

Pix: Navigating the Waters between Innovation and Risk



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Outline

- ABOUT PIX
- CBB AGENDA FOR PIX
- DATA ON PIX
- PIX: RISKS AND CHALLENGES

About Pix



pix
powered by **Banco Central**



- Brazilian instant payment system that enables its users - people, companies and governmental entities - to send or to receive payment transfers at any time.



pix
powered by **Banco Central**

- Created by the Central Bank of Brazil (CBB) in August 2020
- Regulator, manager and overseer





- 24/7
- Mandatory for FI and payment institutions > 500k active costumers
- “Free” - but only for individuals (not companies)



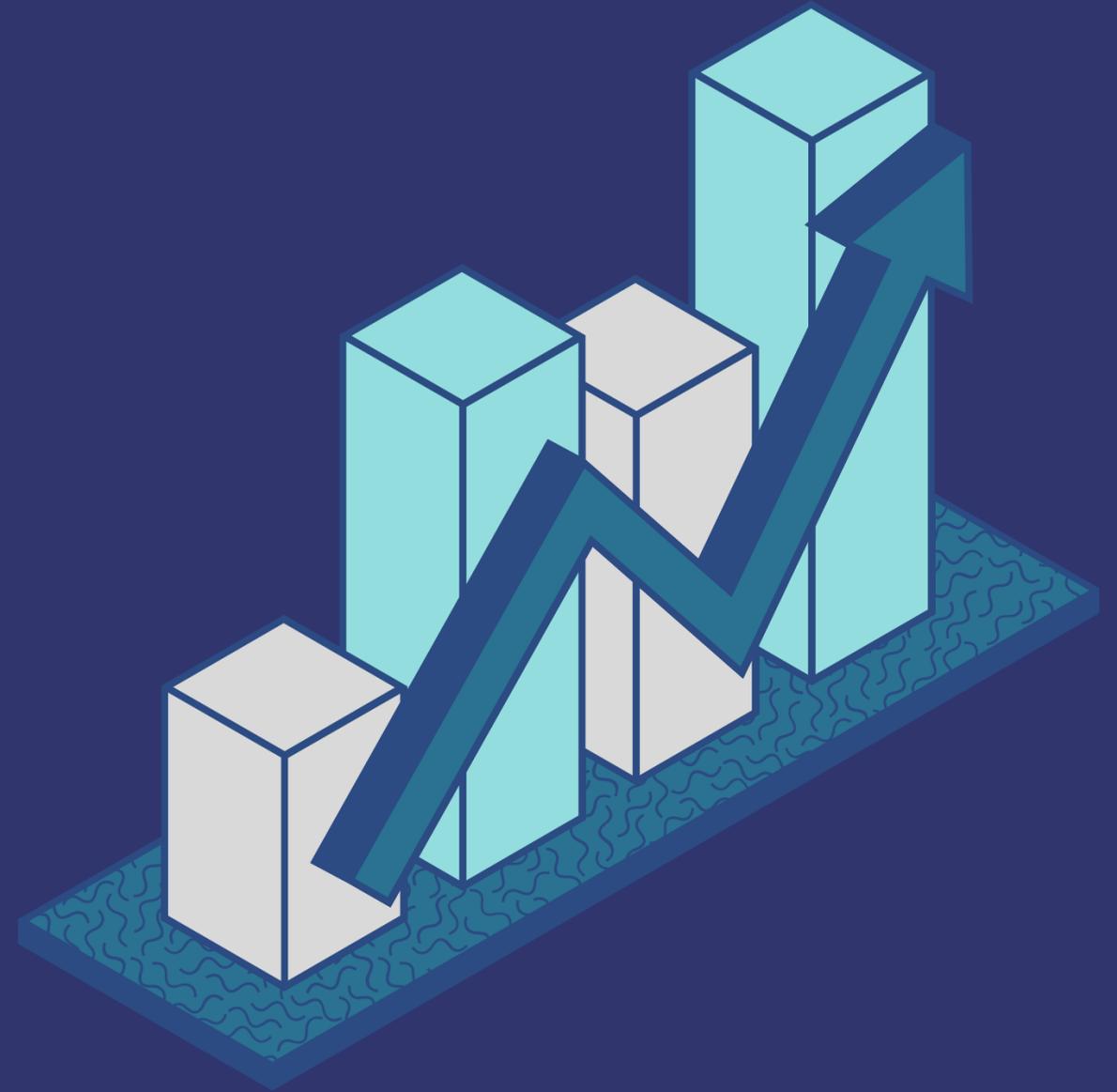
- Easy to use: Pix Key
- A shortcut for receiving money through Pix.
- Instead of sharing your full bank account details, you just share your Pix key;
 - Phone number
 - Email address
 - Tax ID (CPF/CNPJ)
 - Random Code

PIX



TEN SECONDS OR LESS

Data on pix



AMOUNT OF USERS

200,000,000

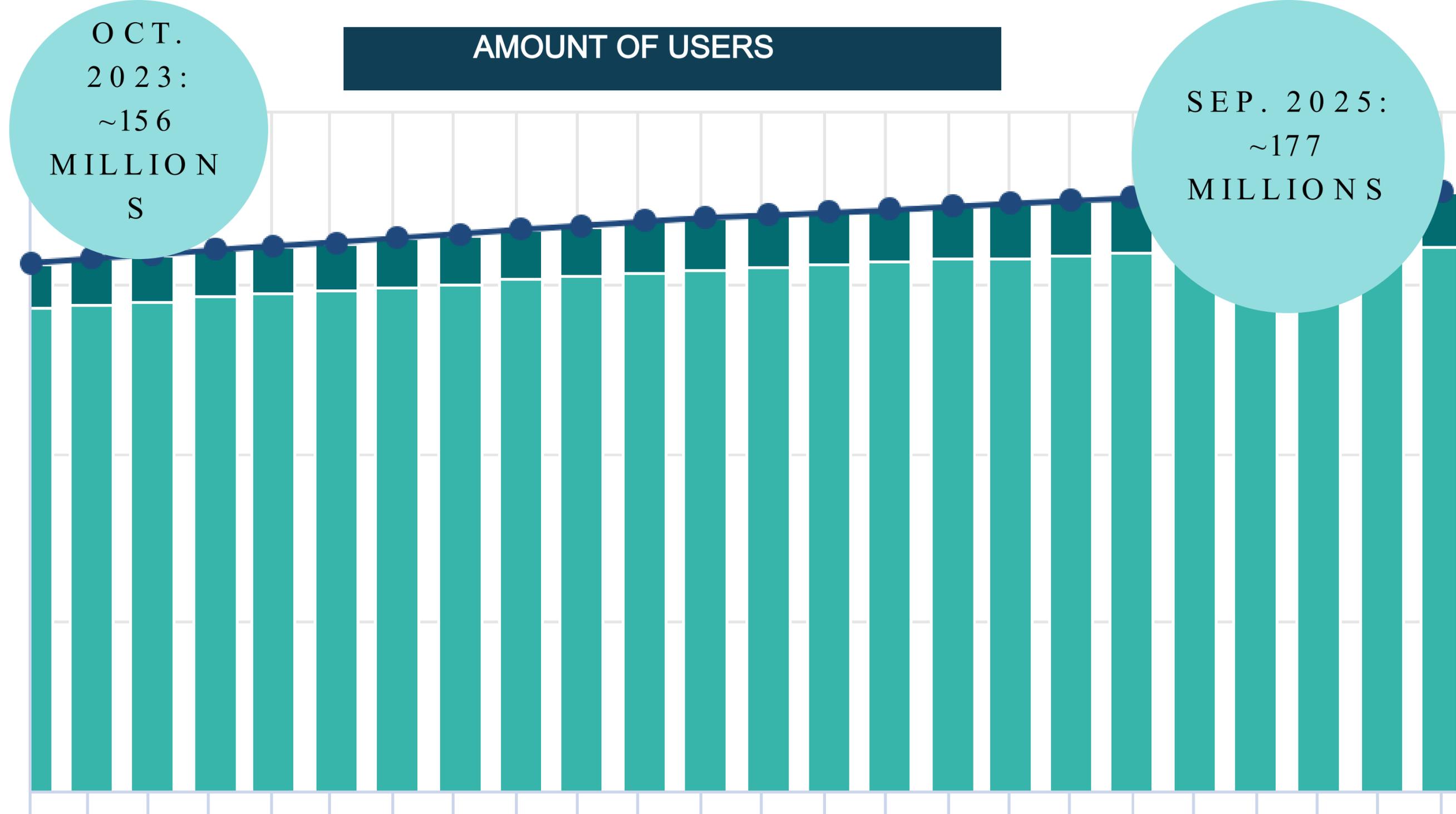
150,000,000

100,000,000

50,000,000

0

O... 2023 ... 2024 ... 2025 ...



OCT. 2023:
~156
MILLIONS

SEP. 2025:
~177
MILLIONS

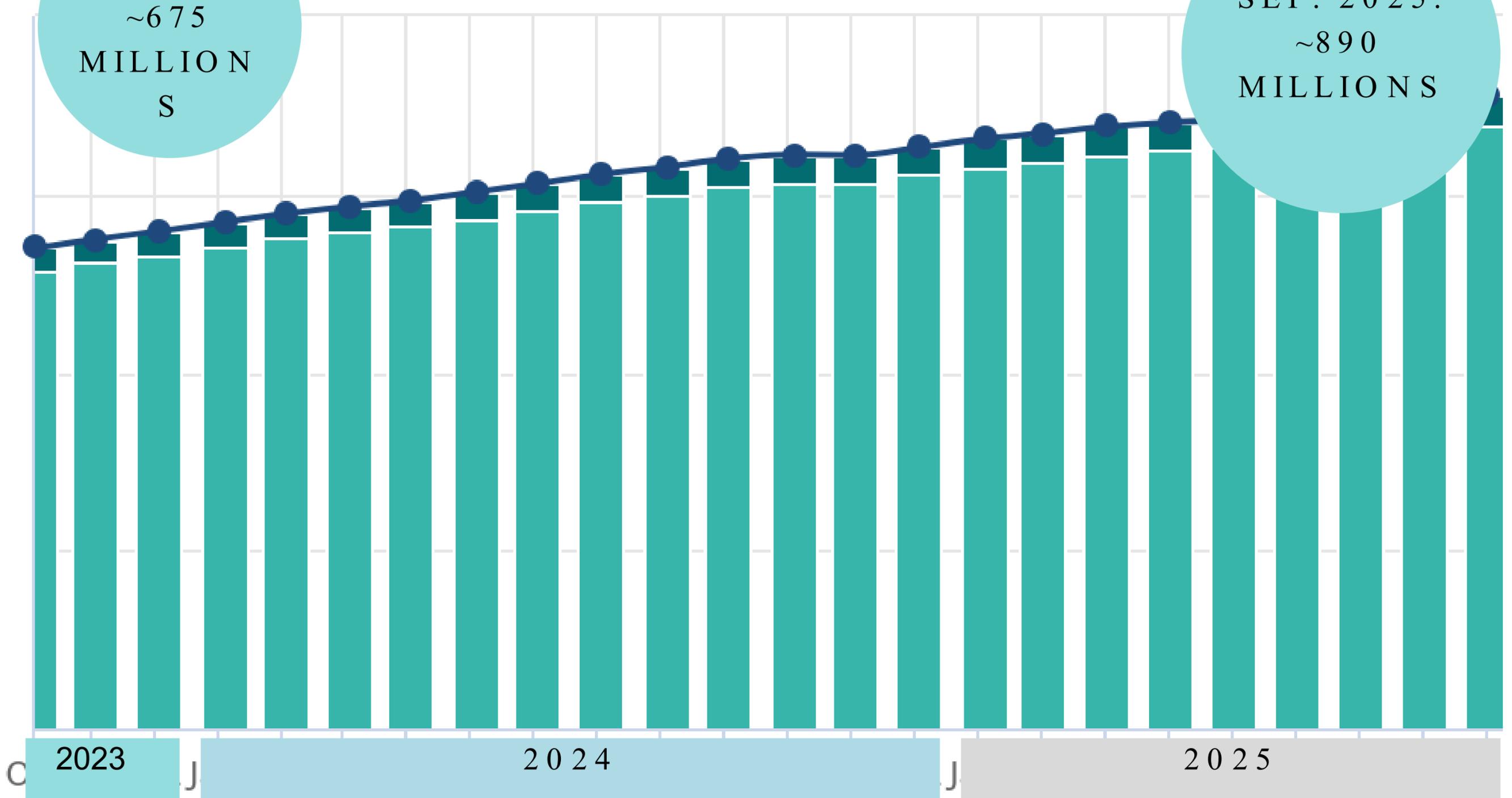
● Users - Companies ● Users - Natural Person ● Total

AMOUNT OF USERS

1,000,000,000
750,000,000
500,000,000
250,000,000
0

OCT.
2023:
~675
MILLION
S

SEP. 2025:
~890
MILLIONS



● Keys - Companies ● Keys - Natural Person ● Total

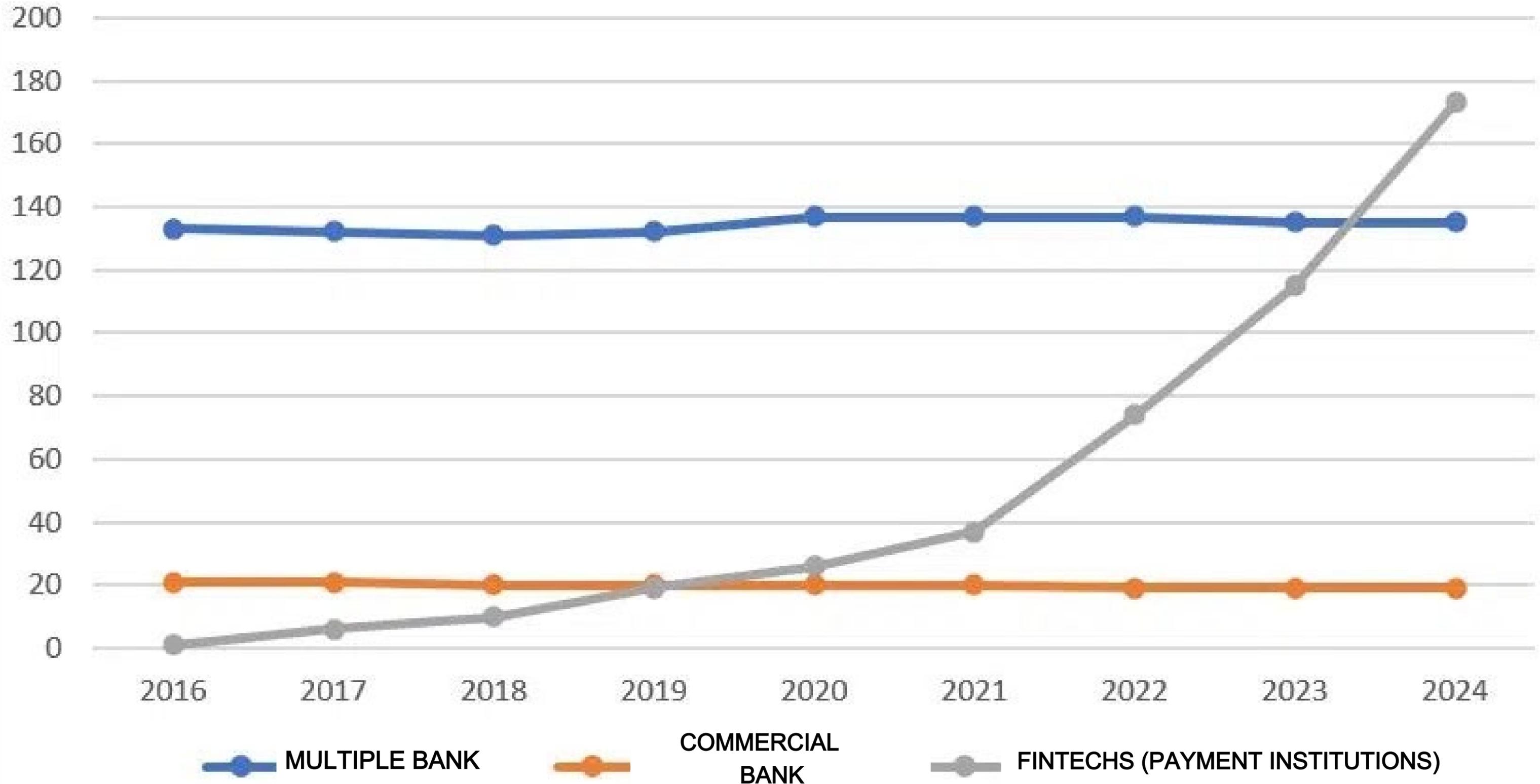
Data on pix

- Considering the number of transactions, Pix is the most widely used payment method by Brazilians (Dec. 2024) - 63.8 billions of transactions ;
 - Brazilians prefer to use Pix than money (BCB, 2024)
 - Pix transactions have exceeded the combined total of credit card, debit card, boleto, TED (wire transfer), prepaid card, and check transactions, which amounted to 50.8 billion ([Febraban](#) and [CBB](#)).

The Pix “paradox”...

- Pix’s success is due to be free of charge), its instantaneity and 24/7 availability ;
- Pix lowered market entry barriers, making it easier for new players (especially fintechs) to join the financial system .

NUMBER OF FINANCIAL INSTITUTIONS AUTHORIZED BY THE CENTRAL BANK OF BRAZIL (BCB) – 2016 TO 2024



The Pix “paradox”...

- This was highly beneficial for financial inclusion : fintechs .
 - Ex.: Nubank - helped democratize access to financial products and services.
- However, the same advantages and positive outcomes that drove Pix’s success have also given rise to new concerns.

Pix: risks and challenges

Pix: risks and challenges

- Hacking
- Money laundering

Pix: risks and challenges

- Hacking
 - Data leakage;
 - Since its introduction, there have been several data breaches involving Pix keys;
 - 2023 (Jan–Dec): 87.3 thousand Pix keys leaked
 - 2024 (Jan–Sep): 125.8 thousand Pix keys

Pix: risks and challenges

- Hacking
 - Data leakage;
 - Since its introduction, there have been several data breaches involving Pix keys;
 - August/2021 - 415 thousand keys
 - July/2025 - 46.9 million exposed keys (data from ~11 million people)

Pix: risks and challenges

- Hacking

- Data leakage;

- Since its inception, several data breaches involving Pix keys;

- August/2025

- July/2025 - 400,000 compromised keys (data from ~ 11 million people)

Central Bank response:
“No sensitive data were exposed, such as passwords, transaction details, account balances, or any other information protected by banking secrecy.”

Pix: risks and challenges

- Hacking

- Data leakage;

- Risks: frauds

- July/2024 - June 2025 (FBSP, 2025):

- 40.5% of respondents from classes A/B reported scam attempts via fake call centers, compared to 23.4% from classes C/D/E.

- 36.7% from classes A/B experienced scams involving Pix or payment slips, versus 21.9% from classes C/D/E.

Pix: risks and challenges

- Hacking

- Data leakage;

- What are the risks?

- The data by itself does not allow account movement, but it can be used to **facilitates fraud**.

- Names, banks, account numbers and Pix keys become valuable when **combined with other databases obtained illegally**, or when exploited through social-engineering techniques — **fake calls and fraudulent messages containing malicious links**.

Pix: risks and challenges

- Hacking
 - Data leakage;
 - Unauthorized transfer of funds:
 - July/2025:

6 Jul 2025

Hackers steal \$180M in Brazil's biggest bank breach

The authorities are working to track stolen funds on blockchain networks following a record-breaking financial hack.

Hackers Grab \$130M Using Brazil's Real-Time Payment System

HSBC and Another Firm Hit After Service Provider Breached; Some Funds Recovered

Mathew J. Schwartz ([@euroinfosec](#)) · September 3, 2025 

New hacker attack targets FictorPay, a business services company

According to one source, Brazil's Central Bank observed unusual financial transactions made through FictorPay and alerted Celcoin, the company to which the fintech is affiliated

By **Estevão Taiar and Álvaro Campos** — Brasília and São Paulo

10/21/2025 01:54 PM - Updated um dia



New hacker attack targets FictorPay, a business services company

~ US\$ 4.5 million dollars

According to one source, Brazil's Central Bank observed unusual transactions made through FictorPay and alerted Celcoin, the company to which the financial institution is linked.

By **Estevão Taiar** and **Álvaro Campos** — Brasília and São Paulo

10/21/2025 01:54 PM - Updated um dia



Pix: risks and challenges

- Money laundering
 - **Regulatory deficiencies** : Regulation on fintechs *versus* financial institutions;
 - No control, no transparency

Brazil carries out raids in crackdown on organized crime in the fuel sector

By Reuters

August 28, 2025 3:41 PM GMT-3 · Updated August 28, 2025



SAO PAULO/RIO DE JANEIRO/BRASILIA, Aug 28 (Reuters) - Brazilian police and tax officials carried out a series of raids early on Thursday across the country targeting multibillion-dollar money laundering and fraud schemes linked to organized crime in the fuel sector, authorities said.

It said 46 billion reais in illicit financial transactions linked to the schemes had moved through fintech companies from 2020 to 2024.

Pix: risks and challenges

- **Regulatory responses :**
 - **September 2025:** fintechs are now required to report their financial transactions, following the same standards applied to Pix operations;
 - Central Bank's intention: to hold fintechs (and financial institutions) accountable when they fail to exercise due diligence and allow the creation of "ghost" or fraudulent accounts (so-called "laranja" accounts);
 - **November 2025:** implementation of the Special Return Mechanism (MED): an instrument created by the Central Bank of Brazil that allows users to request the reversal of suspicious or fraudulent Pix transactions within a specific period, aimed at mitigating losses and strengthening consumer protection.

Thank you!

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