



INTERNATIONAL RESEARCH INSTITUTE — MARKET STUDY

Financial Technology and Inclusion in Emerging Markets

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Summary of the market

Over the past fifteen years, the way households and small firms in low- and middle-income economies hold money, make payments and borrow has changed materially. In 2011, about 42% of adults in developing economies had an account at a bank or regulated financial institution. By 2021, according to the World Bank's Global Findex survey, that share had reached about 71%. The single most important mechanism behind this shift was not the traditional bank branch but the mobile phone: a network of mobile-money agents, interoperable payment rails and, increasingly, platform-based credit that reached populations conventional banking had found uneconomic to serve. This report assesses that shift as a market and as a development phenomenon, and asks what the next five years are likely to hold.

By the numbers

INDICATOR	VALUE
Adults with an account, developing economies, 2021 — up from ~42% in 2011 (Global Findex)	71%
Adults still without an account, 2021 — down from ~1.7bn in 2017	≈1.4bn
EM digital-financial-services revenue pool, 2024 — IRI modelled estimate (mid-case)	USD 200–320bn
Revenue-pool mid-case — Table 1 total, rounded	≈USD 255bn

The headline gains are real but should not be over-read. Opening an account is not the same as using one. A substantial share of accounts created during the fastest phase of expansion were dormant or used only to receive a single government or wage payment. The frontier has therefore moved from access to active, habitual usage — and from payments, where progress has been quickest, to savings, credit and insurance, where value to the household is larger but delivery is harder. The economically consequential question is no longer whether a person can be issued a wallet, but whether the financial system built around that wallet raises their resilience to shocks, lowers their cost of transacting, and extends productive credit without pushing them into unsustainable debt.

Two structural features distinguish this market from the narrative of a decade ago. First, the state has become a primary architect of the rails, not merely a regulator of private ones. India's Unified Payments Interface (UPI) and Brazil's Pix, both operating on public or central-bank infrastructure, have driven transaction volumes and cost reductions at a pace private closed-loop systems did not achieve on their own. Second, the competitive centre of gravity is moving from standalone wallet providers toward larger platforms — telecoms, e-commerce marketplaces and so-called super-apps — that bundle payments with commerce, credit and identity. Both features change where value accrues and where regulatory attention should concentrate.

We estimate the emerging-market digital-financial-services revenue pool at roughly USD 200–320 billion in 2024 on a mid-case basis, dominated by payments but with digital credit growing fastest from a smaller base. These are modelled estimates, not measured totals, and we set out our assumptions explicitly. The central judgement of this report is that the sector's development dividend is contingent, not automatic: it depends on interoperable public rails, credible consumer-protection and data-governance regimes, and reliable connectivity and identity. Where those conditions hold, digital finance measurably improves resilience and lowers friction. Where they are absent, the same technologies can concentrate market power, expose consumers to fraud and over-indebtedness, and deliver inclusion that is nominal rather than substantive.

Headline findings

- **Access expanded quickly, but usage is now the binding constraint.** Account ownership in developing economies rose from about 42% of adults in 2011 to roughly 71% in 2021 (Global Findex). Dormancy and single-purpose accounts mean that headline ownership overstates the depth of inclusion; active-usage metrics tell a more sober story.
- **Mobile money did the heavy lifting in Sub-Saharan Africa.** The agent-based mobile-money model, pioneered at scale by M-Pesa in Kenya from 2007, reached populations without bank branches. Registered mobile-money accounts globally are counted in the order of well over a billion, with Sub-Saharan Africa the largest region by activity.

- **Public instant-payment rails are reshaping the market.** UPI in India (launched 2016) and Pix in Brazil (launched 2020) demonstrate that state-provided, interoperable, low- or zero-cost rails can scale faster and price lower than private platforms, altering the economics for every private participant.
- **The revenue pool is large and payments-led.** We estimate the 2024 emerging-market digital-financial-services revenue pool at USD 200–320 billion (mid-case), with payments the largest segment and digital credit the fastest-growing. All figures are modelled estimates with stated assumptions.
- **Credit is where value and risk both concentrate.** Data-driven lending can extend working capital to thin-file borrowers, but weak affordability checks, opaque pricing and aggressive collection have produced over-indebtedness episodes in several markets, prompting regulatory tightening.
- **Market power is a growing concern.** As payments bundle into commerce and identity platforms, the risk shifts from under-provision to concentration, lock-in and data asymmetry — a different regulatory problem than the one policymakers set out to solve.
- **The development dividend is conditional.** Connectivity, digital identity, interoperability mandates and consumer protection are the decisive variables. Their presence or absence, more than the technology itself, determines whether inclusion is substantive.

The headline access gain came in waves across the four Findex survey rounds, accelerating sharply after 2014.

Account ownership in developing economies

PERIOD	VALUE (%)
2011	42
2014	54
2017	63
2021	71

Share of adults holding an account at each Global Findex survey round, 2011–2021. World Bank Global Findex; measured survey figures.

1. Context and why it matters

Financial exclusion is not primarily a preference problem; it is a cost problem. For most of the twentieth century, serving a low-income, geographically dispersed customer through physical branches and cash handling cost more than the revenue that customer could generate. The result was a large population — the World Bank counted roughly 1.7 billion unbanked adults as recently as 2017, falling to about 1.4 billion by 2021 — that transacted almost entirely in cash, saved informally, borrowed from moneylenders or family, and had little protection against income shocks. The economic costs of this arrangement are well documented: cash is expensive to handle and easy to lose or steal; informal savings earn nothing and are hard to protect; the absence of a transaction record makes formal credit unavailable; and the inability to receive payments remotely limits participation in wider markets.



Illustrative photograph, not a data figure. Financial exclusion is fundamentally a cost problem — digital rails change the unit economics of serving low-income, geographically dispersed customers. — IRI illustrative image

Digital financial services attack the cost problem directly. A mobile-money transfer or an instant bank-to-bank payment substitutes a near-zero marginal-cost digital instruction for a physical cash movement. A network of local agents replaces branches with far lower fixed costs. A digital transaction history substitutes for the collateral and paperwork that formal lenders traditionally required. Each of these lowers the cost of serving a customer who was previously uneconomic. That is the mechanism, and it is why the sector matters for development rather than only for commerce: it changes the unit economics of inclusion.

The stakes are macroeconomic as well as household-level. Digitising government-to-person payments — wages, pensions, social transfers — reduces leakage and administrative cost, a lesson reinforced during the 2020–21 pandemic when several governments used digital rails to disburse emergency support at speed. Broader use of digital payments enlarges the tax base by moving activity out of untraceable cash. And the data generated by digital transactions, handled responsibly, can support credit allocation to small firms that constitute the bulk of employment in most emerging economies. These are the reasons multilateral institutions, central banks and finance ministries have treated financial inclusion not as a niche concern but as infrastructure policy.

Yet the same characteristics that make digital finance powerful also make it consequential to get wrong. A payments system is a network with strong economies of scale; left to itself it tends toward concentration. Credit extended on behavioural data can be mispriced or mis-sold at a velocity cash lending never allowed. And a population newly dependent on digital rails is newly exposed to outages, fraud and data misuse. The policy task is therefore not simply to encourage adoption but to shape the market so that its gains are broad and its harms contained.

2. Market structure and scale

The emerging-market digital-financial-services sector is best understood as a set of overlapping product markets sitting on top of shared infrastructure. At the base are the rails — mobile-money platforms, card networks and, increasingly, public instant-payment systems — together with the identity and connectivity layers that make them usable. On top of the rails sit the revenue-generating product lines: payments and transfers, digital credit, digital savings and deposits, insurance (insurtech), investment products (wealthtech), and cross-border remittances. Value is distributed unevenly across these layers. Rails often operate at low or zero margin by design, especially where publicly provided, while the products built on them capture most of the revenue.

Sizing this market precisely is not possible from public data, because definitions overlap, informal activity is unrecorded, and providers report inconsistently. What follows is a transparent modelled estimate, intended to convey magnitude and structure rather than false precision. Our approach anchors on established anchors — Findex account-ownership shares, GSMA mobile-money transaction values, and published regulator statistics for the largest instant-payment systems — and applies segment-level revenue-yield assumptions to estimate revenue pools. Ranges reflect the uncertainty; readers should treat the mid-case as an ordering of magnitude, not a measured figure.

Table 1. Emerging-market digital financial services — estimated 2024 revenue pool by segment (IRI modelled estimates)

SEGMENT	ESTIMATED 2024 REVENUE POOL (USD BN)	SHARE OF POOL (MID-CASE)	ESTIMATED GROWTH TO 2030 (CAGR)	BASIS AND PRINCIPAL ASSUMPTION
Digital payments & transfers	95–150	~46%	9–14%	Applied blended take-rate of 0.4–0.9% to modelled digital-payment value; largest but lowest-margin segment.
Digital credit (consumer & MSME)	45–80	~24%	15–22%	Net interest and fee margin on estimated digital loan books; fastest growth, highest risk dispersion.
Digital savings & deposits	20–35	~10%	8–12%	Spread income on wallet float and micro-deposit balances; sensitive to interest-rate environment.
Cross-border remittances (digital share)	18–30	~9%	7–11%	Digital share of remittance flows at falling average cost; volume growth offsets margin compression.
Insurtech (micro and embedded)	8–16	~5%	12–18%	Premium-linked revenue on embedded and micro-insurance; small base, low penetration.
Wealthtech & micro-investment	6–12	~4%	12–20%	Fee income on retail investment platforms; concentrated in a few middle-income markets.
Infrastructure & enabling services	8–15	~5%	10–15%	Processing, KYC/identity, fraud and API layer fees charged to providers.
Total (rounded)	200–320	100%	~10–15% blended	Sum of segments; overlaps netted. Mid-case ≈ USD 255 bn.

Revenue pool by segment (mid-case share)

SEGMENT	SHARE
Payments & transfers	45%
Digital credit	23%
Savings & deposits	10%
Cross-border remittances	9%
Insurtech	5%
Infrastructure & enabling	5%
Wealthtech	4%

Share of the estimated 2024 EM digital-financial-services revenue pool, mid-case. IRI modelled estimates; shares approximate (Table 1).

Several structural points follow from this picture. First, payments dominate the revenue pool but are being commoditised, particularly where public rails price transfers at or near zero. The strategic implication is that few providers can build a durable business on payment take-rates alone; payments increasingly function as a customer-acquisition and data-generation layer for higher-margin products. Second, digital credit is where growth and risk both concentrate: it is the fastest-growing segment on our estimates and the one most exposed to consumer-protection failures and credit-cycle downturns. Third, the "long tail" segments — insurance, investment — remain small relative to their potential, reflecting the difficulty of selling products whose value is realised only in the future to customers managing immediate liquidity constraints.

Growth is expected to be fastest where the base is smallest — credit above all — as the low and high bounds of our modelled CAGR ranges show.

Estimated revenue growth to 2030 (CAGR range)

CATEGORY	LOW (%)	HIGH (%)
Payments	9	14
Credit	15	22
Savings	8	12
Remittances	7	11
Insurtech	12	18
Wealthtech	12	20
Infrastructure	10	15

Estimated CAGR to 2030, low and high bounds by segment. IRI modelled estimates (Table 1).

The structure of provision varies sharply by region. In much of Sub-Saharan Africa, mobile-network operators anchor the system through mobile money, with banks as partners rather than principals. In India, a public digital-identity and payments stack allows a wide field of banks, fintechs and technology firms to compete on shared rails. In China, two private platform ecosystems achieved near-universal reach before regulators moved to contain their market power. In Latin America, incumbent banks, neobanks and central-bank rails coexist in a more contested field. These are not minor variations; they determine who captures value, who bears risk, and where policy leverage lies.

3. What is driving the market

Four forces explain the pace of change, and their interaction — not any single one — accounts for why some markets moved quickly and others did not.

Rails and interoperability. The decisive supply-side development has been the arrival of interoperable, low-cost payment rails. Closed-loop wallets, where value can only be sent within a single provider's network, deliver limited benefit and tend toward monopoly. Interoperable systems, where any account can pay any other, generate network effects that benefit the whole economy. The clearest evidence comes from public instant-payment systems: India's UPI, built on a common protocol that any participating institution can use, scaled from a standing start in 2016 to tens of billions of transactions per month within several years, while Brazil's Pix, launched by the central bank in late 2020, reached a majority of the adult population within roughly two years. The lesson decision-makers have drawn is that interoperability is often better mandated or publicly provided than left to emerge from private competition, because incumbents rationally resist opening their networks.

Milestones in emerging-market payment rails

WHEN	MILESTONE	DETAIL
2007	M-Pesa launches in Kenya	Agent-based mobile money reaches populations without bank branches, pioneering the model at scale.
2016	India launches UPI	A common interoperable protocol any institution can use scales from a standing start to tens of billions of transactions a month within several years.
2020	Brazil launches Pix	The central bank's instant-payment rail reaches a majority of the adult population within roughly two years.
2022	Global funding tightens	Tighter conditions force consolidation and a shift from growth-at-any-cost toward profitability.

Identity and connectivity. Digital finance cannot function without a way to verify who a customer is and a channel to reach them. India's experience illustrates the point: a national digital-identity system enrolling well over a billion residents dramatically lowered the cost of account opening (know-your-customer checks) and government payments. Where robust digital identity is absent, onboarding remains slow and expensive, and inclusion stalls regardless of how good the payment technology is. Connectivity is the parallel enabler: mobile-money models were designed to work on basic phones precisely because smartphone and data penetration were low, but the richer products — credit scoring, investment, embedded insurance — depend on the continuing spread of affordable data and smartphones.

Demographics and the informal economy. Emerging-market populations are younger, more urbanising and more mobile than those of advanced economies, and a large share of activity is informal. These features create demand: young users adopt digital tools readily; urban migrants need to send money home; informal firms need working capital that banks will not extend without collateral or records. Digital finance meets needs the cash-and-branch model left unserved, which is why adoption, once rails exist, has often been rapid.

Capital and platform competition. The final driver is the flow of capital and the strategic behaviour of large platforms. Venture and strategic investment funded a wave of fintech entrants through the late 2010s and early 2020s; the subsequent tightening of global funding conditions from 2022 forced consolidation and a shift from growth-at-any-cost toward profitability. In parallel, large platforms — telecoms, e-commerce marketplaces, ride-hailing and messaging apps — have moved into finance, bundling payments with their core services. This bundling is efficient for consumers in the short run but raises the concentration questions discussed below.

4. A comparative regional lens

The temptation to speak of a single "emerging-market fintech story" should be resisted; the more useful analysis is comparative, because the same technologies produce different outcomes under different institutional conditions.

Regional archetypes of provision

REGION	WHO ANCHORS THE RAILS	FRONTIER CHALLENGE
Sub-Saharan Africa	Mobile-network operators (mobile money), banks as partners	Interoperability, extending into savings and credit without over-indebtedness, agent liquidity
South Asia (India)	Public identity and payments stack, competitive private layer	Monetising near-zero-cost rails, data governance, extending to credit and insurance
Latin America	Incumbent banks, neobanks and central-bank rails	Depth, cost and competition rather than first access
East & Southeast Asia	Dominant private platforms and super-apps	Concentration, data and financial-stability oversight

Qualitative archetypes; see §4.

Sub-Saharan Africa remains the clearest case of mobile money substituting for absent banking infrastructure. The agent-based model reaches rural populations at low cost, and person-to-person transfers plus merchant and bill payments form the core. The frontier challenges are interoperability between competing mobile-money networks, the extension from payments into savings and credit without triggering over-indebtedness, and the reliability of agent liquidity. Kenya remains the reference market, but Ghana, Tanzania, Uganda and others have built substantial systems, and West African markets are progressing under regional regulatory coordination.

South Asia, and India in particular, illustrates the "public-stack" model: government-provided identity and payment rails on which a competitive private layer operates. This has produced very high transaction volumes at very low cost and has drawn considerable international attention as an exportable template. The open questions concern the monetisation of near-zero-cost rails, the governance of the data the system generates, and the extension of the model to credit and insurance without repeating the over-indebtedness problems seen in earlier microfinance episodes.

Latin America presents a more bank-centric and more contested picture. Well-capitalised digital banks have acquired tens of millions of customers, incumbent banks have responded, and central banks — Brazil's most visibly — have built public rails that reset the competitive baseline. Penetration of smartphones and formal accounts is higher than in much of Africa, so the frontier is less about first access and more about depth, cost and competition. Mexico, Colombia and others are following related but distinct paths shaped by their own regulatory choices.

East and Southeast Asia span the widest range. China reached near-universal digital-payment penetration through two dominant private platforms before regulators intervened to address concentration, data and financial-stability concerns — a sequence now studied closely elsewhere as a cautionary tale about letting scale run ahead of oversight. Southeast Asian markets — Indonesia, the Philippines, Vietnam — combine super-app ecosystems with large unbanked populations, making them among the most actively contested fintech markets globally.

The comparative lesson is consistent: technology is necessary but not sufficient. Institutional design — who provides the rails, whether interoperability is mandated, how identity is handled, how consumers are protected — explains most of the variation in outcomes.

5. Competitive landscape

The competitive field can be grouped into five archetypes, each with a distinct source of advantage and a distinct vulnerability.

Mobile-network operators leverage existing distribution, billing relationships and agent networks; their vulnerability is regulatory pressure to interoperate and to separate mobile-money float from telecom operations. *Incumbent banks* bring balance-sheet capacity, regulatory licences and trust; their vulnerability is legacy cost structures and slower product cycles. *Standalone fintechs and neobanks* compete on user experience and speed; their vulnerability is the cost of customer acquisition and, since 2022, a harsher funding environment that rewards a credible path to profitability. *Large technology and commerce platforms* bring enormous user bases and rich behavioural data; their vulnerability is precisely the market-power and data-governance scrutiny that

success invites. *Public and central-bank rails* are not competitors in the conventional sense but reshape the field for everyone by setting a low-cost baseline.

The strategic centre of gravity is moving toward bundling. A payment is a low-margin, high-frequency interaction that generates data and attention; the economic value lies in using that relationship to distribute credit, insurance and investment products. This is why standalone payment providers face pressure to broaden their product range or to attach themselves to a larger ecosystem, and why platforms with adjacent commerce or messaging businesses have a structural advantage. The same logic, however, drives concentration: the firms best placed to win are those that already hold large user bases and data, which tends to entrench incumbents and raise barriers to entry.

For policymakers this creates a tension that runs through the sector. The efficiency case for bundling and scale is genuine — consumers benefit from integrated, low-cost services — but so is the competition and resilience case for limiting concentration, since a payments system dominated by one or two platforms is a single point of failure and a source of pricing and data power. Resolving this tension is the central regulatory challenge of the next five years, and a different one from expanding access, which dominated the previous decade.

6. Downside risks and open questions

A serious assessment must give downside risks equal weight to the growth story, because several of them are already visible in real markets.

Over-indebtedness and predatory credit. The most consistent harm has come from digital credit extended with weak affordability assessment, opaque or very high effective pricing, and aggressive automated collection. Because digital loans can be originated in seconds and at scale, mis-selling propagates faster than in traditional lending. Several markets have experienced episodes of rapid consumer over-indebtedness followed by regulatory intervention — interest-rate caps, mandatory affordability checks, credit-bureau reporting requirements. This is the clearest example of inclusion that harms rather than helps when consumer protection lags product design.

Fraud, scams and operational risk. As populations move onto digital rails, they become targets for social-engineering scams, account takeover and authorised-push-payment fraud. Instant, irreversible payments are efficient but unforgiving of error and fraud. Systems that scale faster than their fraud-prevention and dispute-resolution capacities erode the trust on which adoption depends, and a population dependent on a single rail is exposed to outages that the concentration trend only magnifies.

Data governance and privacy. Digital finance is, in effect, a data-generation machine. The same data that enables credit scoring and fraud detection can be misused for discriminatory pricing, surveillance or unconsented sharing. Many emerging markets are building data-protection regimes concurrently with the systems that generate the data, and the frameworks frequently lag practice. Who owns transaction data, on what terms it can be used, and how consent is obtained are unresolved questions with large distributional consequences.

Concentration and market power. As discussed, the network economics of payments and the advantages of bundling push toward concentration. The risk is that a market designed to broaden access ends up dominated by a small number of platforms with pricing power over merchants and consumers and privileged access to data — a structure that is both a competition problem and a financial-stability concern.

Macro and connectivity fragility. Finally, the sector is exposed to the macroeconomic environment — interest rates that affect float income and credit demand, currency volatility that affects cross-border flows, and the tighter global funding conditions since 2022 that have already forced consolidation. Underlying all of it is the assumption of reliable connectivity and electricity, which cannot be taken for granted in the poorest, most rural markets that inclusion policy most wants to reach.

Outlook: three scenarios to 2030

We frame the outlook as three scenarios rather than a single forecast, because the outcome depends on policy and institutional choices that are genuinely undetermined. The scenarios are not equally probable; we regard the middle path as most likely on current evidence.

Scenarios to 2030

Public rails and broad inclusion — Upside

Interoperable public or mandated rails spread to more markets, digital-identity coverage widens, and consumer-protection and data-governance frameworks mature roughly in step with product innovation; active usage rises and value distributes more evenly across participants.

METRIC	VALUE
Revenue pool	Toward upper end (~USD 320bn)
Value distribution	Broad

Uneven consolidation — Central case

Progress continues but unevenly; a few markets approach the upside while many see adoption concentrate in one or two dominant platforms, with periodic over-indebtedness and fraud episodes triggering reactive regulation.

METRIC	VALUE
Blended growth	~10–15% CAGR
Value distribution	Concentrated in incumbents

Stalled and fragile — Downside

Connectivity and identity gaps persist, interoperability is resisted successfully, and consumer-harm events erode trust before protections are in place; adoption plateaus with a large residual excluded population and a concentrated, lightly-contested market.

METRIC	VALUE
Development dividend	Largely unrealised
Market	Concentrated, lightly contested

Scenario A — "Public rails and broad inclusion" (upside). Interoperable public or mandated rails spread to more markets, digital identity coverage widens, and consumer-protection and data-governance frameworks mature roughly in step with product innovation. Active usage — not just account ownership — rises materially; credit is extended with affordability discipline; competition stays contestable because open rails lower entry barriers. In this scenario the sector's development dividend is largely realised: resilience improves, transaction costs fall broadly, and the revenue pool grows toward the upper end of our estimate range while distributing value more evenly across participants. This path requires deliberate policy: interoperability mandates, investment in identity and connectivity, and credible supervision.

Scenario B — "Uneven consolidation" (central case). Progress continues but unevenly. A handful of markets with strong public rails and capable regulators approach the upside path; many others see adoption concentrate in one or two dominant platforms, with real gains in payments but slower and shakier progress in credit, savings and insurance. Consumer-protection and data regimes improve but lag, producing periodic over-indebtedness and fraud episodes that trigger reactive regulation. The revenue pool grows at roughly the blended 10–15% we model, but value concentrates among incumbents and large platforms. Inclusion advances in headline terms while remaining shallow for a significant minority. This is, in our judgement, the most probable trajectory.

Scenario C — "Stalled and fragile" (downside). Connectivity and identity gaps persist, interoperability is resisted successfully by incumbents, and consumer harms — a serious over-indebtedness crisis, a large fraud or data-breach event, or a major outage — erode trust before protections are in place. Regulation becomes restrictive and reactive rather than enabling; capital retreats further; adoption plateaus with a large residual excluded population and a concentrated, lightly-contested market. The development dividend is largely unrealised, and digital finance reproduces rather than narrows existing inequalities. This scenario is avoidable but not implausible in markets where institutional capacity is weakest.

The variable that most separates these paths is not technology, which is broadly available, but institutional design and supervisory capacity. That is a hopeful conclusion in one sense — the levers are within policymakers' control — and a demanding one in another, because building supervisory and consumer-protection capacity is slower and less visible than launching a payment app.

What this means for stakeholders

For governments and regulators. The central-bank and finance-ministry agenda has shifted from encouraging adoption to shaping market structure. Four priorities stand out: provide or mandate interoperable, low-cost payment rails, treating them as public infrastructure; invest in robust, privacy-protecting digital identity to lower onboarding costs; build consumer-protection and data-governance regimes ahead of, not behind, product rollout, with particular attention to credit affordability, transparent pricing and dispute resolution; and develop the supervisory capacity to monitor concentration and operational resilience. The sequencing matters: several of the worst outcomes elsewhere followed from letting scale run ahead of oversight.

For business and investors. The strategic implications follow from the revenue-pool structure. Payments are commoditising, especially against public rails, so durable returns depend on the products built on top — credit, savings, insurance, embedded finance — and on the data and distribution advantages that support them. The 2022 shift in funding conditions has already rewarded profitability and credible unit economics over growth alone; that discipline is likely to persist. Investors should weight regulatory trajectory heavily in market selection, since the difference between the scenarios above is largely a policy variable, and should price the tail risks — over-indebtedness backlash, data or fraud events, and concentration-driven regulatory intervention — that can impair returns quickly. Partnerships with holders of identity, distribution or rails will often beat standalone competition.

For international organisations and donors. The highest-leverage contributions are no longer pilot wallets but the enabling public goods: technical assistance on interoperable rails and digital identity, support for supervisory and consumer-protection capacity, and rigorous, independent measurement of active usage and consumer outcomes rather than account-opening counts. Development finance can also de-risk the extension of services into harder, lower-margin populations — rural, remote and low-income — that private capital reaches last. The measurement point deserves emphasis: what gets counted shapes what gets built, and an over-reliance on account-ownership headlines has, at times, obscured shallow or dormant inclusion.

Methods, data and confidence

This report synthesises three kinds of evidence and is explicit about the status of each figure it contains. The first kind is established survey and official data: account-ownership and usage shares drawn from the World Bank's Global Findex survey series, mobile-money transaction and account statistics of the kind published in industry state-of-the-industry reporting, and instant-payment volumes reported by central banks and payment-system operators. Where we cite these — for example the rise in developing-economy account ownership from about 42% in 2011 to about 71% in 2021, or the count of unbanked adults falling from about 1.7 billion in 2017 to about 1.4 billion in 2021 — the figures are widely-published measured statistics, though the reader should note that survey timing, definitions and revisions introduce their own margins.

The second kind is our own modelled estimate. The 2024 revenue-pool figures in Table 1, and the segment growth rates and totals, are IRI estimates constructed by applying transparent revenue-yield assumptions (payment take-rates, credit net margins, deposit spreads, premium and fee yields) to modelled activity volumes anchored on the public data above. These are stated as ranges to convey uncertainty; they are an ordering of magnitude and a description of structure, not measured accounting totals, and they should not be quoted as if they were audited figures. Different assumptions — particularly on digital-payment take-rates and the size of digital loan books, which are the largest swing factors — would move the total materially within and somewhat beyond the stated range.

The third kind is qualitative and comparative judgement: the assessment of drivers, the regional archetypes, the competitive analysis and the scenarios. These reflect the analysts' reading of the evidence and are presented as reasoned interpretation, not as forecast certainty. The scenarios in particular are deliberately framed as conditional on policy choices rather than as point predictions, and we state which we regard as most probable and why.

Two honest caveats apply throughout. First, definitional overlap and unrecorded informal activity mean that no one — including national regulators — has a complete measured picture of this sector; any single total should be treated with caution. Second, specific numbers date quickly, while the structural analysis — the primacy of interoperable rails, the shift from access to usage, the concentration risk, the conditionality of the development dividend — is intended to be more durable. Readers seeking current point

figures should consult the primary sources directly; those seeking to understand the market's shape and direction are the intended audience.

Sources and data

Measured survey and official series were read directly; proprietary provider figures on digital lending are used in aggregate and referenced by category in the methods note.

- World Bank (2022). *The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19*. World Bank, Washington, DC.
- GSMA (2024). *State of the Industry Report on Mobile Money 2024*. GSM Association, London.
- National Payments Corporation of India (2024). *UPI product statistics*. NPCI, Mumbai.
- Banco Central do Brasil (2024). *Pix statistics and management report*. BCB, Brasília.
- Consultative Group to Assist the Poor (2023). *Consumer protection in digital credit: emerging risks and responses*. CGAP, Washington, DC.
- Bank for International Settlements, Committee on Payments and Market Infrastructures (2023). *Fast payments – enhancing cross-border reach*. BIS, Basel.
- International Monetary Fund (2023). *Financial Access Survey 2023*. IMF, Washington, DC.
- World Bank (2023). *Remittance Prices Worldwide, Issue 47*. World Bank, Washington, DC.
- Global Partnership for Financial Inclusion (2023). *G20 Financial Inclusion Action Plan: progress and priorities*. GPMI.
- Regulator and industry statistics on digital lending (2022–2025), referenced by category where the underlying data are proprietary.

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