
# RESEARCH:

# U.S. PAYMENTS INDUSTRY UPDATE 2025

PHOENIX MERCHANT PARTNERS

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## Summary

Building on our October 2023 whitepaper on the U.S. payments industry, this analysis reviews the sector's evolution in the context of technological innovation and regulatory developments. We highlight the increasingly central role of digital wallets, secured through tokenization, as trusted hubs for identity authentication, payment authorization, and potentially the custody and transfer of digital assets. The report covers the following aspects:

1. Brief sector update covering revenue outlook, key growth drivers and potential macroeconomic headwinds
2. Overview of ecosystem advancements, outlining the potential of digital wallets to serve as foundation for "super apps" that cover all dimensions of digital services.
3. Pay-by-bank rails, enabled by wallet/tokenization technology and open-banking access, however constrained by inconsistent user experience
4. Trends in B2B and sector specialized payment applications, focusing on working capital financing and P&C insurance

We conclude that advances in payment technology continue at pace, reinforcing the sector's strategic importance to Phoenix, both as a source of investment opportunities with middle-market participants and as an enabler of data-driven underwriting and risk monitoring.

## U.S. Payments Industry – Sector Update

With transaction volumes exceeding $130 trillion annually[1], even small shifts in how payments are delivered can have a significant impact on entire sectors of the economy.

### Macro Trends and Outlook

In 2023 the U.S. payments industry generated a revenue pool of **~$700 billion**. Revenue grew around 7% annually from 2018 to 2024, supported by continued consumer and commercial transaction digitization and higher interest rates. Current projections[2] indicate lower ~5% growth in coming years, with revenue reaching $900 billion by 2028.

**North America Payment Revenue**

| *FY 2023* | Cross-border | Account NII[1] | Domestic Fees[2] | Credit Cards |
|---|---|---|---|---|
| Commercial Payments | $42bn | $70bn | $56bn | $77bn |
| Consumer Payments | $21bn | $63bn | $105bn | $266bn *(NII: ~3/4)* |

[1] Net interest income on current (checking) accounts and overdrafts
[2] Fee revenues on domestic payment transactions and account maintenance (excl. credit cards)

Net interest income accounts for ~47% of the total payments revenue pool, but its growth is expected to slow. This reflects margin compression, as interest rates have likely peaked and deposit growth continues to decline amid a shift toward higher-yield products[1].

Transaction revenue growth is also projected to decelerate[3], slowed by weaker GDP and consumer spending, a continued shift to lower-margin (A2A) payment rails, and regulatory pressure on interchange fees. Structurally, the long-term move from cash to digital payments is reaching a mature phase.

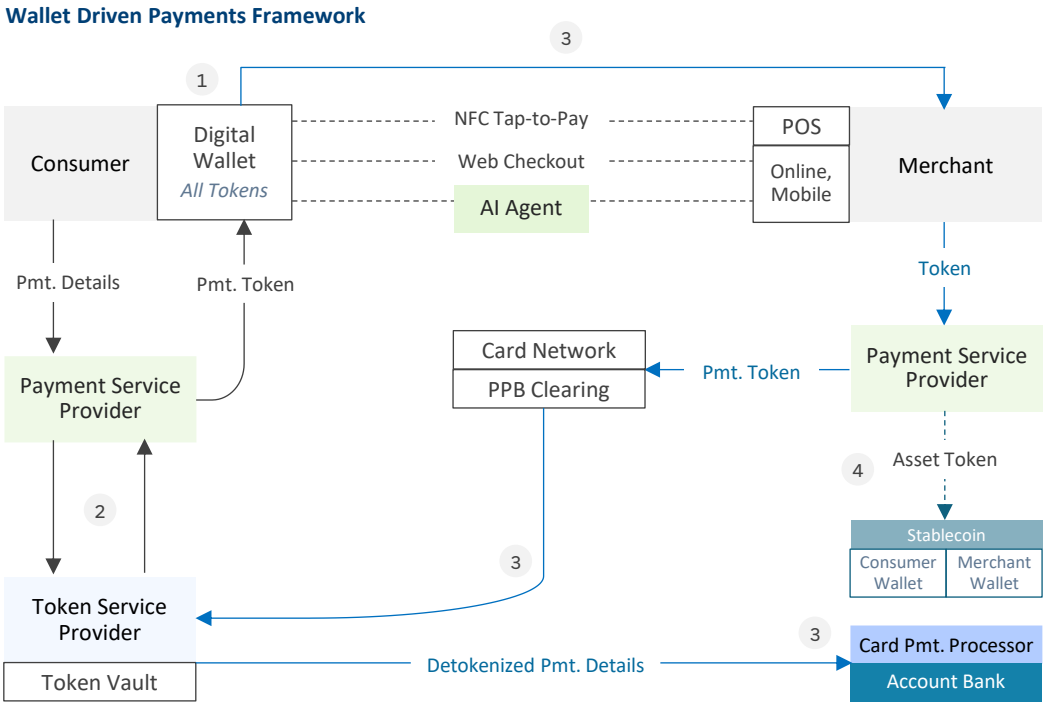
[1] Federal Reserve Payments Study, Mar-2025
[2] McKinsey: "2024 Global Payments Report", Oct-2024
[3] BCG: "Global Payments Report 2024: Fortune Favors the Bold", Oct-2024

## Evolution of the Payments Ecosystem

Driven by tokenization technology and the central role of digital wallets, the payments ecosystem is undergoing transformation.

Digital wallets integrate payment methods, identity, and authorization into a single application, enabling a wide range of use cases. This model is well established in Asia for over a decade, through "super apps" like WeChat and Alipay. It has the potential to become the consumer's central hub, unlocking innovation across payments, such as tap-to-pay, agent-driven transactions, pay-by-bank and stablecoin-based payments.

**Figure 1 –** For Illustrative Purposes Only




Source: Phoenix Merchant Partners

| | Framework Components |
|---|---|
| Digital Wallet<br>1 | A digital wallet integrates three core functional layers:[4]<br>– **Authentication and Authorization**: Tap-to-enter (ticketing) and tap-to-pay via NFC access points are established authentication use cases. Apple's decision to open its NFC chip to 3rd-party apps in Aug-2024 is expected to accelerate innovation in the space.<br>– **Payment Methods**: A single wallet provides access to multiple payment rails, creating a "super rail" that functions as branded checkout. For example, Apple Pay currently supports credit cards, debit cards, BNPL options, and P2P payments.<br>– **Identity:** A standardized, tamper-proof government-issued identity (e.g. driver's license). With *Real-ID*, the U.S. Government has a *Public Key Infrastructure* standard that any wallet can use. |

[4] Fintech Brainfood: "Wallet Wars: The Battle for Your Digital Life", Nov-2024

| | |
|---|---|
| Tokenization 2 | A token is a unique, randomly generated value that replaces sensitive information during transactions. Tokenization enhances security by ensuring the actual details are never exposed during processing.<br>Tokens reside in digital wallets and represent a variety of sensitive data types[5], such as:<br>– Credit or debit card numbers (PANs)<br>– Bank account details, especially in Pay-by-Bank or open banking applications<br>– Digital assets, such as stablecoins enabling instant transfer and settlement<br>– Personal data, including dates of birth or identity credentials<br>Tokens are issued by Token Service Providers (TSPs) operating in compliance with stringent PCI Data Security Standards. The mapping between token and original payment data is stored in a secure, encrypted database known as a Token Vault, managed by the TSP. |
| Payment Process 3 | Regardless of the payment rail in use, digital wallet payments follow these steps:<br>1. *Authentication*: User verifies the transaction on their device using Face ID, Touch ID, or passcode before token transmission<br>2. *Transaction Routing*: The merchant's PSP forwards the tokenized transaction to the payment rail, which routes it to the TSP<br>3. *Token Decryption:* The TSP decrypts the token, retrieves payment data, and sends it to the issuer/account bank via the payment processor.<br>4. *Authorization:* The bank checks for fraud, validates the account, confirms funds, and responds with approval or decline via the PSP |
| Stablecoin Payments 4 | As token-native payment method, Stablecoins *(see Box 1)* are transferred directly between digital wallets. Stablecoin payments typically follow these steps:<br>1. *Wallet Setup:* Both consumer and merchant set up digital wallets that support the chosen stablecoin. The consumer acquires stablecoins by purchasing from an exchange<br>2. *Payment Initiation:* Consumer enters the merchant's wallet address and payment amount in their wallet app, then authorizes the transaction (e.g. biometric)<br>3. *Transaction Validation:* The transaction is broadcast to the blockchain, where it is validated and recorded. The merchant receives the stablecoins in their wallet, within minutes<br>4. *Conversion (optional):* If merchant prefers fiat, a PSP or market maker can convert stablecoins to fiat currency and settle to the merchant's bank<br>This ecosystem minimizes intermediaries compared to traditional payments, but PSPs and market makers can play crucial roles in compliance, integration, and settlement |

### Box 1 – **The Stablecoin Ecosystem**

Stablecoins are digital assets issued on public blockchains and backed by high-quality, liquid reserves.

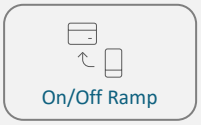

Create and redeem stablecoins, keeping the peg to underlying assets, such as fiat collateral


Institutions that securely hold the assets backing the stablecoins (e.g. banks or custodians)


Facilitate the buying, selling, and conversion of stablecoins, ensuring liquidity and price stability


Integrate stablecoins into payment flows, enabling merchants to accept and settle stablecoin payments

[5] Fintech Brainfood: "The Token Layer Cake", Nov-2023




Platforms to convert fiat into stablecoins (on-ramp) or reverse (off-ramp), often including KYC/KYB verification


Platforms where stablecoins are traded, often providing wallet custody, payment and regulatory compliance services

Source: Phoenix Merchant Partners

The GENIUS Act, signed into law on 18-July-2025, establishes a federal regulatory framework for payment stablecoins in the U.S., key provisions will include:

- *Reserve Backing:* Issuers must maintain reserves vs. their tokens on a 1:1 basis with USD or similarly liquid assets, publish monthly reserve details, and disclose their redemption policy
- *Issuers:* Only regulated entities – i.e. subsidiaries of insured depository institutions, federally qualified nonbank issuers, or state-qualified issuers – may issue payment stablecoins in the U.S.
- *Regulation:* Payment stablecoins covered by the Act are not considered securities, removing them from SEC oversight and placing them under banking regulators
- *Yield:* Issuers are explicitly prohibited from paying interest to holders of payment stablecoins, underlining their function as digital cash equivalents rather than investment products.

With regulatory clarity and the ability to share reserve returns to support adoption and ecosystem development (e.g., PSPs, merchants), the stablecoin rail may be well positioned for expansion.

## Trends in Payment Services

### Pay-by-Bank ("PBB")

Pay-by-Bank refers to payments initiated directly from a customer's bank account, routed via ACH or RTP rails, and settled into the merchant's bank account, offering a direct alternative to card network intermediation.

**Comparison of Payment Rails**

| *Aspect* | Pay-by-Bank | Card Payments (Credit/Debit) |
|---|---|---|
| Transaction Costs | Lower, often fixed fee per transaction. Merchant savings of 40–85% vs. cards[6], but setup/integration cost may apply | Higher, includes interchange, gateway, and processing fees. Up to ~3% per transaction, tiered by card type |
| Security | – Authentication through bank's secure environment, often biometric<br>– Tokenization to enable recurring payments | – EMVCo tokenization standard and PCI DSS compliance.<br>– Multi-factor authentication for online transactions |
| Fraud Protection and Liability | – Reduced fraud-risk due to pre-transaction bank verification<br>– Liability framework is evolving | – Federal law limits consumer liability for unauthorized use of card<br>– Issuing banks reimburse fraudulent charges quickly. |
| Chargebacks, Disputes | – Limited support for chargebacks<br>– Disputes handled directly with the merchant or bank, less recourse for consumer-initiated reversals | – Well established chargeback and dispute process.<br>– Refunds for unsatisfactory transactions often at merchant's cost |
| Open Banking | Native; relies on open banking APIs and consumer-permissioned data sharing | Not integrated; operates on closed card network infrastructure |

[6] Ayden: "What is Pay by Bank and why it will give your business an advantage", Oct-2024

| | | |
|---|---|---|
| Use Cases | High-value transactions, bills and recurring payments, immediate RTP/ FedNow settlement | – POS payments, e-commerce, global travel, small/mid-ticket transactions<br>– Allows access credit |
| Rewards | – No standardized rewards programs<br>– Merchants may offer discounts to incentivize adoption | Widely offered by issuers (cash-back, points, travel perks) funded by interchange revenue |
| Ease of Use | – Initial setup involves redirection to bank interface for login and approval.<br>– Subsequent "one-click" payments via tokenized pmt. details in digital wallets | – Familiar pmt. method: card details online, tap/swipe at POS<br>– Saved cards in digital wallets enable "one-click" checkout |

Despite advantages such as lower transaction costs and real-time settlement, Pay-by-Bank is more likely to complement card payments for specific use cases, rather than replacing them.

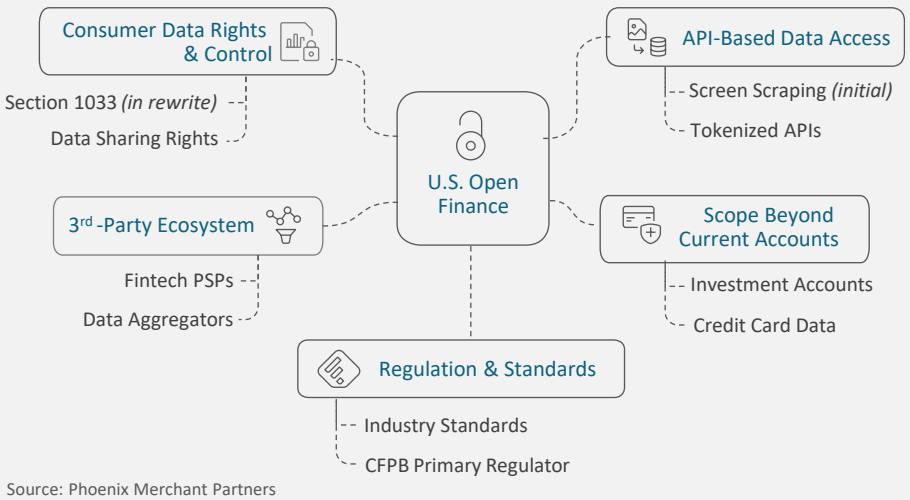
Consumer adoption remains modest, with only 11% having used Pay-by-Bank in the past year, though 46% indicate an interest in using the service[7]. A current barrier to broader adoption is the inconsistent user experience, as interfaces and workflows remain fragmented due to the absence of universal standards and varying bank integration quality.

However, advances in wallet and tokenization technologies, alongside the development of industry standards for open banking applications *(see Box 2)*, are enabling third-party providers to enhance the user experience, with streamlined onboarding, one-click checkouts, and seamless wallet integration increasingly becoming available. Establishing a 'trust mark', a recognizable logo and brand identity for open-banking initiated payments, can help build consumer confidence in this payment rail.

Box 2 – **Open Finance**

Open Finance is an API-driven data access framework that enables consumer-permissioned sharing of financial information, such as bank accounts, borrowing, investments, and insurance across financial institutions and third-party providers.

**Core Framework Components**




Source: Phoenix Merchant Partners

[7] PYMTS: "Consumer Sentiment About Open Banking Payments", Mar-2024

Despite regulatory uncertainty surrounding the CFPB's Section 1033 rules, consent-based data portability and standardized access protocols are already widely adopted, leveraging interoperability specifications defined by the Financial Data Exchange (FDX).

Beyond account-to-account payments, current Open Finance use cases also cover:

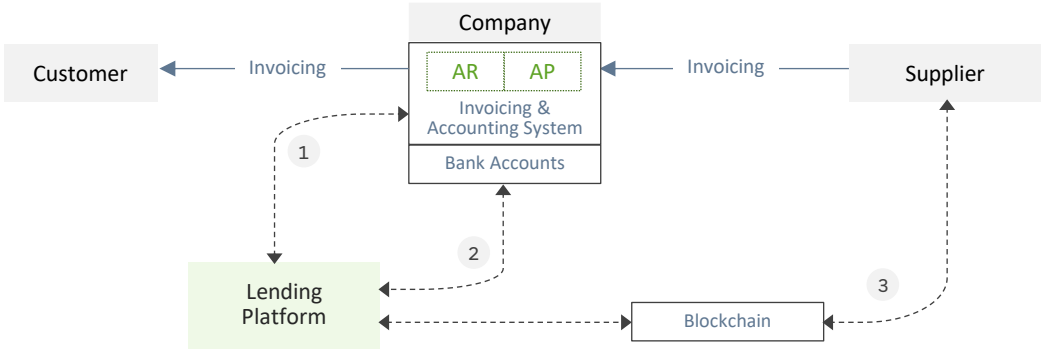
- *Credit Underwriting:* Lenders use permissioned, real-time borrower banking data for cashflow-based underwriting and risk monitoring.
- *Authentication & KYC:* Open finance data, via tokenized bank connectivity, is used for real-time identity verification and secure onboarding.
- *Financial Management:* Consumers use unified dashboards to aggregate accounts across banks and custodians, track spending, and automate investments with personalized rules

### Business-to-Business Payments

Advancements in data access and processing are improving working capital management by enabling the dynamic integration of financing solutions into ERP and treasury systems[8]. Evolving lending platforms offer embedded AR/AP financing tools that connect directly with a company's invoicing and accounting workflows. This integration enables automated multi-source verification, supports dynamic underwriting and risk monitoring, and accelerates payments.

**Figure 2 –** For Illustrative Purposes Only

**Working Capital Data Framework**




Source: Phoenix Merchant Partners

| | Framework Components |
|---|---|
| Verification & Underwrite 1 | Direct API-based link to a company's accounting and invoicing data enables efficient workflows for factoring and supply chain finance:<br>– *Invoice Validation*: Lender gains real-time visibility into invoice matching authenticity and AR/AP payment status, accelerating funding decisions<br>– *Fraud Detection:* Access to complete, real-time datasets enables the deployment of AI tools that identify anomalies and patterns associated with potential fraud.<br>– *Onboarding*: Access to historical AR/AP data enables lenders to perform robust due diligence when underwriting factoring and supply chain credit lines |
| Open Banking 2 | Lending platforms leverage open banking APIs, under company consent, to directly access bank account data[9]. |

[8] Raistone: "Enhancing B2B eComemrce Platform Value with Embedded Finance", Feb-2025

[9] Raistone: Discussion with CRO and Head of Capital Markets, Jul-2025

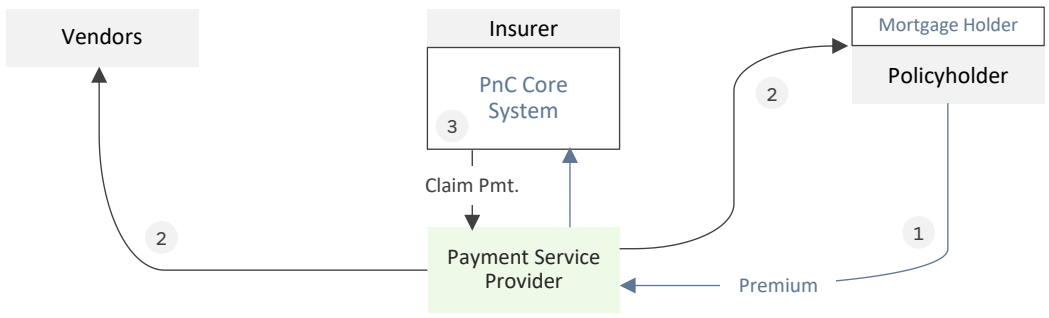
| | |
|---|---|
| | In supply chain finance, this enables continuous risk monitoring using automated "covenant" triggers; in factoring, it supports real-time assessment of the seller's financial condition. |
| Blockchain[8] 3 | Blockchain-based recordkeeping enhances supply chain data integrity, enabling greater trust, and unlocking additional lending capacity across sectors,<br>– In **manufacturing** industries, the stages of production and logistics, such as material provenance, batch tracking, quality inspections, and shipping, can be immutably recorded<br>– In **service-based** industries, on-chain recordkeeping can track milestones in service delivery, such as contracts, time-stamped work logs, and digital signatures.<br>Linking tamper-proof records to invoices provides lenders with high-integrity data for verification, funding decisions, and risk management, especially in cross-border transactions where document authenticity is critical. |

### Payments in P&C Insurance

The ongoing digital transformation of P&C insurance aims to update core workflows, such as policy administration, claims management, billing operations, and regulatory compliance. Integration with accounting systems and payment technology is an essential element of this evolution, creating a unified platform for next-generation applications.

**Figure 3 –** For Illustrative Purposes Only

**Insurance Payments Framework**




Source: Phoenix Merchant Partners

| | Framework Components |
|---|---|
| Premium Collection 1 | An insurer's core system integrates with PSPs to enable premium payments and refunds across all major payment rails and digital wallets<br>*Premium Financing:* During the quote process, customers can choose between payment options, including premium financing.<br>– A premium finance agreement (PFA) is executed directly through the insurer's website or mobile app. Policy and insured details are shared with finance provider's platform. |
| Claims Payment 2 | Claim disbursements involve added complexity due to the range of recipient types and regulation across insurance lines. Integration with payment services enables configuration of payment workflows for<br>– *External Vendors:* Medical providers, auto repair shops, roadside assistance companies, and property construction/repair companies<br>– *Property Claims:* Multi-party disbursements, such as claims paid jointly to homeowners and mortgage lenders, ensure lienholder maintains control over funds |

| | |
|---|---|
| Unified Platform 3 | Embedding payment capability into the core system architecture, creates the infrastructure and data basis to introduce advanced insurance applications such as<br>– *Claim Verification:* Automated validation of submitted data incl. cross referencing to external databases, enabling straight-through processing of "low-risk" claims<br>– *Instant Disbursement:* Real-time coverage validation and claims payout, integrated with PSP-based fraud detection systems<br>– *Dynamic Pricing:* Data driven (e.g. telematics) pay-as-you-go insurance models with automated billing for actual risk exposure |

**Beyond Payments - Agentic Commerce**

The emergence of AI agents, *"… well-packaged LLMs that can take actions given simple instructions"*[10], has the potential to transform the purchase process, managing everything from product discovery to transaction completion on behalf of users.

For agents to operate autonomously, secure access to payment infrastructure is essential. In particular, agent-specific authentication and permissioning needs to evolve, leveraging wallet and tokenization technology to ensure agents operate under valid instructions. E-commerce platforms are piloting infrastructure that supports agent-driven checkouts, while payment service providers and networks are developing protocols and APIs to enable agentic payments for consumer and B2B applications.

## Conclusion

Since our initial paper on the U.S. payments industry in October 2023, the landscape has evolved significantly, driven by the maturity and adoption of technologies such as digital wallets and secure tokenization. Account-to-account payments are benefitting from these developments, while emerging regulatory clarity around stablecoins may eventually challenge the dominance of card networks.

The integration of payment technology across Phoenix's target industries, including corporate working capital and P&C insurance, continues to advance, presenting investment opportunities and unlocking improved data for due diligence, underwriting and active risk management.

Given its dynamic nature, the payments sector remains a strategic focus for Phoenix, both as a growth partner to middle-market companies, and as driver for scaling data-enabled asset-based investments.

[10] Fintech Brainfood: "The Four Models of Agentic Payments", Feb-2025

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