Gate Research

# PayFi Ushers in the Era of Payment Yield

## Farewell to Idle Capital

# Abstract


- **Core Positioning of PayFi:** PayFi is a systematic financial framework for payments. It leverages stablecoins as the underlying medium, integrating account systems, clearing and settlement, yield management, and compliance layers. Its goal is to bring crypto payments into the mainstream and serve as a bridge between Web2 and Web3.

- **Paradigm Shift from Payment to Finance:** By introducing the BNPN model, PayFi combines payment behavior with capital appreciation, enabling every unit of capital to generate yield—fundamentally transforming the traditional model of "idle capital."

- **Solving Industry Pain Points:** PayFi addresses three structural challenges of traditional payment systems: high fees (reducing costs to less than one-tenth of traditional rails via on-chain settlement), long clearing cycles (enabling T+0 instant settlement), and financial exclusion (offering "accountless" access so the unbanked population worldwide can participate in financial services).

- **Four Core Business Models:** PayFi's multi-layered, progressive business model drives revenue through four engines. First, it builds stable cash flow with ultra-low transaction fees under a "small margin, high frequency" strategy. Second, it reinvests settlement float into yield-bearing stablecoins, creating a profitability flywheel for both the platform and users. Third, it provides institutional-grade services such as liquidity pool management and FX hedging to capture higher-value revenues. Finally, it modularizes core capabilities into Payment-as-a-Service (PaaS) solutions, empowering external enterprises and driving ecosystem expansion.

- **Three-Phase Rollout Strategy:** PayFi's roadmap follows a three-step strategy: Phase 1 (within 1 year) focuses on building core cash flow and user adoption; Phase 2 (1–2 years) expands financial services and API capabilities; Phase 3 (2–3 years) evolves into an industry-level infrastructure provider, enabling broader ecosystem growth.

- **Market Potential:** PayFi targets the multi-trillion-dollar global payments market. By 2032, the digital payments and B2B payments markets are projected to reach $26.53 trillion and $213.28 trillion, respectively. Within key segments, PayFi's serviceable market is estimated at $25–30 trillion. As crypto payment adoption accelerates, PayFi's serviceable obtainable market (SOM) could reach hundreds of billions in transaction volume over the next 3–5 years, generating multi-billion-dollar revenue opportunities.

- **Opportunities and Challenges:** PayFi benefits from regulatory clarity around stablecoins and advances in infrastructure technologies . However, it also faces challenges such as regulatory uncertainty, security risks, and user onboarding barriers, which must be addressed through compliance and technological innovation.



**Keywords:** Gate Research, PayFi, Stablecoin, Payments

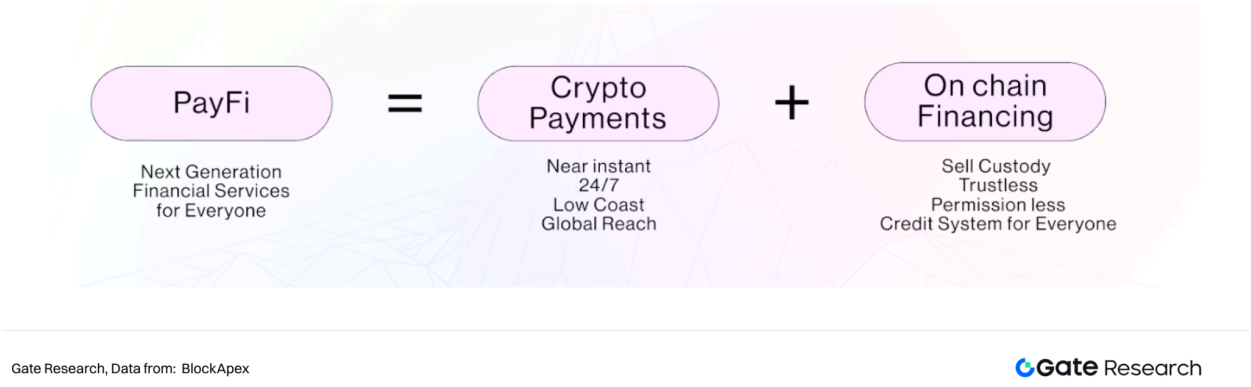
# Gate Research: Farewell to Idle Capital: How PayFi Ushers in the Era of Crypto Payment Yield

# 1. Introduction: PayFi as the Key to a New Era of Crypto Payments

Imagine a future financial landscape where money is no longer constrained by 9-to-5 banking hours but flows seamlessly 24/7; where cross-border remittances no longer involve long delays and costly intermediaries but settle instantly at near-zero cost; where every digital asset can serve as a flexible payment instrument—and even generate yield at the very moment it is spent. This is not a distant dream, but a reality now being built by blockchain technology and digital currencies: a new paradigm we call Web3 Payments. At the heart of this paradigm lies PayFi, the key to unlocking a trillion-dollar market by bringing crypto payments into the mainstream.

Over the past decade, the evolution of digital assets and blockchain has driven a profound transformation of global financial infrastructure. The industry has gradually moved beyond its speculation-driven early stage and entered a new cycle centered on payments and settlement. The rise in on-chain payment demand has redefined expectations for liquidity efficiency, cost control, and regulatory security—fueling the emergence of a new class of financial infrastructure. Within this system, stablecoins act as the “value anchors” of on-chain payments, achieving breakthroughs in large-scale issuance, application across diverse use cases, and integration with traditional finance. Built on top of this foundation, PayFi (Payment Finance) emerges as a systematic financial framework for payments—integrating compliance, yield, security, and efficiency into the next-generation payment architecture.

Figure 1: What is PayFi




Unlike traditional payment products, PayFi is a modular network that combines account systems, clearing and settlement, transaction channels, yield management, and compliance layers into one framework. Stablecoins provide the underlying value medium, while PayFi serves as the network infrastructure that transfers and unlocks that value—managing clearing, FX conversion, yield distribution, and compliance oversight. In short, stablecoins supply the stability of money, while PayFi supplies the infrastructure to make money move and grow—much like the Visa network does for the U.S. dollar.

This report explores the transformative wave of crypto payments led by PayFi, analyzing how it can seize this momentum to become the key to a new era. We will measure PayFi's growth potential within the global payments market, unpack its business model and development roadmap, and assess the core challenges it faces. Our goal is to provide decision-makers, investors, and researchers with a forward-looking analysis of how PayFi—through clear strategy, advanced architecture, and practical deployment—can guide the global payment system into the crypto era.

# 2. The Genesis of PayFi: From Traditional Finance to On-Chain Financial Evolution

## 2.1 The Rise of Crypto Payments: A Strong Tailwind for the PayFi Narrative

Over the past several decades, the global payments industry has undergone multiple waves of technological transformation—from physical payments to digital payments, and further into real-time settlement systems. The evolution of payment infrastructure has not only driven major improvements in transaction efficiency and user experience but has also profoundly reshaped the broader financial services landscape. At its core, this progression can be seen as a history of increasingly tighter integration between the flow of funds and the flow of information.

The traditional payments system has already advanced through five major stages: from cash-based physical payments, to bank account–based payments, to card payments, to digital wallets and mobile payments, and finally to real-time payments and open banking. Yet, even at this fifth stage, structural bottlenecks remain—cross-border transactions are slow and inefficient, compliance and intermediary costs remain high, asset classes are siloed, and billions of people worldwide remain excluded from the financial system.

Against this backdrop, payments are now entering a **sixth stage: crypto-asset payments and on-chain account systems**.

The introduction of blockchain technology has created the possibility of a fundamental restructuring of the payments architecture. Its defining feature lies in enabling peer-to-peer value transfer without relying on centralized intermediaries. Transactions themselves serve as final settlement, and the system operates 24/7. With just a wallet address, users can make payments directly—simplifying processes, cutting costs, and significantly improving transparency and auditability. By reducing intermediaries, accelerating settlement, and lowering fees, this model effectively addresses pain points in traditional systems such as information asymmetry, lengthy settlement cycles, and high intermediary costs.

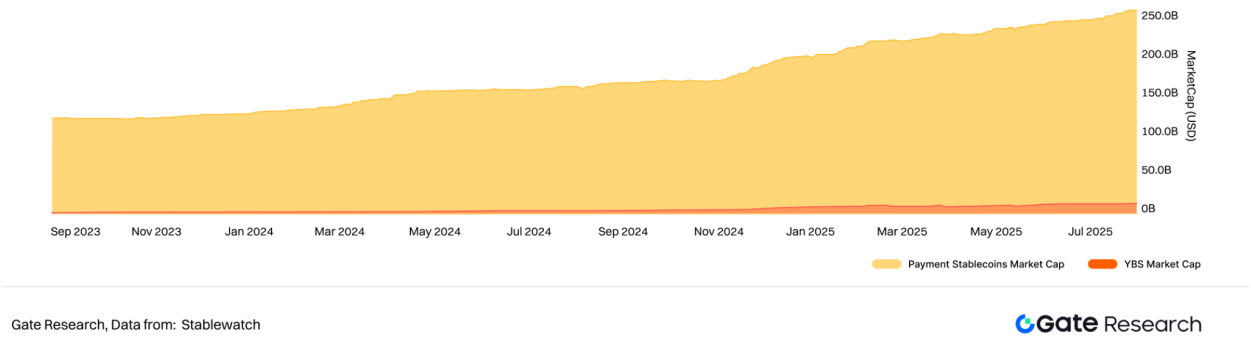
Today, the blockchain payments sector is experiencing explosive growth. Global financial institutions and technology companies are making substantial investments in stablecoins and

on-chain payment infrastructure, shifting crypto payments from “edge experimentation” to “mainstream strategy.”

- Stablecoin issuance and adoption accelerating: Institutions are deepening their exploration of compliant stablecoins. For example, BlackRock partnered with Ethena to issue the U.S. dollar stablecoin USDb, while Société Générale issued the euro stablecoin EUR CoinVertible.
- Payment giants embracing stablecoins: PayPal, in partnership with EY, completed its first commercial transaction using PYUSD and integrated it into Venmo. Stripe has strategically invested in on-chain payments, partnering with Paxos to support stablecoin payments and acquiring stablecoin payment company Bridge for $1.1 billion.
- Card networks and clearing systems transforming: Traditional financial infrastructure players are also exploring integration with digital assets. Visa announced the launch of VTAP, a platform designed to help institutions issue and manage stablecoins. SWIFT has also announced that it will begin digital currency and asset settlement trials in 2025, signaling its exploration of the future of payments.

These significant institutional commitments, combined with the strong growth of the stablecoin market, provide a solid foundation for the rapid development of crypto payments. According to Stablewatch, the total market capitalization of U.S. dollar–denominated stablecoins has grown from around $5 billion in early 2019 to $260 billion in 2025—a more than 50-fold increase. Of this, 99% of stablecoin assets are used for payments, with the market value of payment-focused stablecoins also surpassing $260 billion. At present, more than 40 million addresses on public blockchains are transacting with stablecoins every month.

Figure 2: Market Cap of Payment Stablecoins vs. Yield-Bearing Stablecoins




Gate Research, Data from: Stablewatch

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As Standard Chartered’s Head of Digital Asset Research Geoff Kendrick notes, stablecoins—thanks to programmability, auditability, instant settlement, self-custody, and interoperability—are expanding from trading collateral into cross-border payments, payroll, trade finance, and remittances. Meanwhile, maturing regulatory frameworks are providing the legal clarity needed for compliant adoption.

Against this backdrop, PayFi emerges at the center of the crypto payments narrative. It rides the wave of stablecoin adoption, bridging the shift from proof-of-concept to large-scale commercialization. PayFi's rise is no accident—it reflects the convergence of clearer regulation, advancing technology, and growing institutional capital. Its narrative is rapidly gaining mainstream acceptance as a credible innovation path.

## 2.2 The Core Essence of PayFi: From Payments to Finance

As a fusion of "Payment" and "Finance", PayFi is not just another crypto payment channel—it represents a paradigm shift in payment logic. Built on blockchain and anchored by stablecoins, PayFi modularizes payments, clearing, yield distribution, identity, and compliance into a full "Payment-as-a-Financial-Stack" architecture.

As noted in *Gate Research: Beyond DeFi Summer—Is PayFi Summer Next?*, PayFi is not a single product or protocol but a systemic framework with the following components:

- Stablecoins as the value medium: ensuring price stability, low volatility, and on-chain liquidity.
- Payment-as-settlement: transactions double as final settlement, eliminating central intermediaries.
- Financial functions natively embedded: yield-bearing assets, on-chain lending, portfolio management, bill-splitting.
- Wallets as account systems: a blockchain address functions as a full financial identity.
- Open APIs: enabling enterprises and developers to integrate seamless payment capabilities.

PayFi is rooted in the fundamental financial principle of the Time Value of Money (TVM). Unlike traditional payments where funds sit idle, PayFi ensures that every asset continuously flows on-chain, generates yield, and is efficiently reused.

Key innovations include:

- **BNPN (Buy Now Pay from Yield)**: A new model of "hold, earn, spend" where users collateralize crypto assets and use the yield to cover expenses. Unlike BNPL (Buy Now Pay Later), BNPN is yield-driven rather than debt-driven:

Figure 3: Difference Between BNPL and BNPN

| Model | BNPL (Buy Now, Pay Later) | BNPN (Buy Now, Pay with Yield) |
|---|---|---|
| DriverRisk | Credit & Debt | Collateral & Yield |
| PointUser | Late fees, credit score impact | Zero interest, no debt burden |
| Experience | Deferred payment + repayment pressure | Principal untouched, auto-yield covers expenses |

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This model fundamentally rewrites the underlying logic of payments: assets no longer remain idle, and consumption no longer relies on borrowing.

- **Turning future income into capital:** PayFi connects DeFi, RWA, and on-chain credit systems to help businesses and individuals instantly convert future income—such as unpaid invoices or creator earnings—into available capital. This mechanism ensures continuous and efficient use of funds, without being constrained by traditional settlement cycles.
- **“Instant circulation and appreciation” of funds:** By integrating DeFi into the payment process, PayFi enables users’ idle funds to automatically transform into yield-generating productive assets. This means that even small amounts of capital can earn competitive returns without sacrificing liquidity.

In short, the core value of PayFi lies in the fact that it is not merely a payment tool, but an innovative mechanism that transforms payments themselves into a process of financial value creation, fully unlocking the potential of digital assets.

# 3. The Key to a New Era of Crypto Payments: Why and How PayFi?

The emergence of PayFi is not a mere technological iteration; it is a systematic response to the structural contradictions within the global payment system. It is considered the “key” to unlocking a new era of crypto payments because it not only addresses the deep-rooted pain points of traditional finance but also directly tackles the barriers that have prevented early crypto payments from reaching mainstream adoption. This chapter explores two core questions: Why does the market urgently need PayFi? And how does PayFi turn this vision into reality?

## 3.1 Why PayFi? — The Intersection of Market Demand and Structural Challenges

To understand the value of PayFi, one must first recognize the significant gap between supply and demand in today's payment market. On one side is a strong user demand for the "ideal payment system"; on the other are the structural flaws of both traditional and existing crypto payment systems.

### 3.1.1 Resonance of Market Demand: Outlining an "Ideal Payment System"

Whether they are global enterprises, cross-border freelancers, or Web3-native users, the core payment needs are remarkably consistent and can be summarized across five key dimensions. These demands not only outline the ideal payment system but also point to PayFi's innovation direction.

Figure 4: PayFi's Expected Solutions Across Different Needs

| Demand Dimension | Core User Pain Points | PayFi's Expected Solution |
|---|---|---|
| **Cost Sensitivity** | Merchants/platforms' profits eroded by high fees; users bear opaque FX and intermediary costs. | **Ultra-low fees:** peer-to-peer stablecoin settlement, reducing costs to less than one-tenth of traditional methods. |
| **Time Efficiency** | Cross-border settlements take T+3 or longer, severely hindering liquidity for businesses and individuals. | **Instant settlement:** blockchain-based T+0 clearing, payment = settlement, eliminating funds in limbo. |
| **Compliance** | Businesses face multiple tax & compliance burdens, with high complexity and costs. | **Embedded compliance:** transparent, auditable tools with API-based simplified KYC/AML processes. |
| **Ease of Use** | Non-technical users struggle with wallets, private keys, gas fees, creating high barriers to entry. | **Seamless UX:** Web2-like simplified interface, custodial wallets, and gasless solutions. |
| **Scalability** | Businesses need rapid deployment of global/local payment solutions, but traditional integration is costly and slow. | **Modular integration:** white-label SDK/API enabling fast, low-cost, customized payment capabilities. |



Such needs are universal across economic activities, and in emerging scenarios such as remote collaboration, digital content monetization, and cross-border e-commerce, the limitations of traditional payment systems become increasingly apparent, creating a historic opportunity for PayFi's rise.

### 3.1.2 Structural Pain Points in Traditional Payments: Persistent Issues

Traditional payment systems are built on a "account-centric + multi-intermediary" closed paradigm. Their three inherent structural pain points are precisely where PayFi achieves disruptive efficiency gains.

**Pain Point 1: High fees and complex pathways lead to multiple deductions**

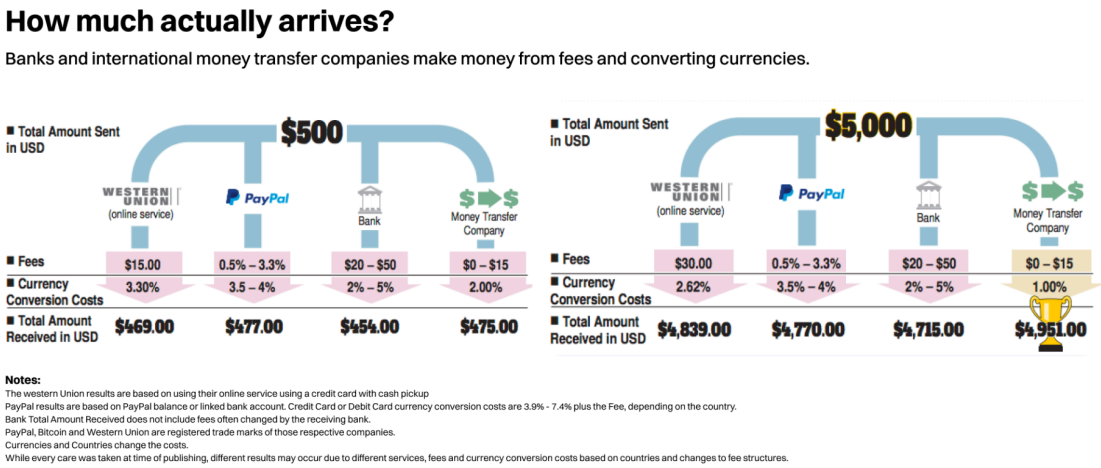
In traditional cross-border payments, each transaction often passes through multiple intermediaries: issuing banks, acquiring banks, payment gateways, card networks (e.g., Visa/Mastercard), foreign exchange clearing agents, settlement banks, etc. Each stage imposes different fees—including service charges, exchange rate spreads, and channel fees—driving up overall transaction costs.

According to World Bank data (2024), the average global cross-border remittance fee remains as high as 6.3%, and in some developing or emerging markets, it exceeds 10%. This "layered deduction" significantly compresses business profits and raises payment barriers for users. For example, a $500 remittance from the U.S. to the Philippines may only result in $460–470 arriving after multiple intermediary deductions, representing a 6–8% loss.

**PayFi solution:** Direct on-chain stablecoin payments reduce intermediaries and costs. By using stablecoins (e.g., USDC, PYUSD) as the payment medium, PayFi enables end-to-end peer-to-peer settlement via blockchain:

- **Disintermediated path:** Payments bypass traditional banks, card networks, or FX clearinghouses, avoiding layered fees.
- **Payment as settlement:** Transactions are confirmed and settled on-chain immediately upon initiation.
- **Ultra-low cost:** On-chain transaction fees are typically 0.1–0.5%, about one-tenth of traditional pathways, with no FX loss; a $500 transfer thus arrives as roughly $497.5–499.5.

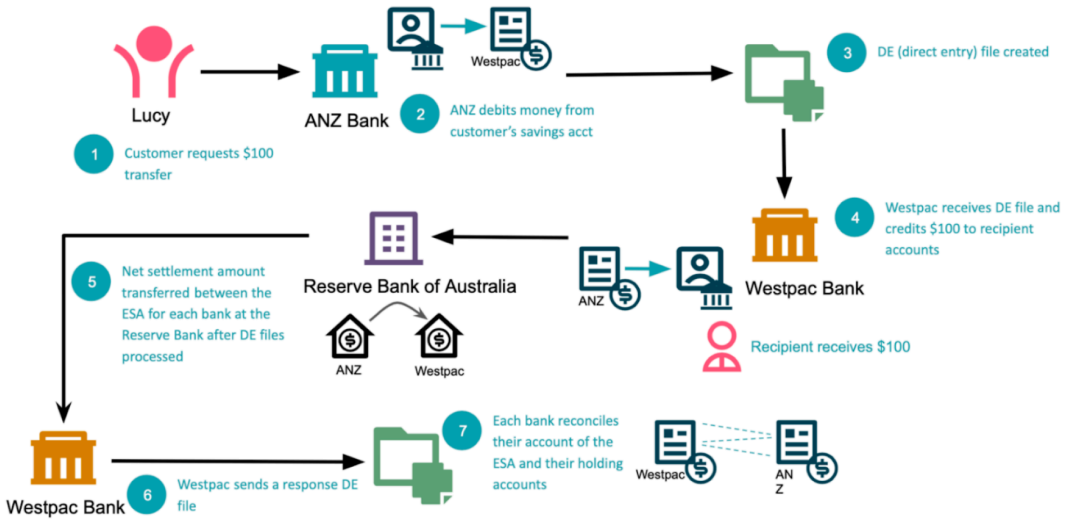
Figure 5: Global Cross-Border Transfer Costs



**Pain Point 2: Long settlement cycles reduce capital efficiency**

Traditional payment systems have settlement cycles of T+1 to T+3, with cross-border transactions often taking 2–5 days. This delay affects cash flow for cross-border sellers and freelancers and can result in missed business opportunities. For instance, a transfer from ANZ Bank to Westpac Bank may take up to three days from initiation to receipt.

Figure 6: Global Cross-Border Transfer Process

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**PayFi solution: T+0 settlement and maximized time value of money.**

Using stablecoins for peer-to-peer payments, PayFi achieves "payment equals settlement," eliminating traditional delays. Leveraging blockchain's global synchronized ledger, PayFi enables 24/7 continuous settlement, unaffected by time zones or holidays. With cross-chain protocols, assets can move between different blockchains in real time, and users can track fund flows instantly, improving efficiency and precision.

More importantly, PayFi efficiently unlocks the time value of money. Through smart contracts, users can manage and invest funds directly without intermediaries—participating in on-chain flash loans, installment payments, or automated investment strategies—allowing funds to immediately enter productive use upon receipt, maximizing returns and minimizing opportunity costs.

For example, considering a $1,000,000 fund with a 5% annualized return:

- **Traditional payment:** A 3-day cross-border transfer has an opportunity cost of $1,000,000 × (5%/365) × 3 ≈ $410.96;

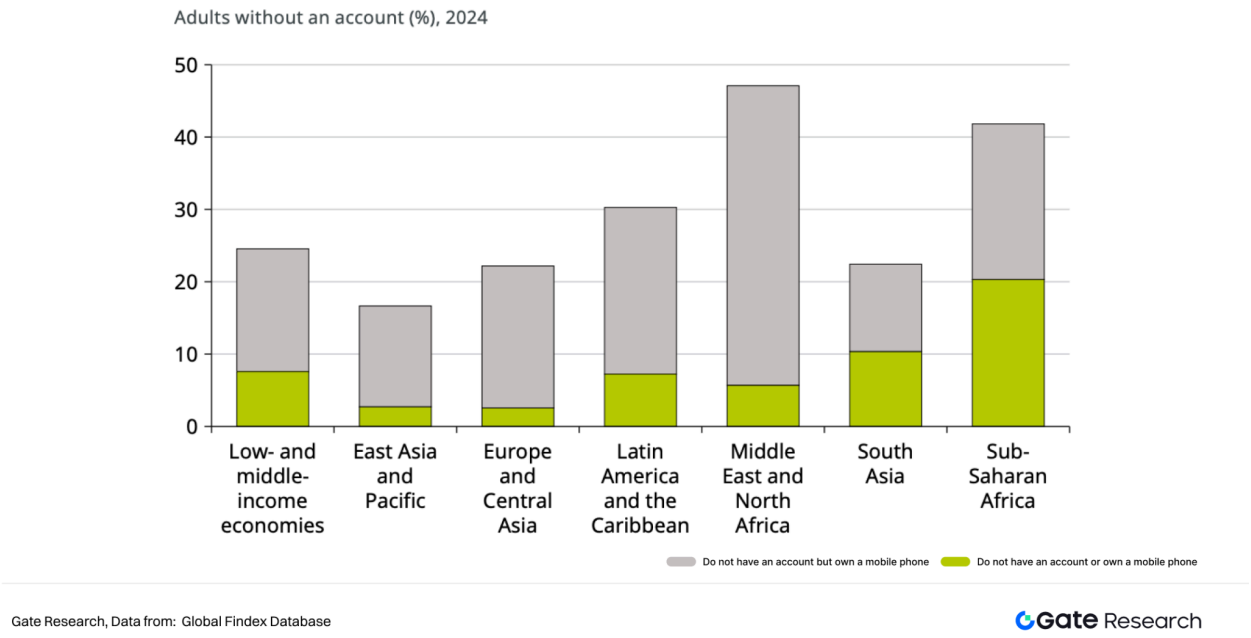
- **PayFi payment:** A 3-minute transfer has an opportunity cost of $1,000,000 × (5%/(1440*365)) × 3 ≈ $0.29.

PayFi reduces opportunity costs by over 1,400x, significantly enhancing capital efficiency and liquidity.

**Pain Point 3: Financial exclusion limits service coverage**

According to World Bank Findex data, around 32% of adults worldwide are unbanked, mainly in Africa, Latin America, Southeast Asia, and the Middle East. Users without a fixed address, stable income, or traditional credit history cannot register with banks, leaving them excluded from mainstream financial services. The account-centric model of traditional payments requires a bank account to participate, creating an almost insurmountable barrier for the unbanked.

Figure 7: Global Overview of Unbanked Adults




**PayFi solution:** Account-less access for global financial inclusion. Breaking the constraints of traditional accounts, PayFi lowers barriers and expands coverage:

- **On-chain direct payments:** A blockchain address alone suffices for sending and receiving funds.
- **Account abstraction + DID:** Combines decentralized identity (DID) with on-chain credit to establish a trust system without bank backing.
- **Mobile-first:** Enables “anytime access” via smartphones wherever network coverage exists.

## 3.2 How Is It Achieved? — PayFi's Implementation Path and Trust Foundations

In response to the challenges outlined above, PayFi positions itself as a hub platform, with technological transparency and regulatory compliance as its trust foundations, aiming to connect and integrate four key domains:

1. Traditional financial systems (banks, fiat settlement, compliance, and custody)
2. Crypto-native payment layer (stablecoins, on-chain settlement)
3. DeFi infrastructure (decentralized lending, liquidity, yield aggregation)
4. Real-world assets (RWA) and commercial applications (accounts receivable, credit financing)

PayFi's implementation is not a simple stacking of technologies but relies on three progressively layered core engines. These engines drive value exchange and creation across the four domains, forming the bedrock of PayFi's trust and efficiency.

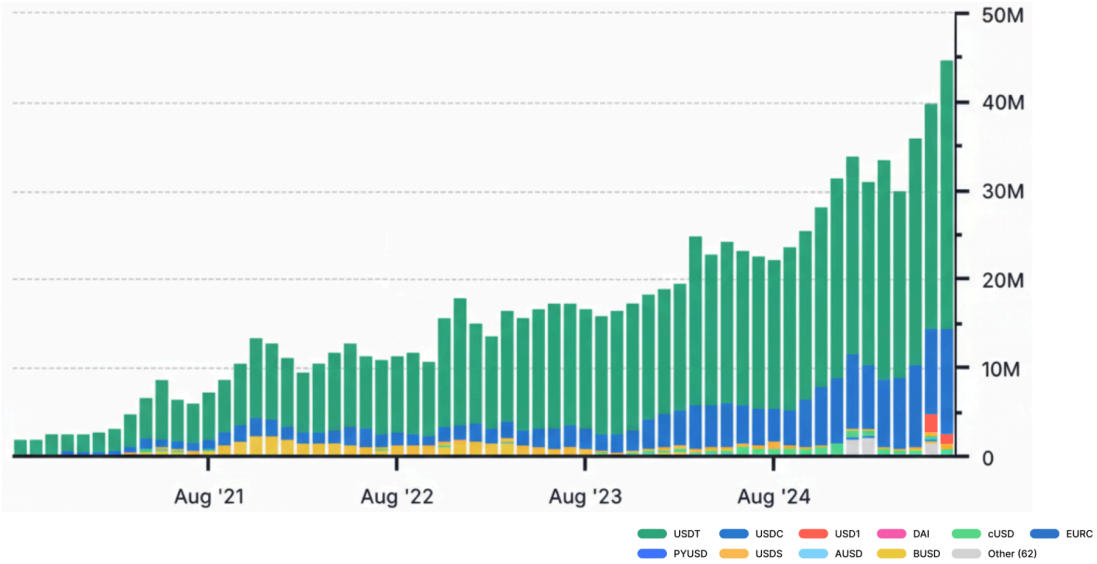
**Engine 1: Value Medium Engine — Stablecoins as the Basis for Frictionless Flow**

This is the foundational layer of PayFi, designed to address stability and efficiency in value transfer. By leveraging the most mature blockchain tools—stablecoins (e.g., USDC, PYUSD)—PayFi creates a "highway" connecting traditional assets with the on-chain world, serving three core purposes:

- **Value anchoring:** Provides a reliable accounting and settlement unit pegged 1:1 to fiat.
- **Global reach:** Enables near-zero-cost, 24/7 peer-to-peer value transfer worldwide.
- **Programmability:** Smart contracts automate, customize, and integrate payment instructions.

**Market confidence:** The rapid expansion of the stablecoin market provides a strong foundation for PayFi's growth. Monthly active addresses have surpassed 40 million, doubling since 2023. USDT maintains tens of millions of active addresses, while USDC continues a steady rise due to Layer 2 adoption and institutional use cases. Notably, Circle, the USDC issuer, successfully listed on the NYSE in June 2025, raising $1.1 billion, with a first-day stock surge of 168%, reinforcing market confidence in stablecoins and lending strong credibility to PayFi's stablecoin-based payment system.

Figure 8: Active Addresses of Different Stablecoins

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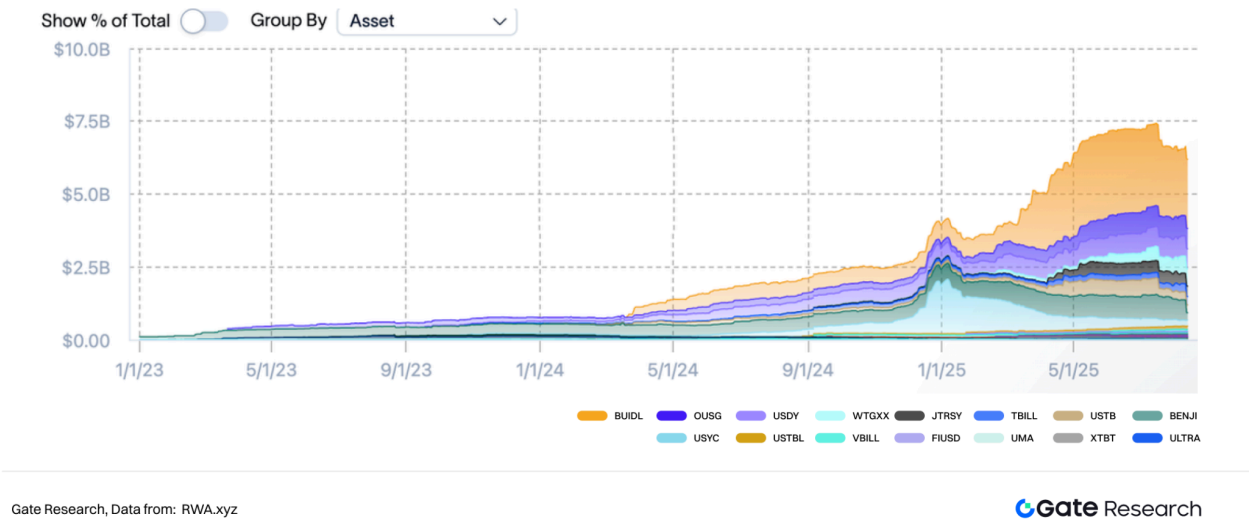
**Engine 2: Capital Efficiency Engine — Tokenized Assets to Make Payments Yield-Generating**

This is the transformative layer of PayFi and its key differentiator from traditional payments. PayFi views payments not as the endpoint of funds but as a stage for maximizing capital efficiency. This engine operates through two mechanisms:

**1. Yield-bearing payments: From “spending” to “earning while spending”**

- Core logic: Tokenizing low-risk, stable-yield traditional financial products (e.g., U.S. Treasuries) to create “interest-bearing payment tokens” like Ondo Finance’s USDY, disrupting the traditional idle or depreciating payment model. According to RWA.XYZ, Ondo’s U.S. Treasury RWA market (OUSG+USDY) totals $1.389 billion, with USDY at $688 million and recent APY around 4.29%.
- User experience: The payment instrument itself generates stable annualized yield (APY), meaning every second of holding funds before spending creates value.

Figure 9: Market Size of U.S. Treasury-Backed RWA Tokens




Gate Research, Data from: RWA.xyz

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**2. Payment-as-financing: From “have money first, pay later” to “on-demand liquidity”**

- Core logic: Tokenizing real-world assets (RWA) like accounts receivable or future income through protocols such as Huma Finance, turning them into on-chain liquid credit.
- Use case: Businesses needing cross-border payments no longer require large cash reserves. Tokenized receivables can serve as collateral for USDC credit lines, transforming future income into immediate payment capability.

Through this engine, PayFi elevates payments from simple value transfer to efficient capital operation, embedding composability and financial functionality into next-generation payments.

**Engine 3: Ecosystem Incentive Engine — Programmable Finance Driving New Business Models**

This is the application and expansion layer of PayFi. On top of an efficient, yield-generating payment network, PayFi enables innovative business models unimaginable under traditional financial frameworks.

**Reconstructing incentives: From platform subsidies to protocol revenue sharing**

Traditional incentives are centralized, opaque, and distributed via subsidies or points. PayFi’s programmable finance decentralizes incentive mechanisms, enabling protocol-level revenue sharing.

For example, in crypto trading, PayFi can aggregate retail trades via smart contracts, securing institutional-level rebates, and distribute the rewards fairly and transparently based on contribution. Payments and trading thus produce direct, measurable economic returns, transforming users from passive consumers into active value co-creators.

**Transforming ownership: From fixed subscriptions to on-demand, tokenized assets**

Traditional subscriptions often waste resources, with users paying for idle services. PayFi's programmability solves this by tokenizing unused service time or permissions. For instance, a user subscribing monthly but using only one week can sell the remaining access to others, turning payment from a fixed consumption action into a flexible, tradable asset and spawning new microeconomic models.

This engine demonstrates that programmable and composable payments are no longer an endpoint but a starting point for building new economic models and incentive structures, unlocking limitless possibilities for Web3-era commercial innovation.

## 3.3 Summary: From Transaction Endpoint to Value Starting Point

PayFi's disruption of traditional payments goes beyond cost and efficiency improvements. Leveraging blockchain's openness and composability, it creates a global, identity-neutral, highly liquid payment paradigm. It transforms "fee-based models" into "yield-based models," allowing idle user funds to earn interest in stablecoin protocols, which can offset or even subsidize transaction fees, reducing merchant costs and generating additional user value.

PayFi also advances financial inclusion, enabling billions worldwide to access finance with just a smartphone, particularly in emerging markets, supporting cross-border workers and SMEs with low-cost, efficient services. Furthermore, PayFi acts as a bridge between Web2 and Web3, offering open APIs and SDKs that allow Web2 platforms to integrate crypto payments while seamlessly connecting to the Web3 ecosystem.

Figure 10: Value Reconstruction under PayFi's Transformation Path

| Dimension | Traditional Payment Systems | PayFi Model |
|---|---|---|
| Account Structure | Bank accounts + central clearing | On-chain wallets + multi-asset accounts |
| Clearing Process | Multi-institution layered processing | Atomic on-chain clearing; payment = settlement |
| Monetary Instruments | Fiat currencies, bank cards | Stablecoins (USDT, USDC, USDY, etc.) |
| Economic Costs | High (fees + FX spreads; profitability relies on expensive fees and exchange margins) | Ultra-low, even negative (idle user funds generate yield to cover fees or even create net income) |
| User Value | One-off transfer: users are passive fund movers | Network participants: build credit via payments, share in yields and incentives |
| Merchant Role | Passive recipient | Active network node, engaged in yield and governance |

In short, PayFi transforms payments from a transaction endpoint into a starting point for asset creation and network participation. It breaks technical boundaries, challenges traditional financial institutions' centrality, and represents the ultimate evolution of future payment systems—a user-driven, asset-incentivized, on-chain value network.

# 4. PayFi Business Model and Phased Implementation Strategy

In the report *"Gate Research Institute: Beyond DeFi Summer — Is PayFi Summer Coming?"*, Gate Research Institute highlights that PayFi has demonstrated feasibility and achieved market validation across multiple use cases. Examples include:

- **Arf:** Provides on-chain liquidity solutions for financial institutions, achieving zero bad debts and up to 20% returns, demonstrating the model's potential.
- **Rain:** Offers USDC-backed corporate cards for Web3 teams, reshaping expense management.
- **Huma Finance:** Tokenizes accounts receivable to meet enterprise trade financing needs.
- **Sablier:** Implements real-time payments on a per-second basis via token streaming protocols.
- **Blackbird and Kast:** Deeply integrate Web3 payments with consumer loyalty and asset appreciation.

These cases collectively indicate that PayFi's business model can be summarized into four core revenue engines:

1. Transaction fees
2. Idle funds and yield-generating stablecoins
3. Professional financial services (e.g., liquidity pool management and FX hedging)
4. Infrastructure-as-a-Service (PaaS)

These four engines are not isolated but progressively interconnected: transaction fees generate initial cash flow; settlement and fund pooling create capital reserves; the pool optimizes yield and stability through risk management; and finally, these capabilities can be modularized and offered to support a broader B2B ecosystem.

Figure 11: PayFi's Four Core Revenue Engines

| Model | Core Logic | Representative Case | Charging / Revenue Model | Application Scenarios & Advantages |
|---|---|---|---|---|
| Model 1: Transaction Fee Revenue | High-frequency, thin-margin cash flow drives adoption | Beans App (Southeast Asia) | 0.1%–1% base fee + premium add-ons | SMEs, B2B2C markets; low fees create cost competitiveness |
| Model 2: Float Management + Yield-Bearing Stablecoins | Leverage settlement float for on-chain yield, creating win-win for platform & users | Ethena（sUSDE）、Ondo Finance（USDY） | Interest rate spreads; user yield covers fees | Payments become yield-generating, zero or negative cost; strengthens capital retention & platform stickiness |
| Model 3: Liquidity Pool Management + FX Hedging | Multi-layer pools + risk hedging; institutional-grade financial services | Celo、Fuse | Network fees + FX spread; SaaS-style treasury fees | Cross-border payments, volatile FX markets; boosts capital efficiency & resilience |
| Model 4: Infrastructure-as-a-Service (PaaS) | Modular SDK/API enables external enterprises & developers | PayPal USD, custom SDKs | Integration fees, subscriptions, rev-share | Payments-as-a-Service, Treasury-as-a-Service; exponential B2B2C expansion & ecosystem enablement |



# 4.1 Core Revenue Source: Transaction Fees

## 4.1.1 Core Logic: A High-Frequency, Low-Margin Cash Flow Engine

As a payment infrastructure, transaction fees represent PayFi's most fundamental and intuitive revenue source. Unlike traditional finance, which relies on multiple intermediaries to charge high fees, PayFi leverages on-chain settlement and the automation of smart contracts to significantly compress the payment chain. This enables a "high-frequency, low-margin" business logic: by offering highly competitive, low fees, PayFi attracts massive transaction volume, which cumulatively generates stable and continuously growing cash flow.

## 4.1.2 Market Positioning and Competitive Analysis

PayFi's fee model is designed to deliver a **"**dimension-reducing strike**"** against the existing payment market.

- **Against traditional payments (dimension-reducing strike):** Traditional giants such as Visa, Mastercard, or Stripe typically charge merchants fees in the range of 1.5%–3.5%. PayFi can compress this rate to 0.1%–1%. For a cross-border e-commerce business with $10 million in annual transactions, this translates to $150,000–$250,000 in annual savings—a decisive cost advantage.
- **Against existing crypto payments (cost optimization):** Compared with first-generation crypto payment providers charging around 1%, PayFi further optimizes base fees to 0.2%–0.5% by integrating more efficient Layer 2 networks and yield-generating stablecoins, solidifying its cost leadership within the Web3 ecosystem.

Figure 12: PayFi's Fee Model

| Benchmark | Fee Range | Characteristics | Business Value |
|---|---|---|---|
| Traditional Payments (Visa / Mastercard / Stripe) | 1.5% – 3.5% | High fees, heavy burden on merchants | $10M annual TPV → $150K–350K in fees |
| PayFi (Disruptive) | 0.1% – 1% | Ultra-low, suited for high-frequency / high-volume | $10M annual TPV → saves $150K–250K net profit |
| First-Gen Crypto Payment Providers | ~1% | Dependent on L1 networks; higher costs | Mostly single-asset settlement |
| PayFi (Optimized) | 0.2% – 0.5% | Integrates L2 + yield-bearing stablecoins to further cut costs | Within 3 years: 50,000+ merchants, $500M TPV, validating low-fee model |

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For example, Beans App's success in Southeast Asia validates the market potential. Beans App exemplifies the effectiveness of a low-fee strategy. In price-sensitive markets like Indonesia and the Philippines, it entered the small- and medium-sized merchant segment with rates of 0.5%–1%, coupled with convenient mobile wallet and POS integrations. Within three years, it quickly covered over 50,000 offline merchants and processed more than $500 million in transactions. This demonstrates that low-fee, stablecoin-based payments have strong demand and rapid expansion potential in specific markets.

### 4.1.3 Revenue Structure and Sustainability

PayFi's transaction fee model is not a single flat rate but a programmable, sustainable, dynamic system.

**Two-layer revenue structure:**

1. **Base payment fee:** A 0.1%–0.3% fee on transaction volume to maintain network operations and incentivize nodes.
2. **Value-added service fee:** Optional or subscription-based fees for advanced functions such as multi-currency settlement, instant clearing, invoice generation, and automated financial reporting, capturing value from mid-to-high-tier merchants.

**Intrinsic mechanism for sustainable growth:** This model's sustainability far exceeds that of traditional payments. Transaction fee revenue, managed through smart contracts, acts as "fuel" driving network growth, forming a self-reinforcing positive cycle:

- **Incentivizing ecosystem participation:** Part of the fees automatically flows into incentive pools for user rebates, payment gateway partner commissions, governance token buybacks, etc., enhancing network stickiness.

- **Reinvesting into core business:** Fees can subsidize initial rates on yield-bearing stablecoins, attracting more fund deposits and enabling higher-margin business models (see Section 4.2).

PayFi's fee model is not only the primary early-stage revenue source but also a strategic tool for achieving large-scale adoption, stimulating network effects, and laying the foundation for advanced business models. It transforms fees from a simple "charge item" into a self-driven payment network growth engine.

## 4.2 Capital Efficiency Engine: Unlocking the Value of Float

If transaction fees are PayFi's "cash flow engine," then value discovery from float represents its most disruptive "capital efficiency engine", building long-term competitive moats. This model transforms traditionally underutilized float in payments into a core profit source for both platform and users.

### 4.2.1 Core Logic: Awakening Dormant Capital

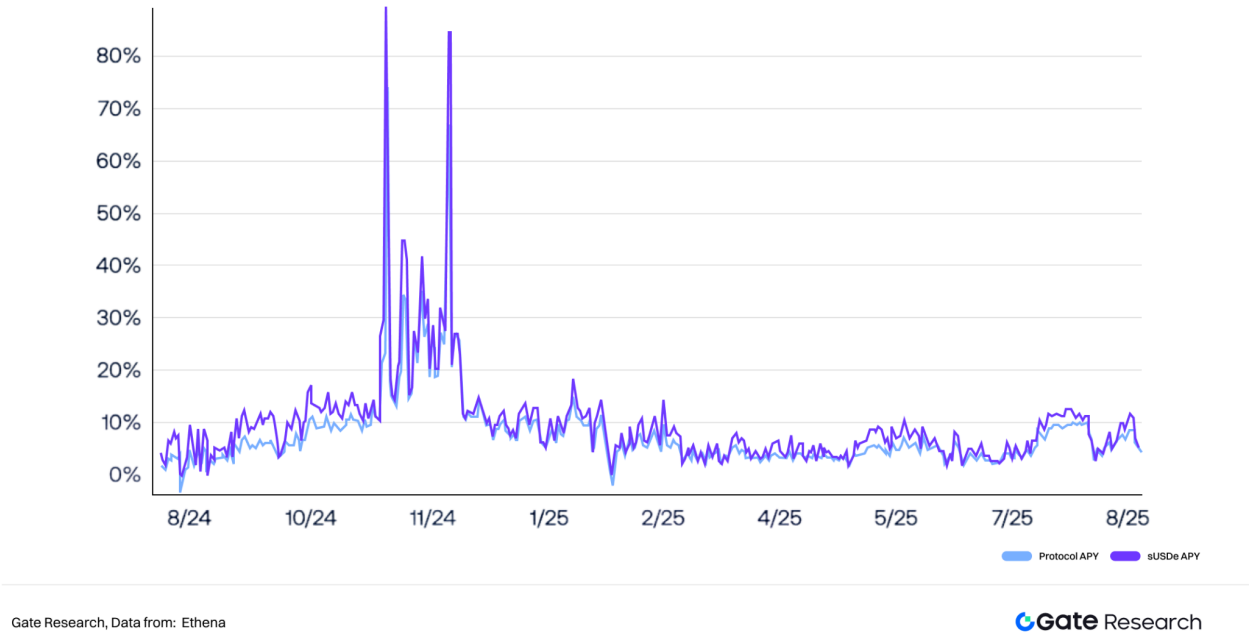
Every payment system naturally involves a settlement cycle, where funds temporarily sit on the platform between user payment and merchant receipt, forming settlement float. In traditional finance, this is a largely untapped goldmine. For example, PayPal historically maintained over $30 billion in customer balances on its 2023 balance sheet, earning only limited interest while the funds sat idle in banks.

PayFi's innovation lies in leveraging blockchain composability to redirect this "sleeping" float into high-efficiency, transparent on-chain yield protocols, awakening capital and generating value.

### 4.2.2 Implementation Path: Yield-Bearing Stablecoins

PayFi captures the value of float by integrating or issuing yield-bearing stablecoins. These stablecoins are essentially interest-earning on-chain USD assets, backed by U.S. Treasuries, high-grade money market funds, or DeFi positions hedged with delta-neutral strategies. Market examples include Ondo Finance's USDY and Ethena's sUSDE, which in 2025 environments can provide 5%–15% APY.

Figure 13: Ethena Protocol APY vs. sUSDe APY




**Operational mechanism:**

1. **Fund aggregation:** User payments or pre-deposited funds are automatically pooled in PayFi's smart contract fund pool.
2. **Yield generation:** Most of the pool's funds (while maintaining real-time payment liquidity) are allocated to audited, whitelisted yield-bearing stablecoin protocols or RWA vaults to earn on-chain returns.
3. **Value sharing:** Yield is distributed via smart contracts. Typically, 20%–40% is retained as platform revenue, and 60%–80% is returned to users and merchants as stablecoin appreciation or reward points.

### 4.2.3 Economic Model and Strategic Value

This model creates a powerful "value flywheel," benefiting both platform and users.

**For users/merchants:** Payments can be effectively zero-cost or even negative-cost when returned yields cover or exceed transaction fees, offering unparalleled incentives and encouraging users to keep funds on-platform.

**For the PayFi platform:** It builds a sustainable profit moat. The platform earns stable, high-margin revenue independent of transaction fees.

**Quantitative example:** Assuming $100 million in daily float with an 8% annual yield:

- **Annual total yield:** $100,000,000 × 8% = $8,000,000

- **Platform net revenue (30% share):** $8,000,000 × 30% = $2,400,000

This high-margin revenue not only covers operational costs but can subsidize transaction fees (Section 4.1), forming a closed-loop pricing advantage and further attracting users.

**Strategic moat formation:** This model transforms PayFi from a simple “Pay-as-a-Service” provider into a “Pay-as-a-Yield” platform, combining asset efficiency with closed-loop incentives to create a self-sustaining, profitable ecosystem without reliance on external financing—a rare and powerful competitive barrier in Web3.

# 4.3 Professional Financial Services: Fund Pool Management + FX Hedging

## 4.3.1 Core Logic: Evolution from Payment Platform to Financial Hub

As PayFi’s business scale—driven by models 4.1 and 4.2—reaches tens or even hundreds of billions of dollars, its challenge evolves from “how to process payments” to “how to professionally manage a large, cross-chain, multi-currency fund network.” Building a set of institutional-grade financial services is therefore both necessary for ensuring platform security and stability, and constitutes PayFi’s third core business model.

At its core, this model packages internal fund management capabilities into high-value services for B2B clients and the broader ecosystem.

## 4.3.2 Core Service Modules

PayFi’s professional financial services are structured around **three key modules**:

**1.Intelligent Liquidity Management**

To address payment efficiency across multiple chains and scenarios, PayFi has developed a **complex, intelligent liquidity management system**:

- **Multi-layer fund pool architecture:** Rather than a single pool, PayFi designs layered pools to balance efficiency and risk.
    - **Hot wallet layer (real-time payment pool):** Deployed on high-performance Layer 2 networks, handling daily high-frequency, small-value instant payments to ensure superior user experience.
    - **Warm wallet layer (liquidity buffer pool):** Deployed on the main chain or cross-chain bridges, serving as a reserve for the hot wallet layer, accommodating transaction peaks and multi-chain rebalancing.
    - **Cold wallet layer (asset yield pool):** The largest fund pool, integrated with yield-bearing RWA and DeFi protocols (model 4.2), focused on long-term, low-risk capital appreciation.

- **Smart routing and aggregation:** Integrates cross-chain aggregators such as Uniswap X and Socket to automatically find optimal, low-slippage paths for cross-chain payments and exchanges, reducing cross-border FX costs by 30%–50%.

**2.Institutional-Grade Risk Hedging**

In volatile crypto and FX markets, risk management is a top priority for institutional clients.

- **Stablecoin de-peg hedging:** To mitigate the risk of stablecoin de-pegging, PayFi uses delta-neutral hedging strategies similar to Ethena, establishing offsetting positions in derivatives markets to maintain asset stability even under extreme conditions.
- **Fiat FX risk management:** For global merchants receiving multiple fiat currencies, PayFi offers automated FX hedging tools to lock in profits and avoid exchange rate losses.

**3.Transparency & Compliance Framework**

To earn the trust of large enterprises and financial institutions, PayFi adheres to the highest standards of transparency and compliance:

- **Proof-of-Reserves:** All fund pools are managed via on-chain smart contracts and undergo regular third-party audits, providing real-time, verifiable proof of reserves.
- **Whitelisted asset management:** Only assets approved through compliance review (e.g., SEC-registered RWAs) are allowed in the cold wallet layer, preventing black/grey-market risk.
- **Regulatory API interfaces:** Partners and regulators can access real-time monitoring of fund flows and receive risk alerts.

## 4.3.3 Value Proposition and Revenue Model

This model enhances PayFi's stability and opens a new B2B revenue stream.

- **Internal value:** Greatly improves platform risk resilience and capital efficiency, stabilizing yields from model 4.2.
- **External revenue (Treasury-as-a-Service):** PayFi can offer its mature fund management and risk control capabilities to DAOs, Web3 projects, crypto funds, and fintech companies managing digital assets.

**Quantitative example:**

- Managing $1 billion in assets for external institutions at 0.1% annual management fee generates $1 million in high-margin, sticky SaaS-style revenue.
- If handling $50 million in daily multi-currency settlements, capturing an additional 0.05% via arbitrage and optimization yields nearly $10 million annually.

# 4.4 Ecosystem Enablement: Platform-as-a-Service (PaaS)

## 4.4.1 Core Logic: From Proprietary Platform to Industry Standard

This represents the ultimate stage of PayFi's business model, signifying a strategic upgrade from a proprietary payment platform to an industry-enabling value protocol. Once PayFi's payment, asset management, and risk control capabilities (models 4.1–4.3) are market-validated and mature, the most efficient growth strategy is not to acquire every client individually, but to productize and modularize these core capabilities for the broader market.

- Strategic positioning: Inspired by Banking-as-a-Service (BaaS), PayFi aims to become the Payments-as-a-Service (PaaS) infrastructure for the Web3 era.
- Competitive landscape: Unlike closed ecosystems built by giants like PayPal USD, PayFi adopts an open, composable strategy, seeking to empower all apps rather than becoming a single payment app.
- Paradigm shift: Moves from Transaction-as-a-Service to Function-as-a-Service.

## 4.4.2 Core Products: Modular Functional Components

PayFi decomposes its complex backend into plug-and-play modules accessible via APIs and SDKs:

- **Account Abstraction Module:** Allows users on partner platforms to control on-chain wallets via email, phone, or social accounts, enabling Web2-like seamless payments.
- **Multi-Chain Clearing Module:** Provides instant cross-chain asset conversion and payment capabilities, abstracting technical complexity.
- **Merchant Settlement Module:** Offers customizable financial reports, automated tax compliance, and multi-party revenue sharing.
- **Web2 Bridge Module:** Standard interfaces for POS terminals, web payment plugins, or mobile apps, seamlessly connecting traditional and Web3 payment networks.

## 4.4.3 Target Market and Value Proposition

PaaS targets a broad spectrum of institutions:

- **Traditional financial institutions (banks, payment companies):** Quickly deploy stablecoin payments and digital asset services without heavy R&D.
- **SaaS and e-commerce platforms:** Enable thousands to millions of merchants to accept global stablecoin payments with one click.
- **Web3-native apps (DApps):** Offload complex payment and economic model building, focusing on core business.

**Core value:** Significantly lowers innovation barriers, shortens go-to-market timelines (from years to weeks), and provides compliant, continuously updated infrastructure.

### 4.4.4 Revenue Model and Growth Flywheel

**Diversified revenue structure:**

- Setup fees for initial integration.
- SaaS-style license fees: Monthly/annual service fees based on API usage, service tier, or active merchants.
- Revenue sharing: A percentage of transaction volume processed via PayFi infrastructure.

**Exponential growth flywheel:** PaaS leverages B2B2C network effects.

**Quantitative example:** Serving one enterprise SaaS client with 100,000 merchants instantly exposes PayFi's payment network to these merchants and millions of end consumers, enabling exponential growth in users and transaction volume.

**Conclusion:** PaaS represents the apex of PayFi's business model. It consolidates capabilities from the first three models—payment processing, capital efficiency, and risk management—into a scalable, replicable core asset. By empowering a broader ecosystem, PayFi creates a closed-loop value chain spanning payments, financial value-add, and technology output, extremely difficult for competitors to surpass.

## 4.5 Summary: Phased Implementation of the PayFi Business Model

Based on the four core business models—transaction fees, fund float, professional financial services, and infrastructure output—PayFi's 1–3 year implementation roadmap adopts a three-phase progressive strategy, ensuring steady development from foundational operations to full ecosystem enablement.

Figure 14: PayFi's Three-Stage Progressive Rollout Strategy

| Stage | Timeline | Core Tasks | Involved Business Models | Milestones |
|---|---|---|---|---|
| Stage 1 | Within 1 year | Build core cash flow & user base | Transaction Fees (4.1), Float + Yield Stablecoins (4.2) | First batch of active merchants onboarded; initial yield from settlement float |
| Stage 2 | Next 1–2 years | Expand financial services & API capabilities | Professional Treasury (4.3), Infrastructure-as-a-Service (4.4) | Provide treasury/payments infra for enterprises; exponential growth in TPV & revenue sources |
| Stage 3 | Next 2–3 years | Become core infrastructure & ecosystem enabler | Professional Treasury (4.3), Infrastructure-as-a-Service (4.4) | Recognized as Web3 payment standard; modular components integrated by hundreds of enterprises; fully self-sustaining payment ecosystem |



**Phase 1 (Next 1 Year): Build Core Cash Flow and User Base**

**Core Task:** Focus on early deployment of Model 4.1 (transaction fees) and Model 4.2 (fund float & yield-bearing stablecoins), establishing the platform's dual-engine growth system and achieving the 0-to-1 breakthrough.

**Key Actions:**

- **Launch MVP:** Deploy a payment app or web plugin supporting on-chain stablecoin payments, targeting a specific market (e.g., Southeast Asian SMBs or Web3-native communities) and attract initial high-frequency users with fees as low as 0.1%–0.3%.
- **Integrate yield-bearing stablecoins:** Seamlessly incorporate USDY, sUSDE, and other yield-generating stablecoins, enabling users to earn interest while paying, reinforcing the "payment-as-yield" concept, and starting to accumulate settlement float.
- **Market validation & data accumulation:** Rapidly establish B2B2C partnerships with e-commerce SaaS, crypto wallets, or offline POS providers to validate the low-fee model and collect real transaction data.

**Milestones:** Onboard the first 10,000 active merchants, achieve $1 million daily transaction volume, and begin generating meaningful interest income from settlement float.

**Phase 2 (Next 1–2 Years): Expand Financial Services and API Capabilities**

**Core Task:** With a stable cash flow and user base, shift the focus from "processing payments" to "managing funds", preparing for Model 4.3 (professional financial services) and Model 4.4 (infrastructure output).

**Key Actions:**

- **Build multi-layer fund pools and risk systems:** Using capital accumulated in Phase 1, gradually implement layered fund pools (hot, warm, cold wallets) and introduce institutional-grade hedging and clearing mechanisms for larger-scale fund management.
- **Launch developer APIs and SDKs:** Modularize core capabilities such as payment, settlement, and yield management for external developers and enterprises to integrate.
- **Acquire high-value B2B clients:** Partner with fintech companies, DAOs, and large e-commerce platforms as initial recipients of infrastructure services, charging integration or subscription fees.

**Milestones:** Successfully provide treasury management or payment infrastructure to 3–5 B2B clients, achieving exponential growth in transaction volume and revenue streams.

**Phase 3 (Next 2–3 Years): Become Industry Infrastructure and Ecosystem Enabler**

**Core Task:** Consolidate PayFi's industry leadership, evolving from a successful platform into a widely adopted industry standard and infrastructure provider.

**Key Actions:**

- **Deep productization:** Convert all core capabilities into Treasury-as-a-Service and Payments-as-a-Service, offering white-label solutions.
- **Continuous innovation:** Explore integration with AI, zero-knowledge proofs, and other advanced technologies to develop forward-looking features such as AI-based credit scoring and privacy-preserving payments.
- **Build developer ecosystem:** Host hackathons, provide funding support, and encourage third parties to build innovative applications on top of PayFi, generating strong network effects.

**Milestones:** PayFi becomes one of the standard protocols in Web3 payments, with modular components integrated by dozens or even hundreds of enterprises and projects, forming a complete, self-sustaining payment ecosystem.

Through these three phases, PayFi gradually evolves from a micro-fee, high-frequency payment tool into a platform capable of providing high-value financial services, ultimately becoming a robust ecosystem enabler and industry infrastructure provider.

# 5. Opportunities and Challenges

The PayFi sector is currently in a golden window of opportunity, driven jointly by technological innovation and market demand. It addresses a global payments market worth trillions of dollars, whose underlying infrastructure is facing structural pressure due to inefficiency and high costs. This chapter will use a three-layer funnel model—TAM, SAM, and SOM—to estimate PayFi's potential market size, followed by an analysis of the core challenges and risks it faces.

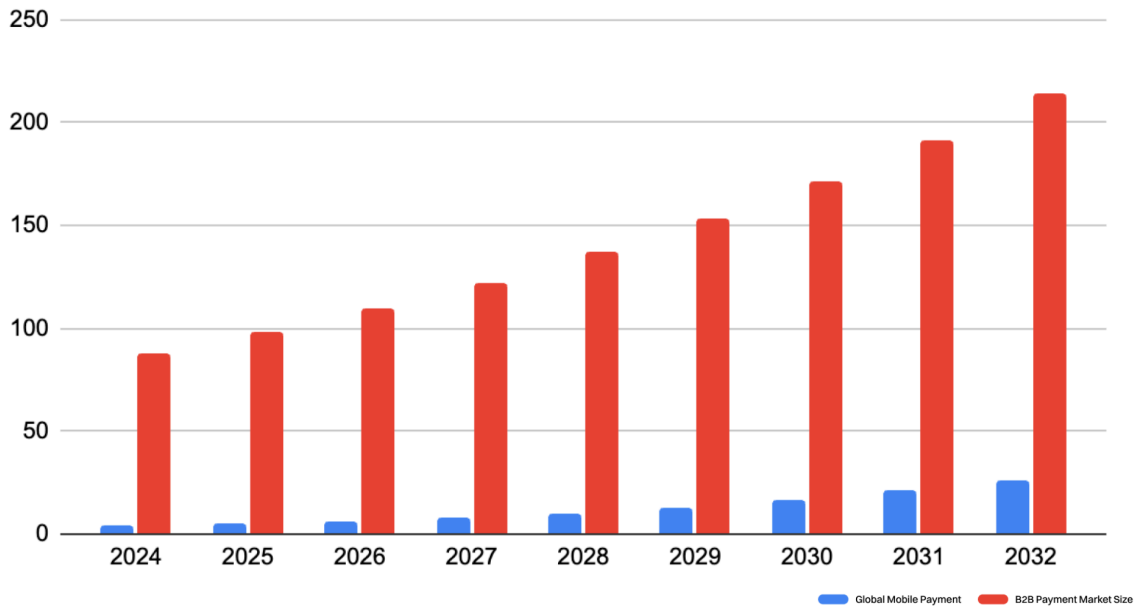
# 5.1 Estimating PayFi's Potential Market: A Trillion-Dollar Opportunity

## 5.1.1 TAM (Total Addressable Market): Macro Opportunities in Global Payments

PayFi's Total Addressable Market (TAM) covers the entire global payments network, a vast ecosystem supported by tens of trillions of dollars in transaction volume, with significant profit potential. According to Fortune Business Insights, the global mobile payments market reached $3.84 trillion in 2024 and is projected to grow from $4.97 trillion in 2025 to $26.53 trillion by 2032, representing a CAGR of 27.0%. The Asia-Pacific region held 45.31% of the market in 2024, while the U.S. market is expected to reach $56.6 trillion by 2032.

Meanwhile, the global B2B payments market reached $87.98 trillion in 2024, projected to grow from $97.88 trillion in 2025 to $213.28 trillion by 2032, at a CAGR of 11.8%. Compared to consumer payments, the B2B market is larger, more complex, and incurs higher friction costs—highlighting the opportunity for PayFi to improve efficiency using stablecoins and on-chain settlement.

Figure 15: Global Mobile Payment & B2B Payment Market Size




Gate Research, Data from: Fortune Business Insights

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However, the true driver of industry profits is not transaction volume alone, but service revenue derived from payment flows. In traditional networks, cross-border settlement, currency exchange, fees, and multi-layer intermediaries collectively create trillions in profit potential. For

example, Stripe processed $1.4 trillion in payments in 2024, a 38% YoY increase, representing 1.3% of global GDP, highlighting a fast-growing incremental market.

Even if cryptocurrency payments initially capture a small share of the predicted $26.53 trillion global digital payments market by 2032, the potential remains enormous:

- **Conservative estimate (0.1% penetration):** ~$26.53 billion market opportunity
- **Neutral estimate (0.5% penetration):** ~$132.65 billion
- **Optimistic estimate (≥1% penetration):** Potentially several hundred billion dollars

In summary, PayFi's TAM can be clearly defined: by 2032, tens of trillions in annual transaction volume could support a potential trillion-dollar service revenue pool. PayFi's true opportunity lies not only in processing transactions but in optimizing cost structures and reshaping the payment value chain to capture this trillion-dollar profit pool.

### 5.1.2 SAM (Serviceable Available Market): PayFi's Core Addressable Segments

PayFi's strategy is not to immediately replace the entire payments ecosystem, but to focus on high-cost, low-efficiency segments within the TAM where pain points are most pronounced. In these areas, traditional finance has structural shortcomings, whereas PayFi's blockchain and stablecoin-based approach can deliver 10× better experience. These strategic segments collectively form PayFi's Serviceable Available Market (SAM).

**Three core target segments:**

1. **Cross-Border Payments & Trade Finance:**The largest and least efficient part of the payments market, forming PayFi's primary target. According to EY (early 2025), global cross-border transaction flows reached $190.1 trillion in 2023, with a CAGR of ~9%, expected to reach $290 trillion by 2030. Globalization and expanded use cases create strong demand, making cross-border payments a highly competitive licensed market.
2. **Global Gig and Creator Economy:**Over 150 million workers, with annual payments exceeding $400 billion. Traditional banks charge 6–8% fees for high-frequency, small cross-border payments, offering PayFi a strong entry point.
3. **Web3 Native Economy:**Includes GameFi, DeFi, DAOs, and other decentralized scenarios that require a highly efficient, programmable on-chain payment layer. DeFi alone has TVL exceeding $148 billion, with stablecoins serving as the core settlement medium. By 2025, global stablecoin market cap surpassed $260 billion, growing ~50× since 2019, providing a solid foundation for this segment.

Based on these stablecoin-driven segments, PayFi's SAM is estimated at 8–10% of cross-border payment flows, translating to $25–30 trillion in annual transaction volume. Unlike TAM, SAM represents the realistic market PayFi can compete for using its differentiated advantages.

### 5.1.3 SOM (Serviceable Obtainable Market): Actual Accessible Market and Revenue Forecast

SOM estimates the market share and revenue potential PayFi can realistically capture within a defined timeframe, based on its GTM strategy, competitive advantages, and adoption speed.

**Core assumptions:**

- **Target market:** Focus on the SAM defined in Section 5.1.2, with annual transaction flows exceeding $25 trillion.
- **Market penetration strategy:** “Beachhead” approach, initially concentrating on cross-border, gig economy, and Web3-native segments to achieve non-linear user growth.
- **Penetration growth:** Considering Web3 applications’ >60% CAGR and rapid stablecoin adoption, PayFi is expected to achieve 0.5–1.5% penetration in its core SAM over the next 3–5 years.

**Dual-layer revenue structure:**

- **Transaction Fees (Take Rate):** Average platform fee of 0.3%
- **Capital Efficiency Income (Yield Spread):** TVL to annual TPV ratio ~1:20; net yield on float ~5%

**Revenue forecast model:**

$$\text{Annual Platform Revenue} = (\text{TPV} \times 0.3\%) + (\text{TVL} \times 5\%)$$

**Key financial projections for the next three years:**

Figure 16: PayFi’s Core Financial Metrics Forecast (Next 3 Years)

| Metric | 2026 年 | 2027 年 | 2028 年 |
|---|---|---|---|
| Serviceable Obtainable Market (SOM) | 0.50% | 1.00% | 1.50% |
| Annual Total Processed Volume (TPV) | $125B | $250B | $375B |
| Float / TVL | $6.25B | $12.5B | $18.75B |
| Transaction Fee Revenue | $375M | $750M | $1.125B |
| Capital Efficiency Revenue | $313M | $625M | $938M |

The SOM analysis clearly highlights PayFi's immense growth potential. Forecasts indicate that, in the mid-term (3–5 years), PayFi has the capability to evolve into a fintech giant handling hundreds of billions in transactions and generating tens of billions in revenue.

## 5.2 Policy and Technology Opportunities for PayFi

PayFi's rise is driven not only by market demand but also by the dual tailwinds of clearer regulatory frameworks and continuous underlying technological innovation. As Gate Research Institute noted in *"Beyond DeFi Summer: Is PayFi Summer Coming?"*, the three core catalysts for PayFi's growth are: macro regulatory environment, technological infrastructure, and user experience optimization.

**Policy Opportunities: Stablecoin Compliance and Mainstream Adoption**

The foremost policy tailwind for PayFi is the gradual maturation of stablecoin regulatory frameworks and the growing acceptance of stablecoins by mainstream finance.

- Global compliance frameworks are emerging: The Financial Stability Board (FSB) and Basel Committee on Banking Supervision (BCBS) have issued global regulatory principles for stablecoins, providing unified references for national regulators. In the U.S., the GENIUS Act provides federal-level legal certainty for stablecoin operations, opening the door for PayFi to integrate deeply with traditional financial systems.
- Regional legislation is being implemented: The EU's Markets in Crypto-Assets Regulation (MiCA) and Hong Kong's Stablecoin Bill draft have come into effect, providing clear regulatory boundaries and compliance paths for PayFi's business expansion in key markets.

These policy shifts enhance the legitimacy of stablecoin payments, transitioning stablecoins from "regulatory gray-area assets" to mainstream payment instruments, positioning PayFi at a critical policy inflection point for large-scale adoption.

**Technology Opportunities: Comprehensive Infrastructure Upgrades**

Rapid technological evolution provides a strong foundation for PayFi's scaling.

- Layer-2 Ethereum and high-performance blockchains improve throughput and reduce transaction costs, making on-chain payments competitive with traditional networks.
- Modular tools like Rollup-as-a-Service lower development barriers for customized payment solutions.
- Wallet innovations—such as Account Abstraction (AA)—enable gasless payments, social recovery, and embedded wallets, allowing users to experience "frictionless payments" without understanding blockchain.

- Cross-chain protocols (e.g., IBC, CCIP) break liquidity silos between chains, enabling seamless multi-chain fund flows and supporting PayFi's cross-border settlement and multi-asset payments.

In combination, regulatory clarity lowers entry barriers, while technological upgrades enhance usability. Together, they pave a fast-track path for PayFi to evolve from a niche payment tool to mainstream payment infrastructure.

## 5.3 Challenges and Risks

Despite vast market opportunities, PayFi must confront three core challenges to realize its potential:

**Regulatory Legitimacy vs. Decentralization:**PayFi operates in sensitive areas, including payment clearing, cross-border transfers, and stablecoins, placing it under regulatory scrutiny. Although global frameworks are improving, laws remain fragmented and uncertain, and overly strict or delayed regulation could stifle innovation, raise compliance costs, and limit decentralization. PayFi must integrate compliance modules from product design and pursue a multi-jurisdictional licensing strategy to balance legality and technological innovation.

**Security and Risk Management:**As a blockchain-based financial infrastructure, PayFi faces unique security and operational risks. Beyond smart contract vulnerabilities and cross-chain bridge attacks, PayFi's operations involve complex off-chain processes, such as trade financing verification and offline performance witnesses, increasing demands on credit risk management. Robust security audits and multi-layered risk mitigation plans are essential to ensure both on-chain and off-chain ecosystem stability.

**User Onboarding Barriers:**Due to regulatory compliance, most PayFi projects currently require high KYC and investment thresholds, targeting institutions and high-net-worth individuals. While this simplifies early operations, scaling requires reducing user barriers to reach broader retail markets.

For PayFi, compliance underpins growth, risk management ensures stability, and user accessibility enables scale. Regulatory uncertainty determines whether it can operate legally, security and technology determine whether it can function reliably, and user thresholds determine whether it can expand rapidly.

# 6. Conclusion: PayFi — The Ultimate Evolution of Crypto Payments

Over the past decade, crypto payments have struggled between idealism and reality. Early attempts using volatile assets like BTC and ETH as settlement media suffered from low efficiency, high costs, and poor user experience, limiting merchant adoption. Stablecoins (USDT,

USDC) improved usability but remained largely confined to on-chain transactions and arbitrage, falling short of true payment utility.

PayFi's emergence is the inevitable outcome of technology, market demand, and regulatory evolution converging. Its decentralized, efficient, and low-cost on-chain payment system addresses longstanding inefficiencies in traditional payments and drives an unprecedented paradigm shift. By transforming "fee-based models" into "yield-driven models" and "transaction endpoints" into "value starting points", PayFi is reshaping the underlying logic of global payments.

Although regulatory, security, and user-access challenges remain, its unique business model and growth potential position PayFi as a critical bridge between digital and real-world finance. The future PayFi network will be open, inclusive, and efficient, evolving into a new global value-transfer infrastructure.

**Key dimensions of this transformation:**

1. **From "on-chain payable" to "on-chain usable":**Emphasizes composable, embeddable stablecoin payments integrated into Web2, Web3, and TradFi scenarios.
2. **From "on-chain transfers" to "payment experience":** Leverages gasless payments, account abstraction, and stablecoin abstraction to deliver Web2-like frictionless interactions, eliminating wallet, gas, and transaction parameter barriers.
3. **From "payment tool" to "financial network":** PayFi functions not only as a payment channel but as a full-stack financial system with revenue-generating capabilities, settlement, and hedging. Its fund pools, yield-bearing stablecoins, liquidity aggregation, and risk management modules form a "payments-as-asset-management" ecosystem.
4. **From "technology experiment" to "scenario integration":**Early projects remained technology-driven, struggling with adoption. PayFi actively integrates with real-world scenarios (e-commerce, gig economy platforms, games, wallets) via white-label solutions, SDKs, and APIs, achieving end-to-end integration from protocol to application.

Thus, PayFi's future is not merely a payment tool—it is a financial platform, pushing crypto payments toward next-generation financial infrastructure:

- User experience: faster, cheaper, more transparent
- Underlying architecture: more modular, global, and financially native
- Economic model: upgraded from "fee-driven" to "compound-yield-driven"

Ultimately, PayFi's goal may not be to replace Visa, but to become the operating system of the next-generation financial internet.

Author: Ember

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