FINTECH BRAINFOOD



popular | fintech

State of Fintech

2025





2024: The Age of the Fintech Hyperscaler.

We're so back. The vibe shift is noticeable. The companies that survived winter are moving into new geographies and cross-selling. We're at the dawn of the Fintech hyperscaler, with Nubank over 100m customers, Klarna at 85m and Revolut snapping at their heels at 50m.

The infrastructure is shifting. Stripe and Adyen are snapping at the heels of Chase. The Neobanks are rebundling finance and new payments rails are showing signs they could challenge the card networks. The incumbents had a great year, but never had more capable, scaled challengers, now powered by Al.

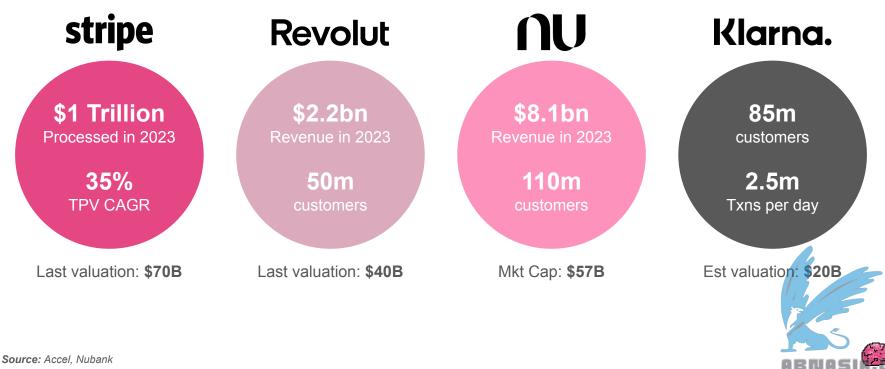
ST.

01	02	03	04	05
FinTech Trends	Fintech x AI	Embedded Finance	Banks	Neobanks
06	07	08	09	10
Payments	Open Finance	Big Tech / Wallets	Stablecoins	Scamdemi

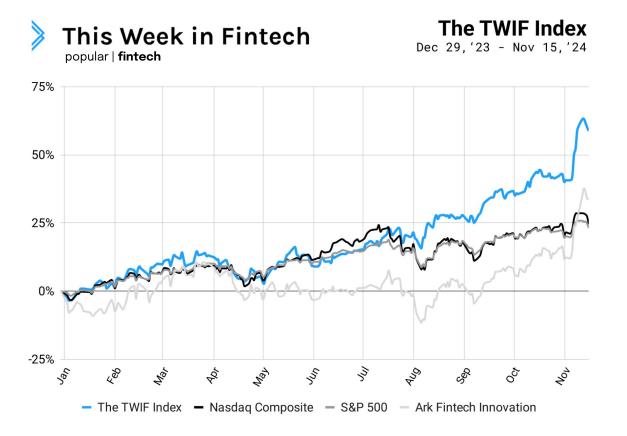
01 TRENDS



We're in the age of the Fintech Hyperscaler. Companies who can be bigger than traditional vendor classes in finance.



"Fintech is back" is now a consensus as public stocks recover

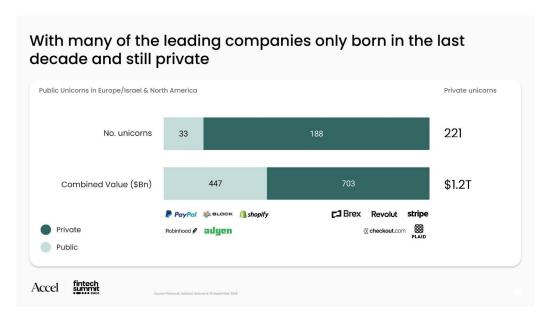


The TWIF Index is a price-weighted index of 15 publicly-traded fintech companies: Visa, Mastercard, American Express, Block, PayPal, Fiserv, FIS, Global Payments, Adyen, Shopify, Nubank, Coinbase, Robinhood, FICO and Experian.

Created by Jevgenijs Kazanins



The Fintech IPO dam is ready to break with Klarna and Chime the first ones out of the gate



Technology

Fintech Company Chime Taps Morgan Stanley to Handle IPO in 2025

Technology

Klarna's Planned IPO Sets the Stage for More Fintech Listings

Stripe, Revolut, Plaid will probably take longer...



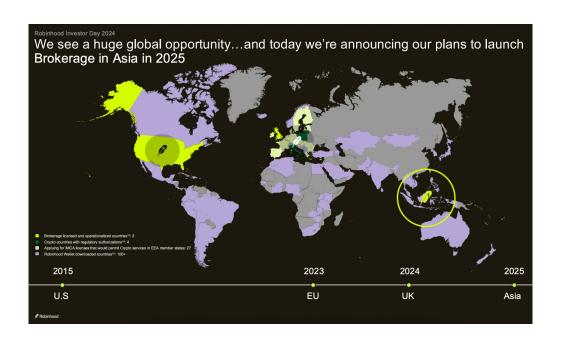
Source: Bloomberg, Accel

Neobanks are as big as banks and in many cases bigger.



- Nubank > 100 million customers, Most valuable bank in Latin America
- Revolut > 50 million customers
 38 markets
- Cash App reaches 57 million monthly active users.
- Kazakhstan's Kaspi.kz lists on Nasdaq. Stock trades at \$21 billion

International expansion is now a key growth lever - typified by Robinhood, Nubank, Chase, Affirm, Toast and others



- Robinhood expanding in Europe,
- Affirm launches in the UK, it's first market outside of North America
- 40 million Revolut customers are based outside its home market in the UK...
- JPMorgan's COO reaffirms the plan to expand into Continental Europe

Source: Robinhood Investor Day 2024

The year of Gen AI in Finance - Everyone has a story, a few have real value capture (mostly cost savings or selling cost take out).

TECHNOLOGY

Klarna Plans to 'Shut Down SaaS Providers' and Replace Them With

Klarna aims to halve workforce with AI-driven gains

Chief executive of buy now, pay later group heralds benefits of the technology as it narrows quarterly loss

- Klarna's chatbot "does the work of 700 agents"
- BBVA has 2900 GPTs created by staff, and can analyze credit data PDFs.
- Most Incumbents doing pilots and being cautious. Every Fintech is adopting at some level of sophistication.

Source: Klarna, OpenAl

Payment companies are getting serious about Stablecoins

Crypto | Cryptocurrencies

Stripe Confirms Plans to Acquire Stablecoin Platform Bridge

- Bridge helps businesses issue and accept stablecoins
- Stripe agreed to pay \$1.1 billion for the crypto startup









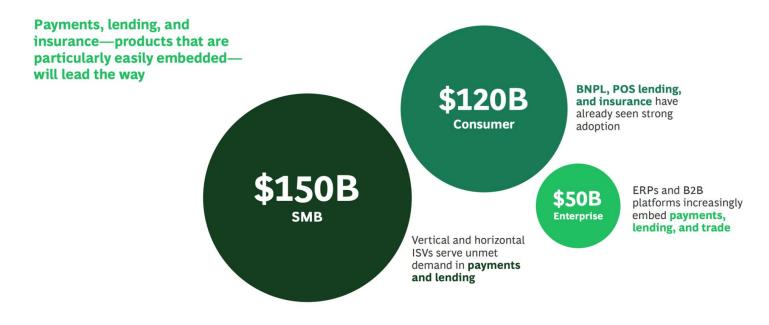




- Stripe acquires a stablecoin startup Bridge for \$1.1 billion
- PayPal enables business accounts to send, receive and hold cryptocurrencies.
- Visa launches Visa Tokenized Asset Platform to help banks issue stablecoins
- Mastercard helps Metamask launch a debit card that connects directly to self-custodial wallets

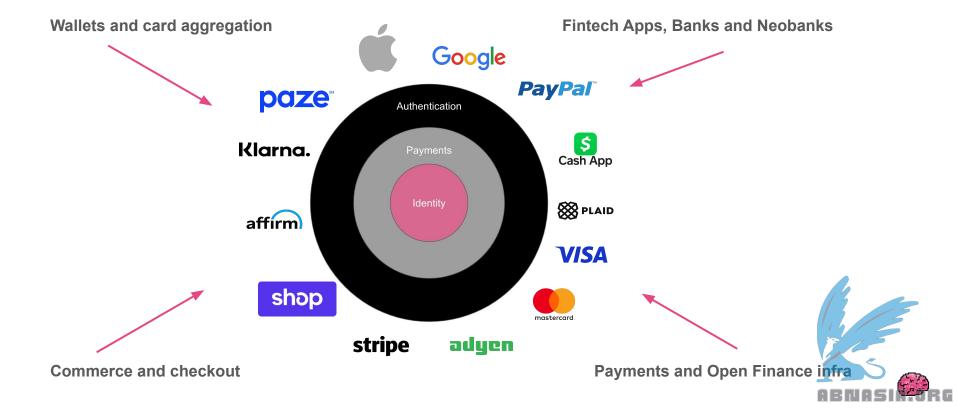
Source: Bloomberg

Embedded finance is still the single fastest growing net new opportunity in finance- forecast to hit \$320bn revenue by 2030

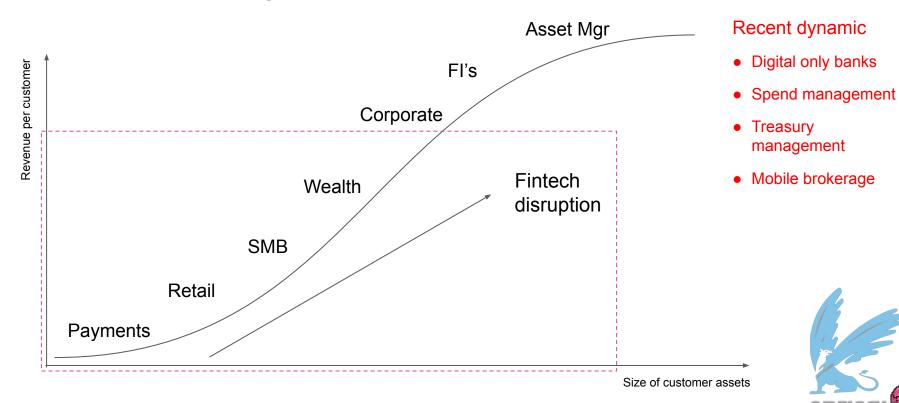




2024 the Wallet Wars began in the west. Unlocked by Apple opening NFC, Flex Credential and Open Finance

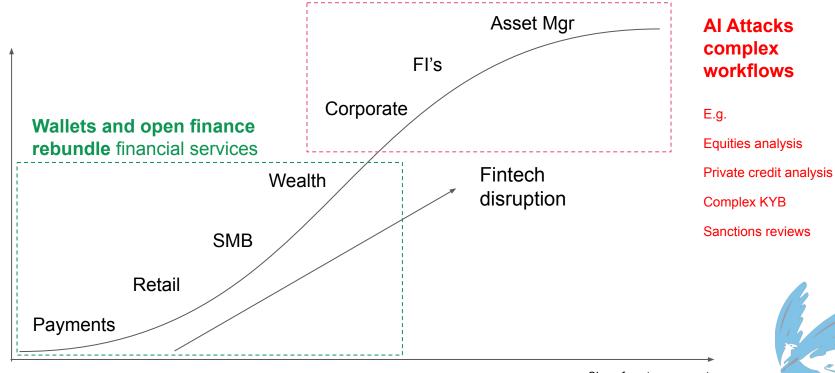


Disruption in last 10 years has unbundled simpler lower revenue and margin products. Not a major disruption.



Revenue per customer

Now wallets are rebundling finance, Neobanks are attacking core customers as AI eats capital markets workflows



Size of customer assets

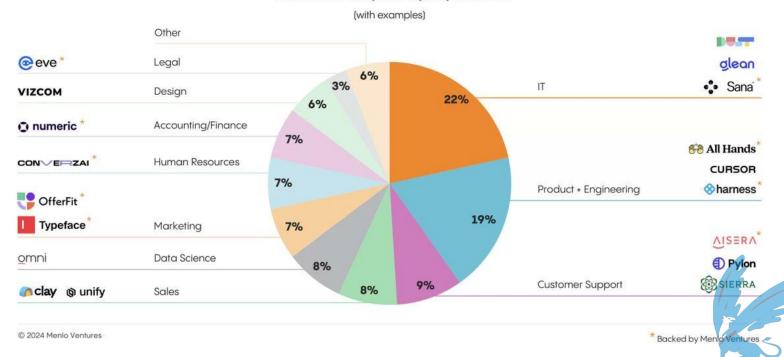
02 FINTECH x AI



02 GENAL x FINTECH

Department level disruption. The application layer of AI is booming.

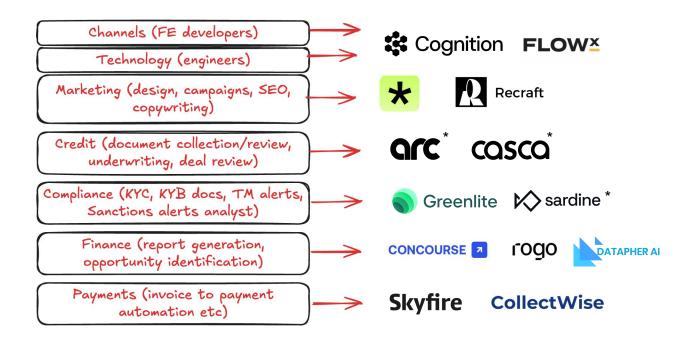
Generative AI Spend by Department



Source: Menlo Ventures

02 GENALX FINTECH

The rise of Agents: Every bank employee will have an "Al Agent" equivalent. Software replaces labor across the entire value chain.





02 GENALX FINTECH

Few incumbents have GenAI in production beyond the co-pilots they get from Salesforce and Microsoft.

There are use cases in production, but they're still by exception

For example:

Morgan Stanley

BBVA

Uses AI **evals** to to give advisors relevant summaries decisions and insights for their clients.

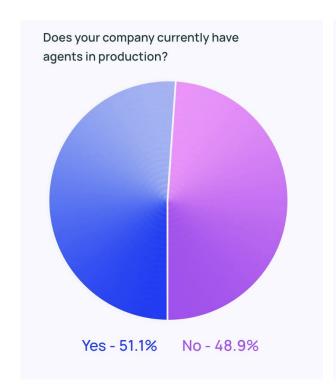
Uses thousands of custom GPTs to help users with better prompts, extract data from PDFs and streamline credit underwriting.

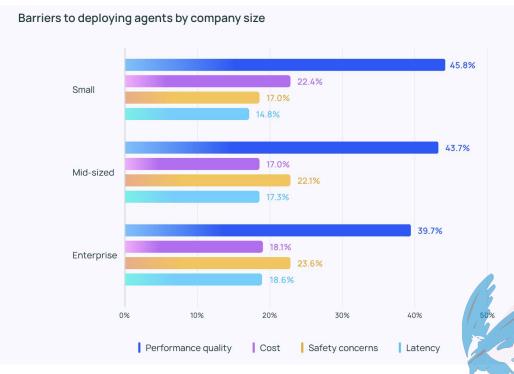
Evals matter. To build powerful AI you need the ability to measure the performance of your model and actions on some set of data. This is called model evaluation, or "evals".

ABWASIA RG

02 GENAL x FINTECH

Mind the performance gap: Co-pilot is the new Microsoft Clippy, Agents most likely to fail in production due to "performance quality"



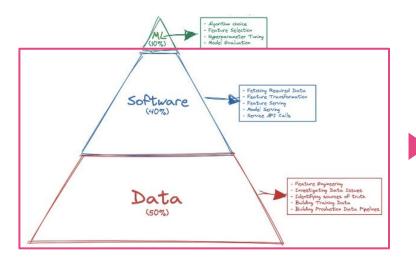


Source: Langchain

02 GENALX FINTECH

Making it work: Klarna has put in multiple years of hard work that's now paying off (in PR value alone)

Foundational data capabilities



Most incumbents don't have this



Department level efficiencies

TECHNOLOGY

Klarna Plans to 'Shut Down SaaS Providers' and Replace Them With

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So they're a long way from this

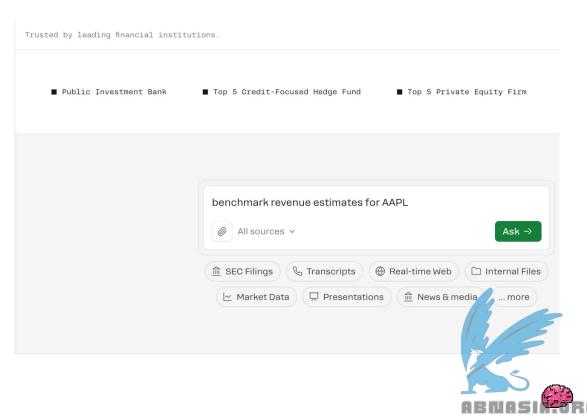


GenAl is *finally* disrupting capital markets which had been largely untouched by the Fintech revolution

Capital markets analysts have

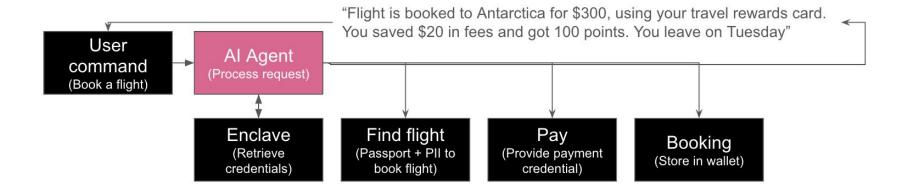
- Large unstructured data sets (PDFs, emails, spreadsheets)
- Complex jargon
- Tons of data entry

GenAl is ideal for workflows like private credit, equities, and providing insights



02 GENALX FINTECH

What happens when customers have their own AI agents and they're adversarial to your business model? Take this example:



Why would an agent select your card or account when supporting its client / device owner?

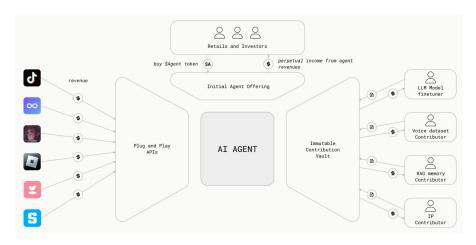
How will AI Agents make payments or authenticate identities?

With Virtual Cards?



The Stripe Agent toolkit turns LLM instructions into a workflow that can be "called" by frameworks like LangChain and Vercel.

On chain with Stablecoins?

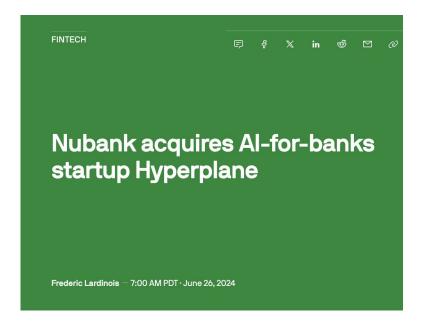


The Virtuals Protocol is a framework for IP royalties payments for virtual influencers operating on social platforms like TikTok

Source: Stripe, Fintechblueprint, Virtuals Protocol

02 GENALX FINTECH

The use of transformers for better data analysis is still under explored (and early)



If you have 100m customers you can probably do some interesting things with transformers

- Predict customer support queries / responses?
- Build a "talk with my money" agent that's secure with no data leaks?
- Turn borrower data into numerical patterns (embeddings) that reveal the direction and strength of credit risk factors?

Source: Techcrunch

Consultants are having a great time, but are ultimately threatened by the shift from outsourcing to AI-sourcing.

Looks good:

Accenture doing \$1bn of Al revenue *quarterly*

Professional Services >

Accenture passes \$2bn in AI revenue as consultants rush for tech work

With the consultancy sector under pressure, all eyes are on who can cash in on one market that is booming

By Justin Cash (Follow)



But not good:

Industry job losses from strategy through execution

The Telegraph

McKinsey to lay off hundreds of staff as consultancy work dries up

Professional Services >

PwC UK partner pay falls 5%

Partners feel the squeeze from a tightening market

Staff augmentation companies like Genpact will be selling agent augmentation. It's already happening and this is arguably the biggest true disruption that could possible happen for incumbent banks. They might not do GenAI, their providers of outsourcing will.



The Synapse bankruptcy and very public court case have caused huge consumer harm and reputation issues

FINANCE

Nearly \$109 million in deposits held for fintech Yotta's customers vanished in Synapse collapse, bank says

PUBLISHED FRI, JUN 21 2024-11:23 AM EDT | UPDATED FRI, JUN 21 2



FINANCE

'I have no money': Thousands of Americans see their savings vanish in Synapse fintech crisis

PUBLISHED FRI, NOV 22 2024-10:00 AM EST | UPDATED FRI, NOV 22 2024-1:45 PM EST











BaaS grew rapidly but not every bank's risk management could keep up. Result? Regulatory consent orders for failures.

Bank	Board Governance	Consumer Compliance	CMS	BSA/AML	Internal Audit	TPRM / Oversight	Credit Risk	Interest Rate Risk	Operational Disk	Financial Risk Mgmt	Liquidity Risk	Strategic / Capital Planning Req	Restriction on Business
Axiom				Y		Y							Y
Green Dot	Y	Y	Y	Y			× ×						
Thread Bank	Y			Y		Y				Y	Y	Y	
Evolve Bank & Trust	Y	Y		Y	Y	Y	Y	Y	Y	Υ	Y	Y	Y
Piermont Bank	Y	Y	Y	Y	Y	Y		Y		Y	Y	Y	Y
Sutton Bank				Y		Y							
Lineage Bank	Y			Y	Y	Y				, ,	Y	Y	Y
Blue Ridge Bank, NA (2024)	Y			Y	Y	Y			Y		Y	Y	Y
Choice Financial Group	Y			Y								3 3	
First Fed Bank	Y		Y			Y							Y
b2 Bank, NA	Y			Y		Y	Υ			Y		Y	Y
Vast Bank, NA	Y						3	Y	Y	Y	Y	Y	Y
Metropolitan Comm. Bank	Y			Y		Y			S			8	
WEX Bank	Y	Y	Y		Y					100			
Cross River Bank	Y	Υ				Y			Y				Y
Blue Ridge Bank, NA (2022)	Y			Y	Y	Y			Y				Y



*Enforcement directed at holding company, not the bank



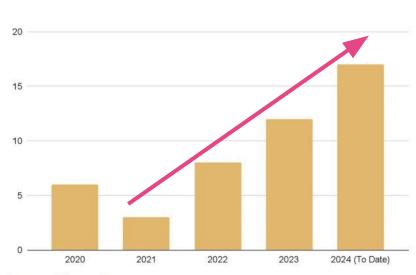


Included in enforcement



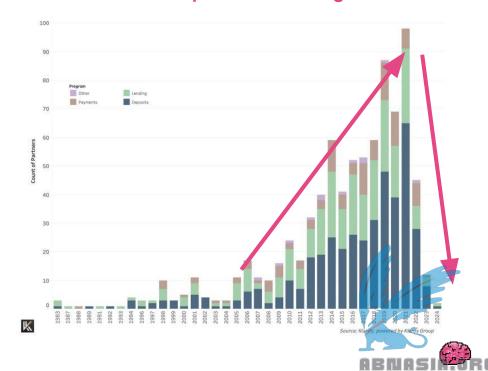
The enforcement actions in the US have stopped the flow of young Fintech companies entering the market

of bank enforcement actions



Source: Klaros Group

of Fintech companies launching



Source: Klaros Partners

Regulatory scrutiny impacted new program launches, hurting anyone in BaaS, banking, or issuing.



Max Levchin Founder, CEO & Chairman

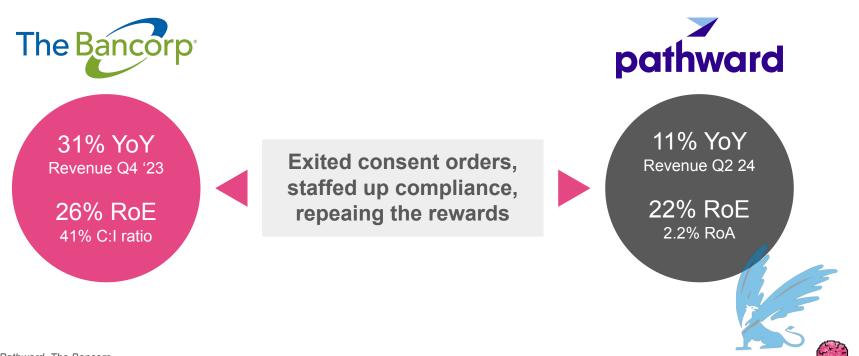
I think regulatory scrutiny increasing is a thing you experience if you're small and unknown to the regulators. We've been big and getting much bigger quarter after quarter. We're very familiar with all of our regulators. We engage with them regularly. We have invested in compliance appropriately. And the regulatory scrutiny on us is what it is, and it will continue doing and frankly, we're proud to have the engagement that we have.



Affirm Q1 2025 · 8 Nov, 2024

- Marqeta CEO says "regulatory scrutiny translated into delays in launching new programs"
- In 2023, it took Marqeta 150 days to launch a new card program. In 2024, it took "about 300 days"
- Regulatory scrutiny impacts
 primarily new companies, while established players like Affirm continue to scale their programs

Partner banking remains a lucrative opportunity for smaller banks crowded out by big consumer banks and Fintech.



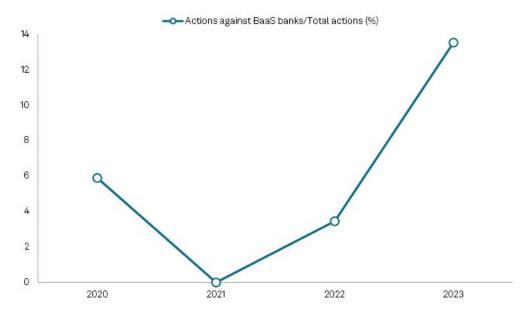
Source: Pathward, The Bancorp

The banks not under consent order can be very picky about enterprise customers, but not for long, the big banks are coming

Exiting the market	Maintaining position	Entering the market
Consent orders Bankruptcy Exiting sector	De-risking Scaling compliance Cautious	Large balance sheets Preparing for scale Direct or semi-direct
Synapse Railsr Five Star bank	Coastal Celtic Web	5/3 - Stripe Column - Brex Clearbank - Tide

The election and recent RFIs have created a vibe shift, and sponsor banks now feel like they can "re-open for business"

BaaS banks accounted for 13.5% of severe enforcement actions issued to US banks in 2023



Do you know your Third Party?

The practical work is being done.

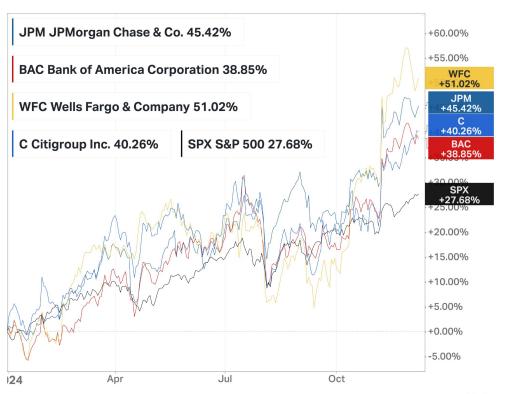
- Enterprise Fintech companies are maturing in compliance
- The partner banks are putting governance in place
- State and Federal regulators now understand novel activities much better

04 BANKS



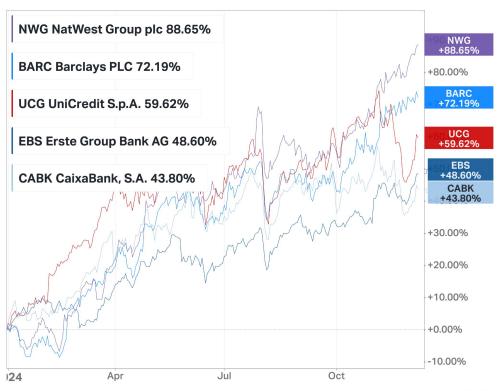
04 BANKS

U.S. money center banks outperformed the S&P 500 index on higher rates, economic strength and investment banking fees.



- Deposit repricing is normalizing
- Investment banking fees are back
- Credit card loan balances continue to rise, charge-off rates are normalizing
- Base rates still high
- US Economy has been incredibly strong

Even European banks did well this year – (Yet they still lag the US)

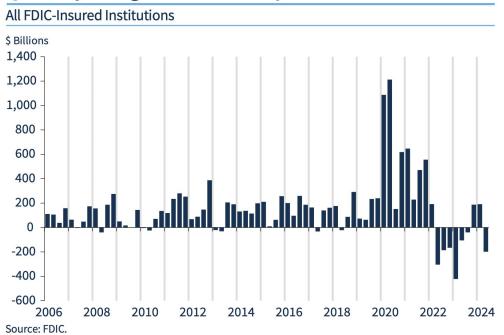


- Interest rates coming down, bringing borrowers back to banks for loans
- UniCredit is attempting to take over Germany's Commerzbank
- Governments continue to sell their stakes in banks from the GFC era.
- JPMorgan plans to enter the European market after early success with Chase UK

≪ koyfin

Deposits stopped leaving the banks as Fed started cutting rates

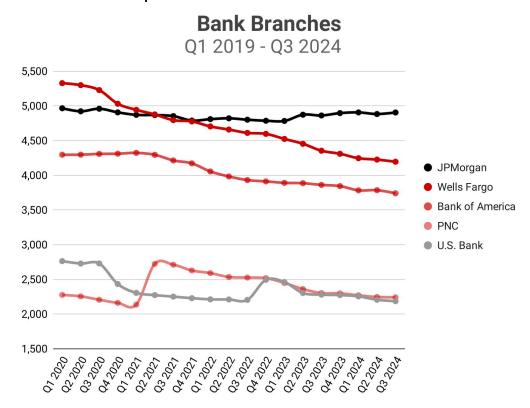
Quarterly Change in Domestic Deposits



- Higher interest rates led to an unprecedented outflow of deposits in 2022-203 to MMFs and treasuries
- To counter higher rates paid on deposits ate into the net interest margins
- In 2024, the Federal Reserve started cutting rates and deposit outflows and pricing started normalizing

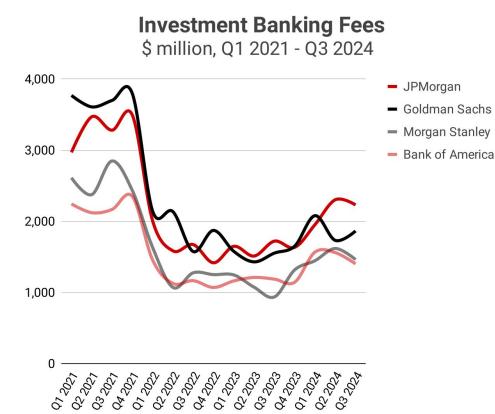
Source: FDIC

JPMorgan Chase bets on branches and international expansion to attract deposits. Will others follow?



- The number of branches in the U.S. continues to decline,
- JPMorgan Chase made a commitment to open 500 new branches by 2027, as the means to secure new deposits
- Bank of America and Wells
 Fargo were the top "net closers" of branches according to S&P
- PNC followed and announced the plan to open 200 branches

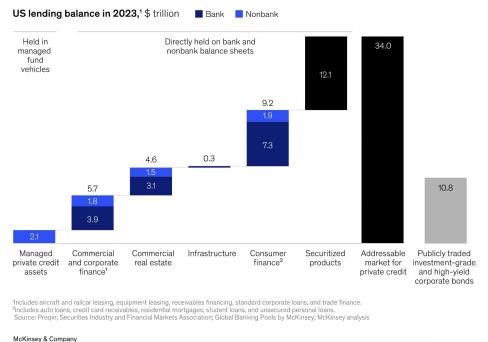
Investment banking fees are coming back, but still far away from 2021 levels



- Rising investment banking activity boost to major banks, in advisory & debt underwriting
- IPOs are still rare, and investment banking fees are far away from their 2021 levels
- A wave of IPOs is anticipated in 2025-26 as private companies renew their plans to go public
- Expected IPO include Fintech companies: Klarna, Chime, Plaid, Stripe

If you can't beat them join them: Banks getting in on the private credit game. But is it already too hot?

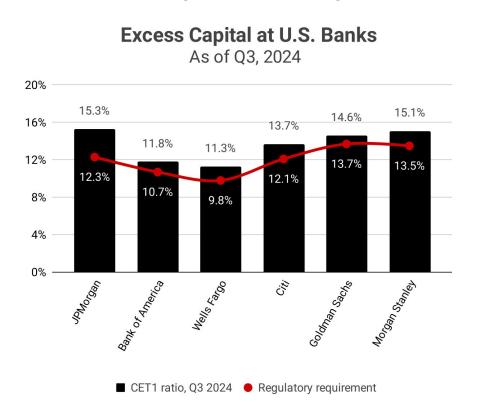




- Citi partners with Apollo to create a "\$25 billion private credit, direct lending program".
- Goldman Sachs <u>raises \$21</u>
 <u>billion</u> for its direct-lending fund
- JPMorgan sets aside \$10
 billion for private credit deals, partners with direct lenders
- Societe Generale partnered with Brookfield on a €10 billion private credit fund

Source: McKinsev & Company

Banks become more profitable if capital requirements (Basel III Endgame) are lighter or not implemented



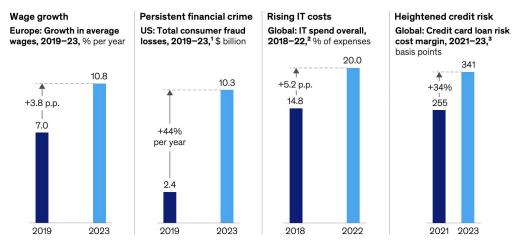
- Republican administration may water down or not complete Basel III, that would increase capital requirements for banks
- Lighter capital requirements will result in increased dividends as stock buybacks as banks hold excess capital
- European leaders are advocating for comparable measures to ensure a level playing field with U.S. banks

Two big industry threats coming for banking: fraud +44% and credit risk +34%

Exhibit 4

Retail banking costs are rising on multiple fronts, increasing cost to serve.

Select examples of increasing banking costs



- Federal Trade Commision (FTC) reporting of consumer fraud losses does not reflect magnitude of losses incurred by financial institutions.

 Plasights on IT spend reflect ~200 data points from banks across the world, collected by proprietary McKinsey benchmarking solution (Ignite) since 2013.

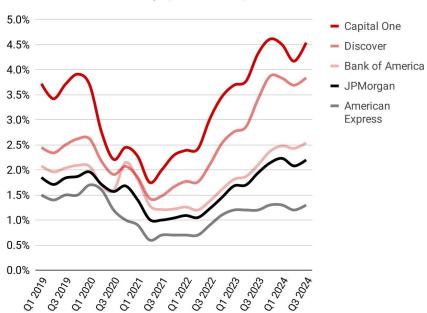
 Risk cost margin reflects impairment that banks provision as a % of average outstanding loans to account for bad debt. Figures are captured in terms of basis points to enable comparison.
- Source: Economist Intelligence Unit; US FTC Consumer Sentinel; McKinsey Ignite IT Spend Benchmarks; McKinsey Panorma—Global Banking Pools

- Scams and APP Fraud are top of mind. Banks becoming increasingly liable for customer losses to scams.
- UK Reimbursement rule now live. The United States vs Citi in the SDNY may create a similar precedent. It's the largest 2025 issue in policy circles.
- Adoption of FedNow by big banks will depend of their ability to handle fraud in the world of instant payments

Source: McKinsey & Company

Credit cards were a source of growth, as higher interest rates slowed down the mortgage market

Credit Card Loans | 30+ Day Delinquency Rate %, Q1 2019 - Q3 2024



- Consumer credit card balance reached \$1.17 trillion in Q3 2024, up 8.1% YoY*
- 90+ day delinquency rate on credit card loans reached
 11.1% in Q3 2024, up from 9.4% in Q3 2023, and 7.6% in Q3 2022*
- Express leaned on credit cards as the source of growth in lending, and expect the growth to continue

Source: Federal Reserve Bank of New York

The unbundling of banks led to fragmentation and frustration for an already information overloaded consumer

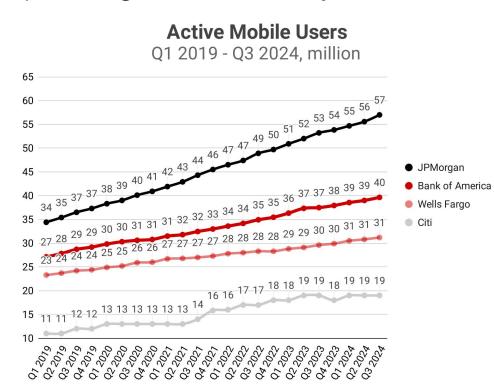


- 48% of consumers have 3 or more finance-related mobile apps
- One out of five consumers
 (20%) using 6 or more financial apps
- We unbundled the bank

 We unbundled brokerage, credit cards and specialist lending

Source: MX, Plaid

...and consumer behavior is shifting, with big banks spending billions to stay relevant



Consumer habits are shifting

- E-commerce (Shopify GMV up23% in trailing 12 months)
- Online grocery (Instacart GMV up 11% in trailing 12 months)
- Healthy lunches (Sweetgreen trailing 12 month GMV up 26%)
- Big banks throw billions in IT spend to keep up with the change, and so far they manage to stay relevant

Marketing has also changed: younger generation is watching Youtube and few banks are anywhere near yet

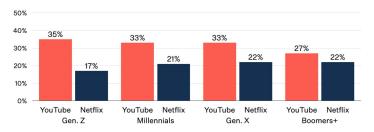
YouTube, not Netflix, is the mostwatched streaming service in the US

Share of total TV and streaming viewing by platform, June 2024

Share of total viewing by type of video platform Share of total viewing by streaming service YouTube Streaming Netflix 8% 3% Amazon Prime Video Cable 27% Hulu Disney+ 21% Broadcast Tubi Roku Channel Other

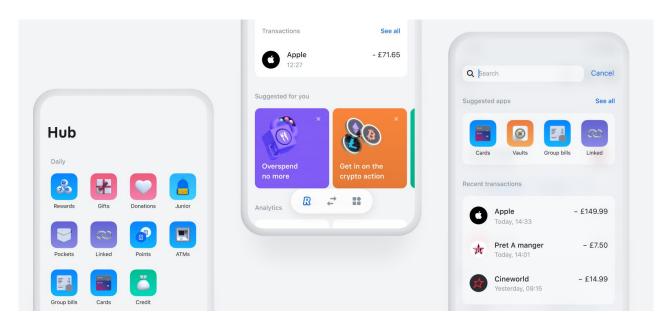
YouTube is impressively (and increasingly) popular across generations

Percentage of responses: If you were trapped on a deserted island and could choose to access only one streaming video platform, which would it be?





What should the banking app of tomorrow look like? Revolut, Robinhood and Nubank are showing the way



Revolut and Nubank are case studies in cross-sell. They currently bundle debit, credit, savings, lending, stocks, crypto, credit cards in a single UI. Add to that premium accounts with eSIMs. subscription management and you have a "hub" like no other. The threat to salary account grows each year. It's not present in the USA yet, but watch Venmo and Apple Pay.

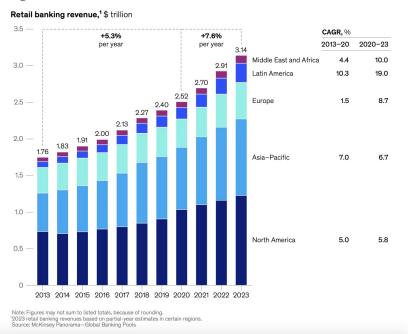
Source: Revolut



Source: McKinsev & Company

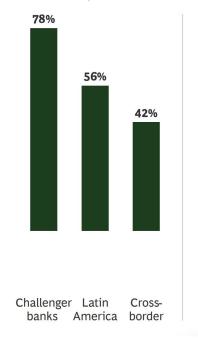
Retail banking is a \$3+ trillion and growing opportunity. LatAm has Nubank, Europe has Revolut. Who's taking a lead in the US?

 $\mathsf{Exhibit}\,2$ Retail banking revenue growth has accelerated in recent years across most regions.



Revenue growth difference across select sectors and geographies

REVENUE CAGR, 2021-2023



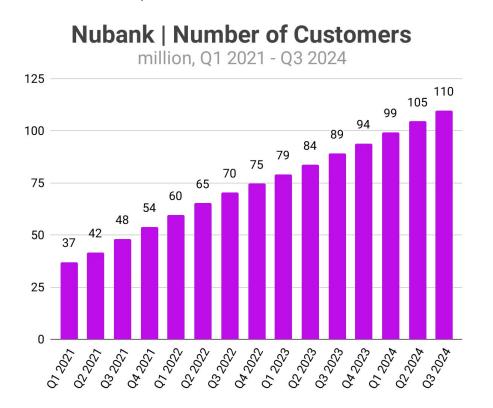
-3%

-13%

China B2C Crypto lending

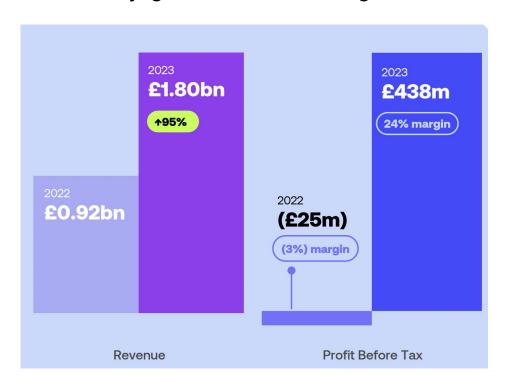
Source: BCG and QED Investors

Nubank passed 100 million customers and largest (by the number of customers) and most valuable bank in Latin America



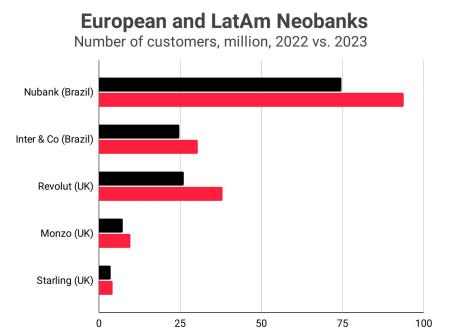
- Nubank now has more than 110 million customers, including 100 million in its home market Brazil
- It became the most valuable bank
 in Latin America, dethroning Itau
- Nubank contributes % of
 Mastercard's total payment volume
 in Latin America
- Q3 2024 results: \$553 million Net Income, representing 30% in annualized ROE

Revolut passed 50 million users (more than any bank in Europe) and finally got its UK banking license



- Revolut has finally received a UK banking license. It now has banking licenses in the EU, UK and Mexico
- Revolut posts £1.80 billion revenue and £438 million in profit in 2023
- The company reached 10 million customers in the UK and 50 million customers globally
- Latest secondary round priced the company at \$45 billion

Neobanks in Europe and Latin America are now big, rapidly growing and profitable

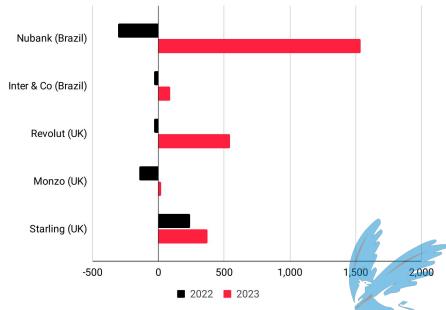


2022

2023

European and LatAm Neobanks

Profit Before Tax, \$ million, 2022 vs. 2023

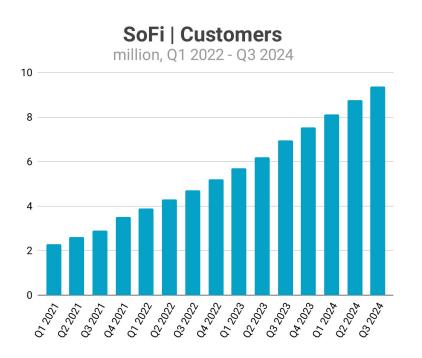


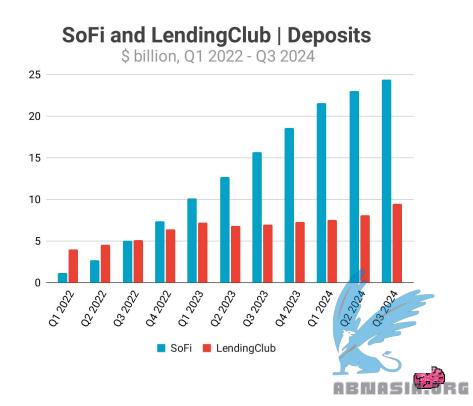
Will this happen in the US? Who is the "U.S. Nubank"? SoFi and Chime? or Cash App and Venmo?



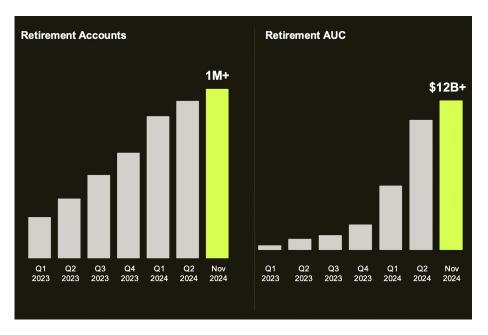
- Nubank started with a credit card...
- In the U.S., Cash App (57 million actives) and Venmo (60 million actives) started with peer-to-peer payments...
- SoFi (9 million members) and LendingClub (5 million members) used to be peer-to-peer lenders...
- and... Chime (7 million actives), Dave (11 million customers), and MoneyLion made a bet on financial inclusion

SoFi and LendingClub are banks now. Unlocking deposits as cheap funding. Both attacking "prime" customer base.





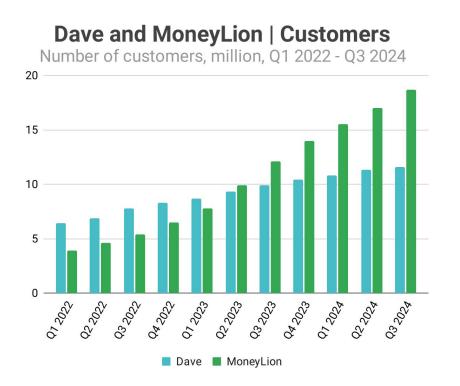
Is Robinhood the next major bank brand? They're now much more than a brokerage, in retirement and even credit cards.

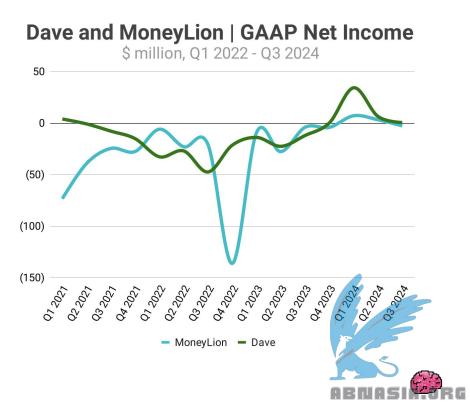


- 24.4 million funded accounts and \$160 billion in assets under custody
- 1 million retirement accounts and 2.0 million people on the Robinhood Gold credit card waitlist
- They incentivize deposits and portfolio transfers creating a payback period of 1-3 years
- Brokers are the new bundlers of financial products

Source: Robinhood Investor Day 2024

Financial inclusion is more than a niche. Dave and MoneyLion are also growing, and they are growing profitably



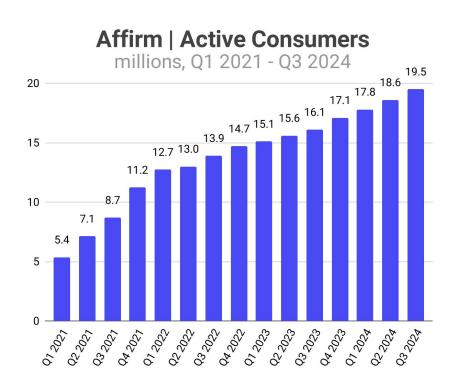


Chime is on the path to IPO and solving for financial inclusion. It's not trying to compete with Chase, but should it get a charter?

chime 7m Active accounts \$1.3bn Est Revenue 2021 valuation: **\$25B** Estimated valuation: \$10bn (based on Notice.co)

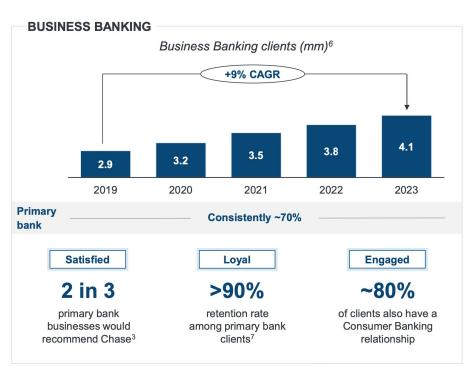


Will BNPL lenders morph into banks too, like peer lenders did? Affirm and Klarna start looking like neobanks



- Affirm is introducing banking features like Affirm Money Account and Affirm Card
- Cash App is bringing Afterpay into Cash App in its push into lending.
 Cash App's parent, Block, owns an industrial bank charter
- Klarna is already a deposit-taking bank in Europe, and makes a strong push to the US market
- Will PayPal bring BNPL to

B2B is still a huge growth opportunity in the US: Chase and Bank of America get most SMB deposits

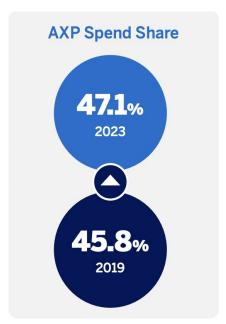


- JPMorgan Chase has 6.4 million small business clients, of which 4.1 million have checking and savings accounts
- Chase's small business clients held \$259 billion in deposits, 80% of these deposits were non-interest-bearing
- In addition, small business and corporate clients spend \$229 billion a year with Chase cards, generating lucrative interchange

Source: JPMorgan Investor Day 2024

B2B is still a huge growth opportunity in the US: American Express gets most SMB card spend

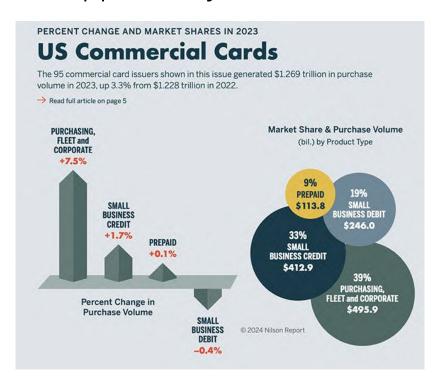




- American Express boasts 3.9 million small business customers, and
- 47.1% of US small business customer spend runs through American Express cards. That's 427 billion a year
- Amex is making a push for checking accounts to tap into the free deposits currently sitting on money center bank accounts

Source: American Express Investor Day 2024

A new category if Fintech companies emerged to pursue the opportunity in commercial cards

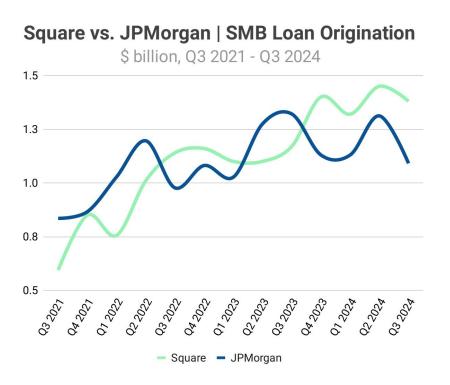


- Ramp, Brex and Divvy (aqr'd by Bill) are disrupting the corporate card
- Newcomers much smaller than Chase and Amex, but show strong early traction: \$35
 billion in annualized spend with Ramp cards, and \$19 billion with Divvy cards



Source: Nilson Report

In the meantime, Square and Shopify are rethinking small business banking from a different perspective.



- Square and Shopify are beefing up their banking offerings. They now offer accounts, cards, bill pay and lending
- As PSPs, Square and Shopify have unique data for underwriting. Square is already lending more to small businesses than Chase
- Square and Shopify were pioneers, but other vertically integrated software vendors are taking notice (Toast, Lightspeed Commerce)

Source: JPMorgan Investor Day 2024

Small businesses also move money across the borders: Cross-border specialism is becoming a super power for Wise





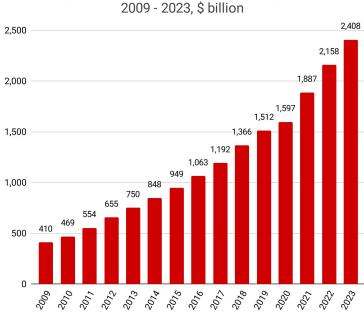
- Market opportunity: \$2 trillion moved by consumers, \$12 trillion moved by SMBs, +\$13 trillion move by corporates
- Wise customers: 7.2 million consumers, 500k SMBs and 92 banks. 5% market share in cross-border consumer payments and <1% market share in SMB payments
- Focussed on ultra low-cost cross border infrastructure. Now seeing returns to scale

Source: Wise PLC H2 trading update, Citi



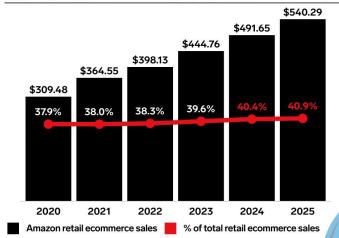
JPMorgan dominates both in-person and online acquiring. (Processing payments for Amazon helps)

JPMorgan | Merchant Processing Volume



Amazon Will Surpass 40% of US Ecommerce Sales in 2024

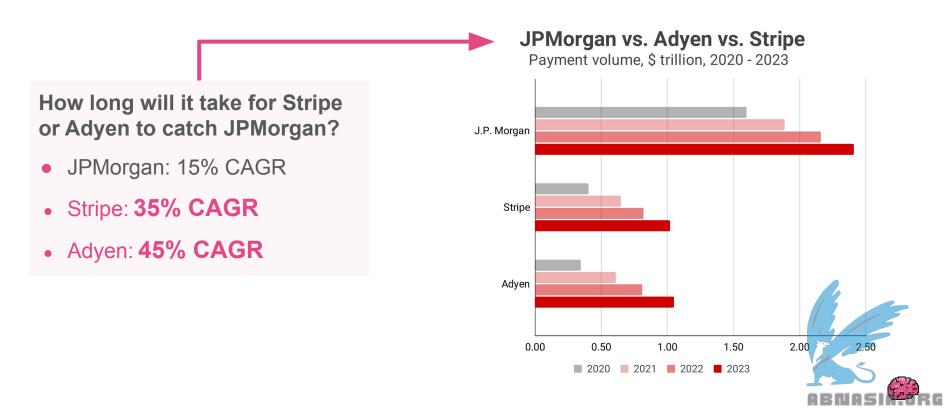
billions in US Amazon retail ecommerce sales and % of total retail ecommerce sales, 2020-2025



Note: represents the gross value of products or services sold on amazon.com (browser or app), regardless of the method of payment or fulfillment; excludes travel and event tickets, Amazon Web Services (AWS) sales, advertising services, and credit card agreements; includes direct and marketplace sales; excludes Amazon Business sales Source: EMARKETER Forecast. Feb 2024



"Digitally Native Vertical Processors" continue to take market share from incumbents, with no sign of that trend slowing



Stripe is indexed to growth companies, who grow quickly into massive enterprise clients

- Stripe's 2023 letter mentioned 100+ clients processing at least \$1 billion per year
- 82% of tracked Al companies are Stripe customers
- OpenAl is on track for \$3.7 billion in revenue in 2024, and anticipates \$11.6 billion in 2025

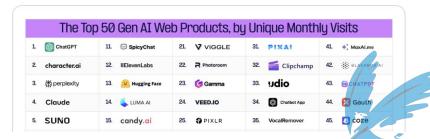


X

a16z made this handy list of the top 50 Al Gen Al web products: a16z.com/100-gen-ai-app...

We checked, and turns out that 82% use @Stripe.

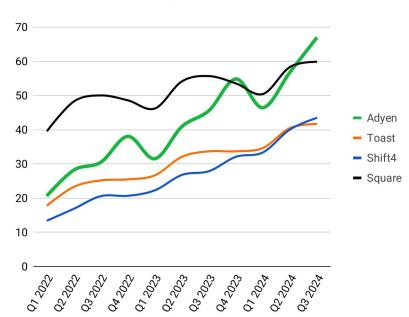
We've been building a bunch of functionality that's useful for Al products, including usage-based billing (stripe.com/billing/usage-...) to handle... Show more



E-commerce is eating in store: Adyen is now Processing more in-person than Toast, Shift4 or Square



vs. Toast, Shift4 and Square | \$ billion | Q1 2022 - Q3 2024



- Adyen processed \$1.35 tillion in payments in the last twelve months (up 41% compared to previous period)
- In Q3 2024, Adyen processed \$67 billion in in-store payments. More than Toast (\$42), Shift4 (\$44B) and Square (\$60B)
- Expects to grow net revenue annually "between the low-twenties and high-twenties percent, up to and including 2026"

Online, in-store, single platform and highest conversion is the battleground. There are haves and have nots.

Have's



20% YoY revenue growth*

32% YoY payment volume growth*

Single platform, single API
Uniform in store / online offering
All payment methods available in same platform
Compete on auth rate and conversion
Grow via direct sales

Have nots

global payments	worldpay	fiserv.
6% YoY revenue growth**	5% YoY revenue growth*	9% YoY revenue growth**

Multiple platforms, multiple APIs and integrations

No uniform in store / online offering

Payment methods vary by platform

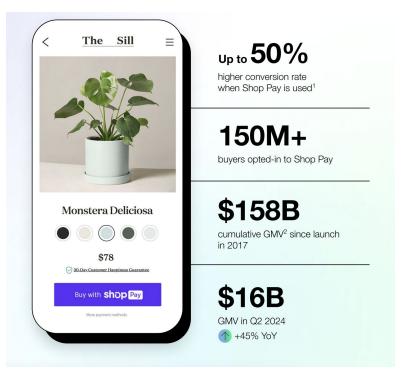
Compete on price

Grow via M&A



^{*} Q3 2024 | ** Q3 2024, Merchant Solutions only

Accelerated checkouts are now tablestakes. Traditional acquirers need a play here

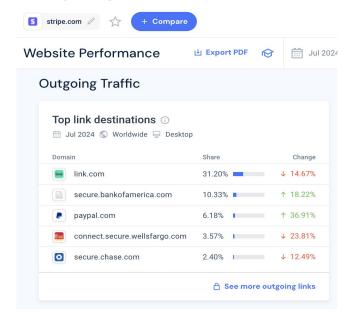


- Accelerated checkouts eliminate the need to enter card numbers
- Almost 40% of Shopify Payments are by Shop Pay
- PayPal launches Fastlane to completed with Shop Pay & Stripe Link.
- U.S. banks launch Paze, enabling 150 million cards for accelerated checkout experience

Source: Shopify

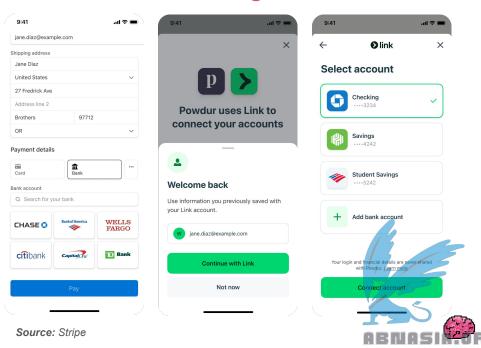
Stripe wants to make Pay by Bank a reality in the U.S.. Makes Pay by Bank available in Link

Stripe's Link represents 1/3 of the outgoing traffic from Stripe.com



Source: SimilarWeb

Customers can pay with their bank accounts when checking out with Link



Stripe had a banner year, Billing became a "Unicorn", they went multi-PSP and acquired Stablecoin company Bridge for \$1.1 billion

Figure 1: Magic Quadrant for Recurring Billing Applications



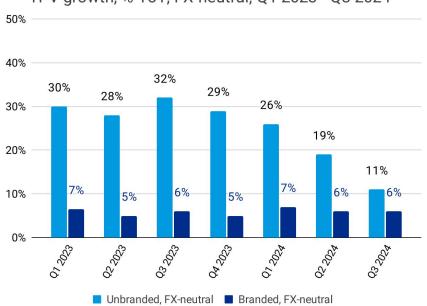
Gartner.

- Stripe's Revenue and Finance Automation suite, which is "on track to exceed \$500 million in annual revenue run rate"
- The company goes "multi-PSP" allowing merchants to "bring their own processor".
 Stripe wants to be a software company more than it wants to be a payments company
- Stripe also made the largest acquisition in the crypto industry, buy agreeing to buy Bridge, a startup that helps companies issue stablecoins

06 PAYMENTS

PayPal didn't shock the world, but got its mojo back. Ambition to grow profitably came at a cost



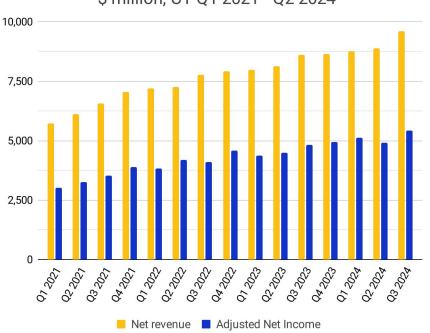


- Launched an accelerated checkout solution Fastlane. Partnered with Adyen, Fiserv and Global Payments on distribution.
- Became an alternative processor for Shopify Payments (alternative to Stripe).
- Management refocused the company on "profitable growth", starting with Braintree, which hurt growth

06 PAYMENTS

Visa and Mastercard settle antitrust suit, but then a judge overruled the settlement - not out of the woods yet

Visa | Net Revenue & Adjusted Net Income \$ million, CY Q1 2021 - Q2 2024

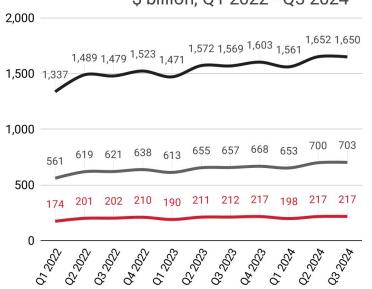


- Visa and Mastercard agreed on a settlement, which was expected to save merchants \$30 billion in card fees over five years
- The settlement also allowed merchants to stop accepting digital wallets such as Apple Pay
- However, a federal U.S. judge blocked the settlement
- The legal battle between merchants and the card schemes dates back to early 2000s

06 PAYMENTS

Capital One entered the chat, just as the DoJ puts pressure on Visa and Mastercard "duopoly"

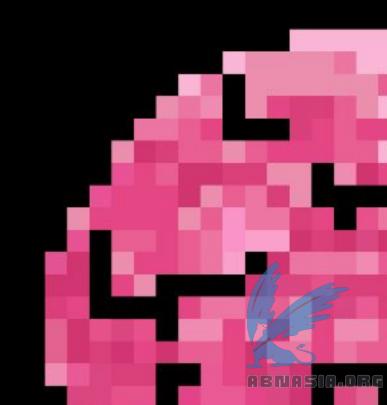
Capital One + Discover | Purchase Volume \$ billion, Q1 2022 - Q3 2024



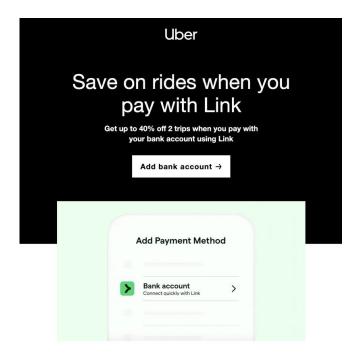
- Visa, Payment Volume, U.S.
- Mastercard, Payment Volume, U.S.
- Capital One Domestic Card
 + Discover proprietary network volume

- Visa, Mastercard and Amex got an unexpected competitor in Capital One
- The merger of Capital One and Discover will create the largest credit card lender in the U.S.
- Capital One's key rationale for the merger is Discover's three-party network, similar to Amex's

07 OPEN FINANCE



The killer app for Open Banking is payments Now on every SaaS platform and AI company checkout page



Link is a fast and simple way to pay with your bank account. Right now, we're offering 40% off your next 2

- Stripe announced several big names adopting Pay by Bank including AirBnB and Uber
- The value proposition for merchants is not about price, Stripe's sticker price is 2.6% compared to 2.9% for cards
- Merchants offer discounts to consumers, as the method yet to find its competitive edge against cards

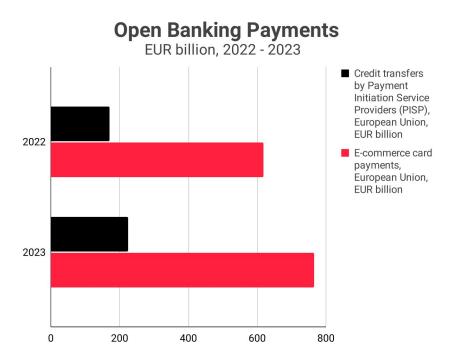
Payments need a Real-Time Payment rail to compete with cards. There are two in the U.S.: RTP and FedNow

FedNow® Service - Quarterly Statistics

What happened here?

Quarter	Total Settled Payments	Quarterly Volume Growth (percent)	Value of Settled Payments (\$)	Quarterly Value Growth (percent)	Average Value per Payment (\$)	Average Daily Volume of Settled Payments	Average Daily Value of Settled Payments (\$)
2024:Q3	336,487	115.6%	\$17,491,272,167.40	3453.3%	51,902.01	3,657	\$190,122,523.56
2024:Q2	156,076	60.2%	\$492,250,054.25	1466.6%	\$3,153.91	1,715	\$5,409,341.26
2024:Q1	97,424	133.6%	\$31,421,884.71	130.1%	\$322.53	1,071	\$345,295.44
2023:Q4	41,698		\$13,656,607.58		\$327.51	453	\$148,441.39
2023:Q3	5,564		\$4,776,755.83		\$858.51	75	\$64,550.75

It took several years, but Open Banking-powered payments finally began appearing in the data across Europe.



- The regulation requiring banks to provide Open Banking APIs (including for payment initiation) came into force in 2019
- Every bank had its own flavor of Open Banking APIs, making them hardly reliable for e-commerce payments
- It took years and wider adoption of instant payment rails (SEPA Instant) for Open Banking payments to start taking off

Source: European Central Bank

Life after cards: lenders in Brazil and India experiment with issuing credit without issuing credit cards







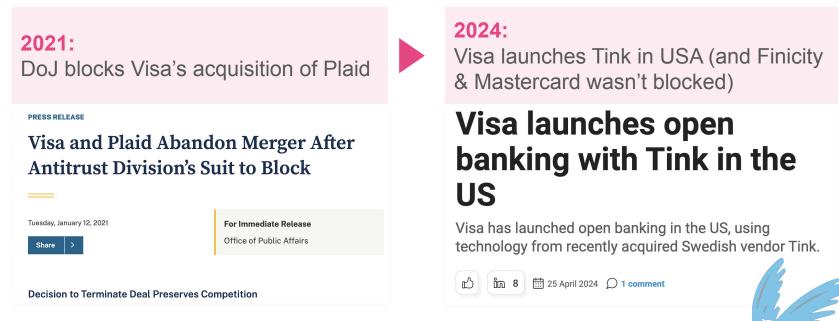


- Central bank sponsored, launched in November 2020
- Subsidized consumer discounts to incentivize use
- E-com + POS, seeks to eventually replace cash and cards
- Projected to account for 50% of e-com payment value by 2027

- Central bank sponsored, launched in 2016
- Works with commercial digital wallets including Google Pay, Paytm, PhonePe, MobiKwik, and Amazon Pay
- E-com + POS, seeks to replace cash
- Wallets account for > 50%
 POS + e-com value

- PIX (Brazil) and UPI (India) are two most successful Real-Time Payment rails
- Initially used for peer-to-peer payments, they started coming to online and in-store payments
- Adoption sparked creation of credit-like instruments (e.g. Pix Installments) to compete with credit cards
- Eliminating cards as a payment instrument, does not mean eliminating credit

If "Pay by Bank" begins to challenge card dominance, Visa and Mastercard will be ready



Don't forget Visa's flex credential and the role of tokenization...

The US joined the world with open finance regulation. But open finance has no business model for banks and that holds it back.



The good:

Credit, debit and prepaid included

The bad:

No technical standard prescribed

The ugly:

 Zero upside for banks implementation will be slow-walked





The good:

- ~99%+ connectivity
- Clear standards

The bad:

- Checking only
- Only 12.2m users

The ugly:

 No upside for banks means many use cases don't work or not supported



The good:

- 28.4m accounts linked
- Covers *all non lending* and even tax data
- Fintech companies pay underlying banks and Fl's to access data

The bad:

No payments (but UPI)

The ugly:

No lending products



If we fix incentives we fix open finance. We can learn a lot from the card networks (good and bad)

Best of both?

Card networks do some things super well that open finance lacks

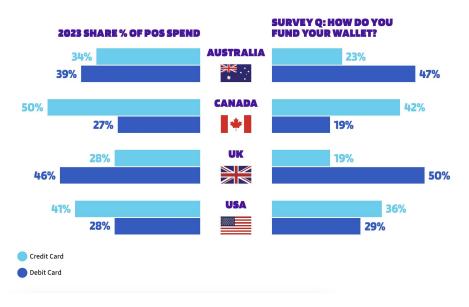
- Interchange revenue is an incentive model.
- That funding covers the costs of fraud.
- Network rules govern what happens if something goes wrong
- This drives a flywheel of adoption
- Users understand the behavior when they see a logo

Open finance might fix the bad parts about cards because it has more data

- Open finance has more data that can travel with the payment.
- Meaning we have more opportunities to prevent fraud & build loyalty.
- Subscriptions on credit cards could be shifted to reduce costs for merchants.
- High value purchases could default to pay by bank to help merchants.



Wallets + Real-Time-Payment Rails provide a genuine alternative to cards.



- Wallets are predominantly funded by cards. Cards didn't lose to wallets, wallets created a security / convenience layer on top of cards
- Wallets can route payments based on consumer preferences: to card rails, to Real-Time Payment rails, to Open Banking APIs and to credit directly to issuers (such as Affirm)...
- ...and wallets can add an identity and authentication layer

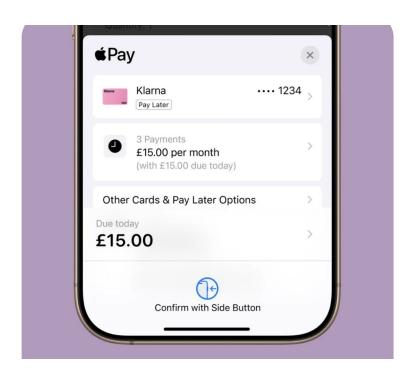
Source: The Global Payments Report 2024, Worldpay

08 BIGTECH & WALLETS WARS



07 BIGTECH & WALLETS

The opening of NFC is a game changer with the potential to make the market more competitive on-device



Wallets are the center of gravity

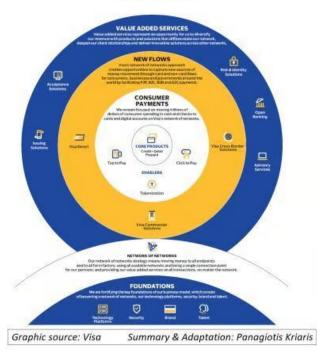
- 37% of e-commerce transactions, and 31% of POS use mobile wallets
- 65% of U.S. adults said they used a digital wallet at least once in the past month
- EU Forced Apple to open NFC and Apple now to do that in major markets like the US. Makes 3rd party wallets like Venmo potentially competitive at POS.

Source: Paynet pro, Capital One Shopping

07 BIGTECH & WALLETS

Flexible credentials mean any payment method could fit in any wallet. We already see this with BNPL inside Apple Pay etc.

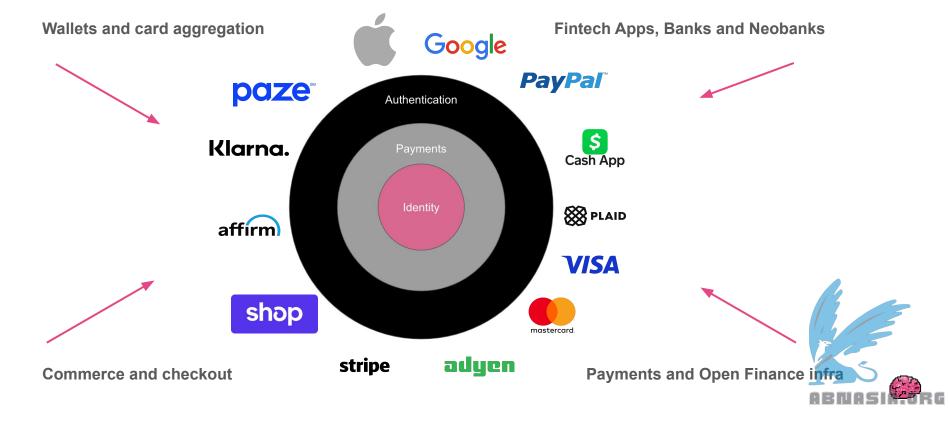
1. The Strategy



- Tap to pay by card or bank, confirm identity, add cards or make P2P payments
- Live at Affirm that now offers a single card for debit and credit. Users can choose at checkout or later which to use.
- Secret weapon for brand conversions. Why convert your Mastercard or Discover portfolio to new PANs when you could use flex credential over the top .

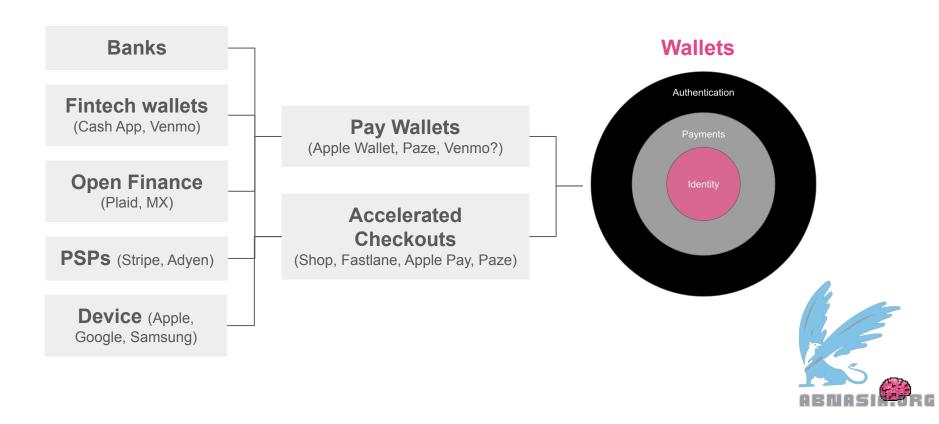
Source: Visa, Affirm, Panagiotis Kriaris

Wallet Wars - The battle to own identity is how companies will own the customer



07 BIGTECH & WALLETS

There are 5 different market actors vying to become wallets - with accelerated checkouts & consumer wallets becoming key



How will AI Agents co-exist with wallets?

For Al agents to work, they need three things:

A secure place to live

A strong identity credential

This is possible in wallets today with three technologies.

Secure enclaves on mobile

Digitally issued Real-ID's

The ability to securely authenticate and transact

The opening of NFC on iPhone and Visa Flex credential.

Agents will live on device, in the secure element and use tiny LLM models. Watch for experimentation with these ingredients in digital wallets next year.

07 BIGTECH & WALLETS

How will we regulate wallets? The CFPB has a rule, but the lawsuits and push back have started.

CFPB Finalizes Rule on Federal Oversight of Popular Digital Payment Apps to Protect Personal Data, Reduce Fraud, and Stop Illegal "Debanking"

CFPB Orders Apple and Goldman Sachs to Pay Over \$89 Million for Apple Card Failures

Companies illegally mishandled transaction disputes and misled iPhone purchasers about interest-free payment options

OCT 23, 2024



There has to be a better way?



07 BIGTECH & WALLETS

The Australia model provides a framework for potential Open Finance, Wallet and Al Agents combinations



- 1. **Declaration** Types of actions that can be initiated
- 2. Rules What rules apply to that action type
- 3. Standards That define the implementation of the action

It also creates two roles

- The Accredited Action Initiator or AAI who can give instructions on behalf of a consumer.
- An Action Service Provider or ASP required to take actions in accordance with those instructions.

A simple framework for AI, Open Finance, Data and Wallets in one



09 STABLECOIN RENAISSANCE



Stripe's \$1.1bn acquisition of Bridge has got everyone talking about Stablecoins, as they move from trading pair to payments rail.



	Transaction volume (\$)	# of transactions
Stablecoins	\$8.5 tn	1.1 bn
PayPal	\$0.42 tn	6.6 bn
Visa	\$3.96 tn	59.3 bn
ACH	\$21.6 tn	8.3 bn
Fedwire	\$284.2 tn	0.05 bn

Some of the above are a16z investments. For a full list see a16z.com/investment-list. This content should not be considered investment advice. 1/ Source: Artemis as of 9/30/2024 | Adjusted transfer volume is designed to strip out MEV activity and intra-centralized exchange transfers, providing a clearer picture of genuine user-driven stablecoin activity.

2/ Sources: Artemis, PayPal, Visa, Nacha, FRB Services as of 6/30/2024.

Stablecoins have found product market fit

But does the data show it?

- Most volume is for trading and bots?
- Stablecoin supply is not Stablecoin volume
- Apples to oranges use of data by promoters (e.g. Visa doesn't do capital markets trades)

Source: a16z, Artemis

The Crypto vibe has shifted allowing institutions to begin meaningfully allocating and investing.



2022:

FTX bankrupt, CEO arrested, Crypto crash, Anti Crypto army.

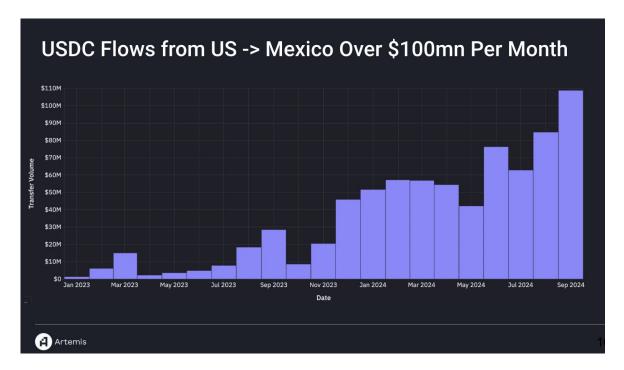


2024:

EU's MiCA regulation passes, new US administration, Bitcoin ETF launch



It's not all Crypto bots. Removing bots Visa estimates \$677.8bn adj transaction volume, new use cases show rapid growth.



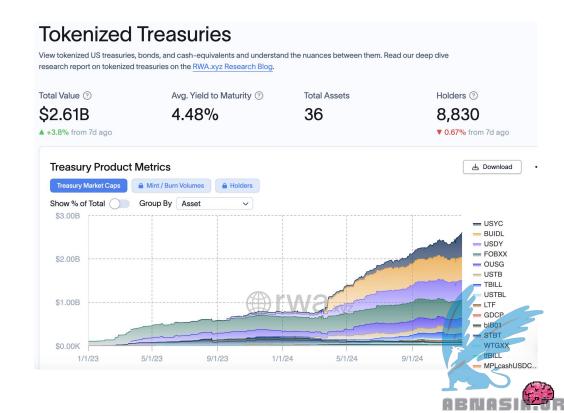
Complex reality

- Space X does treasury management, USAID does disbursements, Nigerian consumers hold USD. These are rapidly growing.
- Settlement against bank accounts for Crypto traders (e.g. hedge funds) is a major opportunity for banks.

You're underestimating the power of global, 24/7 transfers between yielding assets (e.g. Money Market funds) and dollars.

Money Market fund upgrade

- Most money market funds are open 5 days a week and available nationally.
- Digital businesses operating globally lose billions to those delays.
- The BUIDL token (and competitors like Ondo) are available 24/7 between treasuries and Stablecoins.



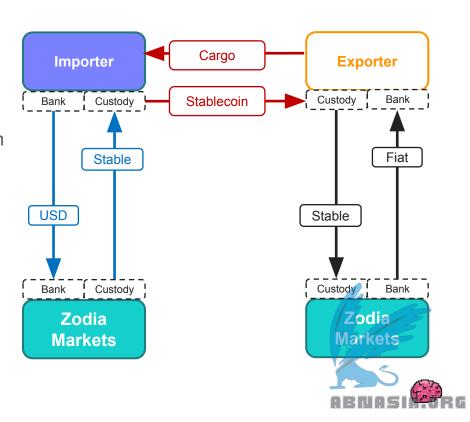
Source: RWA.xyz

Corporate Cross border with Stablecoins makes global south x global south transactions near instant.

Import / Export use case - Live in production

- Stablecoins + bank book transfers are a viable alternative to payment messaging networks
- The cargo is tokenized (e.g. oil), and the Stablecoin payment (e.g. USDC, USDT) is held in escrow until the delivery is complete. Then the smart contract unlocks the stables, and pushes a book transfer at the bank. Settlement is near instant.
- For global south x global south transactions this is much faster than the ~14 day wait via SWIFT, and high failure rate of transactions

(Special thanks to Zodia markets for sharing this example).



Perfect timing to launch a podcast all about Stablecoins and real world assets



Our most downloaded episodes were:

- Bridge CEO Zach Abrahams on the State of Stablecoins in 2024
- 2. Sling Money CEO Mike Hudak: Building the Stablecoin Venmo for the world
- 3. Every company needs a Stablecoin strategy with Visa and Digital Asset.



10 THE SCAMDEMIC



We're in a scamdemic - we lost \$1.03trn to scams in 2023. The industries biggest issue in 2025...

The Global Anti-Scam Alliance reported that

- 70% of scams go unreported
- Only 4% of users are compensated

The hardest hit were U.S. citizens, losing on average \$3,250 per capita



Source: Global Anti Scam Alliance

Deep fakes at KYC are skyrocketing, especially in Brazil. They're believable, and most orgs haven't adapted their KYC approach.

This is a global issue, leading to alerts from regulators and governments.



FIN-2024-Alert004

November 13, 2024

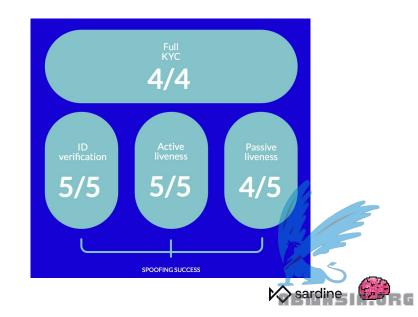
FinCEN Alert on Fraud Schemes Involving Deepfake Media Targeting Financial Institutions

Suspicious Activity Report (SAR) Filing Request:

FinCEN requests that financial institutions reference this alert in SAR field 2 (Filing Institution Note to FinCEN) and the narrative by including the key term "FIN-2024-DEEPFAKEFRAUD".

The U.S. Department of the Treasury's Financial Crimes Enforcement Network (FinCEN) is issuing this alert to help financial institutions¹ identify fraud schemes associated with the use of deepfake media² created with generative artificial intelligence (GenAI) tools.³ This alert explains typologies associated with these schemes, provides red flag indicators to assist with identifying and reporting related suspicious activity, and reminds financial institutions of their reporting requirements

It is possible to detect but out of date software, or not using risk signals like device & behavior have led to a spike.



Source: The state of Deepfakes report, FinCEN

Scam reimbursement frameworks are now going global. The US will do something in 2025



The good:

- Live regulation
- Scams falling YoY
- Banks and PSPs investing in detection

The bad:

- 50/50 disadvantages smaller PSPs
- No big tech or telco data sharing

The ugly:

 Scams shifted to cards from push payments

Singapore nailed it



The good:

- Live regulation
- Receiving FI 100% liability
- Big tech, telcos and FIs all share data and intelligence
- Direct requirement to invest in fraud detection
- Clear definition of gross negligence by a consumer (shifts liability to customer)

The bad: /
The ugly:





The good:

- Huge effort in US private sector underway
- PSD3 will require data sharing and liability

The bad:

- Major consumer harm
- Active lawsuits

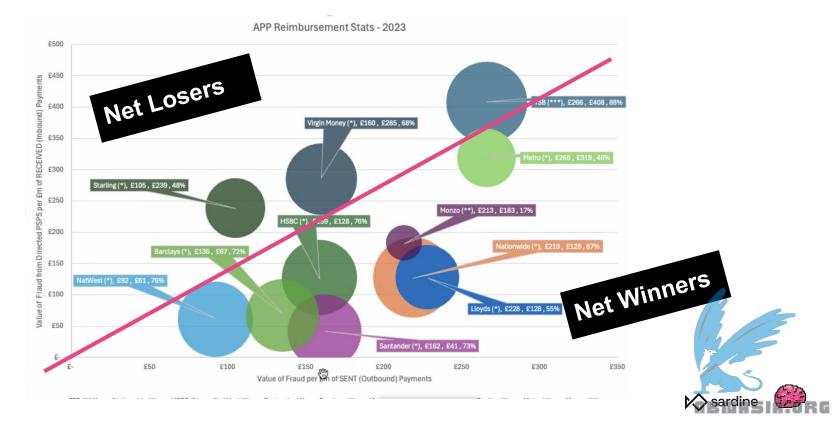
The ugly:

 A lot of finger pointing and lawfare to get through before the dust settles



Source: PSR

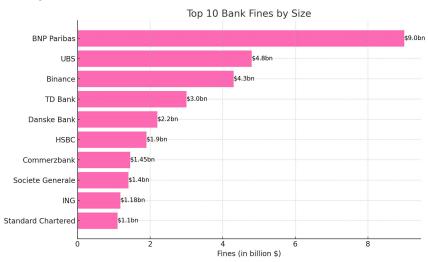
The UK's 50:50 liability split benefits big banks more than small PSPs - Need a different model (e.g. Singapore on previous page)



AML Fines don't help anyone fix the avalanche of new alerts

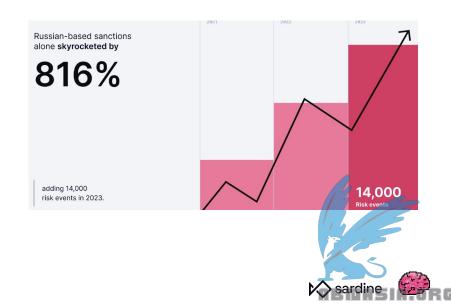
Mo' Fines:

e.g. TD Bank received a \$3bn fine this year.



Mo' Problems:

e.g. Sanctions on Russian names up 816% since 2022



Source: Sardine, Goodjobsfirst

Wrap

Simon's 2025 predictions

- Scams become the #1 industry issue. We see pressure on big tech, marketplaces and financial services collaboration.
- Now is a great time for de-novo and acquiring charters. Watch for Revolut to get it in the US in 2025 or 2026.
- Public Fintech stocks continue to outperform along with broader financials.
 US banks benefit from weakening of Basel III.
 Fintech companies have a path to charters or licencing. H1 is fire, H2 a bit more cloudy.
- A less aggressive DoJ will lead to major
 M&A between PSPs and Open Finance, and possibly card networks and open finance.

- Wallets and Fintech Apps all launch their Al Agent features. Starting with iOS19.
 Venmo quickly copies + possibly leapfrogs.
- 1033 will be fine, but it's sequel for more open finance data may get sh*t canned for a while.
- Regulatory clarity around Crypto in the US is a major unlock. Stablecoins become a major cross border rail and payment type.
- We'll get FIT21 and SAB121 passed in congress in 2025. With the Crypto bull run coming, we need consumer protections and better accounting rules ASAP.

Jev's 2025 predictions

- Stripe, Adyen and PayPal will go aggressively after in-store commerce. This will finally start hurting the incumbents that competed with each other and banks
- Neobanks will go after deposits and "home bank" customers using deposit matches and similar incentives (the same way Robinhood gets investors)
- Europe will become a major battleground for many U.S. Fintech companies. Some will choose to grow organically, others will use the M&A playbook

- PayPal will try to monetize the 60 million of Venmo users by using Cash App's playbook. This will turn into an exciting rivalry
- Klarna will go public and will be trading with a "European discount" to its peer Affirm. Will focus heavily on the US market to change this perception
- Capital One will merge with
 Discover, and we might realize that the
 promise to "invest in the network to
 create a rival to Visa" was just a sales
 pitch to get the deal approved

Other thoughts Simon ran out of time to expand.

- What goes up must come down. Crypto is up, Fintech is up, venture capital is back and there's hope again for embedded finance. But the market cycle can turn sour.
- Another crypto bull run will mean more rug pulls and scams. We've already seen the Hawk Tuah rug pull exit scam, and it won't be the last.
- Credit quality issues are hiding in plain sight. The electorate has rage-quit every incumbent government in 2024. There's a tension under the surface and it's due to a cost-of-living crisis that permeates every issue.
- The post Global Financial Crisis economic orthodoxy is changing. The ZIRP and expansion of government debt era has ended. The government backed growth era has started. It comes in many flavors (maximally de-regulatory in the US for example)
- B2B Fintech Neobanks are reconfiguring. Brex is now winning in enterprise. Navan is now the pioneer of "Bring Your Own Card
- I missed out a whole section on infrastructure. Two years running. But consider, will every Fintech SaaS be displaced by a Fintech GenAl startup? How will they price?

About the authors



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