CASE STUDY

Beyond Access: Thailand and the Frontiers of Financial Inclusion

Harnessing Innovation for Inclusive and Responsible Finance

October 2026 • **Sai Krishna Kumaraswamy**

CGAP

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Abbreviations

AI	Artificial Intelligence
AOC	Anti-Online Scam Operation Center
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BAHTNET	Bank of Thailand Automated High-value Transfer Network
BIS	Bank for International Settlements
BNM	Bank Negara Malaysia
BNPL	Buy-Now-Pay-Later
BoT	Bank of Thailand
CBDC	Central Bank Digital Currency
DPI	Digital Public Infrastructure
EMDE	Emerging Market and Developing Economy
ETDA	Electronic Transactions Development Agency (Thailand)
GDP	Gross Domestic Product
GNI	Gross National Income
IAC	International Anti-Scam and Human Trafficking Command Centre
IMF	International Monetary Fund
INTERPOL	International Criminal Police Organization
KYC	Know Your Customer
MAS	Monetary Authority of Singapore
NDID	National Digital ID
OECD	Organisation for Economic Co-operation and Development
P2P	Peer-to-Peer
SEC	Securities and Exchange Commission (Thailand)

SFI	Specialized Financial Institution
SIRPS	Systemically Important Retail Payment System
SME	Small and Medium Enterprise
USSD	Unstructured Supplementary Service Data

Executive Summary

Expanding access to financial services defined the first generation of financial inclusion. That task remains unfinished, with 1.3 billion adults still excluded. Yet a growing number of countries now face a harder question—whether access has translated into better outcomes for consumers. Thailand is one of the few economies far enough along this transition to offer a substantive account of what comes next.

Thailand entered the digital era with an unusually deep financial system, anchored in commercial banks, state-owned rural finance institutions, and national microcredit programs. Post-Asian financial crisis reforms strengthened oversight while successive inclusion programs expanded access. Account ownership rose from 73 percent in 2011 to 92 percent in 2024, gender gaps largely disappeared, and more than 80 percent of adults now use digital payments. Thailand has emerged a frontrunner among emerging markets on first-generation inclusion measures.

Digital finance has widened choice, lowered transaction costs, and expanded access for households and small businesses underserved by traditional finance. But it has also increased the speed, scale, and complexity of risks—fraud, scams, and cyber threats are rampant; digital credit can amplify over-indebtedness where household debt approaches 90 percent of gross domestic product (GDP); and new models such as embedded finance and Buy-Now-Pay-Later (BNPL) distribute financial activity across multiple providers, creating gaps in regulatory visibility and responsibility for consumer harm. These pressures fall on households with limited resilience. Just over half save formally, and nearly 40 percent cannot access emergency funds within a month.[1]

Thailand illustrates the central challenge of second-generation financial inclusion: how to preserve the gains from digital innovation while ensuring that financial markets remain inclusive, competitive, responsible, and resilient.

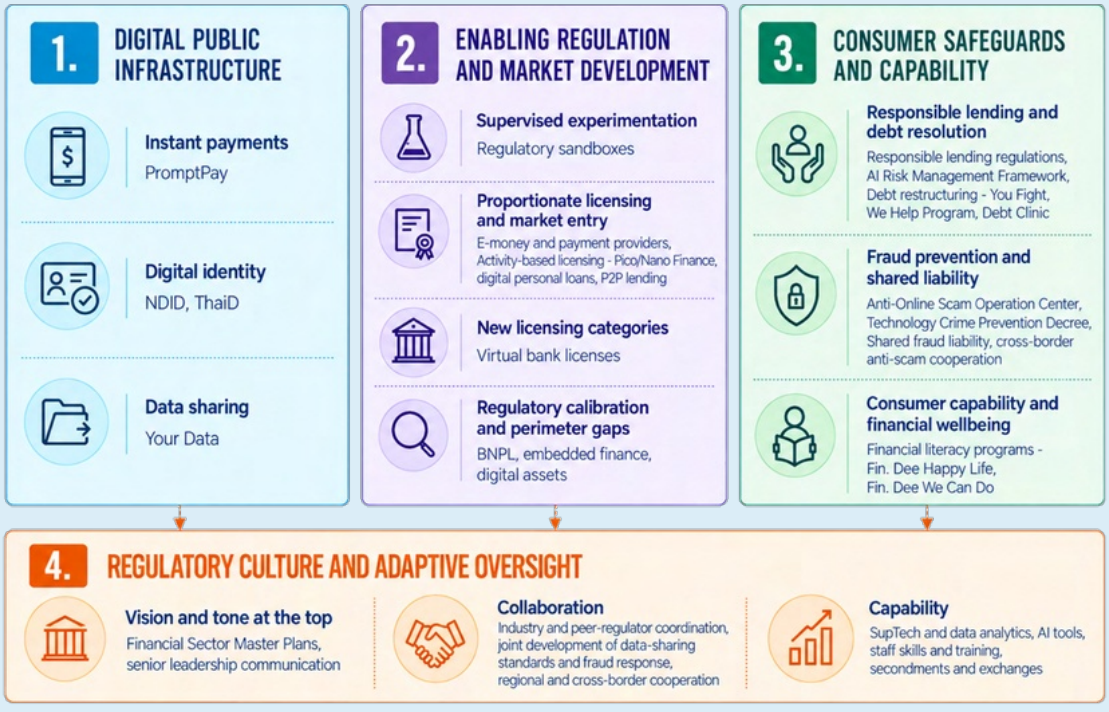
Its regulatory response has been wide-ranging and rests on four interrelated components, but the measures under each component are at different stages of maturity. Some are established and widely adopted, others are recent with limited evidence on outcomes, and some remain under development.

- **Building Digital Public Infrastructure (DPI) for Open and Inclusive Rails:** Thailand developed shared, interoperable infrastructure for payments (PromptPay), identity verification (National Digital ID platform/NDID), and data sharing (Your Data), enabling free instant payments and

[1] The World Bank's Global Findex measures financial resilience in many ways, including asking respondents if coming up with 5 percent of gross national income (GNI) per capita, in local currency units, in 30 days or less was not difficult at all, or somewhat difficult and possible. In Thailand, 60 percent answered that it was, implying that 40 percent cannot access emergency funds (Klapper et al. 2025).

remote, consent-based identity verification, while laying the groundwork for customer-directed data portability.[2]

- **Creating an Enabling Environment for Innovation and Market Development:** Thailand created supervised pathways for new providers and business models through regulatory sandboxes, proportionate licensing, and new categories for digital personal loans, peer-to-peer (P2P) lending, and virtual banks, bringing new activities into formal oversight as markets evolved.
- **Strengthening Consumer Safeguards and Capability:** Thailand made consumer protection more preventive, through responsible product design, affordability assessments, debt restructuring, governance of AI-enabled credit decisions, and coordinated fraud prevention, alongside expanded financial capability programs.
- **Cultivating Regulatory Culture for Adaptive Oversight:** Thailand combined strategic direction with flexible supervision. Successive Financial Sector Master Plans provided continuity, while the Bank of Thailand used regulatory powers, cross-agency coordination, moral suasion, and leadership communication to pursue outcomes requiring collective action. This was supported by investments in supervisory technology and staff capability.



[2] Digital public infrastructure (DPI) refers to foundational, shared digital building blocks designed for public benefit that can be built upon by public and private actors to deliver services at scale. Common DPI systems include digital identity, digital payments, and data-sharing platforms. The 'public' in DPI refers to public benefit rather than government ownership or operation (Clark et al. 2025).

Where results are observable, Thailand's approach has delivered at scale. PromptPay has 92 million registered users and processes around 75 million transactions a day while digital payment use rose from 37 to 83 percent of adults between 2014 and 2024. NDID has more than 30 million registered users, with verified identities accepted by nearly 140 institutions. Enabling regulation widened participation of providers serving low-income and thin-file customers through new business models, with nonbanks accounting for 90 percent of e-money accounts. Responsible lending measures supported debt restructuring for about 4.3 million borrowers covering ฿2.5 trillion (US$80 billion) in debt. Coordinated anti-fraud measures suspended more than 3.4 million mule accounts (accounts used to receive or transfer fraud proceeds) and prevented an estimated ฿19 billion (US$540 million) in losses.[3]

Important gaps and trade-offs nevertheless remain across all four components. In DPI, PromptPay's bank-anchored model helped it scale but concentrated control over critical payment infrastructure among incumbent institutions. The NDID digital identity provider layer remains limited to a handful of incumbents, while Your Data, still under implementation, enables data sharing only among Bank of Thailand (BoT)-supervised entities. Legal and infrastructure barriers limit access to valuable alternative data sources, including utility, insurance, and telecoms records, particularly relevant to thin file borrowers.

Enabling regulation has widened entry, but not necessarily contestability. New providers such as virtual banks remain dependent on incumbent banks for infrastructure, capital, data, and distribution, while some models including BNPL and embedded finance remain only partly within the regulatory perimeter. Artificial Intelligence (AI)-enabled fraud and scams outpace oversight mechanisms, residual fraud losses still fall on consumers where providers meet prescribed security standards, and over-indebted households lack a voluntary debt resolution pathway. Financial capability initiatives remain program-based and separate from financial service delivery, with unclear impacts on financial behavior. And while authorities have shown a capacity and culture for adaptive regulation and an innovation-friendly stance, cautious and calibrated market opening has at times struggled to keep pace with rapidly evolving markets, while coordination across multiple authorities risks blurring accountability where it substitutes for formal authority.

These gaps are not unique to Thailand; they reflect tensions inherent in a second-generation financial inclusion agenda built on the success of access and digital adoption. For authorities approaching this juncture, Thailand's experience surfaces a set of choices rather than answers, distilled into seven policy considerations in this case study.

Those considerations weigh whether to build DPI as a unified stack or incrementally as frictions emerge, contrasting state-led with industry-led approaches. They ask when incentives suffice to secure provider participation in DPI to enable scale and sustainability, and when mandates become necessary. They consider how regulation can contain risks yet also enable innovation, and how market entry may be necessary but not sufficient to create effective competition. On consumer protection,

[3] US Dollar equivalents throughout this case study use average annual exchange rates for the respective year, rounded to the nearest whole number.

they question how far preventive safeguards should go without excluding the very consumers they seek to protect or those on the other side of the digital divide. They examine where responsibility for consumer outcomes should sit and the limits of capability-building. Finally, they consider what it takes to cultivate a whole-of-system regulatory culture that reaches across institutional boundaries, and the limits of relying on influence rather than formal authority.

Thailand offers an early mover's account, not a blueprint. Its value lies in showing the market shifts, policy choices, and institutional demands that emerging market authorities will increasingly confront as their financial systems mature. For financial sector authorities, policymakers, and development partners, the case study highlights implications for regulatory priorities, funding strategies, advocacy, and regional dialogue. The next frontier of financial inclusion will require a more adaptive, collaborative, and outcomes-focused regulatory approach. For a growing number of countries, that transition is no longer distant, but already under way.

Section I: Introduction

Digital finance has reshaped how households and small businesses across emerging markets and developing economies (EMDE) access, use, and experience financial services. Innovation has enabled new financial products, service providers, and delivery channels, contributing to measurable gains in financial access. Digital delivery channels have also created economies of scope, allowing providers to bundle services such as payments, savings, and insurance at a lower cost than traditional cash channels.

Yet 1.3 billion people remain excluded, and expanded access has not consistently translated into better financial outcomes (Klapper et al. 2025). Digital finance ecosystems also create new risks. Consumers face threats from fraud, data misuse, poor recourse, and over-indebtedness (Chalwe-Mulenga, Duflos, and Coetzee 2022). Meanwhile, the financial system faces dangers from operational failures, cyber vulnerabilities, and market concentration (International Monetary Fund (IMF) 2019; IMF 2026). Regulators therefore face a dual challenge: closing remaining access gaps while ensuring that participation is safe, meaningful, and capable of improving consumer outcomes. The question is no longer only whether people can enter the financial system, but whether they can use it on terms that improve their well-being, and what regulatory approaches support it.

Thailand offers an instructive case for examining this shift. Compared with many middle-income economies, it entered the digital finance era with a relatively mature financial sector, where nearly three in four adults already held an account, participation was broad-based across income groups, and gender gaps were virtually absent (Demirgüç-Kunt and Klapper 2013). Thailand is therefore a frontrunner among its peers in first-generation inclusion outcomes—particularly in creating broad and equitable access. From that base, digital payments, digital credit, and platform-based financial services have expanded rapidly, and Thailand has moved to the frontier of the second-generation inclusion agenda by deploying forward-looking regulatory approaches whose outcomes remain to be established.

TABLE 1. **Selected Financial Inclusion Indicators, Thailand, and Comparators, 2024**

Indicator	Units	Thailand	UMIC	EAP	Malaysia	Philippines	Indonesia	Viet Nam
Account ownership	%	**92**	84	83	89	50	56	71
Digital payment use	%	**83**	81	80	77	40	43	62
Merchant payment use	%	**51**	68	67	52	13	14	51
Gender gap in account ownership	pp	**-2**	3	0	1	-14	-3	1
Gender gap in digital payment use	pp	**0**	4	0	6	-11	-2	2
Income gap in account ownership	pp	**1**	12	13	11	26	13	37
Income gap in digital payment use	pp	**6**	15	16	19	27	15	40

Note: % = share of adults age 15 or older; pp = percentage points. UMIC = Upper-Middle-Income Countries, EAP = East Asia and the Pacific (excluding high-income countries). EAP figures exclude Myanmar. Gender gaps are calculated as the difference between men and women; negative values indicate higher account ownership or digital payment use among women. Income gaps are calculated as the difference between adults in the richest 60 percent and poorest 40 percent of households.

Source: World Bank Global Findex Database 2025

92% of adults have an account | 83% use digital payments | Nearly 40% cannot access emergency funds within 30 days

This progress changed the nature of the inclusion challenge. As access constraints receded, new frictions emerged around usage, quality, and safety. Financial services are increasingly embedded in digital platforms, credit is delivered using alternative data, and financial activity is distributed across actors that do not all fall within the traditional regulatory perimeter. The result is a financial system with greater reach, but also risks that are faster-moving, more interconnected, and harder to detect and address. The policy agenda is consequently shifting from expanding access toward ensuring that inclusion supports financial well-being.[4]

This case study takes analytical stock of how Thai authorities have pursued a second-generation financial inclusion agenda, examining policy design and implementation, remaining gaps, trade-offs, and available evidence without seeking to evaluate the approach as a whole. It then draws out the policy considerations and questions that development partners and peer EMDE financial authorities are likely to encounter as their financial systems reach a similar stage.

Thailand's experience shows why this agenda requires more than isolated reforms. It requires DPI that lowers market frictions, enabling regulation that creates pathways for responsible innovation and competition, proactive, system-wide safeguards that address evolving consumer and systemic risks,

[4] Financial well-being, used interchangeably with financial health in this case study, is defined as "a state in which individuals are able to smoothly manage their financial needs and obligations, can cope with negative shocks, can pursue aspirations, goals and capture opportunities, and feel satisfied and confident about their financial lives, keeping in mind country specific circumstances" (G20 Brazilian Presidency and OECD 2024).

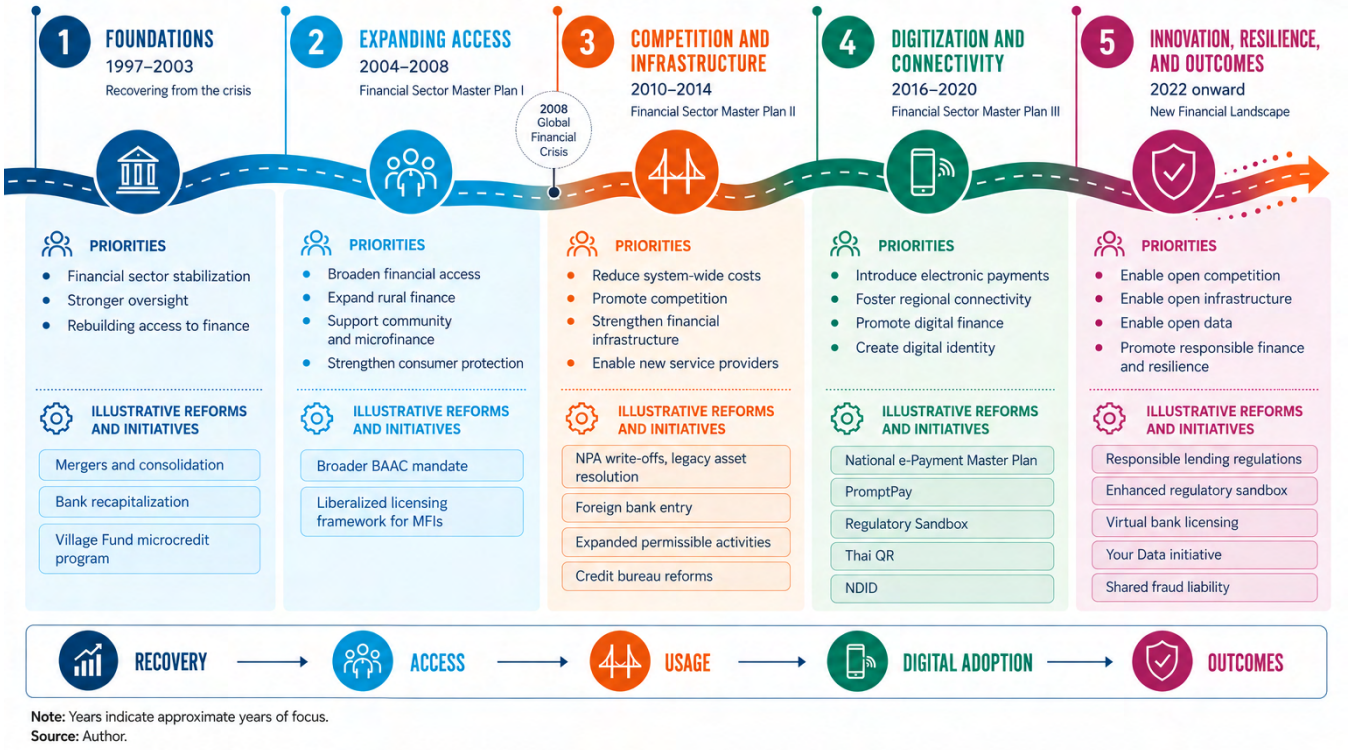
and a regulatory culture that supports coordination and adaptive learning across these areas. The interaction among these components and the tensions that arise when they do not fully align shapes the analysis that follows.

Section II traces the evolution of Thailand's digital financial landscape and the opportunities and risks created by digital expansion. Section III examines Thailand's regulatory response, analyzing progress and gaps and identifying trade-offs. Section IV draws out policy considerations for peer EMDE financial authorities and development partners. Section V concludes with broader implications for financial inclusion.

Section II: Thailand's Digital Financial Landscape — Evolution, Opportunities, and Risks

FIGURE 1. **Thailand's Financial Inclusion Journey**

Thailand's financial inclusion journey has evolved from post-crisis recovery and expanding access to building enabling digital infrastructure, promoting competition, and fostering innovation, while increasingly focusing on managing the risks of a more complex digital financial system and improving consumers' financial wellbeing.



Note: Years indicate approximate years of focus.
Source: Author.

Foundations of Financial Inclusion

Financial inclusion in Thailand has long been a policy priority, advanced through a network of state-owned Specialized Financial Institutions (SFIs) established to implement government policy and focus on customers underserved by commercial banks. These included the Government Savings Bank, Bank for Agriculture and Agricultural Cooperatives, Government Housing Bank, Small and Medium Enterprises (SME) Development Bank, and Export-Import Bank of Thailand (EXIM Thailand), which mobilized savings and provided agricultural, housing, SME, and export finance across distinct customer segments (Bank of Thailand (BoT) n.d.-c).

The Asian Financial Crisis of 1997, whose epicenter was Thailand, marked a major rupture. The collapse of the Thai baht triggered bank failures and a sharp tightening of credit supply, resulting in the closure or restructuring of four major banks and fifty-six finance companies, and an eventual gross domestic product (GDP) contraction of 8 percent (BoT 1998). Post-crisis reforms strengthened oversight and recapitalized banks, while commercial lending became more risk averse and collateral based, leaving many rural households and small enterprises credit constrained (IMF 2000).

The government made financial inclusion part of the recovery strategy, most visibly through the Thailand Village and Urban Community Fund launched in 2001. The program injected one million baht (US$23,000 in 2001 prices) into each of more than 74,000 villages and urban communities to capitalize locally managed revolving credit associations. By 2005, it had become one of the world's largest government-supported microfinance schemes, lending nearly US$6.4 billion to eighteen million borrowers at a fiscal cost of around 1.4 percent of GDP. Its universal rather than targeted design broadened financial access and produced short-term consumption gains among poorer households, although its longer-term effects on poverty were more modest (Boonperm, Haughton, and Khandker 2013). By 2016, SFIs provided basic financial services to 22 percent of households and were the largest formal source of household loans, used by 16 percent of households, compared with 8 percent for commercial banks (BoT 2016c).

This history meant that Thailand entered the digital era with a broader and more developed financial system than many emerging market peers. By 2011, 73 percent of adults had an account, reflecting the reach of bank branches and ATMs, state-owned rural finance institutions, and national microcredit programs (Demirgüç-Kunt and Klapper 2013). The challenge was therefore not only to include more people, but to make an already extensive financial system more useful, efficient, and resilient. As digital finance expanded, account ownership and use increased further. By 2024, 92 percent of adults had an account, with 70 percent holding a digitally enabled account. Digital payment use rose from 37 percent in 2014 to 83 percent in 2024, while 54 percent saved formally, and just over half made digital merchant payments (Klapper et al. 2025).

Account ownership was already equal among men and women in 2011, indicating that gender gaps in basic financial access had largely disappeared before digital finance expanded (Demirgüç-Kunt and Klapper 2013). By 2024, there were no discernible gender gaps in account ownership, digital and merchant payment use, or the ability to access emergency funds. Women reported marginally higher rates of borrowing and marginally lower rates of saving, both formal and informal (Klapper et al. 2025). While the drivers of this trend are not fully understood, existing research points to relative gender parity in Thailand's sociocultural context, including women's primary role in household financial management and control over family resources; the universalist design of public policy programs such as the Village Fund; and foundational literacy that allowed women to confidently navigate formal banking institutions (Bowie 2010; Grohmann et al. 2021; Boonperm, Haughton, and Khandker 2013). High female labor-force participation and relatively low legal and institutional barriers to opening accounts and holding assets further encouraged women's use of financial services (World Bank 2021).

The Rise of Digital Finance and New Opportunities

Digital finance expansion accelerated in Thailand from the mid-2010s, building on structural foundations laid much earlier. But unlike in many peer emerging markets, it was primarily bank led.

The Bank of Thailand (BoT)'s long-standing emphasis on financial stability contributed to a cautious approach to nonbank e-money issuance, which was permitted under a 2008 Royal Decree allowing telecom and retail firms to offer prepaid digital wallets and bill payment services. However, these providers faced strict regulatory restrictions including prohibitions on lending or paying interest, fund safeguarding requirements, no interoperability with other networks or traditional bank accounts, no access to the national payment rails, and strict transaction and balance caps. The market remained fragmented until enactment of the Payment Systems Act of 2017, which consolidated the licensing and oversight framework for nonbank providers (BoT 2018). Around the same time, the government's National e-Payment Master Plan prioritized the country's digital transformation while PromptPay offered common, instant payment rails, and incumbent banks invested early in digital channels. Together, this paved the way for banks to dominate the digital finance landscape.

Digital finance was also enabled by a long-established civil registration system assigning each citizen a unique 13-digit Thai ID that had near-universal coverage and was digitized as early as 1996, offering providers reliable means for customer due diligence (World Bank 2021). Established consumer-protection arrangements also provided an important foundation for trust. Collectively, these conditions enabled a new generation of providers to use digital channels and customer data to extend the reach and relevance of financial services.

Digital financial services have expanded across payments, credit, and other product categories. Digital payment services are embedded in platforms such as Grab, Shopee, TrueMoney, LINE Pay, and Rabbit. Digital credit has expanded through products such as Digital Personal Loans and Buy-Now-Pay-Later (BNPL), including SPayLater, Atome, and K PAY LATER. By 2023, roughly one in five adults had used BNPL, in a market estimated at US$3 billion (Technode Global 2024). Alongside this product expansion, three applicant groups approved to establish virtual banks are expected to broaden digitally delivered deposit and credit services for underserved retail and SME customers through alternative approaches to credit assessment (BoT 2025k).

For consumers and small businesses, these developments have translated into concrete gains. PromptPay, used by nearly 95 percent of the population, provides free, instant transfers for individuals, reducing the cost of everyday payments and making it easier to pay bills and receive welfare payments and tax refunds. Its QR-payment functionality also gives merchants a low-cost alternative to point-of-sale hardware (BoT 2025i). Beyond these direct payment benefits, digital transaction and platform data can support new credit-assessment and embedded-finance models, including BNPL, for gig workers with irregular incomes and small businesses lacking formal credit records. This is particularly significant given Thailand's estimated US$41 billion SME financing gap and its US$26 billion e-commerce market (IFC 2024; Google, Temasek, and Bain 2024). More broadly, digital finance also creates linkages to the wider digital economy, connecting firms to digital platforms, logistics networks,

and cross-border markets, and supporting the growth of higher-productivity digital services, quality employment, and economic growth (World Bank 2026).

These developments have expanded the digital-finance ecosystem without structurally displacing Thailand's bank-centric system. Major banks have responded by building their own digital ecosystems and partnering with technology firms. KBank's K PLUS mobile-banking platform had more than 23 million domestic users in early 2025 and offers payments alongside credit, investment, and insurance products. KBank also partnered with the super-app LINE to create LINE BK, which embeds transfers and personal loans within the LINE application and explicitly targets consumers underserved by conventional banking (KBank 2025; LINE BK n.d.). Siam Commercial Bank took a group-level approach, reorganizing under the SCBX holding company while developing fintech and platform businesses such as SCB TechX in a joint venture with a technology firm (SCBX 2022). Following regulatory approval in 2025, SCBX established BankX Bank in 2026, a virtual bank in consortium with South Korea's KakaoBank and China's WeBank (BoT 2025k; SCBX 2026).

Nonbanks and digital platforms have therefore widened the range of products, interfaces, and distribution channels available to customers, but frequently remain connected to banks through licenses, balance sheets, infrastructure, or customer accounts. Banks continue to anchor the financial system, while platforms progressively shape how financial services are accessed, combined, and experienced.

Emerging Risks of Digital Finance

However, the proliferation of digital finance is also creating risks to consumers and the financial system that evolve faster and are harder to detect under traditional oversight mechanisms. The same features that make digital finance convenient—speed, scale, automation, and embedded delivery—can also make harm more difficult to prevent, trace, and remedy.

Household indebtedness is one of the most immediate consumer risks. Household debt rose from 76 percent of GDP in 2012 to more than 94 percent in 2021, with pandemic-related income losses contributing to the later increase, before declining to 87 percent by the third quarter of 2025. Nearly 40 percent consisted of consumption-driven borrowing through personal loans, auto loans, and credit cards (BoT 2025c; BoT 2026a). Much of Thailand's household-debt stock therefore predates the expansion of digital credit.

Digital credit is nevertheless becoming more important at the margin. By 2025, Thailand's digital-lending loan book had reached US$17 billion after sustained double-digit growth, equivalent to roughly 3 percent of total household debt. The rapid expansion of BNPL and other short-term unsecured products, used disproportionately by younger and lower-income consumers, can concentrate risks among borrowers with the weakest financial buffers (Google, Temasek, and Bain 2025; BoT 2026a). By reducing friction and accelerating access to credit, digital lending can amplify existing distress, making its effect on consumer financial well-being ever more dependent on underwriting quality, disclosure, and collection practices.

Digital fraud and scams represent a parallel and growing risk. The speed, anonymity, and cross-border reach of digital finance make financial crime easier to execute at scale and harder to trace. Organized scam operations based in neighboring Myanmar and Cambodia use AI-generated deepfakes, voice phishing, romance scams, and other techniques to impersonate authorities, employers, and family members and target Thai consumers (GI-TOC 2024; GI-TOC 2025). Reported incidence is high, with the Royal Thai Police recording over 739,000 cybercrime-related complaints between 2022 and 2024, with associated financial damages of ฿77 billion (US$2.2 billion) (Nation Thailand 2024). Digital financial institutions and platforms, including payment providers and virtual-asset services, have been identified as channels that criminals can exploit to move and launder the proceeds of cyber-enabled fraud (FATF, INTERPOL, and Egmont Group 2023). The cross-border organization of these networks, the speed with which funds can be moved, and the rapid evolution of fraud tactics continue to constrain prevention, enforcement, and recovery.

These risks affect households with limited financial resilience. Only 54 percent of adults save formally, and nearly 40 percent cannot access emergency funds within 30 days (Klapper et al. 2025). Fraud losses and unsustainable borrowing can therefore erode already-thin household buffers, undermine trust, and reverse hard-won gains in inclusion.

Digital finance can also exclude vulnerable groups, as aggregate gains mask divides by age, income, location, gender, and employment status. Although 92 percent of Thais use the internet and 88 percent own smartphones, these shares fall to 43 and 38 percent among those aged 75 and older. This gap is especially significant in a country where more than one-fifth of the population is over 60 (ITU n.d.; World Bank Group 2025).

Beyond direct consumer harm, digital finance also creates systemic vulnerabilities. Platform-based and embedded models distribute financial activity across multiple entities, stretching regulatory and supervisory frameworks and making responsibility harder to assign. Growing reliance on shared digital infrastructure also amplifies exposure to cyberattacks, outages, and third-party failures (Doerr et al. 2023; IMF 2024). Thailand's National Cybersecurity Agency recorded a sharp rise in compromised usernames and passwords between 2024 to 2025, while private threat-intelligence data also indicate attack volumes substantially above global averages (Bangkok Post 2025; Bangkok Post 2026).

A related concern is market concentration. When payment infrastructure, customer relationships, and data become concentrated among a limited number of infrastructure and platform providers, smaller firms may find it harder to enter or compete effectively. Such concentration can entrench market power while increasing the consequences of the failure or compromise of a major provider (Cevik 2023).

Thailand's growing risks are not signs of failure; rather, they reflect the consequences of its first-generation inclusion gains. They arise partly from the scale, speed, interconnectedness, and wider participation that digital finance has enabled. The inclusion challenge has therefore shifted from expanding access toward ensuring that digital financial markets remain safe, competitive, and resilient. Managing that transition requires regulatory approaches that are more integrated, adaptive, and attentive to consumer outcomes. Section III examines how Thailand is responding.

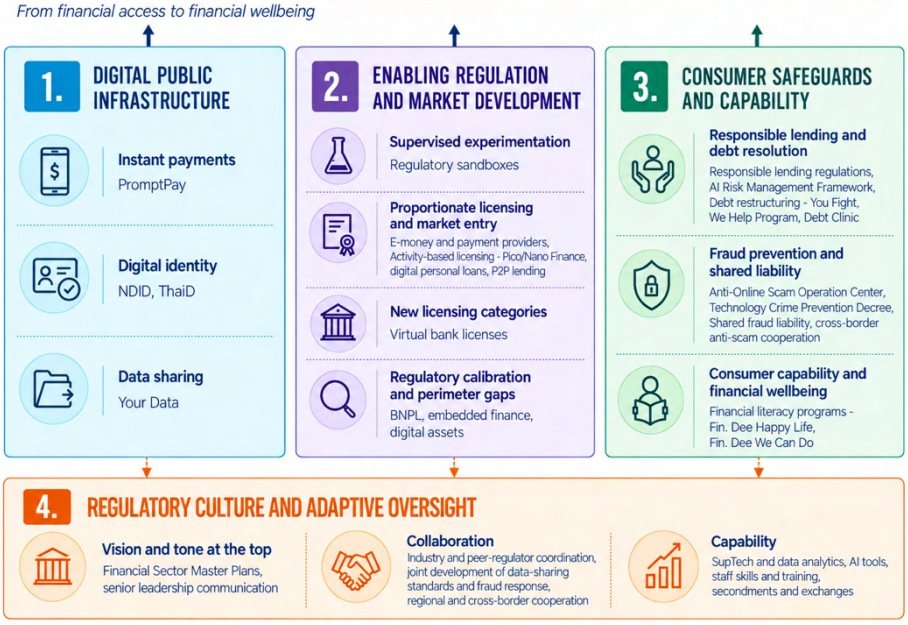
Section III: Thailand's Regulatory Approach to Inclusive and Responsible Finance

Thailand's regulatory response to the changing digital finance landscape can be understood through four interrelated components. First, it has built digital public infrastructure that moves transactions onto shared rails and reduces payment, onboarding, and information frictions. Second, it has created an enabling regulatory environment by establishing pathways through which new products and business models can be tested and supervised as they evolve, improving authorities' visibility and capacity to respond. Third, it has strengthened safeguards to protect consumers and promoted responsible finance, alongside investments in consumer capability, as digital credit, fraud, cyber risk, and platform-based delivery create new forms of risk. Fourth, it has cultivated a regulatory culture for adaptive oversight, using strategic direction, coordination, experimentation, and institutional capability building to keep regulation responsive as the market changes.

Together, these components mark a shift from a first-generation focus on access toward a broader second-generation agenda targeting consumer outcomes, financial well-being, innovation, competition, and system resilience. Their interaction, however, is not always seamless. Measures that advance innovation, inclusion, competition, or consumer protection can reinforce one another, but can also create or expose new frictions, requiring regulators to balance objectives that do not always align.

FIGURE 2. **Harnessing Innovation for Inclusive and Responsible Digital Finance**

From financial access to financial wellbeing



Source: Author.

COMPONENT 1

Building Digital Public Infrastructure (DPI) for Open and Inclusive Rails

Thailand's DPI developed within a broader national digital-transformation agenda that promoted shared infrastructure, digital public services, and data exchange, including through the Cabinet-approved National e-Payment Master Plan and the Digital Economy and Society Development Plan. It did not emerge as a single, pre-designed stack. Rather, public authorities and private institutions added layers sequentially as the principal constraints shifted from the cost and fragmentation of payments to remote identity verification and, increasingly, data portability (BoT 2015; BoT 2022c; DGA 2022).

This incremental development built on Thailand's bank-centric financial system rather than bypassing it, addressing distinct barriers. PromptPay linked digital payments to bank accounts and reduced transaction frictions; The National Digital ID platform (NDID) initially relied primarily on banks to verify identities and lowered remote-onboarding costs; and forthcoming data-sharing arrangements use regulated institutions as the principal custodians of customer data while seeking to make financial histories more portable across providers.

INSTANT PAYMENT INFRASTRUCTURE

Payments came first because the immediate constraint was the cost and fragmentation of everyday transactions. In the early 2010s, retail payments were fragmented across banks and costly for low-value transfers, limiting digital adoption at scale and leaving the government without an efficient channel for welfare disbursement and tax refunds. The National e-Payment Master Plan, approved by Cabinet in 2015 as a national program jointly advanced by the Ministry of Finance and the BoT, established PromptPay to address these constraints. PromptPay enables interoperable account-to-account transfers using a national ID number, mobile number, or tax ID as a proxy for bank accounts. Transfers under ฿5,000 (US$150) are free, while fees above that amount are capped at ฿10 (US$0.30) (BoT 2015). National ITMX operates the system under BoT oversight, with final settlement in central bank money through BAHTNET.

The Government emerged as an early adopter, providing scale. Welfare transfers were routed through PromptPay from December 2016, followed by personal income-tax refunds from January 2017, creating immediate use cases and transaction volume, while low pricing reduced the direct cost barrier to use (BoT 2016b). The standardized Thai QR code in 2017 extended these rails to merchant payments, enabling low-cost acceptance without dedicated point-of-sale infrastructure (BoT 2017). Further, in 2026, the BoT designated PromptPay as a Systemically Important Retail Payment System (SIRPS), subjecting it to enhanced supervisory requirements (BoT 2026b).

PromptPay made low-value digital transactions viable at scale and reduced reliance on cash. By December 2025, it had 92 million registrations and processed around 75 million transactions per day, while eight in ten adults used digital payments nationally (Klapper et al. 2025; BoT 2025i; BoT n.d.-d). Transfers averaged ฿500 (US$15), consistent with routine, high-frequency retail use (BoT 2024d). The resulting transaction histories created potential informational value for financial-service providers,

although their reuse across institutions remained constrained by data silos. Cross-border QR linkages with neighboring economies further expanded PromptPay's use cases and transaction volumes by reducing payment frictions for tourists, migrant workers, and international commerce (Bank Indonesia and BoT 2022). In the Thailand–Malaysia corridor, transactions increased steadily following implementation and averaged ฿570 (US$16) per payment, suggesting that use extended to everyday spending at smaller local merchants (BoT 2024h).

PROMPTPAY AT SCALE
92 million registered users | ~75 million transactions/day | ฿500 (US$15) average transfer

DIGITAL IDENTITY AND REMOTE VERIFICATION

As digital payments scaled, costly and cumbersome in-person identity verification became a more prominent constraint on remote access. Thailand's national identification system, managed by the Ministry of Interior through the civil registration system, had near-universal coverage, but verification still depended on physical card presentation (World Bank Group 2025). NDID, established in 2018 following a government-backed initiative convened by the Ministry of Finance and the Ministry of Digital Economy and Society, and developed through a private-sector-led consortium, enabled participating institutions to verify identities remotely and exchange verified identity assertions with customer consent (BoT 2019b; NDID n.d.; World Bank Group 2025).

The BoT piloted remote digital account opening in its regulatory sandbox before authorizing wider deployment (BoT 2019a). A 2019 amendment to the Electronic Transactions Act gave legal validity to electronically verified identity, while the Electronic Transactions Development Agency (ETDA), Thailand's digital-economy regulator, licenses and supervises digital identity service providers (Royal Thai Government 2019a). NDID's architecture allows participating providers to reuse verified identities instead of duplicating institution-specific Know Your Customer (KYC) infrastructure. This can reduce repeated verification and onboarding costs for institutions and customers, creating the potential to lower barriers to entry for providers and switching for customers.

As of 2026, NDID has more than 150 member organizations and over 30 million registered users, with verified identities accepted by nearly 140 institutions across banking, insurance, digital lending, securities, and government services (NDID n.d.). These figures indicate substantial reach and adoption, although the broader effects on customer switching, provider entry, and financial inclusion are less clear in the absence of data. However, the identity-provider layer—the institutions authorized to verify and vouch for a user's identity—remained limited to eleven commercial banks, one telecom operator, and one fintech. To use NDID, a customer must first establish a verified identity with one of these providers, typically a bank with which the customer already has a relationship. Other participating institutions can then request and rely on that verification with the customer's consent, reducing repeated identity checks across participating institutions (NDID n.d.; World Bank Group 2025).

For broader identity-verification needs, particularly access to government services, ThaID offers a parallel public route. Developed by the Department of Provincial Administration under the Ministry of Interior and launched in 2023, it connects directly to the civil registry and does not require a bank

relationship (DOPA 2023). NDID and ThaID therefore serve complementary functions rather than forming a single integrated identity system. NDID supports consent-based identity verification across participating financial and private-sector institutions through a network of approved identity providers, while ThaID offers a public route linked directly to the government's civil registry, giving citizens a digital identity for government services without requiring a prior bank relationship. But identity verification did not resolve a separate constraint—customers' financial data and transaction histories remained confined to individual providers.

DATA PORTABILITY AND OPEN FINANCE

Regulatory attention therefore shifted to data portability. Customers could not readily reuse their financial histories across institutions, while new entrants had less access to information that could support credit assessment and product design, particularly for customers with limited conventional credit histories. The Personal Data Protection Act, in force from 2022, established rights over personal data, including requirements for explicit consent and provisions for portability (Royal Thai Government 2019b). Building on this foundation, the BoT introduced "Your Data" to enable customers to share their financial data across providers and lay the groundwork for open finance (BoT 2022c).

Although led by the BoT, Your Data relies on wider public infrastructure and data holders. Early implementation has involved the Digital Government Development Agency, public utilities, and government-held utility and tax records (BoT 2025g). Regulations issued in October 2025 require supervised financial service providers to establish secure, standardized mechanisms for customer-directed data transfers. Implementation is expected to begin with individual deposit-account data by the end of 2026, followed by additional data categories during 2027–28 (BoT 2025g). The initiative is therefore not yet a fully operational financial data-sharing system.

However, there are two key gaps. First, Your Data's cross-sector ambition is constrained because, while the BoT can mandate standardized data sharing among supervised financial service providers, it cannot impose equivalent obligations on public agencies and private data holders outside its perimeter. Access to potentially valuable alternative data including tax, utility, and e-commerce records therefore depends on separate legal mandates or bilateral arrangements rather than a general right allowing customers to direct data transfers across sectors (BoT 2025g; Trisadikoon and Umponkitviwat 2026). Second, cross-sector data holders also lack common standards and infrastructure for automated exchange with financial institutions. Unlike data sharing among BoT-supervised entities, public agencies and private data holders do not yet operate through common data standards, consent-management mechanisms, and interoperable transfer systems. This limits the ability to use alternative data at scale even where customers consent to sharing it (Trisadikoon and Umponkitviwat 2026).

The value of Your Data lies in its potential to expand credit access and deliver more tailored financial products through standardized, customer-directed data sharing. Realizing that potential will depend on resolving these broader legal and infrastructure constraints and on the extent of provider participation.

These layers are complementary, but they do not form a single technical system. PromptPay digitizes everyday transactions, NDID enables remote identity verification across participating institutions, and Your Data is intended to make financial histories portable with customer consent. Together, they address distinct transaction, onboarding, and information frictions. They are also at different stages of maturity: PromptPay is established and widely used, NDID has substantial institutional and user adoption, while Your Data remains under implementation. The broader market effects are correspondingly less clear as one moves from payments to identity and data sharing. Their impact on inclusion and competition will depend on whether users and providers can move effectively across these different systems and whether access to critical infrastructure remains sufficiently open.

DPI'S TRADE-OFFS

Other countries have used more directive approaches to DPI. India developed Aadhaar (digital ID), UPI (instant payments), and the Account Aggregator framework (data sharing) sequentially, with UPI allowing third-party applications to compete over common payment rails, reflecting a policy priority to leapfrog directly to digital-first inclusion for a large unbanked population (Kumaraswamy and Kremnitzer 2026). Brazil adopted an even more regulator-directed model to drive its financial modernization and competition agenda. Its central bank designed Pix, an instant payment rail it continues to operate, and requires large financial institutions to participate, supporting rapid adoption (Duarte et al. 2022). Thailand, by contrast, reached scale through a bank-anchored, incentive-driven approach, one that may prove harder to sustain as it moves into data sharing, where incumbents have stronger reasons to guard customer information than they did to resist interoperable payments.

These same design choices—which supported scale, system reliability, trust, and rapid adoption—also create trade-offs around access, control, and consumer capability. PromptPay's bank-account-linked, smartphone-dependent design reflected Thailand's relatively high levels of financial access and smartphone adoption. While appropriate to that context, the absence of an offline or Unstructured Supplementary Service Data (USSD) alternative may leave some rural, older, and low-literacy users less well served.[5] A separate trade-off arises from more proactive fraud controls. Rapid flagging and suspension of suspicious accounts can limit losses and disrupt the use of mule accounts, but can also risk excluding legitimate customers from payments and other financial services.[6] Where recourse and account-reinstatement processes remain poorly defined, measures intended to protect the system can themselves create risks of financial exclusion.

In digital identity, NDID's restricted identity-provider layer and statutory limits on access to the civil registry concentrate control over trusted verification among a defined set of institutions, potentially creating an increasingly significant bottleneck as open finance expands (NDID n.d.; World Bank Group 2025). And in data sharing, Your Data's consumer-initiated consent model strengthens individual control but may impose greater burdens on customers with limited digital or financial capability (BoT 2025g). More broadly, greater reliance on shared digital infrastructure also creates resilience risks.

[5] USSD allows interactive mobile services on basic mobile phones without requiring an internet connection.
[6] A mule account is an account used to receive, transfer, or conceal proceeds of fraud, often on behalf of criminal networks.

Interoperability and scale improve efficiency, but outages, cyber incidents, or operational failures at critical shared infrastructure providers can have system-wide consequences.

These tensions do not negate the value of shared infrastructure. Rather, they show that, beyond technical design, governance arrangements determine whether DPI broadens participation and competition or reinforces existing advantages. Even where DPI lowers frictions, competition may remain constrained if access to identity verification and data portability remains concentrated or difficult to use in practice.

Beyond technical design, governance arrangements determine whether DPI broadens participation and competition or reinforces existing advantages.

Whether DPI ultimately expands the range of providers and products in practice depends on the regulatory pathways that follow, governing who can enter, what they can offer, and how risks are managed as new business models scale.

COMPONENT 2

Creating an Enabling Environment for Innovation and Market Development

As new providers and business models emerged beyond traditional banking, authorities faced the dual challenge of enabling market development while ensuring that new activities entered an appropriate regulatory perimeter. Thailand has responded through a staged approach that combines supervised testing, proportionate licensing, and restrictions on activities whose risks cannot yet be adequately managed. These pathways have widened the provider landscape in payments and credit, and created new routes into digital banking, but new entry has not necessarily increased contestability because entrants often remain dependent on incumbent institutions for capital, infrastructure, financial data, and established customer networks.

Meanwhile, platform-based and embedded finance products, including BNPL offered through platforms such as Grab and Shopee, remain only partly within the regulatory perimeter and can face lower regulatory barriers to entry. Their growth, however, raises a different set of concerns: limited regulatory visibility, unclear responsibility for consumer harm, and potential financial-stability risks as these activities scale (BoT 2022c; BoT 2026a).

New entry has not necessarily increased contestability because entrants often remain dependent on incumbent institutions for capital, infrastructure, financial data, and established customer networks.

SUPERVISED EXPERIMENTATION

The first element of this approach was experimentation under supervision. The BoT established its regulatory sandbox[7] in 2016 to test innovations within the existing regulatory perimeter, with early use cases including QR payments, biometrics, and blockchain-based letters of guarantee (BoT 2016a). Its limitation was that it could not accommodate activities that were not yet authorized under existing law.

In 2024, the BoT reorganized the sandbox framework into three tracks, expanding the scope for supervised experimentation beyond the limits of the original model. The Regulatory Sandbox continued to cover innovations within the existing regulatory perimeter, while the new Enhanced Regulatory Sandbox allowed testing of activities at or beyond it. A separate Own Sandbox enabled financial institutions and fintechs to conduct internal testing. Where activities cross institutional mandates, the Enhanced Regulatory Sandbox also provided for coordination with the Securities and Exchange Commission (SEC), Office of Insurance Commission (OIC), and Fiscal Policy Office (BoT n.d.-b). As implementation remains ongoing and no formal evaluation has yet been published as of the time of writing, it is too early to assess whether the reorganized sandbox framework has improved regulatory efficiency or reduced approval frictions.

[7] A regulatory sandbox is a controlled environment used to assess the opportunities, risks, and outcomes associated with new products, technologies, or business models, such as alternative credit scoring, digital wallets, mobile payments, and generative AI, and to inform an appropriate regulatory environment and market deployment.

The first thematic focus of the Enhanced Regulatory Sandbox was programmable payments. As of mid-2026, participants had completed or were continuing multiround testing, though no commercial licensing pathway has yet been announced. Use cases included automated settlement, escrows, and smart contracts, which triggered transactions automatically when predefined conditions are met, with potential applications in automating wage disbursement and supply-chain finance. Requirements that electronic units remain fully backed by baht-denominated assets were designed to permit experimentation while containing monetary and financial-stability risks (BoT n.d.-b).

The programmable payments testing followed the BoT's retail central bank digital currency (CBDC) pilot conducted between 2022 and 2023 (BoT 2024e). Neither the earlier CBDC pilot nor the subsequent programmable-payments testing has resulted in general authorization for programmable or tokenized payments. Their significance lies instead in providing regulators with a controlled environment in which to observe new activities, test safeguards, and determine whether and how the regulatory perimeter should adjust.

PROPORTIONATE LICENSING AND MARKET ENTRY

Testing can support regulatory learning, but successful models also need a pathway into ordinary supervision. Thailand has used proportionate, activity-based licensing to bring new providers and services into the regulatory perimeter in stages.

The Payment Systems Act of 2017 created a consolidated licensing framework for e-money issuers and payment-service providers, enabling nonbank participation in retail payments under central-bank oversight (BoT 2018). Licensed nonbank providers require Ministry of Finance licenses and a minimum paid-up capital of ฿10 million to 100 million (US$0.3 million to US$3 million), depending on the service.[8] Limited-purpose e-money issuers are exempt as long as their average monthly prepaid balance remains below ฿50 million (US$1.5 million) and must register with the BoT once they reach that threshold (BoT 2018). Nonbanks have become particularly important in lower-value e-money activity. By December 2025, nonbanks held nearly 90 percent of e-money accounts but accounted for only 45 percent of spending value (BoT 2025j), indicating substantial nonbank reach in the e-money market, particularly at the lower-value end.

Activity-based licensing has also extended into credit markets. Regulatory categories such as Pico Finance and Nano Finance created supervised entry pathways for small-scale consumer and microenterprise lending that had often been provided by informal or lightly regulated lenders, bringing these activities within formal oversight and subjecting providers to prudential and conduct requirements (MoF 2016; BoT 2025d). In 2020, the BoT introduced digital personal loans as a separate category and permitted the use of alternative data, including utility-payment and e-commerce histories, to assess customers with limited conventional credit records, creating a regulated basis for

[8] Minimum paid-up capital is ฿100 million (US$3 million) for general-purpose e-money services, ฿50 million (US$1.5 million) for acquiring services, and ฿10 million (US$0.3 million) for payment-facilitation, payment-collection, and electronic-transfer services. The limited-purpose category covers e-money restricted to specified goods or services, a common franchise or location, or merchants majority-owned by the issuer. Providers must register within 30 days once their six-month average monthly prepaid balance reaches ฿50 million (US$1.5 million).

serving thin-file borrowers. Loans are capped at ฿20,000 (US$650), with interest limited to 25 percent per year (BoT 2020a).

P2P lending has been regulated since 2019 and requires passage through a sandbox before full licensing. The framework responds to risks specific to platform-based intermediation, including system reliability, disclosure, borrower treatment, investor protection, and segregation of funds. It sets a minimum capital of ฿5 million (include US$) and an interest-rate ceiling of 15 percent (BoT 2020b).

VIRTUAL BANKS AND MARKET CONTESTABILITY

Beyond activity-based licensing, the BoT introduced a virtual bank category to expand digital deposit-taking and full-service credit while increasing competition. Three applicant groups were approved in June 2025 to establish virtual banks, subject to establishing the licensed entity, passing the BoT's readiness assessment, and fulfilling explicit mandates to serve underserved retail and SME customers through digital delivery and alternative approaches to credit assessment (BoT 2025k).

The licensed entities are structured as consortia involving combinations of incumbent banks, telcos, retail groups, and digital platforms rather than as standalone greenfield entrants. This model combines digital distribution and technology with established financial-sector capital and risk-management capacity. Virtual banks must begin with paid-in capital of at least ฿5 billion (US$150 million), rising to ฿10 billion (US$300 million) before they leave the restricted supervisory phase, which is expected to last three to five years from their commercial launch (BoT 2025k).

Thailand's consortium-based approach contrasts with South Africa's, which permitted standalone digital banks. TymeBank entered under a commercial banking license, using supermarket partnerships rather than bank branches to lower distribution costs and reach underserved customers. It became the first South African bank to offer a zero-monthly-fee transactional account and intensified price competition among incumbent banks (Jeník 2022). In the region, the Philippines created a dedicated digital bank framework allowing both independent greenfield and conglomerate-backed entrants, with a minimum capital requirement of ₱1 billion (US$16 million), nearly one-tenth of Thailand's (BSP 2020). This has paved the way for entrants such as Tonik, which extends credit to borrowers without prior credit histories, and GoTyme, which uses retail kiosks to reach customers outside the formal banking system.

The consortium structure illustrates a broader tension between entry and contestability. Partnerships with established institutions can strengthen operational resilience and supervisory assurance, but they may also limit the extent to which new entrants challenge incumbent market power. Whether the virtual-bank model ultimately broadens access while materially increasing contestability therefore remains an open question.

REGULATORY CALIBRATION AND PERIMETER GAPS

Thailand's approach has been enabling, but not uniformly permissive. Digital assets illustrate how authorities have differentiated between activities according to their function and perceived risks.[9] The buying, selling, and holding of digital assets such as cryptocurrencies and tokenized investment or usage rights is permitted through SEC-licensed platforms, while their use as a means of payment remains prohibited. This distinction reflects a containment logic which authorities have treated investment-related risks as more readily ring-fenced within licensed trading platforms, while viewing the use of digital assets for payments as posing broader risks to monetary-policy transmission and consumer protection (SEC Thailand 2022; MoF 2025).

The regulatory perimeter has also continued to expand as previously unsupervised activities have grown. A June 2025 Royal Decree brought nonbank automobile and motorcycle hire-purchase and leasing providers under BoT supervision, including requirements covering disclosure, reporting, customer assistance, and compliance with BoT rules (BoT 2025h). Other models remain outside or only partially within the perimeter. These include platform-based credit, BNPL services, and marketplace microloans offered through providers such as Shopee, Grab, and LINE. Their growth creates gaps in regulatory visibility and in the assignment of responsibility across platforms, lenders, and technology providers.

BNPL GROWTH IN THAILAND, 2021–2024

Accounts: ~620,000 →4.91 million | Outstanding lending: ฿6.8bn → ฿18bn (US$193m → US$510m)

BNPL is a significant example. Accounts increased from approximately 620,000 in 2021 to 4.91 million in 2024, while outstanding lending rose from ฿6.8 billion to ฿18 billion (US$193 million to US$510 million) over the same period. Borrowers are concentrated among younger and lower-income consumers, with relatively high delinquency among students and first time job holders aged 23 to 30. Because BNPL transactions are not classified as loans under Thai law, they are not reported to the credit bureau, limiting visibility over borrowers' aggregate obligations and potentially weakening affordability assessments (Thai Enquirer 2026). The regulatory perimeter, however, continues to evolve. BoT leadership has signaled that a dedicated BNPL regulatory framework is expected by the end of 2026, with formal guidelines under development. Forthcoming safeguards are expected to include minimum-age requirements, restrictions on eligible products, minimum transaction thresholds, and limits on charges and interest rates, although detailed rules have not yet been issued (Pakdeesuwan 2026).

Australia and India illustrate different approaches to BNPL regulation. Australia brought BNPL within its consumer credit framework—with licensing and affordability requirements taking effect in 2025—after evidence emerged that nearly one in five users had missed payments and a similar share had cut back on essentials (Australia 2024; ASIC 2020). India took a more restrictive path amid rapid growth in

[9] Under Thai law, digital assets comprise cryptocurrencies and digital tokens. Digital tokens are electronic units that either represent rights to participate in an investment (investment tokens) or rights to acquire specified goods, services, or other benefits (utility tokens).

digital lending and mounting consumer protection concerns. The Reserve Bank of India's 2022 restriction on loading credit lines onto prepaid instruments required fintech-led BNPL models to rely more directly on regulated lenders (RBI 2022). For Thailand, where a dedicated framework remains under development, both cases illustrate the consumer protection risks of allowing BNPL to operate outside the regulatory perimeter.

Embedded finance presents a related challenge because financial activities are distributed across platforms, lenders, and technology providers. This can make it difficult to determine which entity is responsible for lending standards, disclosures, complaints, data use, and consumer outcomes. Recognizing the growing importance of nonbank and platform-based financial services, as of 2026, the BoT has elevated oversight of retail credit and consumer protection through a dedicated supervisory function, reflecting a broader shift toward supervising financial activities and risks regardless of the type of provider delivering them (Nation Thailand 2026). The issue is therefore not only whether a product falls within existing rules, but whether regulation can assign responsibility effectively when finance is embedded within a wider nonfinancial service

Taken together, Thailand's approach reflects a cautious form of market opening rather than wholesale liberalization. Authorities have created staged pathways for experimentation and entry while retaining supervisory controls and restricting activities where risks are judged harder to manage. Yet the broader financial landscape remains bank dominated. New licenses and digital channels have expanded the range of providers without fundamentally eroding incumbent advantages, as many entrants continue to depend on banks for infrastructure, capital, data, and distribution. At the same time, the regulatory perimeter can lag as financial functions are redistributed across platforms and providers. As these models scale, the quality of market development increasingly depends on how risks to consumers are identified, allocated, and addressed.

COMPONENT 3

Strengthening Consumer Safeguards and Capability

As digital finance adoption increased, authorities had to contend with consumer risks that required a more proactive approach to mitigation. Thailand's response has built on an established consumer-protection regime, extending it beyond disclosure, fair treatment, and complaint handling toward earlier intervention in product design, fraud prevention, and debt restructuring. This has strengthened safeguards across credit and payments. In parallel, Thailand has intensified its efforts to strengthen consumers' financial literacy and their capability to navigate a rapidly digitizing financial ecosystem. Progress nevertheless remains uneven as consumer protection safeguards do not extend consistently to fast-growing platform-based models, shared liability for fraud remains incomplete, and the insolvency framework offers limited routes for resolving structurally unsustainable household debt. Financial capability interventions remain largely program-based, with unclear impacts on consumer financial behavior.

RESPONSIBLE LENDING AND DEBT RESOLUTION

The clearest shift is in credit, where policy has moved upstream from disclosure at the point of sale to how credit is designed, originated, serviced, and restructured. Responsible lending regulations that took effect in 2024 responded to rising household indebtedness and the expansion of unsecured and digital credit by establishing obligations across the credit lifecycle (BoT 2023a). The framework applies across banks, finance companies, and a broad range of retail-credit providers, including providers of personal loans, credit cards, and nano finance. Under this framework, lenders must assess affordability before extending credit—including the borrower's income, existing debt obligations, repayment capacity, and ability to meet necessary living expenses. They must also offer restructuring to borrowers in persistent repayment difficulty and wait at least sixty days thereafter before transferring nonperforming loans to a third party (BoT 2023a).

By December 2025, debt restructuring under the Responsible Lending guidelines had supported approximately 4.3 million borrowers across retail and business loans, covering around ฿2.5 trillion (US$80 billion) in debt (BoT 2025i). Stronger affordability and restructuring requirements can improve the quality of credit and reduce avoidable distress. But they also create a trade-off. More demanding underwriting standards may raise the effective threshold for formal credit, particularly for borrowers with irregular incomes or limited conventional credit histories.

As alternative data and automated underwriting create new ways to assess borrowers, the BoT's AI Risk Management Framework extends this preventive approach to the data and AI-enabled models that are growing in credit underwriting. It prescribes governance, pre- and post-deployment testing, continuous performance monitoring, and explainability of model outputs as supervisory requirements for regulated financial service providers (BoT 2025a). Responsible finance therefore depends not only on lender conduct, but also on how providers govern the systems used to determine who receives credit and on what terms.

Alongside responsible lending regulations, Thailand has introduced programs to address repayment distress. The "You Fight, We Help" program, launched jointly by the BoT and Ministry of Finance in December 2024, offers eligible retail debtors and SMEs, including home-loan, hire-purchase, and SME borrowers within specified credit limits, voluntary access to reduced installments, temporary interest suspension, restructured repayment schedules, and settlement options for smaller nonperforming loans (BoT 2024g). By December 2025, the program had assisted approximately 660,000 debtors with a combined debt of ฿470 billion (US$15 billion) (BoT 2025i).

The Debt Clinic provides a separate route for borrowers with credit-card and personal-loan arrears exceeding 120 days, allowing eligible debts to be consolidated and repaid over a maximum of ten years at reduced interest rates (BoT 2024b). Participation data shows substantial registration but comparatively few completed exits. By the end of 2022, the Debt Clinic had over 100,000 accounts under signed restructuring contracts, while a parallel Debt Mediation Fair—a time-limited government initiative jointly organized by the Ministry of Finance and the BoT—attracted over 390,000 registered debtors seeking negotiated solutions, of whom only 37 percent were able to reach assistance agreements (BoT 2022a). Yet by mid-2024, only 46,720 debtors remained actively restructuring through the Debt Clinic, and fewer than 1,800 had successfully completed the process and exited the program since its inception in June 2017 (Money & Banking Magazine 2024). These mechanisms can restructure obligations and make repayment more manageable, but they do not provide a general pathway for resolving debt that is structurally beyond a borrower's capacity to repay.

Thailand's personal-insolvency framework does not allow individuals to initiate voluntary bankruptcy proceedings, while creditor-initiated proceedings remain inaccessible to many over-indebted households. Proposed amendments to the Bankruptcy Act that would have introduced voluntary rehabilitation for small debtors, an automatic stay on creditor enforcement, lower access thresholds, and court powers to approve restructuring plans over creditor objections have stalled amid legislative uncertainty, leaving the gap unaddressed (Clifford Chance 2024; IMF 2022; Nation Thailand 2025).

FRAUD PREVENTION, LIABILITY, AND RECOVERY

PROTECTION AT SCALE
Debt restructuring: 4.3 million borrowers; ฿2.5tn (US$80bn) in debt | Fraud response: 3.4m+ mule accounts suspended; AOC prevented an estimated ฿19bn (US$540m) in losses

The same move toward earlier and more system-wide safeguards is visible in fraud prevention. As fast payments scaled, authorities shifted from institution-level controls toward information sharing, coordinated account suspension, interagency enforcement, and clearer allocation of responsibility for consumer losses. The Anti-Online Scam Operation Center (AOC), established in November 2023 by the Ministry of Digital Economy and Society, illustrates this coordinated response. In its first year of operations (2023-24), the AOC suspended approximately 350,000 suspect accounts, successfully preventing an estimated ฿19 billion (US$540 million) in prevented losses, though no publicly available data on the share of those losses recovered is available (Public Relations Department of Thailand 2024; Royal Thai Police Online 2024).

A further development was the introduction of shared liability. The amended Emergency Decree on Technology Crime Prevention, effective in April 2025, requires financial institutions and other relevant service providers to share responsibility for fraud-related consumer losses where they fail to comply with prescribed preventive standards (Royal Thai Government 2025). The BoT has translated these requirements into operational measures. Financial institutions must bind mobile-banking accounts to registered devices, screen devices identified as high risk, apply biometric authentication to higher-value transfers, and share fraud-related information across institutions (BoT 2025e; BoT 2025f; BoT 2023d).

Shared liability strengthens incentives for providers to prevent harm rather than to treat fraud primarily as a matter of consumer vigilance. It does not, however, provide complete protection when institutions demonstrate compliance with prescribed standards, as they are exempt from liability and residual losses fall on the consumer. A Victim Compensation Fund established under this decree offers some relief, but with compensation capped at ฿500,000 (US$15,000) per case, it leaves victims of higher-value fraud exposed (Royal Thai Government 2025).

International approaches differ sharply in how scam losses are allocated. The United Kingdom moved in 2024 to presumptive reimbursement for qualifying authorized push-payment scams, with sending and receiving payment providers sharing losses equally (PSR 2023). Early evidence shows high reimbursement rates at 88 percent of losses, with 82 percent of claims resolved within five business days (PSR 2026). Singapore instead adopted a duty-based Shared Responsibility Framework, under which financial institutions and telecommunications providers bear losses where prescribed anti-scam duties are breached, but consumers are not automatically reimbursed where those actors comply (MAS and IMDA 2024). Thailand's emerging model is closer to Singapore's conditional approach. The contrast between the two models highlights whether liability should primarily compensate victims or attach to failures of preventive duties. Singapore's framework also illustrates how responsibility can extend beyond financial institutions where risks span sectors.

Thailand has also expanded cross-border cooperation in recognition that many fraud networks, platforms, and financial flows operate beyond domestic jurisdiction. In 2025, it established the International Anti-Scam and Human Trafficking Command Centre (IAC) with INTERPOL support and joined a six-country Lancang–Mekong agreement on joint operations and real-time information exchange (Public Relations Department of Thailand 2025a; Public Relations Department of Thailand 2025b). It has also established cooperation with Bank Negara Malaysia (BNM) on cybersecurity and fraud information sharing, and joined a global partnership against online scams with the United Nations Office on Drugs and Crime (BoT and BNM 2025; UNODC 2026).

Between August and September 2025, the IAC handled 635 cases involving ฿390 million (US$12 million) in reported losses and froze assets in 296 cases worth ฿133 million (US$4 million) (Public Relations Department of Thailand 2025a; BoT 2025i). Enforcement activity has also been substantial, with more than 29,300 scammers arrested or subject to arrest warrants over a nine-month period in 2025 (Thai Enquirer 2025). By December 2025, more than 3.4 million mule accounts had been suspended (Public Relations Department of Thailand 2025a; BoT 2025i). These measures strengthen response and recovery capacity, but do not overcome the underlying enforcement constraint:

organized networks continue to operate across jurisdictions, while their methods evolve faster than domestic regulatory and investigative systems.

CONSUMER CAPABILITY

Consumer capability forms a third layer of safeguard, but remains less embedded in the digital finance ecosystem. The BoT treats financial literacy as a policy priority and delivers programs through workplace and vocational channels. "Fin. Dee Happy Life!!!" trains facilitators across public- and private-sector organizations and reached nearly 150,000 employees in 2023, while "Fin. Dee We Can Do!!!" operates across more than 40 percent of vocational colleges (BoT 2024a). Financial education has also been piloted in schools but is not yet embedded across the national curriculum (NESDC n.d.).

While these programs have expanded significantly, whether they translate into improved financial behavior remains less directly observable. In the 2023 OECD/INFE adult financial-literacy survey—a cross-country benchmarking exercise conducted across 39 economies that measures knowledge, behavior, and attitudes—Thailand scored 72.6, above the participating-country average of 60.4. Financial knowledge was nevertheless its weakest dimension, with particular gaps in understanding of compound interest and other concepts directly relevant to personal loans and revolving credit (OECD 2023). Domestic BoT surveys similarly indicate stronger financial attitudes than technical knowledge (BoT 2024c).

These programs remain largely separate from the design and delivery of digital financial services. Capability-building therefore continues to fall mainly on public institutions and consumers, even as providers design the products, interfaces, disclosures, and decision processes through which financial choices are made. This limits the extent to which financial literacy can compensate for product complexity, automated decision-making, embedded delivery mechanisms, and consent processes that consumers may struggle to navigate.

> Financial literacy can strengthen knowledge and skills, but it cannot substitute for responsible product design, interfaces, and decision processes that consumers can reasonably navigate.

Thailand's approach focuses on managing the risks of expanded access and improving financial well-being. Its regulatory toolkit shifts responsibility for protecting consumers upstream and across the ecosystem, focusing not only on mitigating harm but on preventing it. Yet remaining gaps test the limits of existing frameworks and require approaches that can evolve with the market. The question, then, is whether regulatory institutions have the culture, capabilities, and coordination mechanisms to anticipate emerging risks and adapt in response.

COMPONENT 4

Cultivating Regulatory Culture for Adaptive Oversight

Thailand's regulatory approach also rests on an institutional culture that enables the previous three components and helps authorities keep pace with changing markets, technologies, and risks. It combines strategic vision, leadership signaling, structured collaboration, and investment in supervisory capability.

A distinctive feature is that the BoT does not rely solely on its formal supervisory powers. Instead, it combines formal regulation with moral suasion and cross-agency coordination.[10] This enables it to pursue financial-sector outcomes that depend on actors beyond its direct supervisory reach, treating such challenges as collective-action problems that no single institution can resolve alone—a whole-of-system approach to financial-sector governance.

VISION AND TONE AT THE TOP

A central expression of this culture is a long-term regulatory vision that provides strategic direction and continuity. The BoT's successive Financial Sector Master Plans (2004–2020) focused on widening access, building payment and credit infrastructure, promoting competition, and reducing the cost of financial services, while allowing the instruments used to pursue these objectives to change with the market (BoT n.d.-a).

The 2022 financial landscape paper extended this trajectory, organizing the next phase of reform around open competition, open infrastructure, and open data (BoT 2022c). A similar evolution is visible in the Securities and Exchange Commission's 2026–28 strategy, which places greater emphasis on competitiveness, consumer confidence, and financial health[11] (SEC Thailand 2025). The significance of these strategies lies not simply in setting objectives, but in preserving continuity across regulatory and political cycles, shaping how reforms are sequenced, and providing a reference point as new technologies and business models emerge.

This strategic direction has been reinforced by the tone set by senior leadership. Public communications clarify the regulatory stance, explain policy shifts, and shape industry expectations before formal rules take effect. Speeches by senior management have framed initiatives such as data sharing, virtual-bank licensing, cross-border payment interoperability, and coordinated fraud responses as part of a broader approach to oversight in a digitizing market (BoT 2023b; BoT 2025b; Mallikamas 2024). These communications signal both the direction of policy change and the supervisory expectations behind it, allowing senior leadership to use communication as a form of moral suasion before or alongside formal rulemaking. This pattern appears broadly institutional rather

[10] Moral suasion refers to the use of nonbinding supervisory influence, such as signaling expectations, persuasion, guidance, or convening, to shape industry behavior without relying solely on formal legal powers.
[11] Financial health, used interchangeably with financial well-being in this case study, is defined in Footnote 4. The Bank of Thailand's framing of household financial health encompasses financial literacy, responsible retail lending practices that prevent over-indebtedness, holistic debt-resolution mechanisms that enable recovery and resilience, and the use of alternative data to expand credit access. It therefore goes beyond access to consider whether and how financial services contribute to positive consumer outcomes (BoT 2022c).

than tied to a single officeholder, with Governors and Deputy Governors maintaining a similar emphasis on communicating policy direction and supervisory expectations over time.

COLLABORATION

Collaboration is where this system-wide approach becomes most visible, with the BoT using its convening role to bring together regulators, industry associations, and other public agencies when issues cut across institutional mandates.

Domestically, the BoT has used structured consultation and co-development with industry associations and peer regulators to shape market-conduct standards, virtual-bank licensing, AI risk management, and fraud-prevention measures (BoT 2023c; BoT 2025a). In fraud prevention, coordination with banking associations supported common biometric-authentication standards, a centralized fraud registry, and mandatory victim hotlines (BoT 2023e). Where activities cross regulatory mandates, this collaboration extends to peer authorities, including the Securities and Exchange Commission, Office of Insurance Commission, and Fiscal Policy Office, as reflected in the Enhanced Regulatory Sandbox's arrangements for jointly considering cross-sector innovations (BoT n.d.-b).

International collaboration addresses spillovers that cannot be managed through domestic coordination alone, as payments, platforms, data flows, and fraud networks move beyond national jurisdictions. Under the Association of Southeast Asian Nations (ASEAN) Banking Integration Framework, Thailand has bilateral arrangements with Malaysia to reduce entry barriers for qualifying banks and support regional competition and access (BoT 2021). The BoT also co-chairs the ASEAN Working Committee on Financial Inclusion for 2024–2026, advancing financial health as a regional priority. During Thailand's 2022 Asia-Pacific Economic Cooperation (APEC) chairmanship, it led the development of regional policy considerations on cross-border payments and remittances (Bank of the Lao PDR 2024; BoT 2022b). Thailand pioneered bilateral instant-payment connectivity in 2021 by linking PromptPay with Singapore's PayNow—the first connection between two national real-time retail payment systems—and subsequently expanded cross-border QR payments across ASEAN (MAS and BoT 2021). It is now expanding this connectivity regionally through Project Nexus, a multilateral initiative linking the instant-payment systems of Thailand, India, Malaysia, the Philippines, and Singapore and designed to enable transactions through a common multilateral connection (Bank for International Settlements (BIS) 2025). Together, these efforts make cross-border coordination an integral part of Thailand's oversight model.

Thailand's approach has parallels elsewhere, though within a different institutional architecture. The Monetary Authority of Singapore (MAS) combines central banking, integrated financial supervision, and financial sector development within a single authority, pursuing system-wide objectives directly. Thailand instead relies on coordination with peer regulators and other public agencies, supported by convening authority and influence, to achieve the same ends (Jeník et al. 2025).

CAPABILITY

The BoT has also invested in the internal capabilities needed both to supervise a financial sector increasingly shaped by technology and to adopt innovation within the authority itself. It uses natural language processing to analyze more than 30,000 pages of board meeting minutes from nineteen financial institutions, identifying governance concerns and compliance patterns that manual review could not surface at the same scale (Kerdsri and Treeratpituk 2022). BoT researchers have also developed and evaluated experimental generative AI tools to help analysts and examiners navigate granular credit data and translate plain-language questions into structured queries of financial datasets (Cheewaruangroj et al. 2025).

These investments have been paired with efforts to strengthen human capability. Strategic workforce planning is used to anticipate skills-gaps and recruit staff in technology and data fields, while the Examiner School provides practice-oriented training in data analysis, AI, and big-data tools. Secondments and exchanges with peer authorities and international organizations, including the MAS, BNM, Japan Financial Services Agency, the International Monetary Fund (IMF), the US Federal Reserve, and the Bank for International Settlements (BIS), further support institutional learning (BoT 2024a; BoT 2024f).

Together, vision and tone at the top, collaboration, and institutional capability have contributed to a more adaptive approach to oversight. Its strength lies less in any individual instrument than in the capacity to combine formal authority, convening power, and supervisory capability as conditions change. But this model also has limits. Where coordination depends on convening or moral suasion rather than binding authority, alignment ultimately relies on the willingness of other actors to cooperate, and where that cooperation breaks down, the BoT's leverage is constrained by the limits of its formal mandate. Coordination can also blur responsibility unless institutional roles and accountability remain clear. Sustaining this regulatory culture also requires organization-wide capability beyond individual leaders, adequate resourcing, and the capacity to keep pace as the financial sector grows more complex.

Section IV: Policy Considerations

Thailand's experience surfaces a set of policy choices that peer EMDE authorities and their development partners are likely to confront as digital finance deepens in their own markets and the focus of policy evolves. The seven policy considerations below identify key trade-offs that these authorities may face, drawing on Thailand's design choices and implementation experience in pursuing its second-generation financial inclusion agenda. They are not intended to prescribe a particular model. Nor are they ranked or sequential, as several will need to be considered together. How these trade-offs are resolved will depend on market conditions, institutional mandates, regulatory capacity, and broader country context.

1. ### Consider whether to build DPI as a stack or incrementally

   Authorities may face a choice between building DPI as a unified stack from the outset or developing it incrementally as new frictions emerge. Thailand followed the latter path, allowing each layer to address a clear problem and build on existing systems, while earlier design choices shaped the options available later. The choice also has cost and capacity implications. A full-stack approach can require substantial up-front investment and coordination, while incremental development can spread implementation demands over time and allow greater use of existing infrastructure.

   Thailand largely avoided direct public financing, relying instead on industry-funded platforms under public oversight. This reduced the fiscal burden on the state and helped DPI scale quickly, but also concentrated control among a small number of incumbent institutions. DPI can improve efficiency and advance inclusion, but also inadvertently make it harder for new providers to compete. Governance is therefore critical. Arrangements designed to secure incumbent participation during the adoption phase may prove inadequate once the priority shifts to competition and data portability, as those same institutions have less to gain from open access.

2. ### Consider when incentives are sufficient or mandates are needed to secure provider participation in DPI

   The inclusion and competition benefits of DPI depend in part on whether enough providers connect to the infrastructure and whether access remains broad. Authorities can pursue this through coordination and incentives, binding obligations, or a combination of both. Thailand's experience shows how the balance can shift. PromptPay reached scale through a largely incentive-driven model in which commercial interests aligned sufficiently with public objectives on interoperability. While in data sharing, incumbents have stronger incentives to retain customer information, prompting binding requirements under Your Data. Incentive-led

approaches give providers more flexibility to adapt as implementation standards and use cases evolve, but may fail to achieve the provider coverage and consumer uptake needed for DPI to have broad market impact. Mandates can overcome resistance and uneven coverage, but impose integration and compliance costs on providers and risk fixing requirements before standards and use cases are mature.

3. **Consider how regulation can enable innovation while containing risks**

   While regulation has traditionally focused on containing risk, authorities are steadily using it to foster innovation and unlock new market opportunities. Thailand reflects this shift through a regulatory toolkit spanning sandboxes, proportionate licensing, and new licensing categories, giving new providers and business models phased pathways to test, enter the market, and mature under supervision without facing the full regulatory burden from the outset. At the same time, regulatory restraint carries risks when new activities scale faster than the perimeter around them, creating gaps in regulatory visibility, consumer protection, and the assignment of responsibility, as seen with BNPL and embedded finance in Thailand. Timing therefore becomes critical, since intervening too early can constrain useful innovation, while waiting too long can allow consumer and systemic risks to accumulate.

4. **Consider whether market entry is enough to create effective competition**

   Lowering entry barriers can widen the provider landscape, but does not necessarily create more contestable markets. Thailand offers several regulatory pathways for new providers, yet they often remain dependent on incumbent institutions for infrastructure, capital, data, or distribution. This is most visible in virtual banking. Virtual bank licenses were awarded to consortia rather than standalone entrants, with capital requirements and a restricted supervisory phase further raising the bar for independent entry. These features can strengthen operational readiness and supervisory confidence, but may also preserve incumbent advantages. This requires policy to consider not only how many new providers enter, but also whether entry changes competitive conditions enough to expand consumer choice and challenge existing market power.

5. **Consider how preventive safeguards can reduce harm without creating new exclusion risks**

   As digital finance gives rise to risks that are faster-moving, more complex, and cross-sectoral, consumer protection safeguards may need to move upstream toward preventing harm before it occurs. Thailand's responsible lending rules intervene earlier in the credit lifecycle—through product design, sales practices, and affordability checks before credit is extended—alongside governance of AI-enabled credit decisions and fraud controls designed to detect and disrupt suspicious activity before losses occur. While such preventive safeguards can reduce harm and improve consumer outcomes, they can also exclude. Stricter underwriting may restrict credit for borrowers with irregular incomes or limited credit histories, while aggressive fraud controls can suspend legitimate customers alongside suspicious accounts. This demands careful calibration between stronger prevention and the risk of excluding legitimate consumers. A related exclusion risk concerns consumers on the other side of the digital divide, including

older, less connected, or less digitally capable consumers, adding another dimension to the calibration: how to keep pace with digital innovation without leaving behind those least able to navigate digital finance.

6. Consider where responsibility for consumer outcomes should sit

Even as the focus of consumer protection efforts has begun to shift toward shared responsibility for consumer outcomes across financial service providers, technology providers, infrastructure operators, and authorities, financial capability remains an enduring focus of policy. Thailand has invested substantially in financial literacy programs delivered through schools and workplaces, but these remain largely separate from the design and delivery of financial services. Consumers are increasingly expected to navigate automated decisions, embedded products, complex disclosures, and consent processes that education alone may not equip them to manage. Repeated surveys in Thailand also suggest that stronger financial attitudes and knowledge do not always translate into better financial behavior, underscoring the limits of capability-building initiatives. Such initiatives can strengthen consumer knowledge and skills, but cannot substitute for responsible product design, interfaces, and decision processes that consumers can reasonably understand and use. The question is therefore how much responsibility can reasonably rest on consumers, and how much should sit with providers and other stakeholders.

7. Consider cultivating a whole-of-system regulatory culture

Digital finance involves actors beyond the reach of financial regulators, including technology and data providers, distributors, telecommunications providers, and retailers. Because no single authority oversees all the actors that shape market and consumer outcomes, pursuing these outcomes can require collective action across institutional boundaries. Thailand has used formal powers and structured coordination where available, including the Enhanced Regulatory Sandbox for cross-sector innovations, shared fraud-prevention arrangements, and international cooperation on payment system interoperability. It has also used its credibility and influence where behavior cannot or need not be compelled, including senior-level communications signaling supervisory expectations before rules take effect. Binding mechanisms provide greater authority, enforceability, and accountability, while nonbinding approaches offer flexibility but rely on goodwill. Thailand reflects a regulatory culture that starts with the outcome rather than institutional boundaries, drawing on formal authority, coordination, convening, and influence as complementary tools. Cultivating such a culture can expand the range of problems authorities are able to address, but where cooperation depends on goodwill rather than authority, alignment can break down and accountability can blur.

Section V: Conclusion

As countries close last-mile access gaps and digital adoption deepens, the frontier of financial inclusion is shifting toward a harder question—does access translate into safety, quality, and positive outcomes for consumers? Financial sector authorities are confronting markets transformed by digital innovation, with new opportunities accompanied by faster and more interconnected risks. How they respond will determine whether digital finance produces more inclusive and competitive markets or deepens existing vulnerabilities.

Thailand is among the countries navigating this transition ahead of the curve, having already achieved many of the access gains that remain aspirational elsewhere. Account ownership has reached 92 percent, the second-highest rate among low- and middle-income economies globally, with negligible gaps by gender, income, or location. Eight in ten adults now make or receive digital payments, while PromptPay processes around 75 million transactions a day (Klapper et al. 2025; BoT 2025i; BoT n.d.-b). Yet financial resilience remains much thinner than these headline gains suggest. Only about a quarter of adults could cover a month of expenses if their household lost its main source of income, and one in five could not cover even two weeks. Formal borrowing and saving remain limited at 18 and 54 percent, respectively (Klapper et al. 2025). These thin financial buffers leave many households vulnerable to shocks, including fraud, scams, and debt distress, risks that can be amplified by the speed and accessibility of digital credit.

This case study has traced Thailand's trajectory from the successes of the first-generation financial inclusion agenda centered on expanding access to a more complex second-generation agenda focused on managing the opportunities, risks, and trade-offs that come with a more digital, interconnected financial system. It has examined how Thai authorities have responded to that shift: through foundational investments in digital public infrastructure, a regulatory environment nurtured to enable innovation, stronger consumer safeguards and capability building, and a regulatory culture for adaptive, whole-of-system oversight.

These components reinforce one another, but they do not always align. Digital infrastructure can lower onboarding costs and accelerate adoption, but also reinforce incumbent advantages and create barriers for new entrants. Regulatory pathways can create space for innovation, but still fail to keep pace with rapidly growing business models that pose risks to consumers. Stronger lending safeguards intended to improve credit quality could make formal borrowing harder for consumers with irregular incomes. And the flexibility needed to support innovation places greater demands on supervisory judgment, capability, and accountability. Thailand's approach is most instructive not because it resolves these tensions, but because it treats managing them as central to the task of building inclusive and responsible digital finance ecosystems.

THAILAND DOES NOT OFFER A BLUEPRINT.

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Thailand does not offer a blueprint. It offers a frontrunner's account of the market shifts, policy choices, and institutional demands that other EMDE authorities will increasingly encounter as their financial systems digitize and mature. Much of this story is still unfolding, and the outcomes of several regulatory choices remain to be tested. Its value lies not in providing a model to copy, but in showing that the next frontier of financial inclusion will require a more adaptive, collaborative, and outcomes-focused regulatory approach. For a growing number of countries, that transition is no longer distant. It is already under way.

References

ASIC (Australian Securities and Investments Commission). 2020. Buy Now Pay Later: An Industry Update. Report 672. Sydney: ASIC. https://www.asic.gov.au/regulatory-resources/find-a-document/reports/rep-672-buy-now-pay-later-an-industry-update.

Australia. 2024. Treasury Laws Amendment (Responsible Buy Now Pay Later and Other Measures) Act 2024 (Cth). Canberra: Commonwealth of Australia. https://www.aph.gov.au/Parliamentary_Business/Bills_LEGislation/Bills_Search_Results/Result?bId=r7199.

Bangkok Post. 2025. "Kaspersky: Thailand Among Top Targets for Web Threats." Bangkok Post, October 13, 2025. https://www.bangkokpost.com/business/general/3120004/kaspersky-thailand-among-top-targets-for-web-threats.

Bangkok Post. 2026. "Cyber-Incidents Deemed Top Thai Business Risk." Bangkok Post, January 15, 2026. https://www.bangkokpost.com/business/general/3175684/cyberincidents-deemed-top-thai-business-risk.

Bank Indonesia and Bank of Thailand. 2022. "Joint Press Release: Indonesia and Thailand Launch the Implementation of Cross-Border QR Payment Linkage." August 29, 2022. https://www.bot.or.th/en/news-and-media/news/news-20220829-1.html

Bank of the Lao PDR. 2024. "17th ASEAN Working Committee on Financial Inclusion Meeting." February 20, 2024. https://www.bol.gov.la/en/fileupload/21-02-2024_1708492071.pdf

BIS (Bank for International Settlements). 2025. "Project Nexus." BIS Innovation Hub. https://www.bis.org/about/bisih/topics/fmis/nexus.htm

Boonperm, Jirawan, Jonathan Haughton, and Shahidur R. Khandker. 2013. "Does the Village Fund Matter in Thailand? Evaluating the Impact on Incomes and Spending." Journal of Asian Economics 25: 3–16. http://dx.doi.org/10.1016/j.asieco.2013.01.001

BoT (Bank of Thailand) and BNM (Bank Negara Malaysia). 2025. "Memorandum of Understanding on Cybersecurity and Digital Fraud Cooperation." April 10, 2025. https://www.bot.or.th/en/news-and-media/news/news-20250410.html

BoT (Bank of Thailand). 1998. Annual Report 1998. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/documents/en/research-and-publications/reports/annual-report/AnnualReport_1998ENG.pdf

BoT (Bank of Thailand). 2015. Payment Systems Report 2015. Bangkok: Bank of Thailand. https://www.bot.or.th/en/research-and-publications/reports/payment-annual-report.html

BoT (Bank of Thailand). 2016a. "FinTech Regulatory Sandbox Guidelines." December 21, 2016. Bangkok: Bank of Thailand. https://www.bot.or.th/en/financial-innovation/digital-finance/fintech-in-thailand/regulatory-sandbox.html

BoT (Bank of Thailand). 2016b. Payment Systems Report 2016. Bangkok: Bank of Thailand. https://www.bot.or.th/en/research-and-publications/reports/payment-annual-report.html

BoT (Bank of Thailand). 2016c. Financial Access Survey of Thai Households 2016. Bangkok: Bank of Thailand. https://www.bot.or.th/en/research-and-publications/reports/financial-access-survey-of-thai-household.html

BoT (Bank of Thailand). 2017. "Collaboration on Adopting Standardized QR Code for e-Payment." Press release, August 30, 2017. https://www.bot.or.th/content/dam/bot/documents/en/news-and-media/news-pdf/2017/n4160e.pdf

BoT (Bank of Thailand). 2018. Payment Systems Act B.E. 2560 (2017). Bangkok: Bank of Thailand. https://www.bot.or.th/en/our-roles/payment-systems/payment-act-oversight.html

BoT (Bank of Thailand). 2019a. "Notification No. 19/2562: Regulations on Know Your Customer (KYC) for Deposit Account Opening at Financial Institutions." Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/fipcs/documents/FPG/2562/EngPDF/25620191.pdf

BoT (Bank of Thailand). 2019b. Payment Systems Report 2019. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/documents/en/research-and-publications/reports/payment-report/payment-systems-annual-report/Payment_2019_E.pdf

BoT (Bank of Thailand). 2020a. "Circular No. BOT.FhorGorSor. (01) Wor.977/2563: Criteria, Procedures and Conditions for Digital Personal Loan Business." September 15, 2020. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/fipcs/documents/FPG/2563/ThaiPDF/25630236.pdf [Thai only]

BoT (Bank of Thailand). 2020b. "Notification No. 14/2563: Prescription of Rules, Procedures and Conditions for Operating an Electronic System or Network Business for Peer-to-Peer Lending (Peer-to-Peer Lending Platform)." December 2020. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/fipcs/documents/FPG/2563/EngPDF/25630186.pdf

BoT (Bank of Thailand). 2021. "Advancing Greater Cross-Border Trade and Investment between Thailand and Malaysia under the ASEAN Banking Integration Framework." Joint press release with Bank Negara Malaysia, September 14, 2021. https://www.bot.or.th/en/news-and-media/news/news-20210914.html

BoT (Bank of Thailand). 2022a. Annual Report 2022. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/documents/en/research-and-publications/reports/annual-report/AnnualReport2022.pdf

BoT (Bank of Thailand). 2022b. "APEC Policy Considerations for Developing Cross-border Payments and Remittances." Presented at the 29th APEC Finance Ministers' Meeting, October 20, 2022. Available via: https://www.bot.or.th/en/news-and-media/news/news-20221021.html

BoT (Bank of Thailand). 2022c. Repositioning Thailand's Financial Sector for a Sustainable Digital Economy. Bangkok: Bank of Thailand. https://www.bot.or.th/en/financial-innovation/financial-landscape.html

BoT (Bank of Thailand). 2023a. "Bank of Thailand to Implement Responsible Lending Measures, Effective January 1, 2024." Bangkok: Bank of Thailand. https://www.bot.or.th/en/news-and-media/news/news-20230721.html

BoT (Bank of Thailand). 2023b. "Building Ecosystem for Responsible Innovation." Keynote address by Governor Sethaput Suthiwartnarueput, BOT Digital Finance Conference, September 14, 2023. https://www.bot.or.th/content/dam/bot/documents/en/news-and-media/speech/speechgov-14sep2023.pdf

BoT (Bank of Thailand). 2023c. "Consultation Paper on Virtual Bank Licensing Framework." January 12, 2023; revised June 19, 2023. https://www.bot.or.th/en/news-and-media/news/news-20230619.html

BoT (Bank of Thailand). 2023d. IT Risk Management Guidelines for Financial Institutions (Notification No. Sor Kor Chor. 5/2566). Effective November 2023. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/fipcs/documents/FOG/2566/ThaiPDF/25660202.pdf [Thai only]

BoT (Bank of Thailand). 2023e. "BOT, TBA and GFA Strengthen Defenses against Financial Fraud." Press Release, March 10. https://www.bot.or.th/en/news-and-media/news/news-20230310.html

BoT (Bank of Thailand). 2024a. Annual Report 2023. Bangkok: Bank of Thailand. https://www.bot.or.th/en/research-and-publications/reports/annual-report.html

BoT (Bank of Thailand). 2024b. "BOT's Media Briefing on Addressing Thailand's Household Debt Problems." January 17, 2024. Bangkok: Bank of Thailand. https://www.bot.or.th/en/news-and-media/news/news-20240117.html

BoT (Bank of Thailand). 2024c. Financial Access Survey of Thai Households 2024. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/documents/th/research-and-publications/reports/financial-access-survey-of-thai-household/fl-fi-hh-survey-report-2024-th.pdf [Thai only]

BoT (Bank of Thailand). 2024d. "Payment Data Indicators." Bangkok: Bank of Thailand. Accessed March 2026. https://www.bot.or.th/en/research-and-publications/reports/payment-data-indicators.html

BoT (Bank of Thailand). 2024e. Retail CBDC Pilot Program: Conclusion Report. March 2024. Bangkok: Bank of Thailand. https://www.bot.or.th/en/financial-innovation/digital-finance/central-bank-digital-currency/_/Pilot-CBDC-2024.html

BoT (Bank of Thailand). 2024f. Striking the Right Balance: Annual Report 2024. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/documents/en/research-and-publications/reports/annual-report/AnnualReport_2024Eng.pdf

BoT (Bank of Thailand). 2024g. "You Fight, We Help (คุณสู้เราช่วย) Debt Restructuring Program." December 2024. Bangkok: Bank of Thailand. https://www.bot.or.th/th/news-and-media/activities/khunsoo.html

BoT (Bank of Thailand). 2024h. "Cross-Border QR Payments Supporting Businesses in Southern Thailand." December 12, 2024. Bangkok: Bank of Thailand. https://www.bot.or.th/th/research-and-publications/articles-and-publications/articles/regional-articles/reg-article-2024-10.html

BoT (Bank of Thailand). 2025a. "AI Risk Management Framework." Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/fipcs/documents/FOG/2568/ThaiPDF/25680178.pdf [Thai only]

BoT (Bank of Thailand). 2025b. "From Open Finance to an Inclusive Digital Society." Keynote address by Deputy Governor Roong Mallikamas, Money20/20, April 22, 2025. https://www.bot.or.th/content/dam/bot/documents/en/news-and-media/speech/speechdeputygov-22apr2025.pdf

BoT (Bank of Thailand). 2025c. Loans to Household Classified by Purpose: EC_MB_040_S2. Bangkok: Bank of Thailand. Accessed March 2026. https://app.bot.or.th/BTWS_STAT/statistics/BOTWEBSTAT.aspx?language=ENG&reportID=984

BoT (Bank of Thailand). 2025d. "Nano Finance under Supervision: FI_CB_093." Bangkok: Bank of Thailand. Accessed March 2026. https://app.bot.or.th/BTWS_STAT/statistics/ReportPage.aspx?reportID=876&language=eng

BoT (Bank of Thailand). 2025e. Notification No. 4/2568: Maintaining Security Standards for Mobile Banking and Payment Services for Financial Institutions. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/fipcs/documents/FOG/2568/ThaiPDF/25680027.pdf [Thai only]

BoT (Bank of Thailand). 2025f. Notification No. 57/2568: Principles of Digital Fraud Management. December 16, 2025. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/fipcs/documents/FPG/2568/ThaiPDF/25680254.pdf [Thai only]

BoT (Bank of Thailand). 2025g. "Regulation on Mechanisms for Personal Financial Data Sharing." Enacted October 30, 2025. Bangkok: Bank of Thailand. https://www.bot.or.th/en/news-and-media/news/news-20251110.html

BoT (Bank of Thailand). 2025h. "Royal Decree on Hire-Purchase and Leasing Business (Summary)." Bangkok: Bank of Thailand. https://www.bot.or.th/th/our-roles/financial-institutions/hire-purchase-leasing/royal-decree-summary.html

BoT (Bank of Thailand). 2025i. Strengthening Thailand's Financial System for a Sustainable and Inclusive Economy: Annual Report 2025. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/documents/en/research-and-publications/reports/annual-report/AnnualReport_2025Eng.pdf

BoT (Bank of Thailand). 2025j. "Use of e-Money: PS_PT_015." Bangkok: Bank of Thailand. Accessed March 2026. https://app.bot.or.th/BTWS_STAT/statistics/BOTWEBSTAT.aspx?reportID=694&language=ENG

BoT (Bank of Thailand). 2025k. "Virtual Bank License Announcement." Press release, June 19, 2025. Bangkok: Bank of Thailand. https://www.bot.or.th/en/news-and-media/news/news-20250619.html

BoT (Bank of Thailand). 2026a. Banking Sector Quarterly Brief: Q4 2025 and 2025. Bangkok: Bank of Thailand, February 17. https://www.bot.or.th/content/dam/bot/documents/en/news-and-media/news/2026/news-20260217.pdf

BoT (Bank of Thailand). 2026b. "Notification No. 14/2569: List of Supervised Payment Systems Designated as Systemically Important Retail Payment Systems (SIRPS)." February 10, 2026. Bangkok: Bank of Thailand. https://www.bot.or.th/content/dam/bot/fipcs/documents/FPG/2569/ThaiPDF/25690033.pdf [Thai only].

BoT (Bank of Thailand). n.d.-a. "Financial Sector Master Plan." https://www.bot.or.th/en/our-roles/financial-institutions/financial-sector-master-plan.html

BoT (Bank of Thailand). n.d.-b. "Regulatory Sandbox." Accessed May 2026. https://www.bot.or.th/en/financial-innovation/digital-finance/fintech-in-thailand/regulatory-sandbox.html

BoT (Bank of Thailand). n.d.-c. "Specialized Financial Institutions Supervision." Accessed August 23, 2026. https://www.bot.or.th/en/our-roles/financial-institutions/sfi-supervisions.html

BoT (Bank of Thailand). n.d.-d. "Use of PromptPay (PS_PT_018)." Payment Statistics. Accessed March 2026. https://app.bot.or.th/BTWS_STAT/statistics/BOTWEBSTAT.aspx?reportID=921&language=ENG

Bowie, Katherine. 2010. "Women's Suffrage in Thailand: A Southeast Asian Historiographical Challenge." Comparative Studies in Society and History 52 (4): 708–41. https://doi.org/10.1017/S0010417510000435.

BSP (Bangko Sentral ng Pilipinas). 2020. Guidelines on the Establishment of Digital Banks. BSP Circular No. 1105, Series of 2020. Manila: BSP. https://www.bsp.gov.ph/SitePages/Regulations/RegulationDisp.aspx?ItemId=4418

Cevik, Serhan. 2023. "The Dark Side of the Moon? Fintech and Financial Stability." IMF Working Paper, No. 2023/253. Washington, DC: IMF. https://doi.org/10.5089/9798400261060.001

Chalwe-Mulenga, Majorie, Eric Duflos, and Gerhard Coetzee. 2022. "The Evolution of the Nature and Scale of DFS Consumer Risks: A Review of Evidence." Slide Deck. Washington, DC: CGAP.

https://www.cgap.org/research/reading-deck/evolution-of-nature-and-scale-of-dfs-consumer-risks-review-of-evidence

Cheewaruangroj, Nontawit, Kawinwish Laobundit, Peranut Nimitsurachat, Supachai Saengthong, Skunpoj Thanarojsophon, and Anak Yodpinyanee. 2025. "Leveraging Generative AI for Granular Credit Data Utilization: A Multi-Agent Approach." Discussion paper prepared for the 4th IFC Workshop on "Data Science in Central Banking," Banca d'Italia, Rome, February 18–20. https://www.bancaditalia.it/pubblicazioni/altri-atti-convegni/2025-ifc/S3.3_3_Leveraging-Generative-AI.pdf

Clark, Julia, Georgina Marin, Oya Pinar Ardic Alper, and Guillermo Alfonso Galicia Rabadan. 2025. Digital Public Infrastructure and Development: A World Bank Group Approach. Digital Transformation White Paper, Volume 1. Washington, DC: World Bank. http://hdl.handle.net/10986/42935

Clifford Chance. 2024. A Guide to Asia Pacific Restructuring and Insolvency Procedures. London: Clifford Chance LLP. https://www.cliffordchance.com/content/dam/cliffordchance/PDFDocuments/apac-r-and-i-guide.pdf

Demirgüç-Kunt, Asli, and Leora Klapper. 2013. "Measuring Financial Inclusion: Explaining Variation in Use of Financial Services across and within Countries." Brookings Papers on Economic Activity (Spring 2013): 279–340. https://www.brookings.edu/articles/measuring-financial-inclusion-explaining-variation-in-use-of-financial-services-across-and-within-countries/

DGA (Digital Government Development Agency). 2022. The Digital Government Development Plan of Thailand 2020–2022: English Version. Bangkok: Digital Government Development Agency. https://www.dga.or.th/policy-standard/policy-regulation/dga-019/dga-024/the-digital-government-development-plan-of-thailand-english-version/

Doerr, Sebastian, Jon Frost, Leonardo Gambacorta, and Vatsala Shreeti. 2023. "Big Techs in Finance." BIS Working Papers No. 1129. Basel: Bank for International Settlements. https://www.bis.org/publ/work1129.pdf

DOPA (Department of Provincial Administration, Ministry of Interior). 2023. "ThaID Application." DOPA. Bangkok. https://www.bora.dopa.go.th/app-thaid.

Duarte, Angelo, Jon Frost, Leonardo Gambacorta, Priscilla Koo Wilkens, and Hyun Song Shin. 2022. "Central Banks, the Monetary System and Public Payment Infrastructures: Lessons from Brazil's Pix." BIS Bulletin No. 52. Basel: Bank for International Settlements. https://www.bis.org/publ/bisbull52.htm

FATF (Financial Action Task Force), Interpol and Egmont Group. 2023. Illicit Financial Flows from Cyber-Enabled Fraud. Paris: FATF. https://www.fatf-gafi.org/content/fatf-gafi/en/publications/Methodsandtrends/illicit-financial-flows-cyber-enabled-fraud.html

G20 Brazilian Presidency and OECD. 2024. G20 Policy Note on Financial Well-being. Global Partnership for Financial Inclusion (GPFI). https://www.gpfi.org/news/g20-policy-note-financial-well-being

GI-TOC (Global Initiative Against Transnational Organized Crime). 2024. Rogue Replicants: Criminal Exploitation of Deepfakes in South East Asia. Geneva: GI-TOC. https://globalinitiative.net/analysis/deepfakes-ai-cyber-scam-south-east-asia-organized-crime/

GI-TOC (Global Initiative Against Transnational Organized Crime). 2025. Compound Crime: Cyber Scam Operations in Southeast Asia. Geneva: GI-TOC. https://globalinitiative.net/wp-content/uploads/2025/05/GI-TOC-Compound-crime-Cyber-scam-operations-in-Southeast-Asia-May-2025.pdf

Google, Temasek, and Bain & Company. 2024. e-Conomy SEA 2024. https://services.google.com/fh/files/misc/e_conomy_sea_2024_report.pdf

Google, Temasek, and Bain & Company. 2025. e-Conomy SEA 2025: Thailand Report. https://services.google.com/fh/files/misc/thailand_e_conomy_sea_2025_report.pdf

Grohmann, Antonia, Olaf Hübler, Roy Kouwenberg, and Lukas Menkhoff. 2021. "Financial literacy: Thai middle-class women do not lag behind." Journal of Behavioral and Experimental Finance 31: 100537. https://www.sciencedirect.com/science/article/abs/pii/S2214635021000812

IFC (International Finance Corporation). 2024. "IFC and Thai Credit Bank Partner to Support Women-Owned Small Businesses in Thailand." February 9, 2024. https://www.ifc.org/en/pressroom/2024/ifc-and-thai-credit-bank-partner-to-support-women-owned-small-businesses-in-thailand

IMF (International Monetary Fund). 2000. Thailand: Selected Issues. IMF Staff Country Report No. 00/21. Washington, DC: IMF. https://www.imf.org/external/pubs/ft/scr/2000/cr0021.pdf

IMF (International Monetary Fund). 2019. Thailand: Financial System Stability Assessment. Washington, DC: IMF. https://www.imf.org/en/publications/cr/issues/2019/10/07/thailand-financial-system-stability-assessment-48723.

IMF (International Monetary Fund). 2022. Thailand: Selected Issues. IMF Staff Country Report No. 22/301. Washington, DC: IMF. https://www.elibrary.imf.org/view/journals/002/2022/301/article-A004-en.xml

IMF (International Monetary Fund). 2024. Global Financial Stability Report, April 2024. Washington, DC: IMF. https://www.imf.org/en/Publications/GFSR/Issues/2024/04/16/global-financial-stability-report-april-2024

IMF (International Monetary Fund). 2026. "Financial Stability Risks Mount as Artificial Intelligence Fuels Cyberattacks." IMF Blog, May 7. https://www.imf.org/en/blogs/articles/2026/05/07/financial-stability-risks-mount-as-artificial-intelligence-fuels-cyberattacks

ITU (International Telecommunication Union). n.d. "Individuals Using the Internet" and "Individuals Owning a Smartphone," Thailand, total population and persons aged 75 and older. ITU DataHub. Accessed April 18, 2026. https://datahub.itu.int/data/?e=THA

Jeník, Ivo, Denise Dias, Mehmet Kerse, and Stefan Staschen. 2025. "Regulating Financial Innovation: What Does It Take?" Washington, DC: CGAP. https://www.cgap.org/research/publication/regulating-financial-innovation-what-does-it-take

Jeník, Ivo. 2022. TymeBank Case Study: The Customer Impact of Inclusive Digital Banking. Washington, DC: CGAP. https://www.cgap.org/research/publication/tymebank-case-study-customer-impact-of-inclusive-digital-banking

KBank (KASIKORNBANK). 2025. "Management Discussion and Analysis for the Quarter Ending March 31, 2025." Bangkok: KASIKORNBANK. https://www.kasikornbank.com/en/IR/FinanInfoReports/financialReports/1Q25_MDxA_En.pdf

Kerdsri, Jiradett, and Pucktada Treeratpituk. 2022. "Integrating Natural Language Processing Technologies to Central Bank Operations at Bank of Thailand." In IFC Bulletin No. 59: Data Science in Central Banking—Applications and Tools. Basel: Bank for International Settlements, Irving Fisher Committee. https://www.bis.org/ifc/publ/ifcb59_23.pdf

Klapper, Leora, Dorothe Singer, Laura Starita, and Alexandra Norris. 2025. The Global Findex Database 2025: Connectivity and Financial Inclusion in the Digital Economy. Washington, DC: World Bank. https://doi.org/10.1596/978-1-4648-2204-9

Kumaraswamy, Sai Krishna and Marcel Beer Kremnitzer. 2026. "Advancing Competition for Financial Inclusion: Six Policy Considerations for Financial Sector Authorities." Focus Note. Washington, DC.: CGAP. https://www.cgap.org/research/publication/advancing-competition-for-financial-inclusion-six-policy-considerations-for

LINE BK. n.d. "Company Info." Accessed August 2026. https://www.linebk.com/en/about/info/

Mallikamas, Roong. 2024. "Keynote Speech at the Central Banking Asia Summit." Speech delivered at the Central Banking Asia Summit, Anantara Siam Bangkok Hotel, Bangkok, July 24. Bank of Thailand. https://www.bot.or.th/content/dam/bot/documents/en/news-and-media/speech/speechdeputygov-24jul2024.pdf

MAS (Monetary Authority of Singapore) and BoT (Bank of Thailand). 2021. "Thailand and Singapore Launch World's First Linkage of Real-Time Payment Systems." Joint press release, April 29, 2021. https://www.bot.or.th/en/news-and-media/news/news-20210429.html

MAS (Monetary Authority of Singapore) and IMDA (Infocomm Media Development Authority). 2024. "MAS and IMDA Announce Implementation of Shared Responsibility Framework from 16 December 2024." Media Release. Singapore: Monetary Authority of Singapore. https://www.mas.gov.sg/news/media-releases/2024/mas-and-imda-announce-implementation-of-shared-responsibility-framework-from-16-december-2024

MoF (Ministry of Finance). 2016. "Notification Re: Business Subject to Approval under Revolutionary Council Decree 58 (Provincial Microfinance under Supervision)." October 14, 2016. Bangkok: Ministry of Finance. https://www.bot.or.th/content/dam/bot/documents/en/laws-and-rules/laws-and-

regulations/legal-department/12-declaration-of-the-revolutionary-council-no-58/12.3%20MOF%20Notification-PLoan.pdf

MoF (Ministry of Finance). 2025. Ministerial Regulation No. 399 (B.E. 2568) Issued under the Revenue Code. Bangkok: Ministry of Finance. https://www.rd.go.th/fileadmin/user_upload/kormor/newlaw/mr399A.pdf

Money & Banking Magazine. 2024. "Debt Clinic Sees Surge in Applicants in Q1." Money & Banking Magazine. https://en.moneyandbanking.co.th/2024/87206/.

Nation Thailand. 2024. "Total Cost of Online Scams Revealed." Nation Thailand. https://www.nationthailand.com/news/general/40044170

Nation Thailand. 2025. "Bankruptcy Reform Pushed as Lifeline for Thailand's Debt Crisis." Nation Thailand, 2025. https://www.nationthailand.com/news/policy/40065161

Nation Thailand. 2026. "Bank of Thailand Launches First Major Restructuring in 27 Years." Nation Thailand, July 11, 2026. https://www.nationthailand.com/business/banking-finance/40069693

NDID (National Digital Identity Platform). n.d. "NDID Platform." National Digital ID Co., Ltd. Bangkok. Accessed June 2026. https://ndid.co.th/en/platform-en-2/.

NESDC (National Economic and Social Development Council). n.d. "Financial Literacy of Thai People: Structural Challenges and Development Guidelines According to OECD Standards." Bangkok: NESDC. https://inter.nesdc.go.th/en/multimedia/financial-literacy-of-thai-people-structural-challenges-and-development-guidelines-according-to-oecd-standards/

OECD (Organisation for Economic Co-operation and Development). 2023. OECD/INFE 2023 International Survey of Adult Financial Literacy. Paris: OECD. https://www.oecd.org/en/publications/oecd-infe-2023-international-survey-of-adult-financial-literacy_56003a32-en.html

Pakdeesuwan, Wichchulada. 2026. "The Central Bank Governor Is Serious! He's Aiming to Release Regulations to Control BNPLs This Year." Bangkok Biznews, July 11, 2026. https://www.bangkokbiznews.com/finance/1242624

PSR (Payment Systems Regulator). 2023. Fighting Authorised Push Payment Fraud: A New Reimbursement Requirement. Policy Statement PS23/4. London: Payment Systems Regulator. https://www.psr.org.uk/publications/policy-statements/ps23-4/

PSR (Payment Systems Regulator). 2026. APP Scams Reimbursement Dashboard: Q1 2026. London: Payment Systems Regulator. https://www.psr.org.uk/information-for-consumers/app-scams-reimbursement-dashboard/

Public Relations Department of Thailand. 2024. "AOC 1441 Operational Totals." Bangkok: Government of Thailand. https://www.prd.go.th/th/content/category/detail/id/39/iid/340072

Public Relations Department of Thailand. 2025a. "IAC War Room: Proactive Anti-Scam Operations." Bangkok: Public Relations Department of Thailand. https://www.prd.go.th/th/content/category/detail/id/39/iid/425159

Public Relations Department of Thailand. 2025b. "Thailand Joins Other Lancang-Mekong Countries in Crackdowns on Telecom and Online Fraud." November 2025. Bangkok: Public Relations Department of Thailand. https://thailand.prd.go.th/en/content/category/detail/id/49/iid/443653

RBI (Reserve Bank of India). 2022. "Loading of Prepaid Payment Instruments (PPIs) through Credit Lines." Circular No. CO.DPSS.OVRST.No.S5380/06-07-004/2022-23. Mumbai: Reserve Bank of India. https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=12848&Mode=0

Royal Thai Government. 2019a. Electronic Transactions Act (No. 4) B.E. 2562. Bangkok: Royal Gazette. English translation: Electronic Transactions Development Agency. https://www.etda.or.th/getattachment/0eb0d802-e692-4a56-ae4e-004da7f343c5/ETA-4-ACT-ENG-Version.aspx

Royal Thai Government. 2019b. Personal Data Protection Act B.E. 2562. Bangkok: Royal Gazette. https://www.ratchakitcha.soc.go.th/DATA/PDF/2562/A/069/T_0052.PDF [Thai only]

Royal Thai Government. 2025. Emergency Decree on Measures to Prevent and Suppress Technology Crimes (No. 2) B.E. 2568. Bangkok: Royal Gazette. https://ratchakitcha.soc.go.th/documents/67320.pdf [Thai only]

Royal Thai Police Online. 2024. Cybercrime Statistics. Bangkok: Royal Thai Police. https://opendata.thaipoliceonline.go.th/dataset/d269e47e-df05-4fc5-aa4a-8f2947052993/resource/9d9d5233-2c1d-4f74-923e-4d171b316314

SCBX (SCB X Public Company Limited). 2022. “Retracing ‘SCBX’ Mothership’s 5-Month Transformation Journey.” February 25, 2022. https://www.scbx.com/en/news/scbx-5months-journey/

SCBX (SCB X Public Company Limited). 2026. “SCBX Reports First-Quarter 2026 Net Profit of Baht 10,195 Million.” April 21, 2026. https://www.scbx.com/en/news/q1-2026-net-profit/

SEC Thailand (Securities and Exchange Commission Thailand). 2022. "SEC Issues Regulation Prohibiting Digital Asset Business Operators from Facilitating the Use of Digital Assets as a Means of Payment." News Release No. 39/2022, March 23, 2022. Bangkok: Securities and Exchange Commission Thailand. https://www.sec.or.th/EN/Pages/News_Detail.aspx?Lang=EN&NewsNo=39&NewsYear=2022&SECID=9366.

SEC Thailand (Securities and Exchange Commission Thailand). 2025. Strategic Plan 2026–2028: Building Trust, Powering Growth. Bangkok: SEC. https://www.sec.or.th/TH/Documents/strategicplan/strategicplan-2569-2571-01.pdf

Technode Global. 2024. "Buy Now Pay Later Market in Southeast Asia Set to Exceed $50B by 2027—Report." November 20, 2024. https://technode.global/2024/11/20/buy-now-pay-later-market-in-southeast-asia-set-to-exceed-50b-by-2027-report/

Thai Enquirer. 2025. "Thai Police Launch International War Room to Crack Down on Scam Centers." Thai Enquirer, August 2025. https://www.thaienquirer.com/58027/thai-police-launch-international-war-room-to-crack-down-on-scam-centers-exclude-cambodia-over-data-risks/

Thai Enquirer. 2026. " BoT Plans BNPL Crackdown as User Numbers Surge and Debt Concerns Mount." Thai Enquirer, June 2026. https://www.thaienquirer.com/70778/bot-plans-bnpl-crackdown-as-user-numbers-surge-and-debt-concerns-mount/

Trisadikoon, Khemmapat, and Wichayada Umponkitviwat. 2026. “Beyond Credit Access: Regulatory Gaps in Thailand’s Data-Driven Finance for MSMEs.” Tech for Good Institute, August 24, 2026. https://techforgoodinstitute.org/insights/country-spotlights/beyond-credit-access-regulatory-gaps-in-thailands-data-driven-finance-for-msmes/

UNODC (United Nations Office on Drugs and Crime). 2026. "A Global Wake-Up Call to Organized Fraud." March 2026. UNODC. https://www.unodc.org/unodc/frontpage/2026/March/a-global-wake-up-call-to-organized-fraud.html

World Bank. 2021. Thailand Country Gender Assessment. © World Bank. https://hdl.handle.net/10986/37976

World Bank Group. 2025. Thailand Economic Monitor, July 2025: Digital Pathways to Growth. © World Bank. http://hdl.handle.net/10986/43469

World Bank. 2026. Building Thailand's Future Today. © World Bank Group. https://www.worldbank.org/en/news/press-release/2026/09/03/world-bank-group-report-identifies-new-engines-for-thailand-s-next-phase-of-growth

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center for inclusive growth

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