finance, ie the sharing of customer-permissioned data among financial service providers. While still in its early days, open finance could improve competition and lead to a wider selection of financial products and services. That could provide consumers with choices that better address their financial needs, thus contributing to their financial health. Open finance could also improve financial consumers' control over their data. A recent

Examples include campaigns to teach about digital financial products and services and their safe use (Argentina, India and Portugal), including via social media platforms and influencers (eg Brazil, Malaysia and Thailand) and the use of mobile applications that enable a comparison of financial products and services across different financial service providers (Croatia).

survey by the Basel Committee on Banking Supervision shows that all but one of the 30 respondent jurisdictions have implemented or are planning to implement open finance.

References

Aguilar, A, J Frost, R Guerra, S Kamin and A Tombini (2024): "Digital payments, informality and productivity", *BIS Working Papers*, forthcoming.

Alam, Z, A Alter, J Eiseman, G Gelos, H Kang, M Narita, E Nier and N Wang (2019): "Digging deeper – evidence on the effects of macroprudential policies from a new database", *IMF Working Papers*, no 19/66.

Bank for International Settlements (BIS) (2023): *The crypto ecosystem: key elements and risks*, report to the G20 Finance Ministers and Central Bank Governors, July.

Cecchetti, S and E Kharroubi (2012): "Reassessing the impact of finance on growth", *BIS Working Papers*, no 381, July.

Chalwe-Mulenga, M, E Duflos and G Coetzee (2022): "The evolution of the nature and scale of DFS consumer risks: a review of evidence", Consultative Group to Assist the Poor, February.

Chen, S, D D'Silva, F Packer and S Tiwari (2022): "Virtual banking and beyond", BIS Papers, no 120.

Committee on Payments and Market Infrastructures (CPMI) and World Bank Group (2020): "Payment aspects of financial inclusion in the fintech era", CPMI Papers, no 191, April.

Cornelli, G, L Gambacorta and L Pancotto (2023): "Buy now, pay later: a cross-country analysis", *BIS Quarterly Review*, December, pp 61–75.

Demirgüç-Kunt, A, L Klapper, D Singer and S Ansar (2022): *The 2021 Global Findex Database: Financial Inclusion, Digital Payments, and Resilience in the Age of Covid-19,* World Bank Group.

Ding, C, A S Kavuri and A Milne (2020): "Lessons from the rise and fall of Chinese peer-to-peer lending", *Journal of Banking Regulation*, vol 22, no 2, pp 133–43.

Fernandes, D, J Lynch Jr and R Netemeyer (2014): "Financial literacy, financial education, and downstream financial behaviors", *Management Science*, vol 60, no 8, pp 1861–83.

G20/OECD (2022): High-level principles on financial consumer protection, December.

Kaiser, T, A Lusardi, L Menkhoff and C Urban (2022): "Financial education affects financial knowledge and downstream behaviors", *Journal of Financial Economics*, vol 145, no 2, pp 255–72.

Khera, P, S Ng, S Ogawa and R Sahay (2021): "Measuring digital financial inclusion in emerging market and developing economies: a new index", *IMF Working Papers*, no 21/90.

Klapper, L and A Lusardi (2020): "Financial literacy and financial resilience: evidence from around the world", *Financial Management*, vol 49, no 3, pp 589–614.

Millard, S and M Rubio and A Varadi (2021): "The macroprudential toolkit: effectiveness and interactions", *Bank of England Working Papers*, no 902, January.

Nasdaq (2024): Global Financial Crime Report, January.

Olafsson, A and M Pagel (2018): "The liquid hand-to-mouth: evidence from personal finance management software", *Review of Financial Studies*, vol 31, no 11, pp 4398–446.

United Nations Secretary-General's Special Advocate (UNSGSA) Financial Health Working Group (2021): *Measuring financial health: concepts and considerations*, September.

Willis, L (2008): "Against financial literacy education", Iowa Law Review, vol 94, no 1, pp 197-285.

Yue, P, A Korkmaz, Z Yin and H Zhou (2022): "The rise of digital finance: financial inclusion or debt trap?", *Finance Research Letters*, vol 47, part A, 102604.

Previous issues in this series

No 84 23 January 2024	Artificial intelligence in central banking	Douglas Araujo, Sebastian Doerr, Leonardo Gambacorta and Bruno Tissot
No 83 04 January 2024	Testing the cognitive limits of large language models	Fernando Perez-Cruz and Hyun Song Shin
No 82 20 December 2023	The contribution of monetary policy to disinflation	Pongpitch Amatyakul, Fiorella De Fiore, Marco Lombardi, Benoit Mojon and Daniel Rees
No 81 13 December 2023	Interest rate risk of non-financial firms: who hedges and does it help?	Ryan Banerjee, Julián Caballero, Enisse Kharroubi, Renée Spigt and Egon Zakrajšek
No 80 23 November 2023	Monetary policy, financial conditions and real activity: is this time different?	Fernando Avalos, Deniz Igan, Cristina Manea and Richhild Moessner
No 79 2 November 2023	Lessons from recent experiences on exchange rates, capital flows and financial conditions in emerging market economies	Pietro Patelli, Jimmy Shek and Ilhyock Shim
No 78 3 October 2023	Mapping the realignment of global value chains	Han Qiu, Hyun Song Shin and Leanne Si Ying Zhang
No 77 13 September 2023	Margins and liquidity in European energy markets in 2022	Fernando Avalos, Wenqian Huang and Kevin Tracol
No 76 7 September 2023	The oracle problem and the future of DeFi	Chanelle Duley, Leonardo Gambacorta, Rodney Garratt and Priscilla Koo Wilkens
No 75 19 May 2023	Disinflation milestones	Benoit Mojon, Gabriela Nodari and
		Stefano Siviero
No 74 13 April 2023	The changing nexus between commodity prices and the dollar: causes and implications	Stefano Siviero Boris Hofmann, Deniz Igan and Daniel Rees
		Boris Hofmann, Deniz Igan and

All issues are available on our website www.bis.org.