

Readme.txt

Greatness is forged in trying conditions. Adversity breeds resilience.

LatAm is hard. Capital is costly, talent is thin, and bureaucracy is bountiful. Those able to command these scarce resources are disproportionately rewarded. Thriving in this arid terrain has empowered entrepreneurs to build some of the world's very best companies. Historically, those who win here win bigger and win for longer. Now history is rhyming for tech companies, and the same pattern explains why in some cases **LatAm does it best**.

In this fifth anniversary of the Latin America Digital Transformation Report, we discuss the conditions that gave rise to the **Triumphant Three**, the triad of Latin American companies that rank among the global best, and we explore the factors that can produce LatAm's next trio of outliers.

Market dynamics trump market size. An environment with constrained human and financial capital naturally limits the amount of competition. As a result, winners command higher returns on their capital and capture larger market shares, not only in their core market but also in adjacent ones. These dynamics produced the Triumphant Three: Mercado Libre is Latin America's most valuable company with an ecosystem that marries commerce, fintech, logistics and advertising in a way that is unique in the world. Nubank is the world's largest digital bank, serving over 100 million people and delivering one of the highest returns globally. iFood has built one of the world's best food delivery businesses in terms of growth, market penetration, and profitability.

Despite the financial (and emotional) rollercoaster of the last few years, both founders and investors have strengthened their commitment to Latin America. Investors have reason for holding the line as historically Brazil has generated all-time highest returns for top firms in venture capital, growth, and private equity. In the last decade, local venture capital funds have far exceeded the returns of global peers and handily beat investment return benchmarks across asset classes and geographies.

While tech penetration has grown substantially since we began publishing this report, the long-term prize for catching up to peers continues to be immense, measured in the hundreds of billions of dollars.

Looking ahead, we believe value creation will continue to be concentrated as it often is in technology. In the US, the "Magnificent Seven" account for nearly ¾ of US tech company market capitalization. In LatAm, concentration of value among the Triumphant Three is even greater as the dynamics of tech are further compounded by the unique dynamics of LatAm.

Latin America's intensely digital population is at the forefront of adoption and usage of social platforms. Atop this legacy, new paradigms arise. Influencers are the new broadcasters. Online marketplaces the new shopping malls. WhatsApp the default platform for interaction. All has the potential to create, automate, and elevate communications, connections, decisions, and workflows. Pix's ubiquity married with Open Finance's innovation provokes founders' creativity. **These tectonic shifts are "everything, everywhere, all at once"** and pave the way for the next generation of entrepreneurial triumph.

In technology, not everything is bits and clouds. Sometimes innovation is manufactured with steel and concrete. Latin America is blessed with dense rainforests, rich mines, bright sunlight and voluminous rivers. The region has a right to win the race for the clean (and cheap) energy transition that will be required to train new models, move cars and power cities. Paradoxically, in a bureaucratically complex land, we have seen regulation act as a tailwind in the region's preeminence in fintech and we believe the same playbook can usher in a golden age of innovation in energy that stands not only to generate immense value but also safeguard our planet.

Atlantico is a leading early-stage venture capital fund investing in Latin America

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Our Research Partners

We are thankful for the help of these organizations and contributors who partnered with us on primary research, data collection, interviews and analyses

Research initiatives



National Opinions: AtlasIntel and Atlantico surveyed a representative population across Brazil



Atlantico Student Survey:
Preparo alongside Atlantico
surveyed over 600 undergraduate
students

Research partners







Survey & data contributors















Company cases





































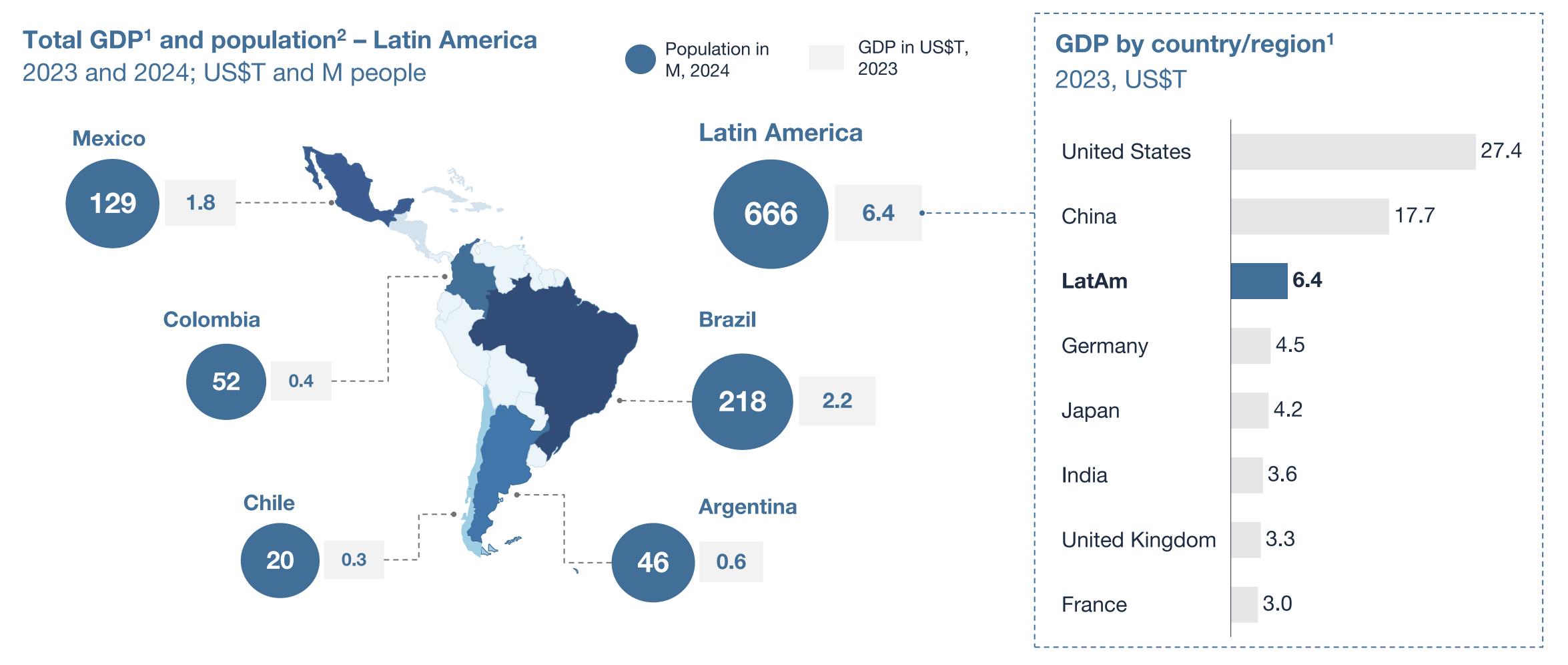
... and countless other experts and friends who we interviewed and shared on- and off-the-record data and insights.

Thank you!





Latin America has a 666M population and a combined GDP that would make it the world's 3rd largest economy





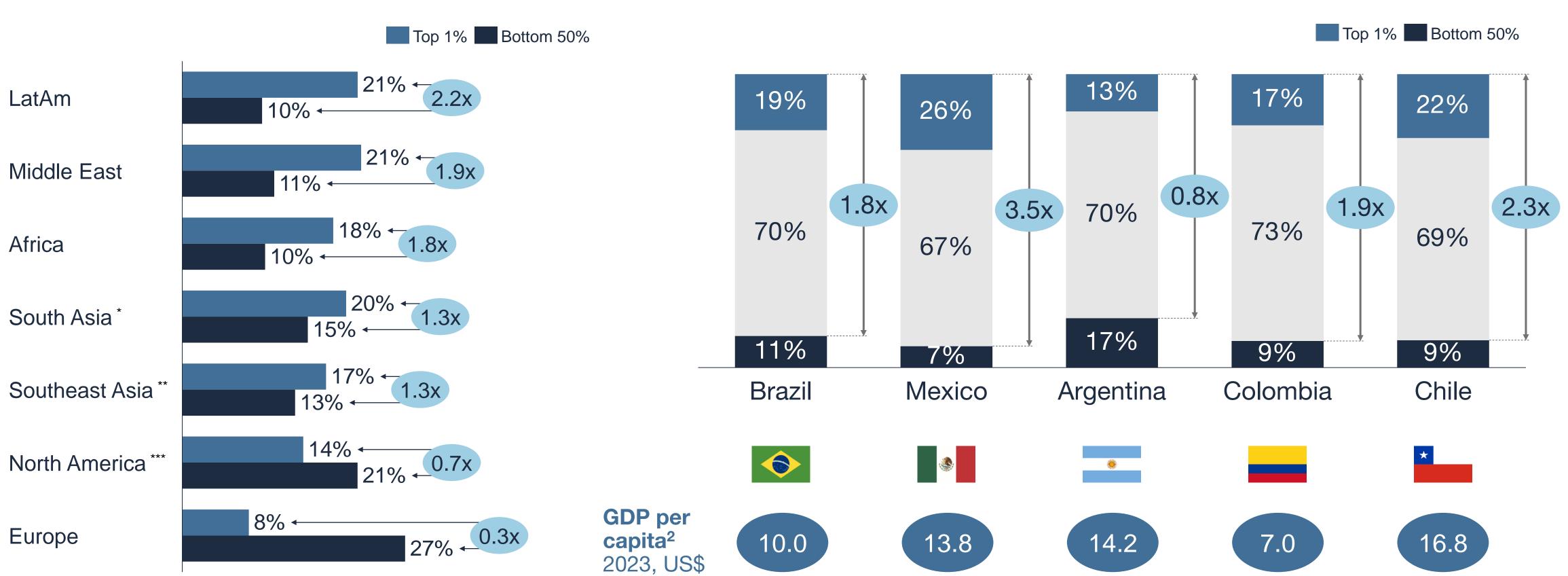
Latin America is the world's most economically unequal region, with expressive variation across countries

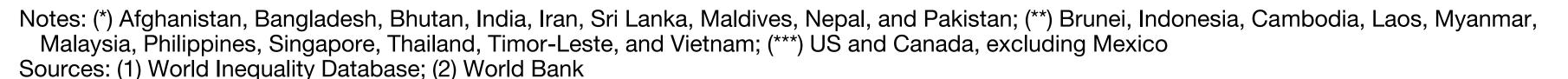
Income share by percentile¹

2022, % of post-tax national income

Income share by percentile¹

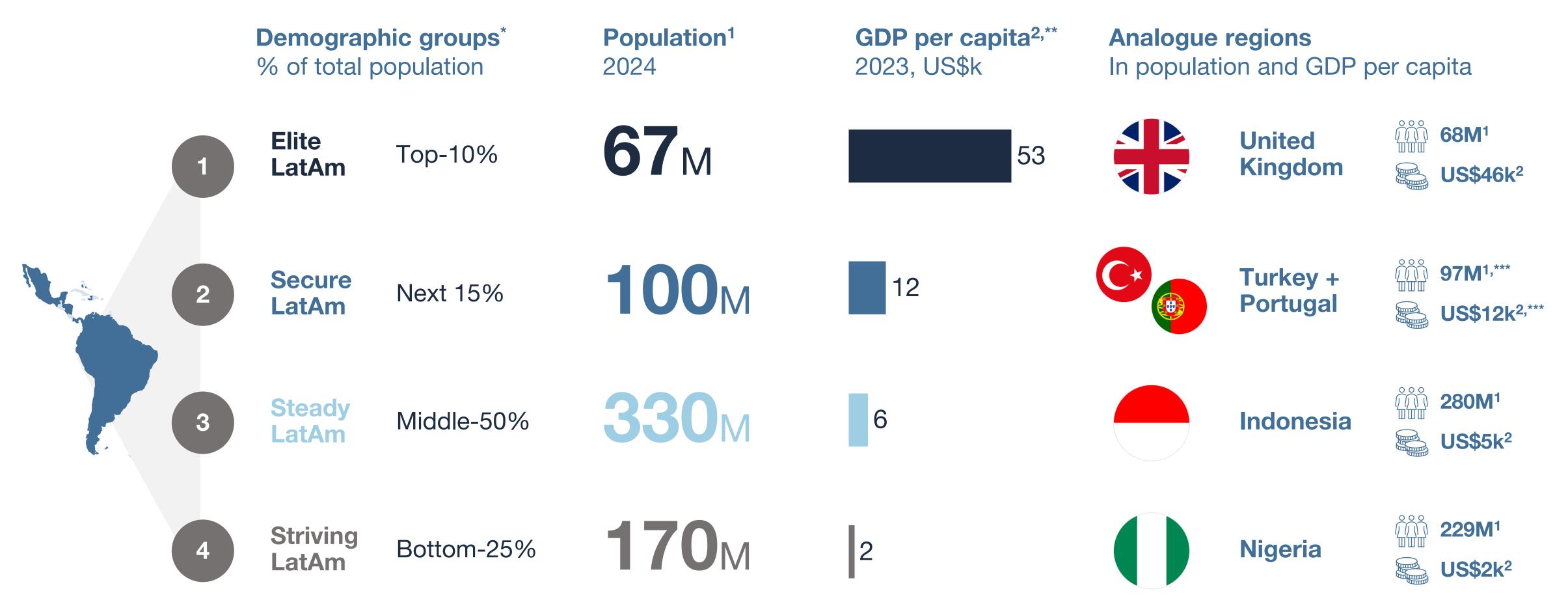
2022, % of post-tax national income





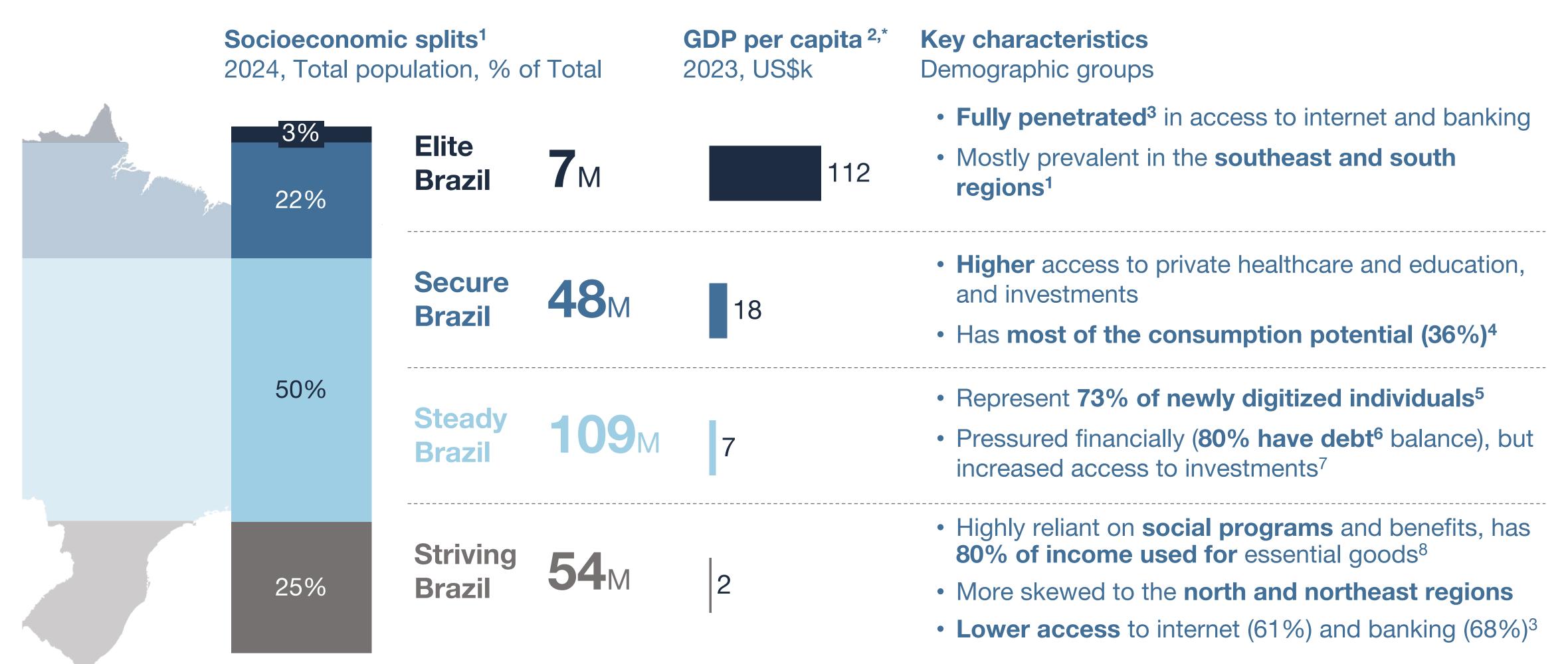


This inequality gives rise to multiple "Latin Americas" in the region, each with its unique socio-economic reality





Brazil effectively illustrates these inequality splits, with different consumption patterns and regional distribution





Mexico also demonstrates a significant difference across higher- and lower-income class profiles



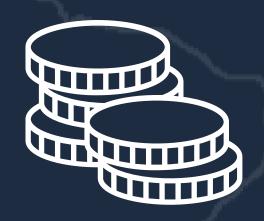




Talent Scarcity



Infrastructure Gap



High Cost of Capital



Tax Complexity

"Brazil is not for beginners"

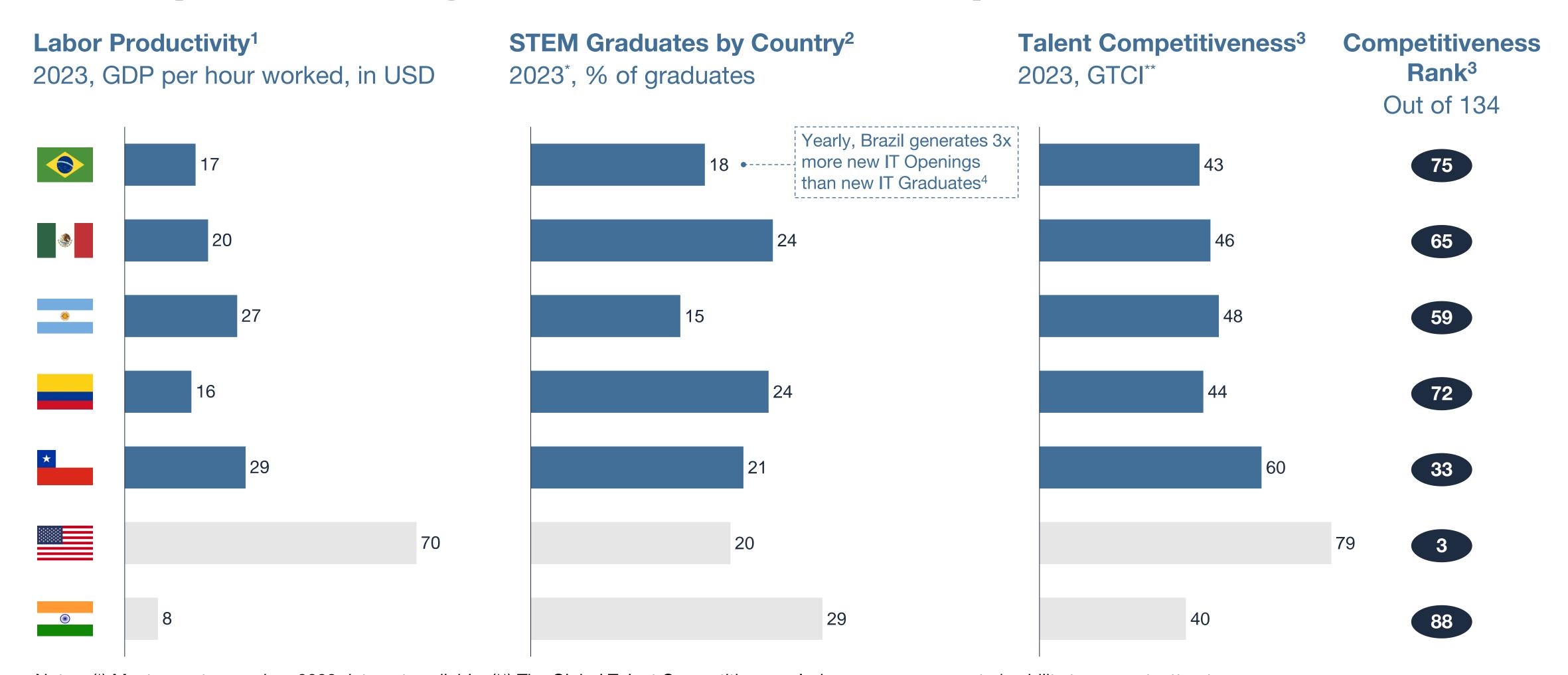
...nor is LatAm

- Tom Jobim





Talent: Latin America faces an ongoing battle against low labor productivity and low talent competitiveness



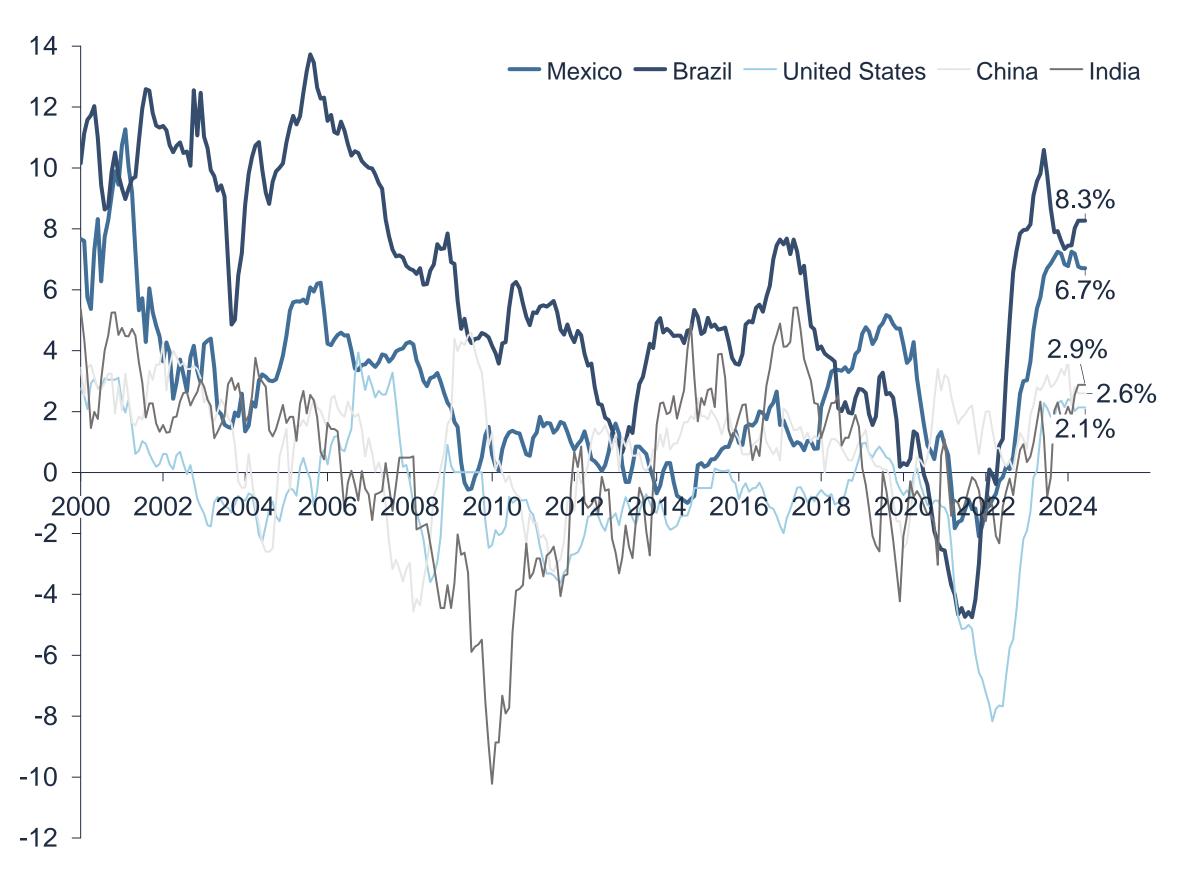
Notes: (*) Most recent year when 2023 data not available; (**) The Global Talent Competitiveness Index assesses a country's ability to support, attract, develop, and retain talent based on regulatory environments, openness, educational opportunities, and sustainability Sources: (1) International Labor Organization; (2) Unesco Institute for Statistics; (3) INSEAD Global Talent Competitiveness Index; (4) Brasscom Report



High cost of capital: Latin America has historically suffered from high real interest rates and currency depreciation

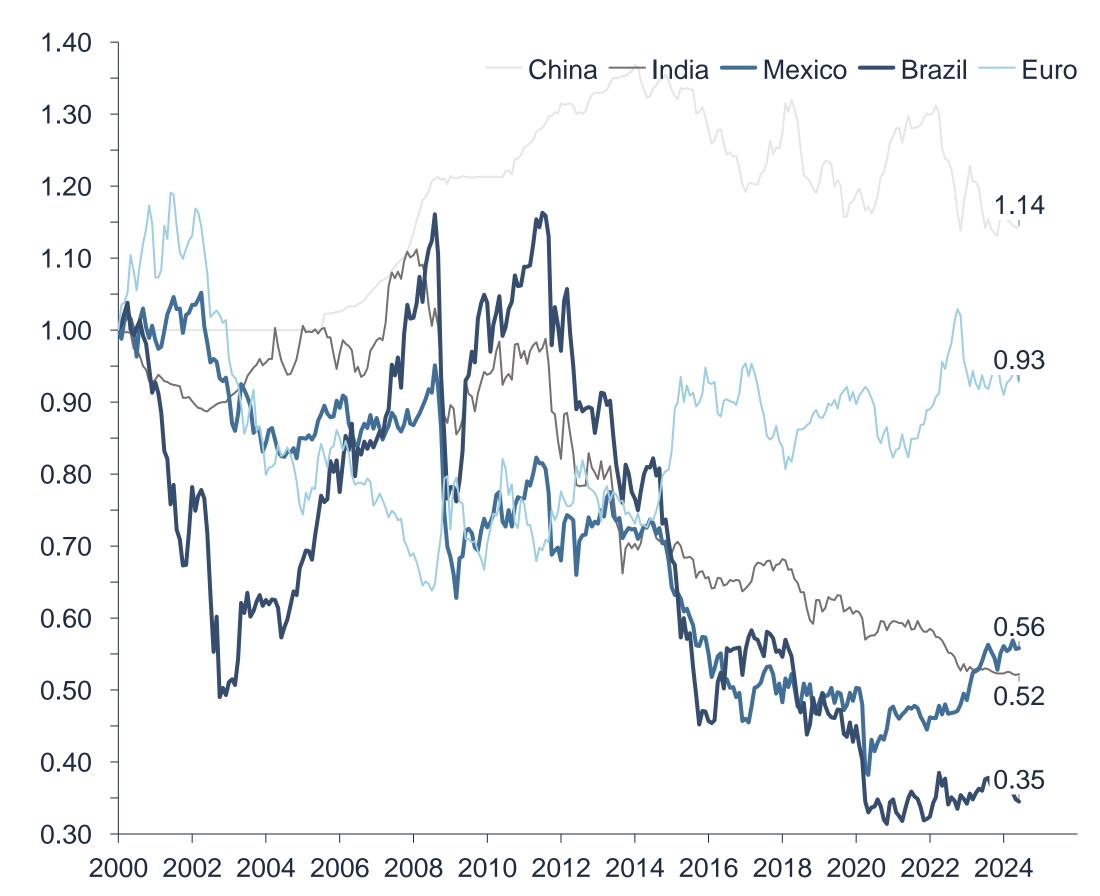
Real interest rate evolution

Annual percentage



Exchange rates evolution

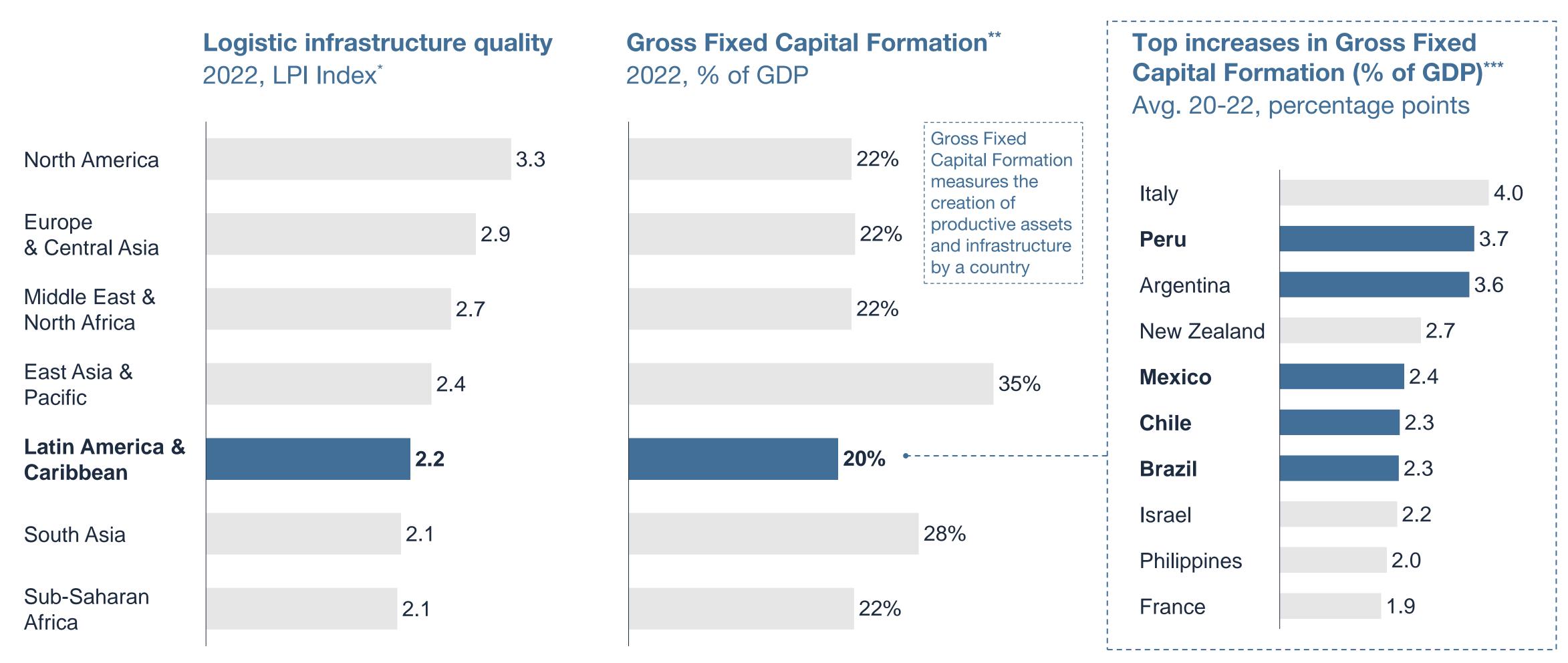
US\$ to Local Currency, indexed at jan-2000

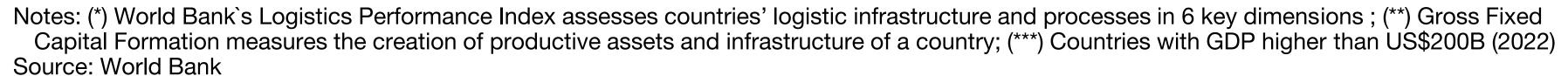






Infrastructure gap: LatAm lags in logistics quality and infrastructure investment, despite a positive recent trend

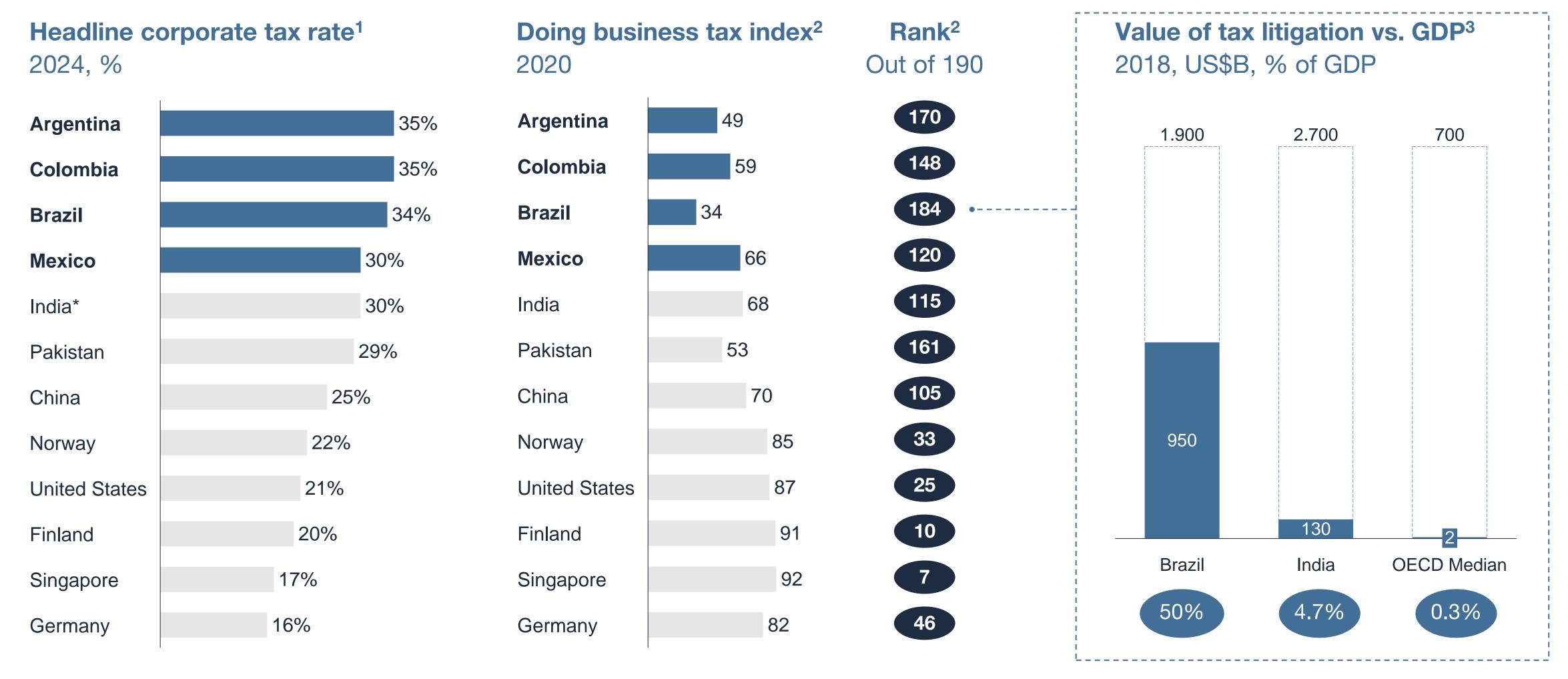








Tax complexity: Latin American countries suffer from a heavy tax burden and complicated corporate tax system







Brinta is reshaping tax compliance in Latin America, enabling companies to seamlessly manage taxes across jurisdictions

BRINTA

Brinta is a one-stop-shop for tax compliance focused on the enterprise segment. Their platform streamlines and automates regional tax calculations, reporting, filing, and remittance across multiple countries and jurisdictions in Latin America, reducing companies' administrative burden and ensuring compliance.

Tax compliance in Latin America



Latin American companies spend between **0.3%-2.6%** of revenues on tax compliance¹



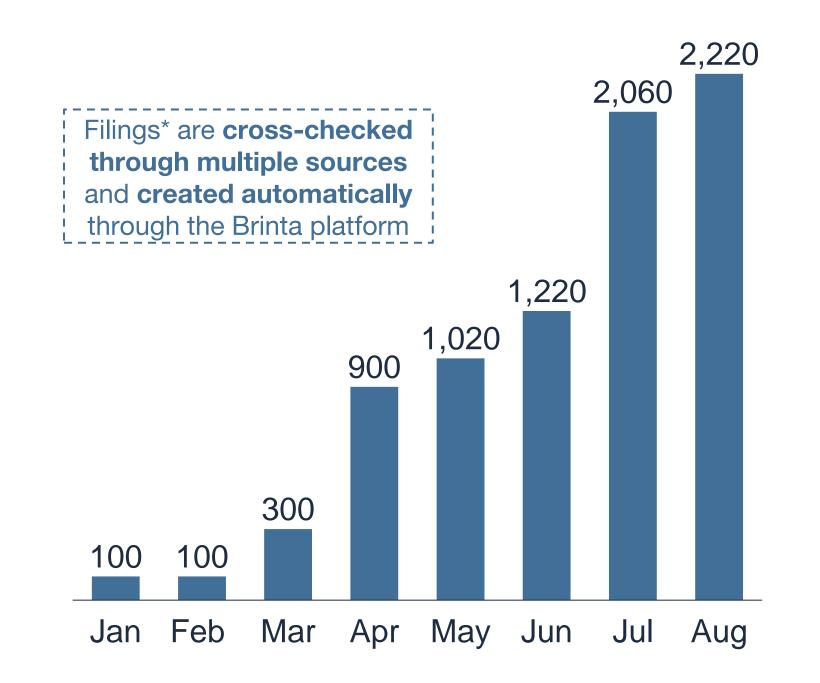
Brazilian companies spend between 0.2%-0.4% of Total Payment Volume on calculating taxes²



Latin American companies spend **US\$2B a year** in 'Big 4' tax compliance services³

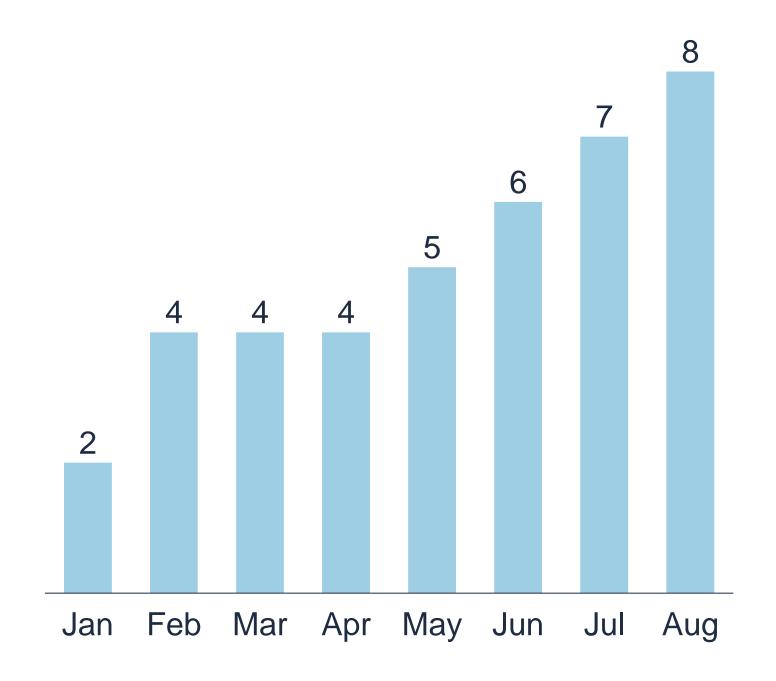
Monthly filing volume⁴

Indexed Jan 2024 = 100



Brinta geographic presence⁴

2024, LatAm countries where clients filed taxes







"It's not the size of the dog in the fight, but the size of the fight in the dog"

- Mark Twain

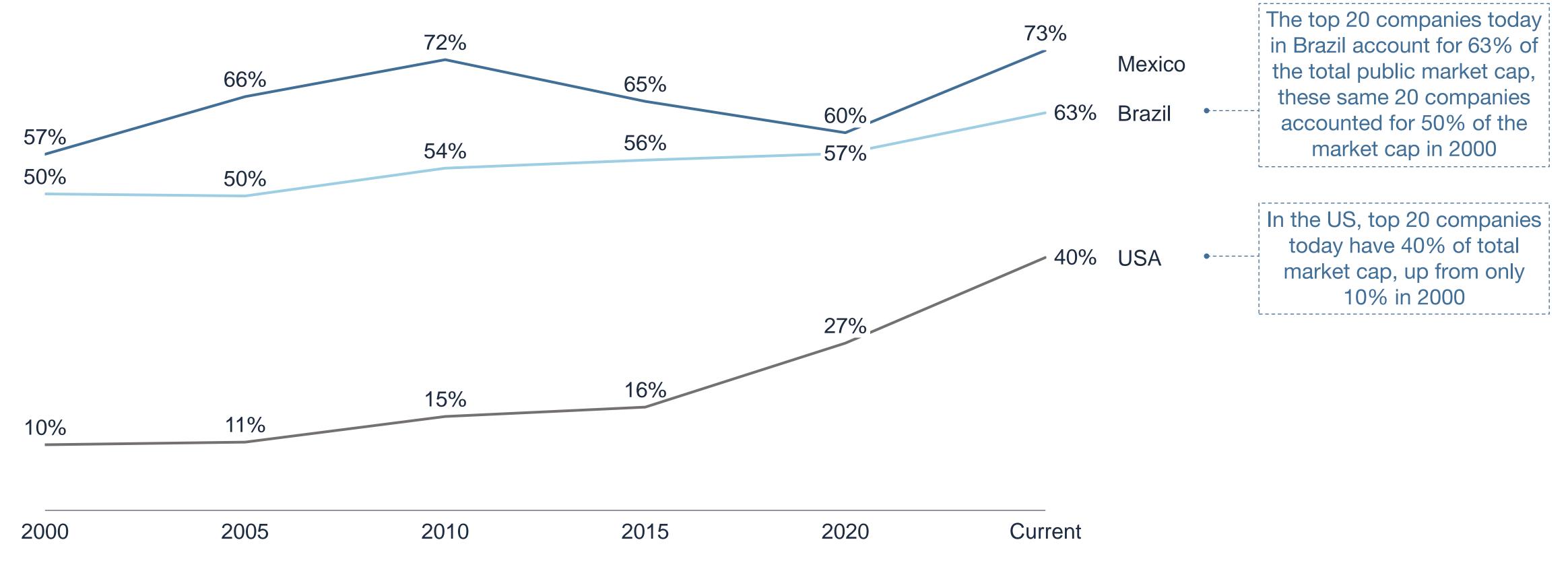
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LatAm winners win for longer: Companies that persevere through the region's adverse conditions thrive for decades

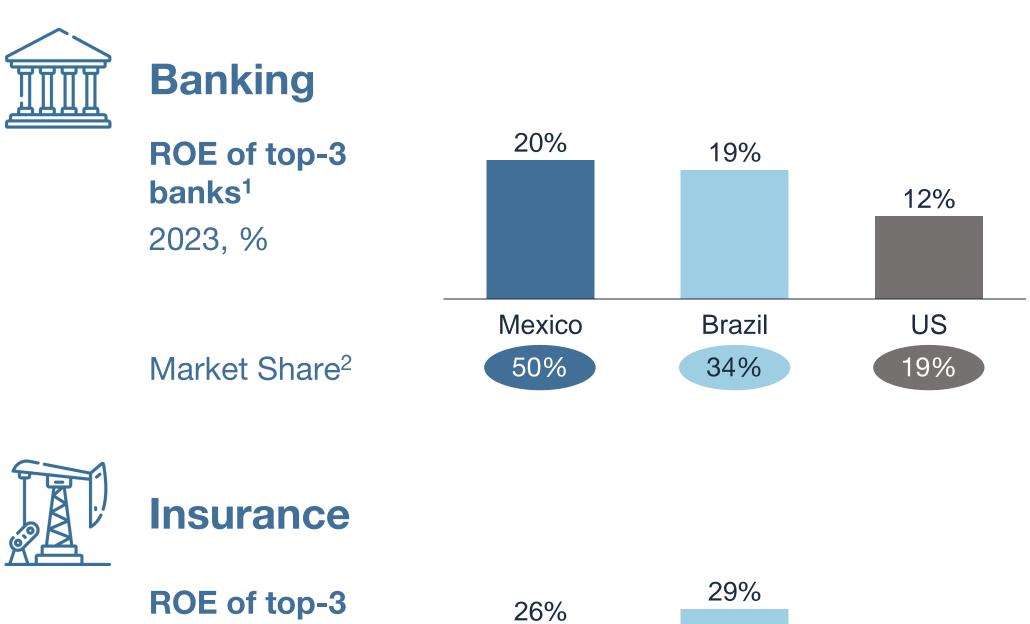
Market cap of current Top-20 companies over time¹

% of total market cap*





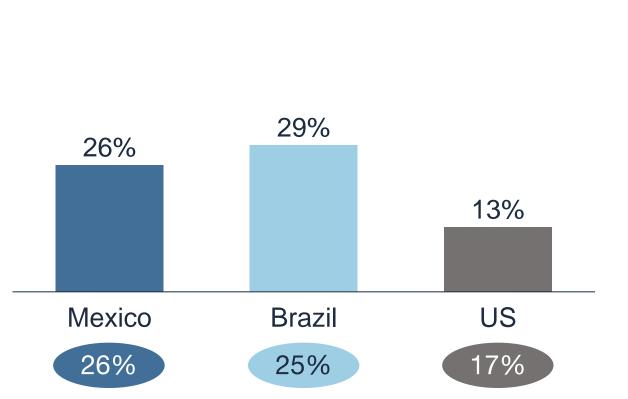
LatAm winners win bigger: Leaders in the region capture greater market share and disproportionate returns

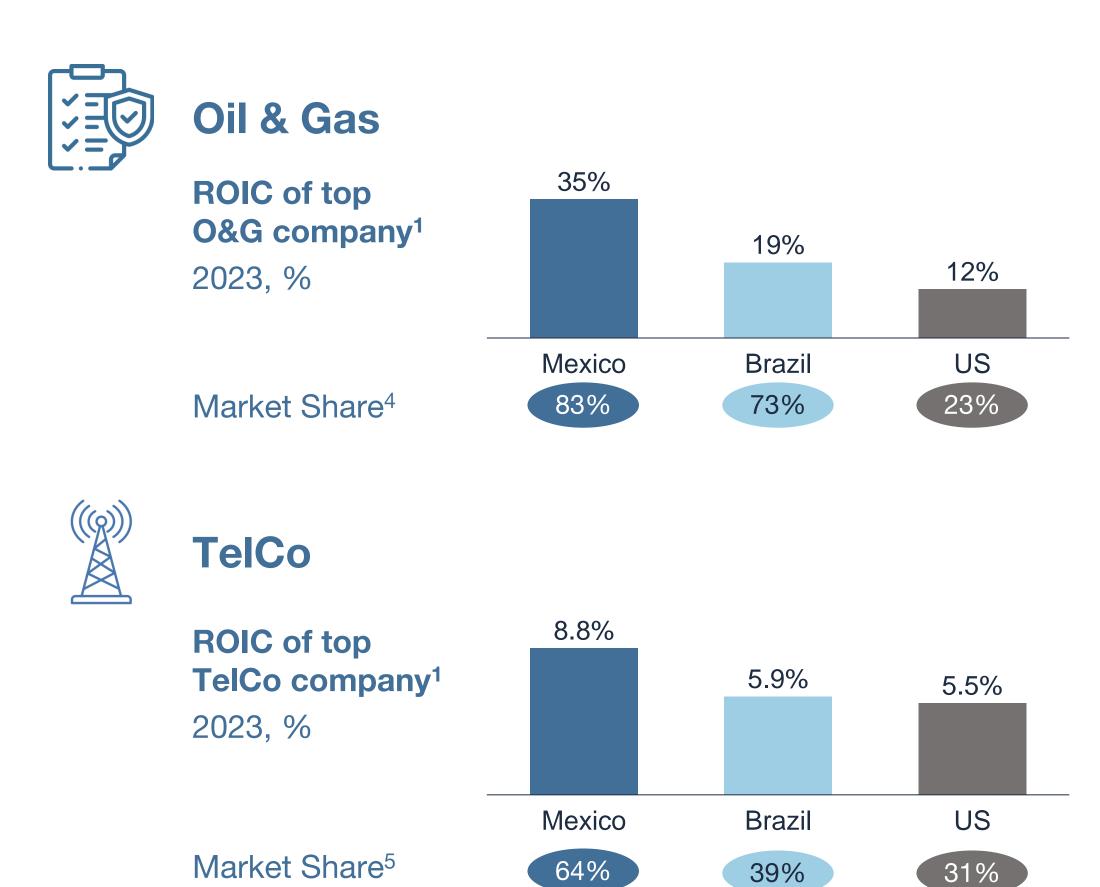


insurers^{1,*}

Market Share³

2023, %







The history of Ambev shows how resilient companies bred in Latin America can grow into global leaders

Antarctica and Brahma were the largest players in Brazil's beer market in the end of the 80's



Market share (1988): 49%

EBITDA margin (1988): 26%

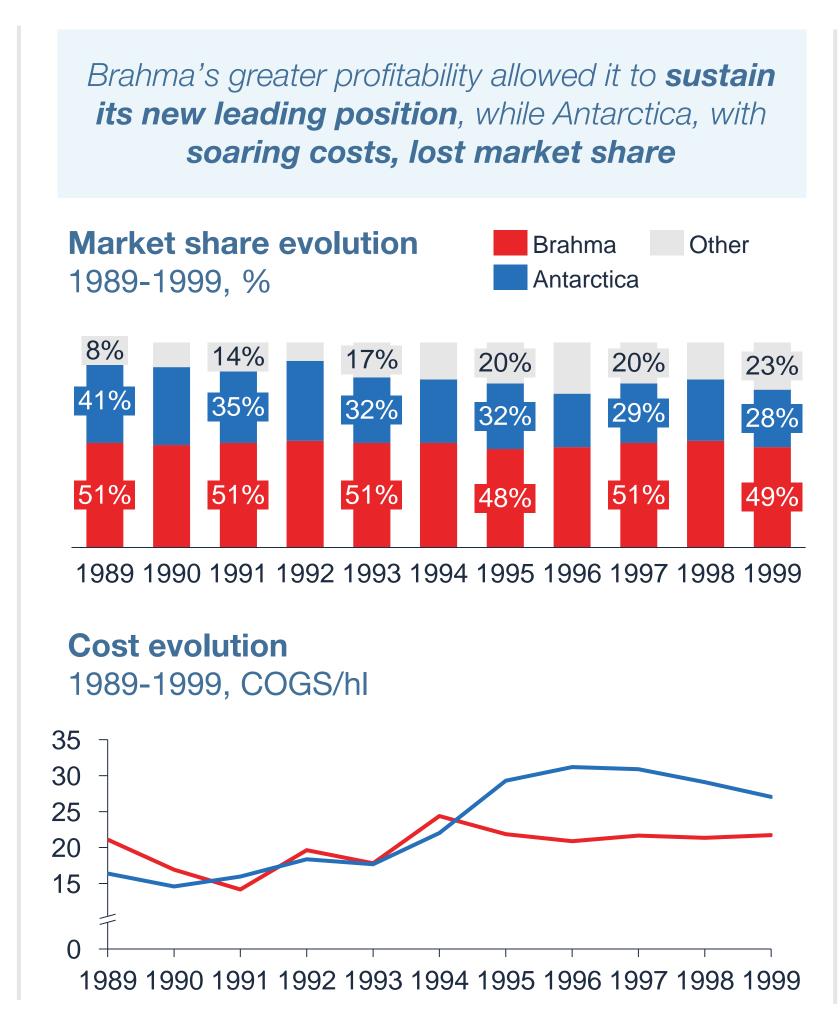


Market share (1988): 40%

EBITDA margin (1988): 8%

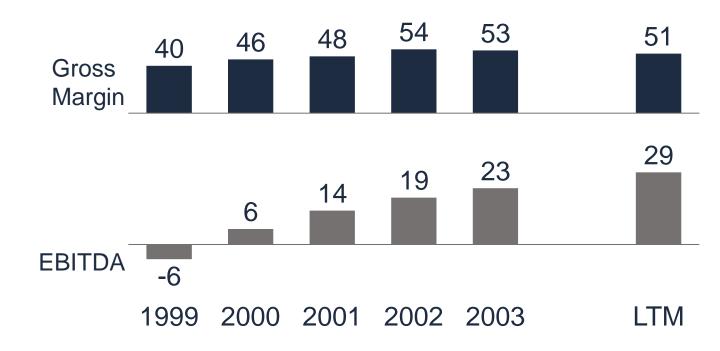
Starting in 1989, **new owners** led Brahma through initiatives to strengthen its efficiency and brand

- Operational efficiency, closing factories, downsizing, and investing in new technologies
- New sales policies focusing on larger, more professionalized distributors
- Stronger focus on its second brand, Skol, to tackle unpenetrated markets



With 60% of its debt in USD, Antarctica met a currency crisis in 1999 and was acquired by Brahma, keeping 6% of the new company

Ambev margins post-merger² 1999-2003; Actual, %



From Brazil to the World

5 years after the merger, Ambev merged with Interbrew creating the world's largest beermaker. In 2008 the company bought Anheuser-Busch, creating one of the 5 largest consumer product companies globally and a company valued at over US\$125B





Market Dynamics Trump Market Size

While Latin America is nothing short of challenging, thriving in this environment has driven entrepreneurs to build some of the world's very best companies.

Ambev exemplifies this among traditional businesses.

Now, tech companies are following suit, showing why, in some cases, LatAm does it best. We call the trio of leading Latin American tech companies that have thrived against all odds the "Triumphant Three."



LatAm's Triumphant Three



Mercado Libre



Nubank

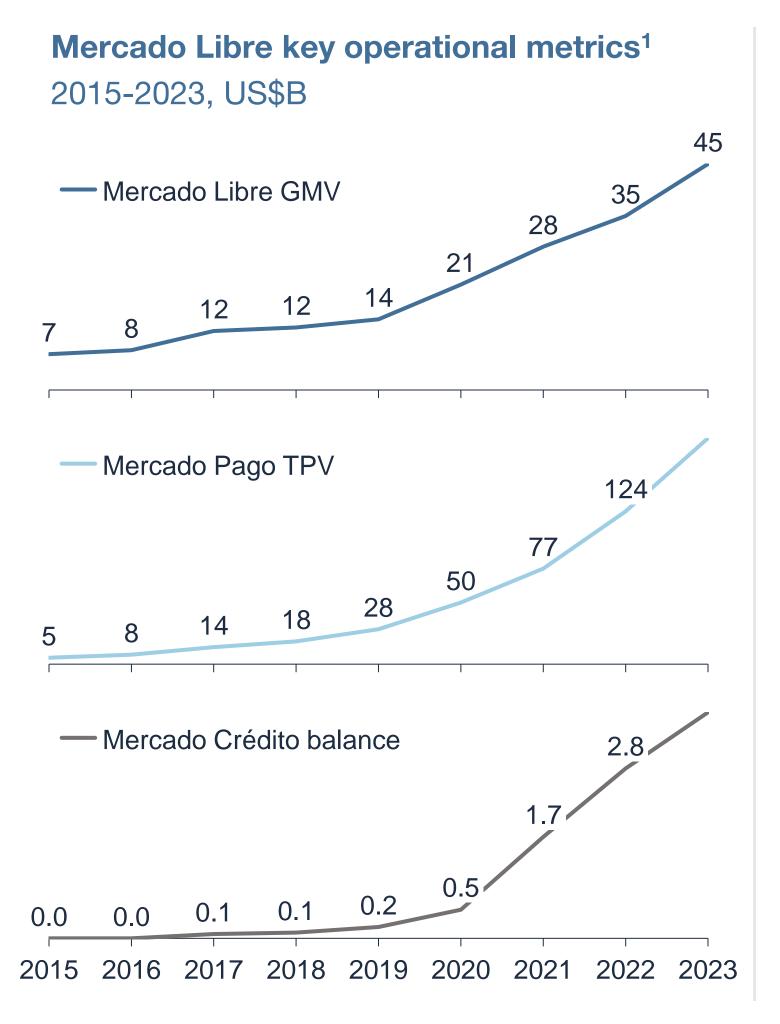


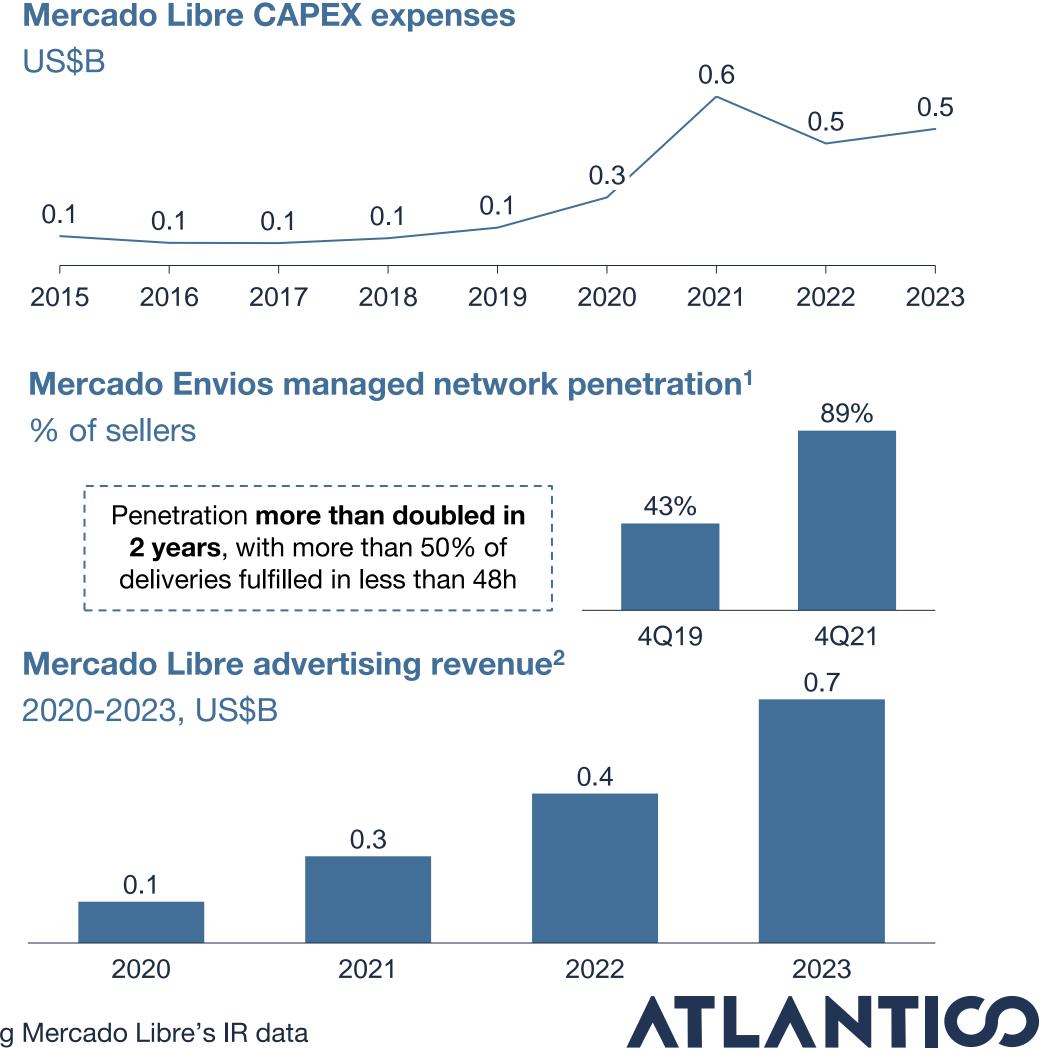
iFood



- Context: Latin American ecommerce was fragmented with limited infrastructure after the dotcom bust eliminated many players
- The Edge: Mercado Libre built a comprehensive ecosystem investing heavily in marketplace, logistics, and payment solutions that created a flywheel across all business lines
- Results: Mercado Libre became the largest company in all of Latin American, surpassing a US\$100 billion market cap

Mercado Libre created a unique ecosystem with commerce, fintech, ads, and logistics

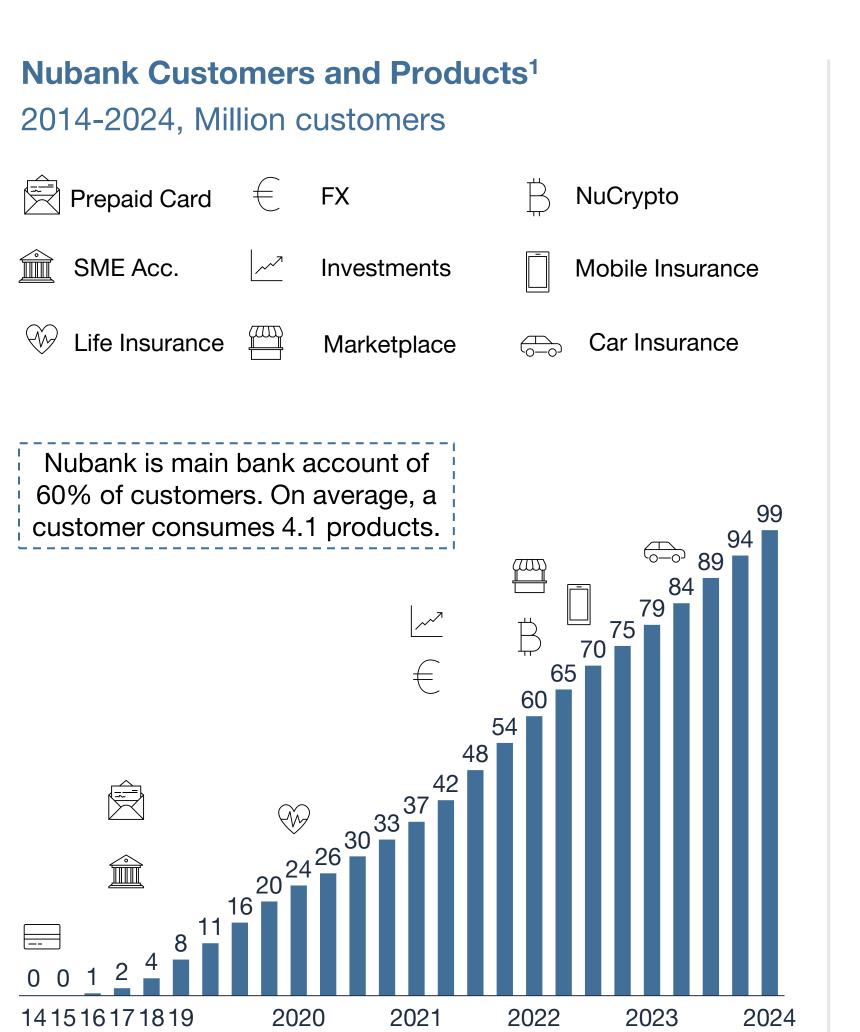


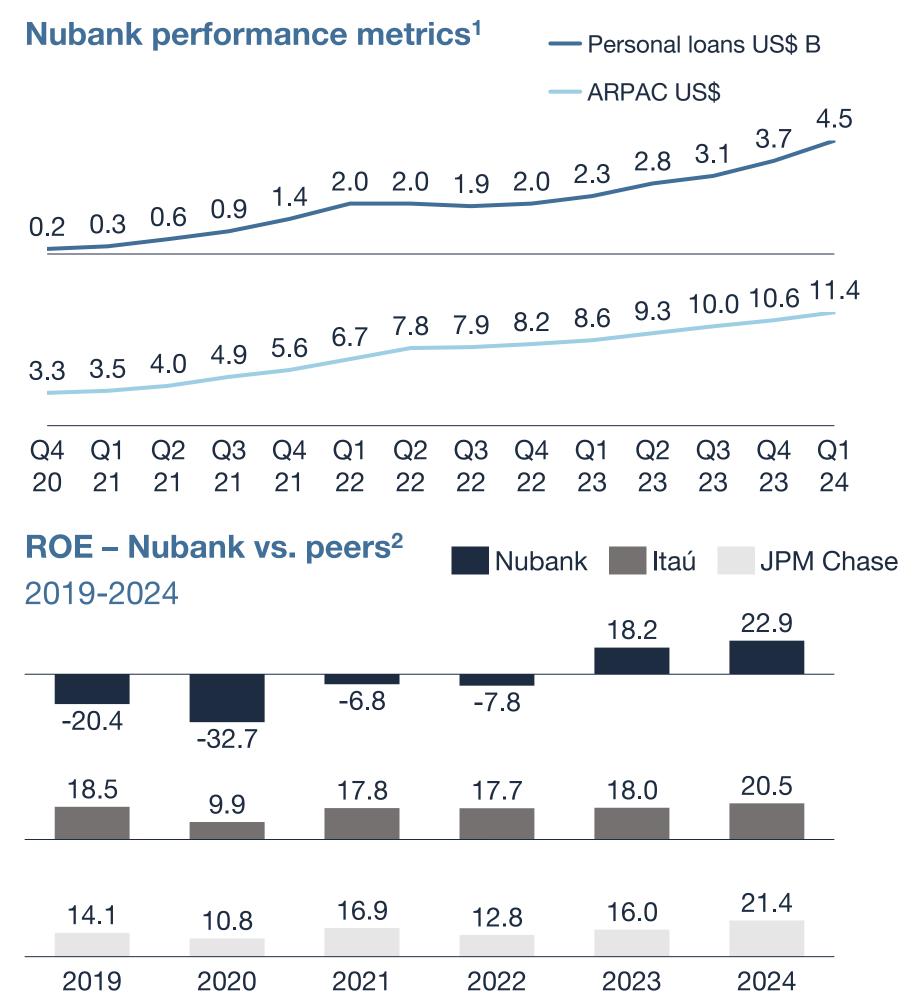


Sources: (1) Mercado Libre earnings releases; (2) e-Marketer using Mercado Libre's IR data

- Context: Brazilian banking was dominated by few players with high margins, low accessibility and low customer satisfaction
- The Edge: Nubank disrupted the market with a no-fee, user friendly, and widely available credit card, then expanded into banking. 34% of new credit cards and 50% of personal loans were to consumers that never had these services before
- Results: Nubank became the most valuable bank in LatAm and largest digital bank in the world

Nubank disrupted traditional banking with a fully-digital offering, starting with credit cards





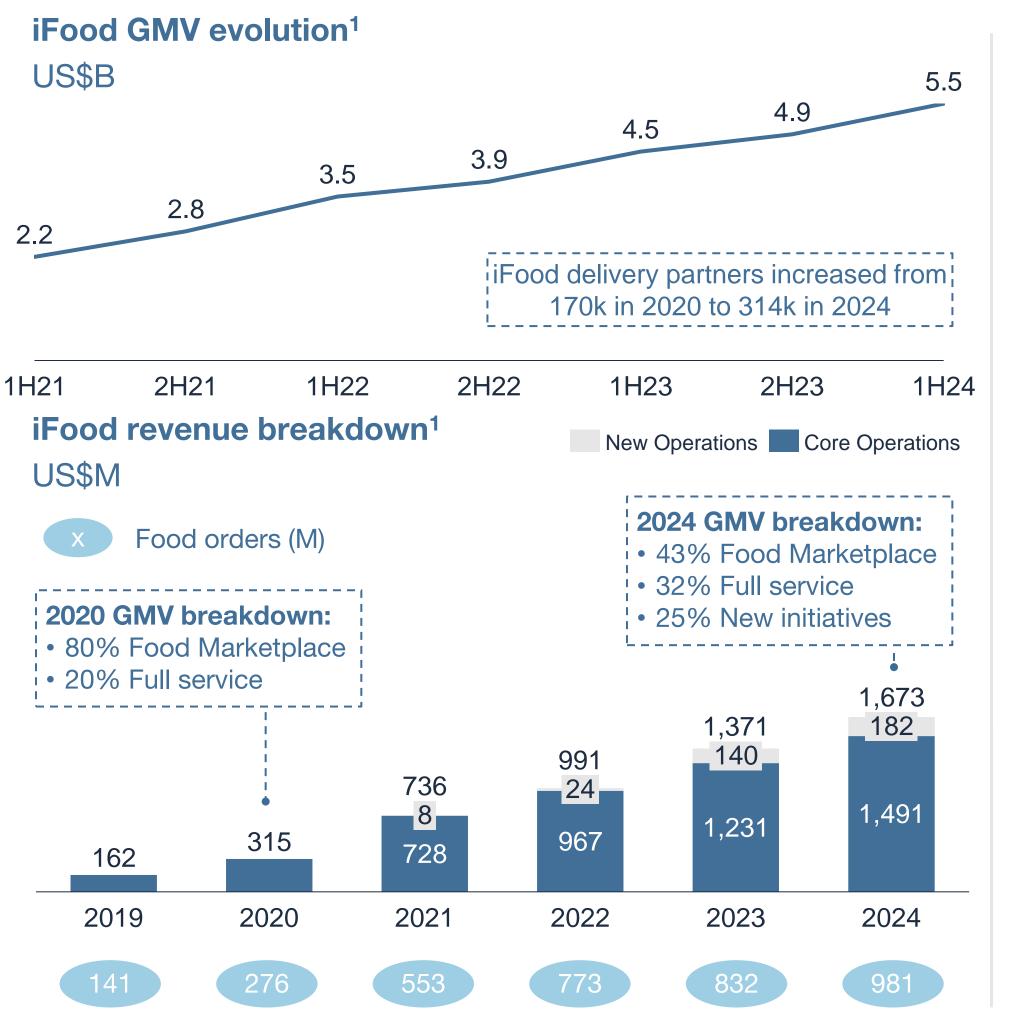
Sources: (1) Nubank IR Presentations; (2) Capital IQ

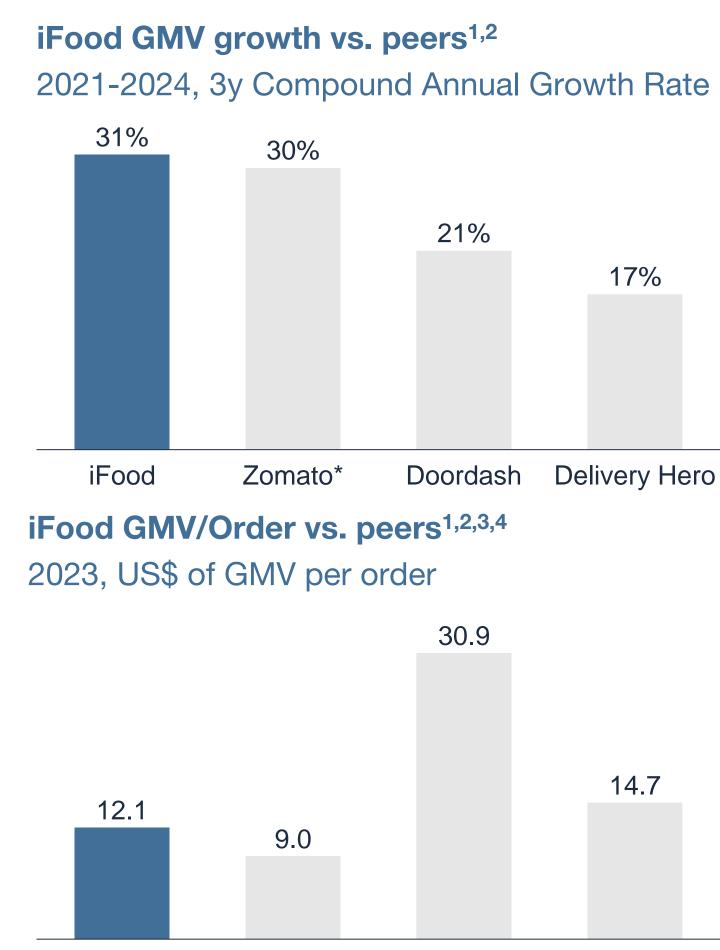




- Context: Brazil's food delivery market was underdeveloped, with fragmented operations using old technologies and business models
- The Edge: iFood's
 marketplace model
 leveraged structural
 aspects of the gig
 economy and national
 income disparity to scale a
 delivery platform that then
 expanded into adjacent
 business opportunities
- Results: Value add from iFood's ecosystem represents over 0.5% of Brazilian GDP, with more room for growth

iFood leverages aspects of the informal economy to reach large scale impact





Zomato

iFood

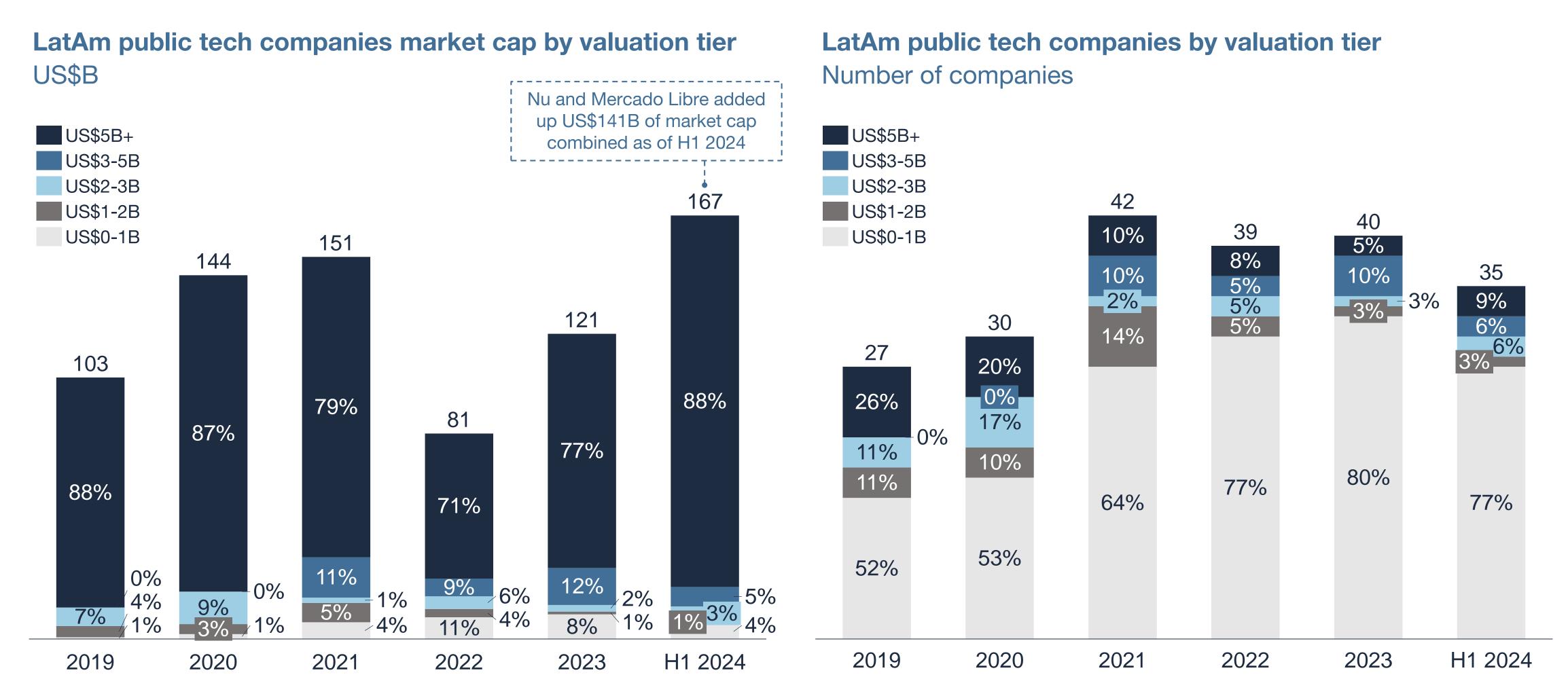
Note: (*) Zomato CAGR calculated using 5y of data Sources: (1) Prosus FY2024 Results presentation; (2) Capital IQ; (3) Zomato IR; (4) Doordash IR



Doordash

Delivery Hero

Nu and Mercado Libre have driven public tech company market cap growth while iFood has remained private*

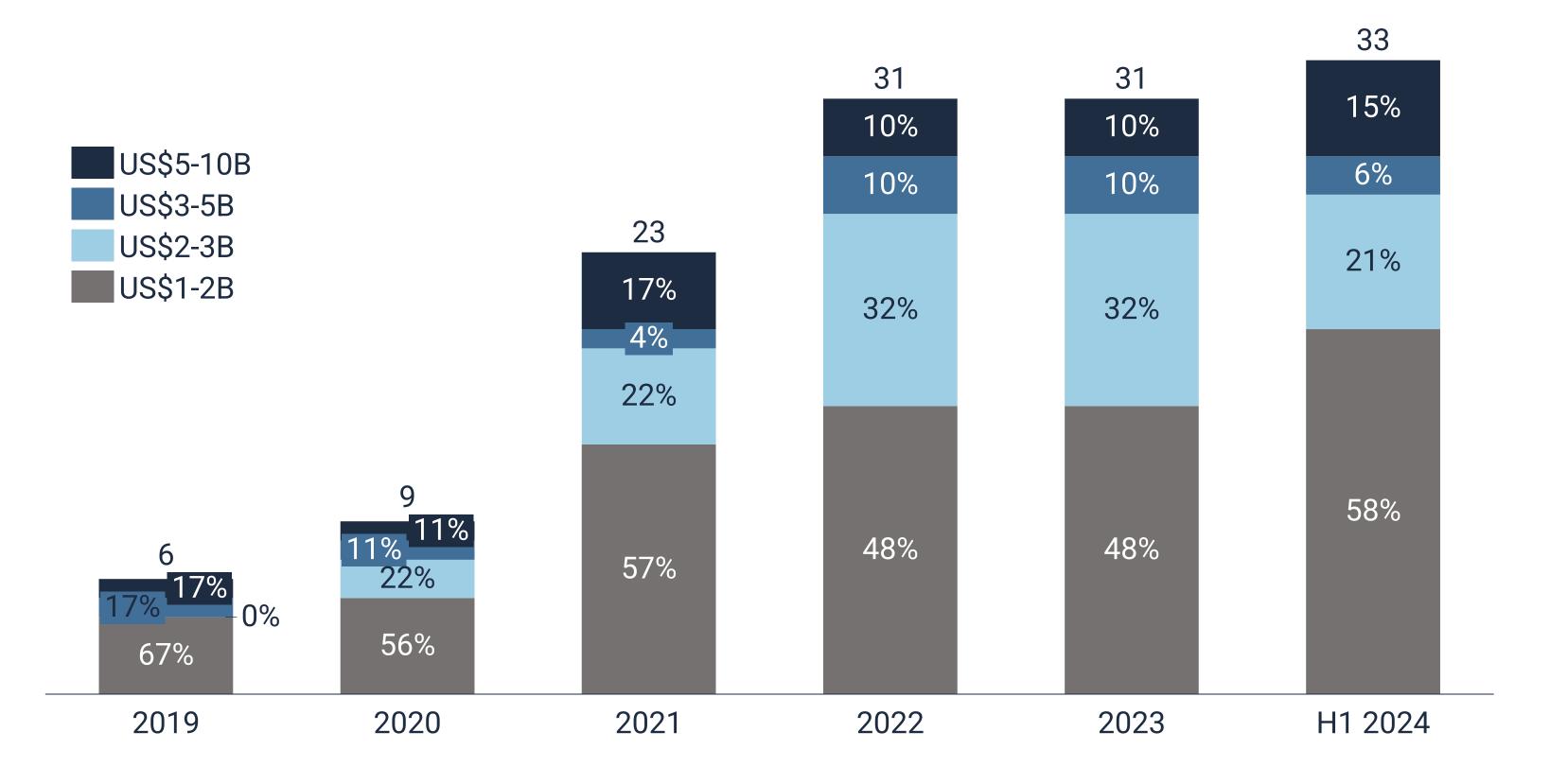




Next in line for triumph

Latin America's number of unicorns has been stable, with two new additions this year

Latin America unicorn companies by valuation tier Number of companies*



Note: (*) Analysis use public and private data, but some valuations still reflect multiples from 2020 and 2021. While arbitrary adjustments are avoided, we believe actual values are much lower than the "headline prices," though this may take time to show. Sources: Atlantico analysis; Crunchbase





"If you can make it there, you can make it anywhere"

- Frank Sinatra

"



LatAm to the World: companies are increasingly aiming for global markets and are experiencing early success

GLOBAL FROM DAY 1¹

Mobile gaming studio. Used free, games to reach a global audience from the start



- Hired Global CTO in 2012 to lead an international products team
- Launched free games when most were paid
- Widespread distribution led to 3 billion downloads
- Current reported valuation above \$3Bn

EXPORTING CREATIVITY²

Online platform that allows creators to sell and scale digital products



- Hosts over 580k products and generates sales in 188 countries
- Number of new international buyers increased 4x from 2021-2023
- 15% of creator revenue in 2023 coming from international sales
- Company surpassed unicorn status in 2020

SCALING ABROAD³

Access to a **network of gyms** as a **corporate benefit** (f.k.a GymPass)



- From 2020 to 2024, WellHub expanded from 3,000 to 15,000 enterprise customers in 14 countries
- At the request of customers, they expanded the network to therapy, nutrition, and sleep quality
- New additions enhance offering and facilitate international adoption

WORLD-CLASS PRODUCT⁴

Secure cloud-based payment network in Brazil, expanding to the United States

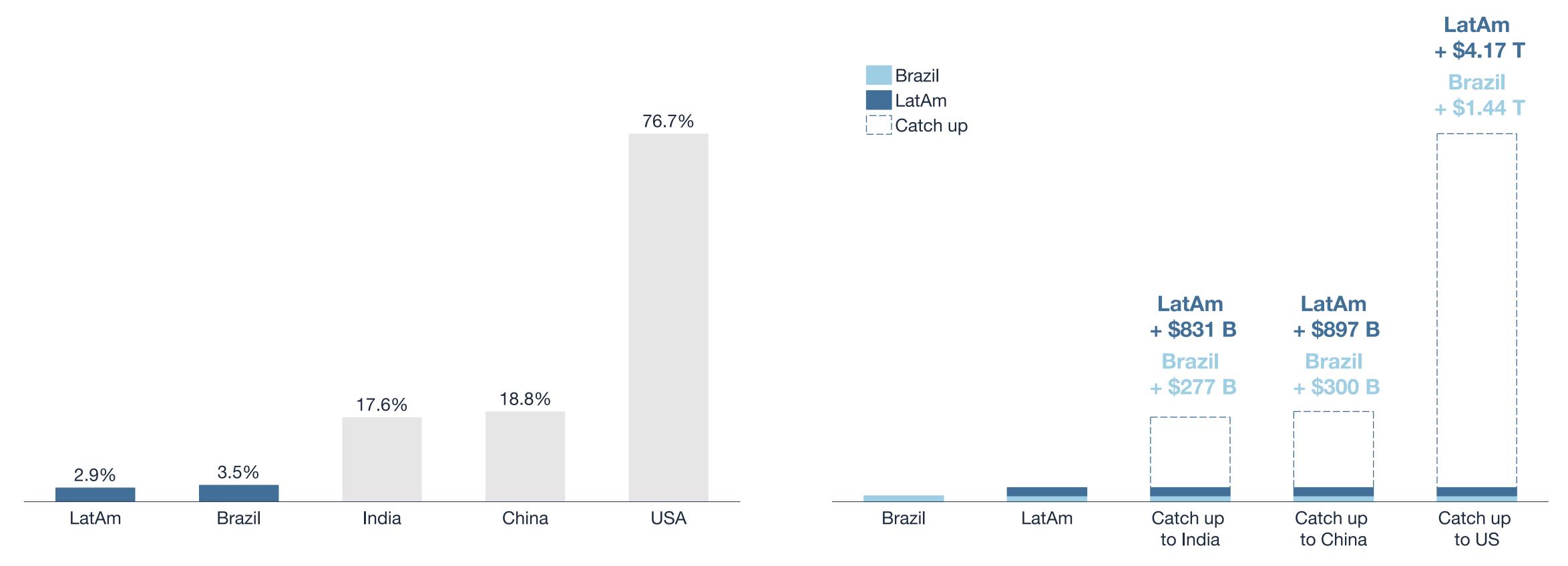


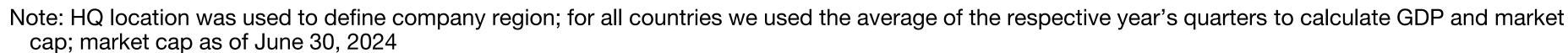
- Cloudwalk had **1.1million active merchants** using InfinitePay in 2023, **3x as much as 2022**
- The Jim solution launched in the US, bringing instant payments, fast payouts and an Al copilot
- The company was valued at over \$2Bn in 2021



Trillions to be captured: Latin America presents enormous potential value to be created as region catches up to peers

Atlantico Digital Transformation Index^{1,2,3} Q2 2024, tech company market cap as % of GDP Latin America Tech Value Creation Catch-up Potential^{1,2,3} Q2 2024, US\$B





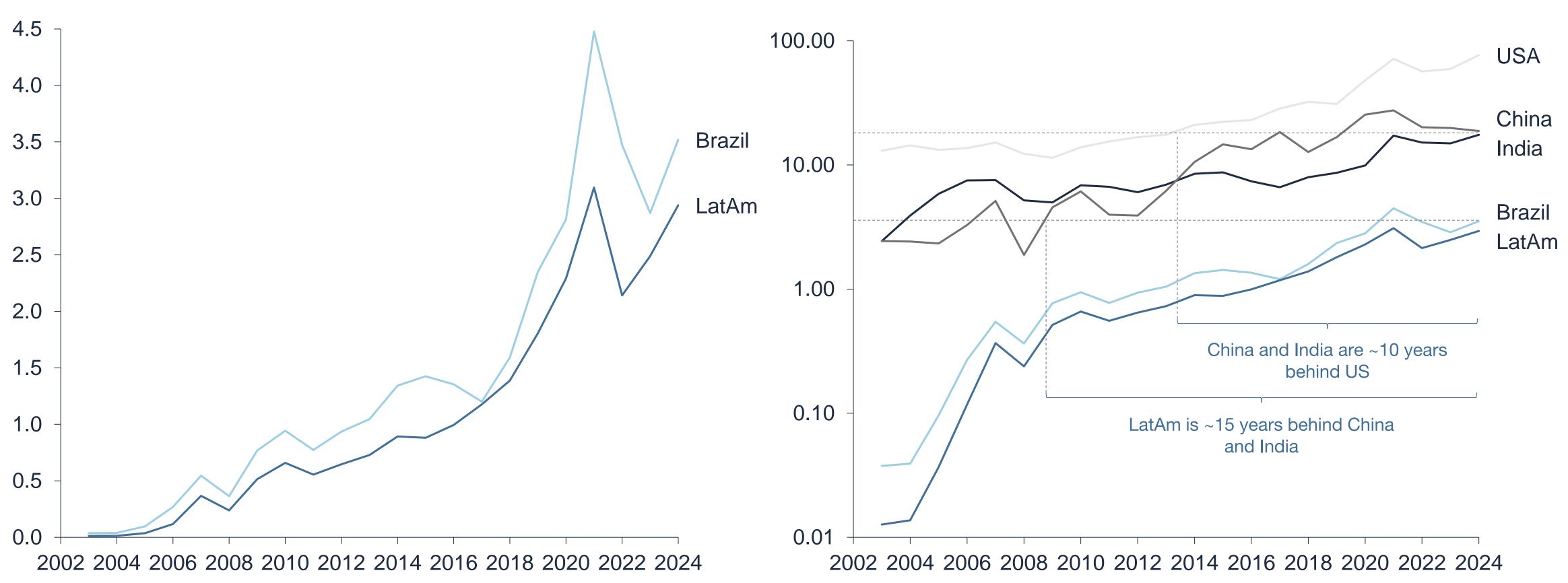
Sources: (1) Capital IQ; (2) OECD; (3) Atlantico Analysis



A Long-Term Horizon: The rewards in Latin America will compound over the next decades

Atlantico Digital Transformation Index – Brazil and LatAm^{1,2,3} Tech company market cap as % of GDP, Linear scale

Atlantico Digital Transformation Index^{1,2,3}
Tech company market cap as % of GDP, Log-scale



Note: HQ location was used to define company region; for all countries we used the average of the respective year's quarters to calculate GDP and market cap; market cap as of June 30, 2024

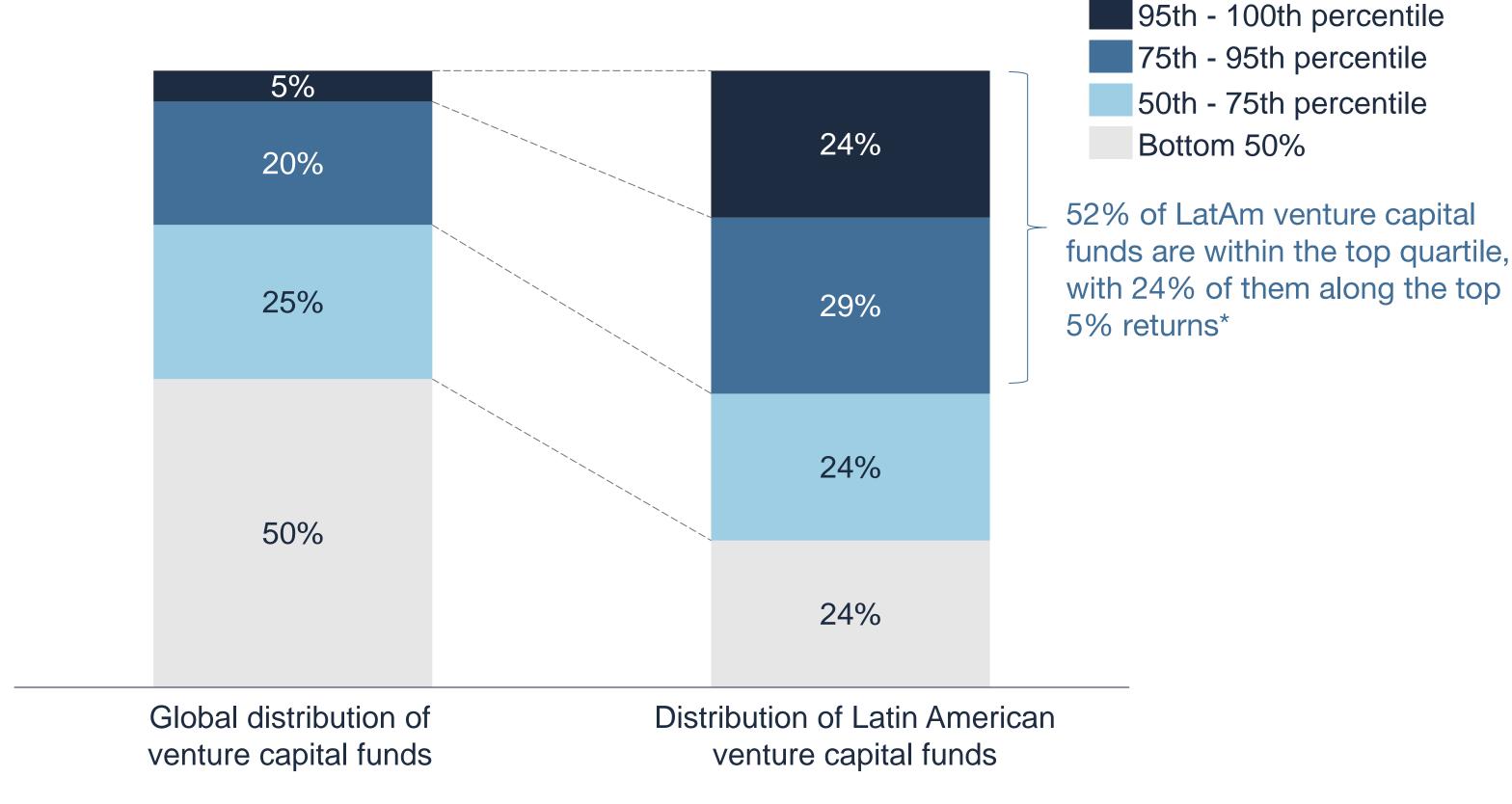
Sources: (1) Capital IQ; (2) OECD; (3) Atlantico Analysis

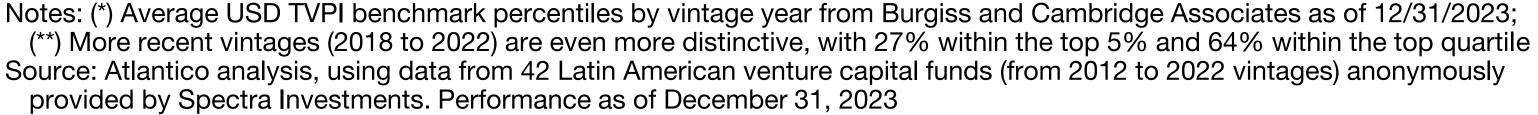


World Class Returns: LatAm VC funds disproportionately rank among the top quintile and quartile of funds globally

Distribution of LatAm Venture Capital funds versus global return benchmarks

% of 2012-2022 vintage funds placing within global return benchmark percentiles*









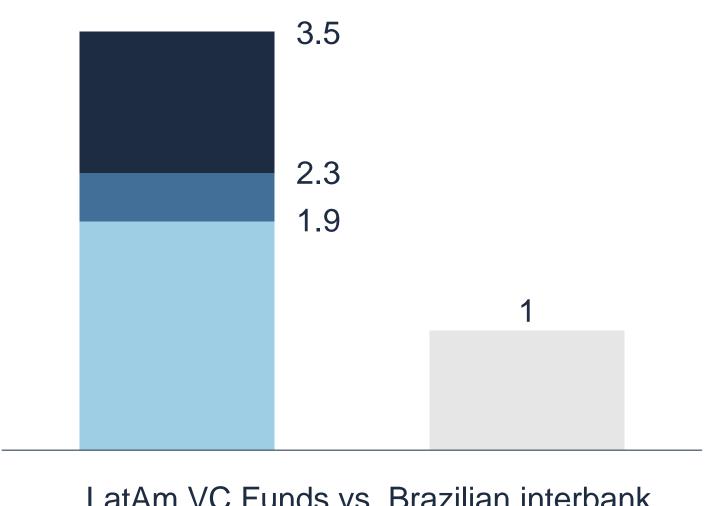
Latin American venture funds have consistently beaten public investment benchmarks over the past decade

Public Market Equivalent (PME) of LatAm VC funds against selected indexes

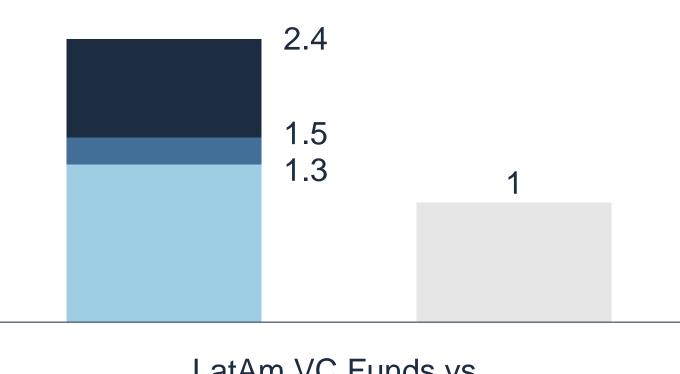
KS PME, Average from 2012 - 2022 vintage years by tier of fund



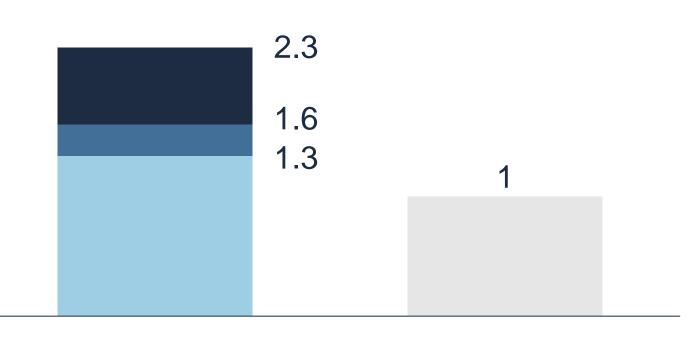
The KS Public Market Equivalent measures the performance of private investments relative to public markets. It is measured individually against each index. A PME greater than 1 indicates that the fund has outperformed the index during the investment period



LatAm VC Funds vs. Brazilian interbank fixed income rate, CDI (USD)



LatAm VC Funds vs. Bovespa (USD)



LatAm VC Funds vs. S&P 500 (USD)







The New Normal-

Uncertainty has given way to stability. Following a long period of volatility, both founders and investors seem to be finally embracing the new normal.

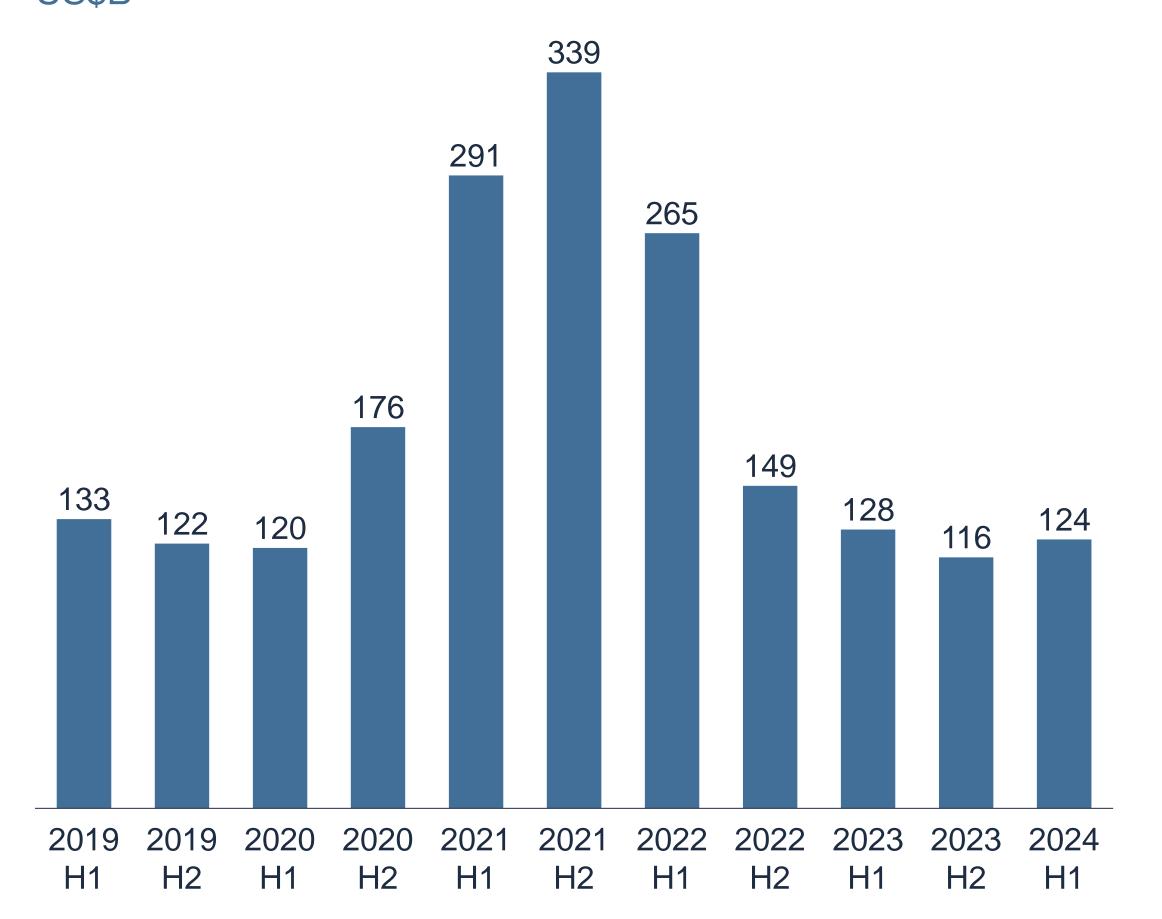
Countering the prevalent narrative of "tourist capital", foreign investors have remained consistently active.

The opportunity remains vast. With Latin America having generated some of the best venture capital returns of all-time for top global funds, we expect innovation capital to continue to flow in.

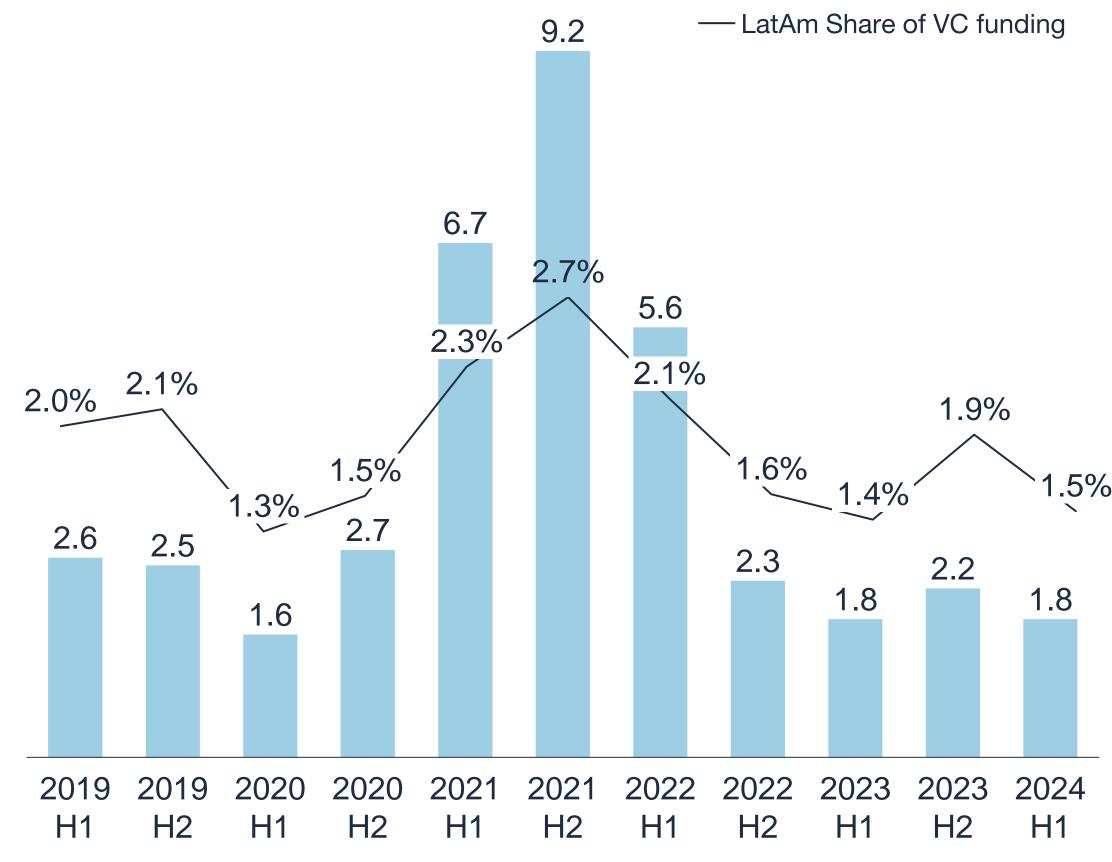


Global venture funding returns to pre-pandemic levels with steady quarterly trends and LatAm growth potential

Global venture capital investment activity¹ US\$B



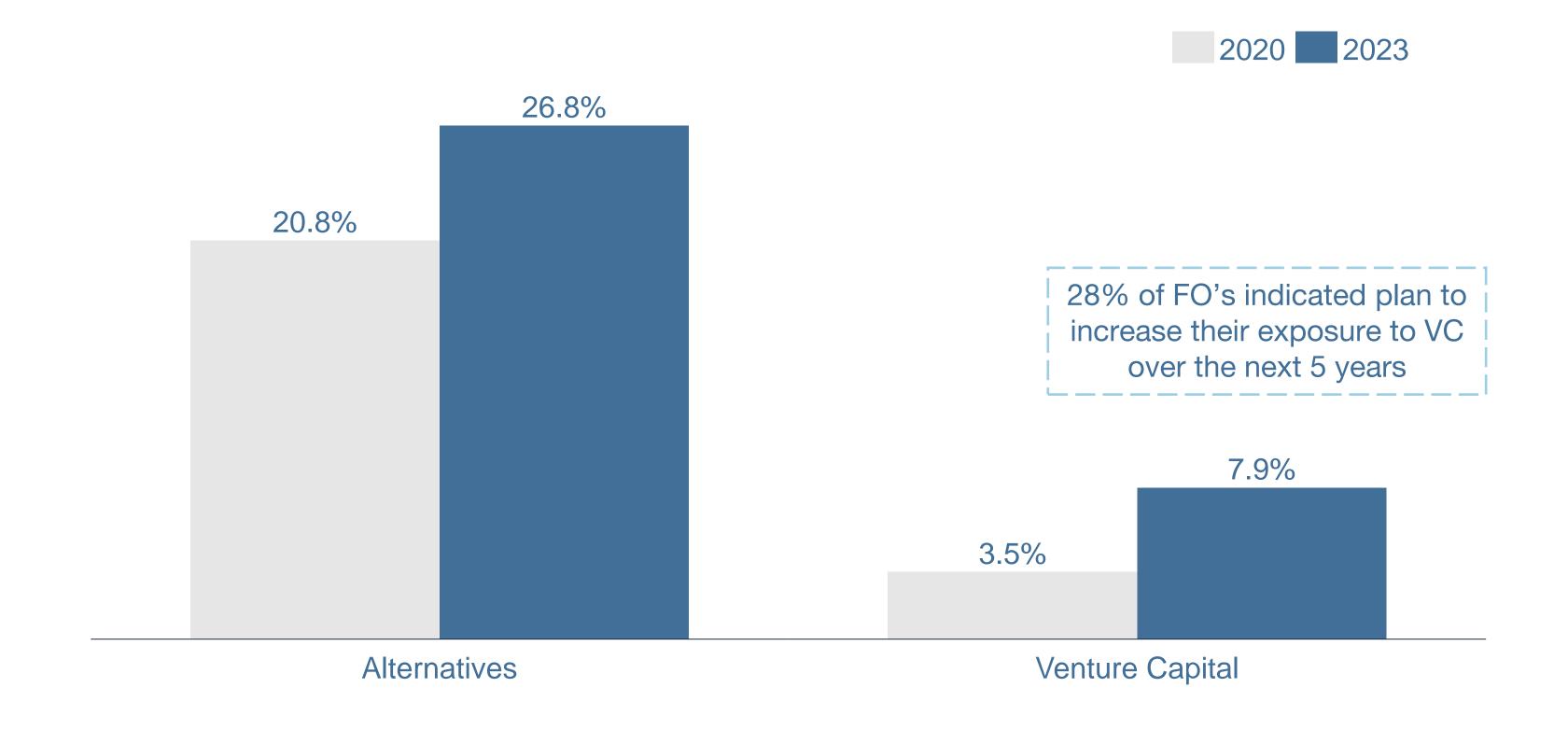
Venture capital investment activity in Latin America² US\$B





Latin American family offices increased their allocation in both alternative and venture capital investments

Allocation by Asset Class - Latin America Family Offices*
Share of respondent family offices

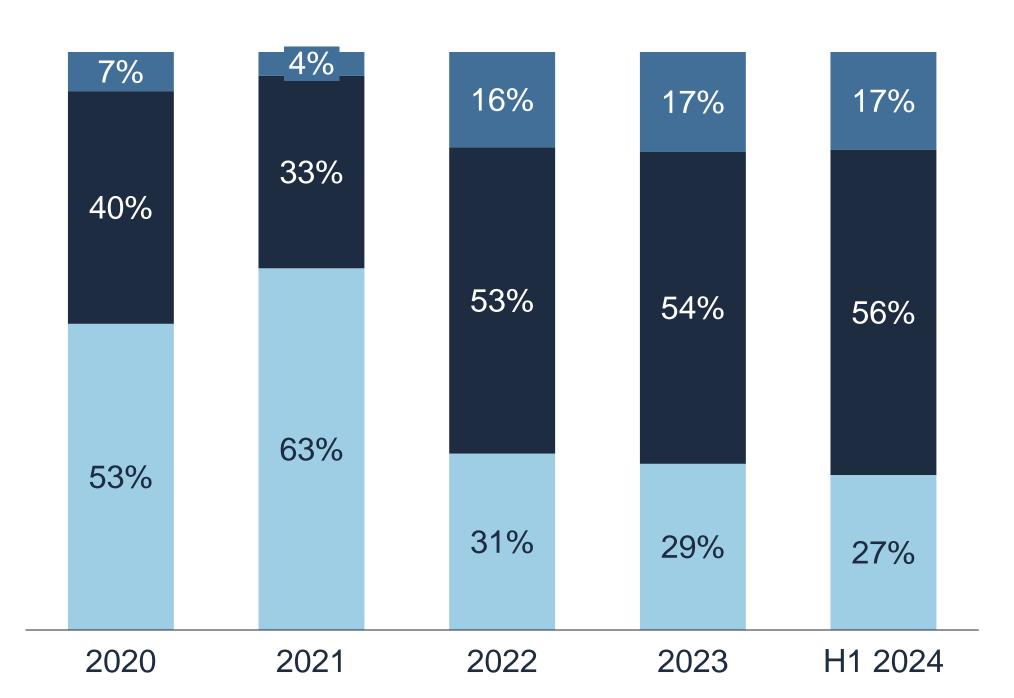




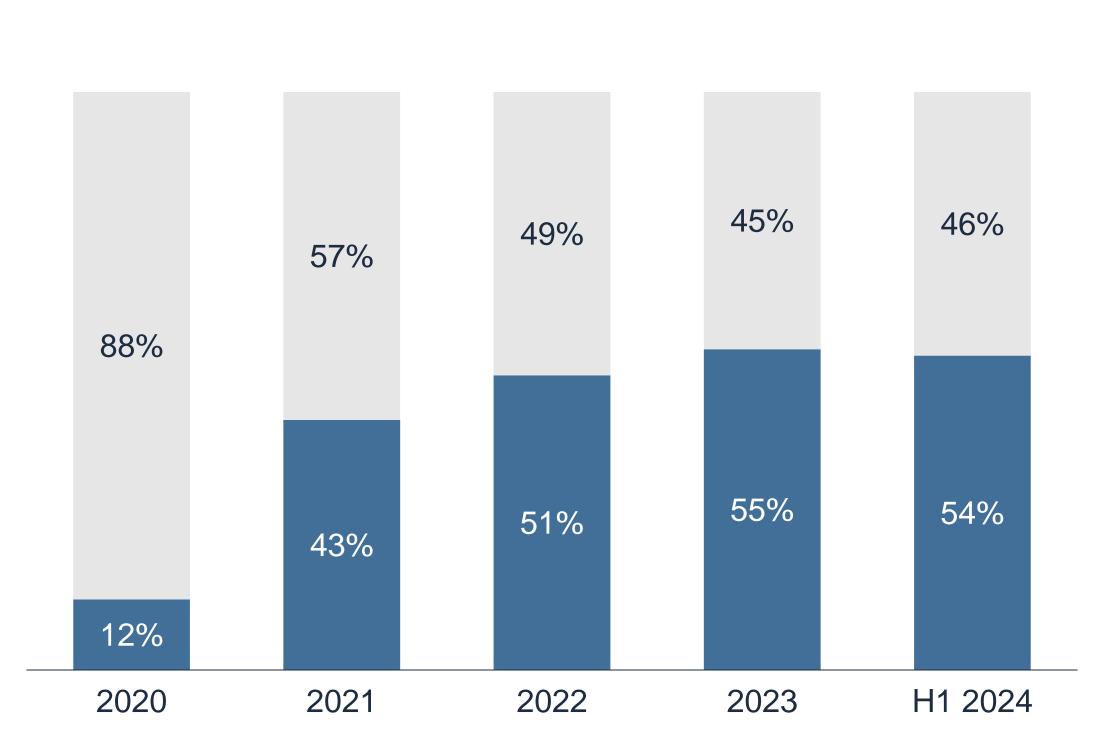
Venture funding in Latin America has remained stable across stages, with continued presence of global investors

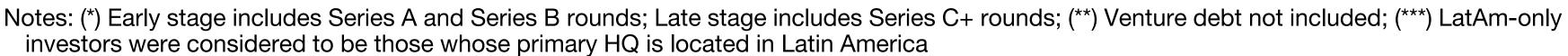
Latin America venture funding by investment stage*,**
US\$M





Latin America venture funding by investor geography % of number of deals





Source: LAVCA Industry Data and Analysis Q2 2024

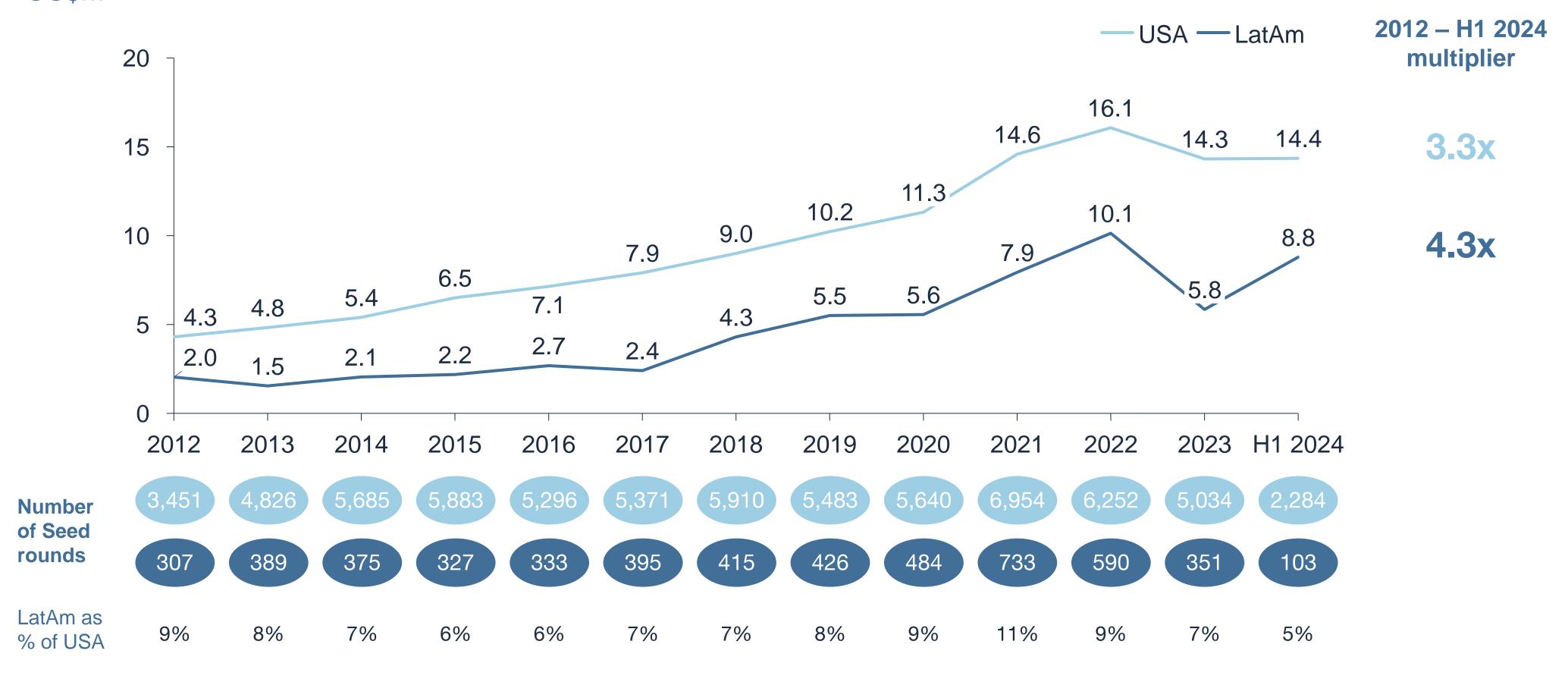


LatAm-only investors***

International/Mixed investors

LatAm and US round sizes have increased over time, but with LatAm much smaller in both round size and number

Evolution of median cash raised* for Seed + Series A rounds¹ US\$M

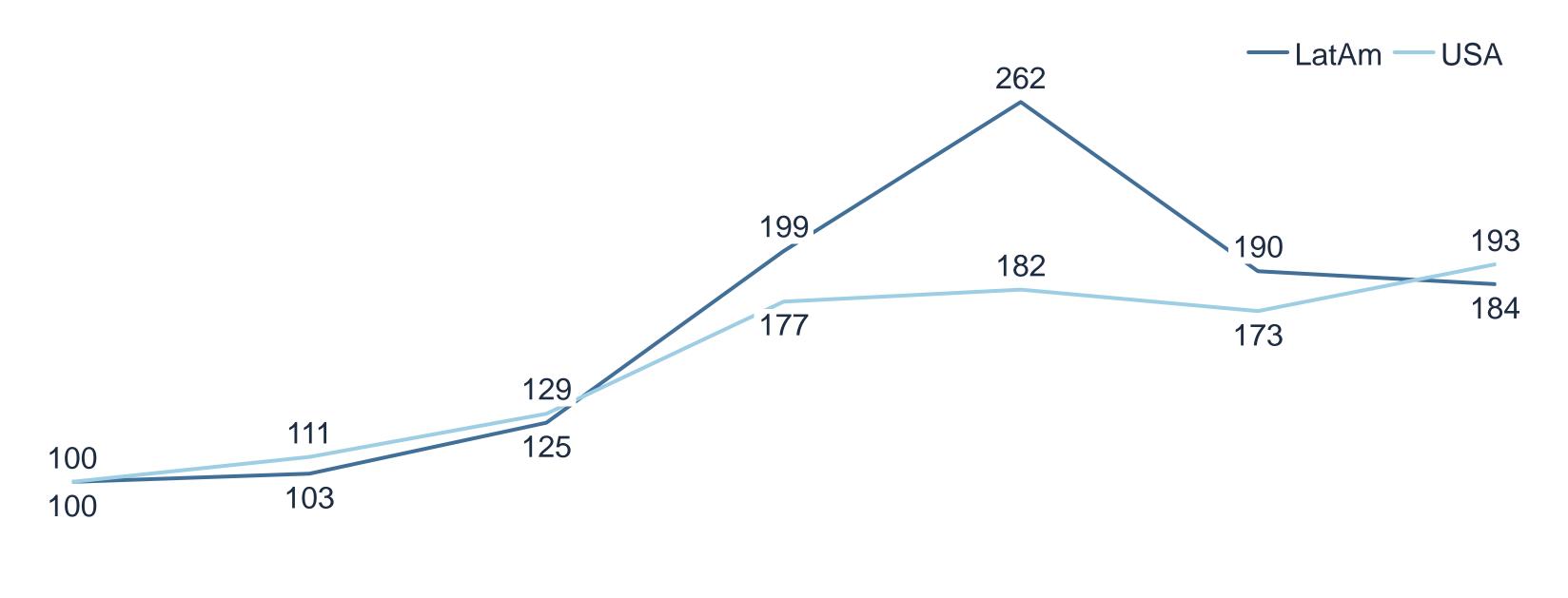




LatAm early-stage valuations have slightly dropped, in the face of US appreciation, even after 2022 valuation spike

Evolution of Latin America median valuations for Seed and Series A rounds

2018 median valuation = Index 100



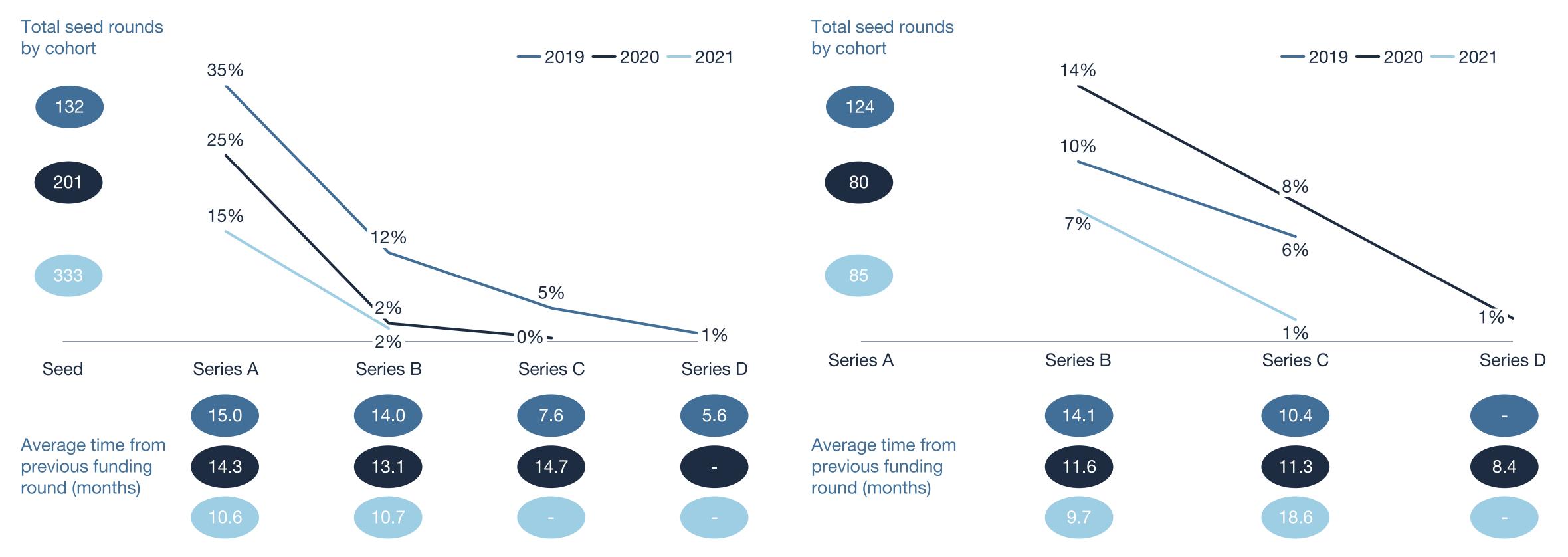




Steep decline in graduation rates reveals adjustment period following capital contraction in Latin America

Graduation rate for Seed startups by year of investment 2019-2021 cohorts, % of total Seed companies in cohort*,**

Graduation rate for Series A startups by year of investment 2019-2021 cohorts, % of total Series A companies in cohort*,**









"Optimism is a moral duty"

- Edwin Land

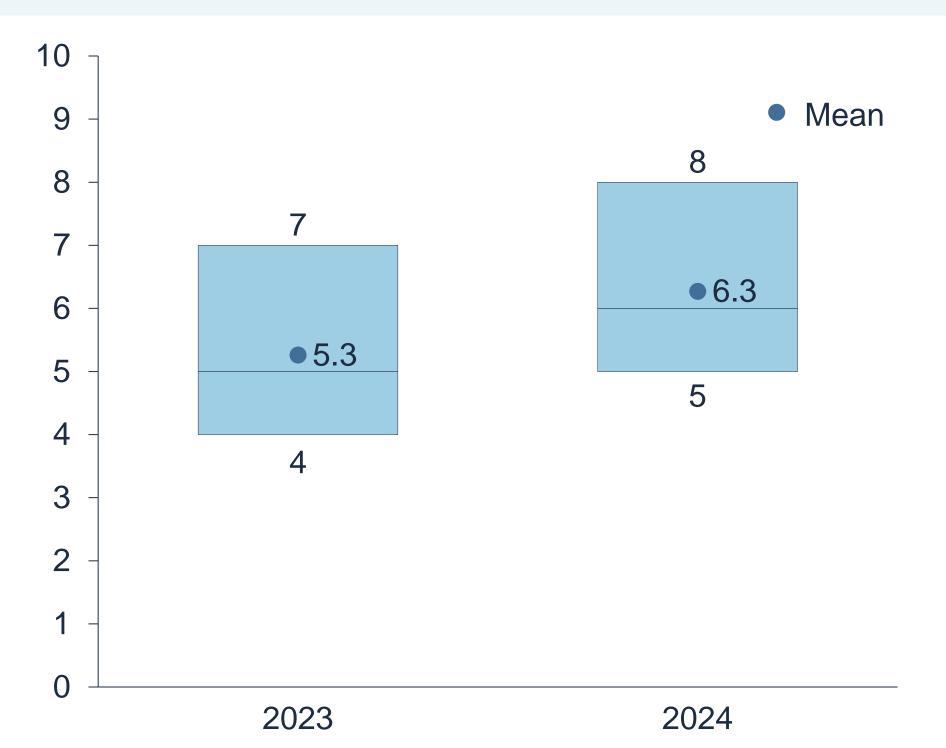


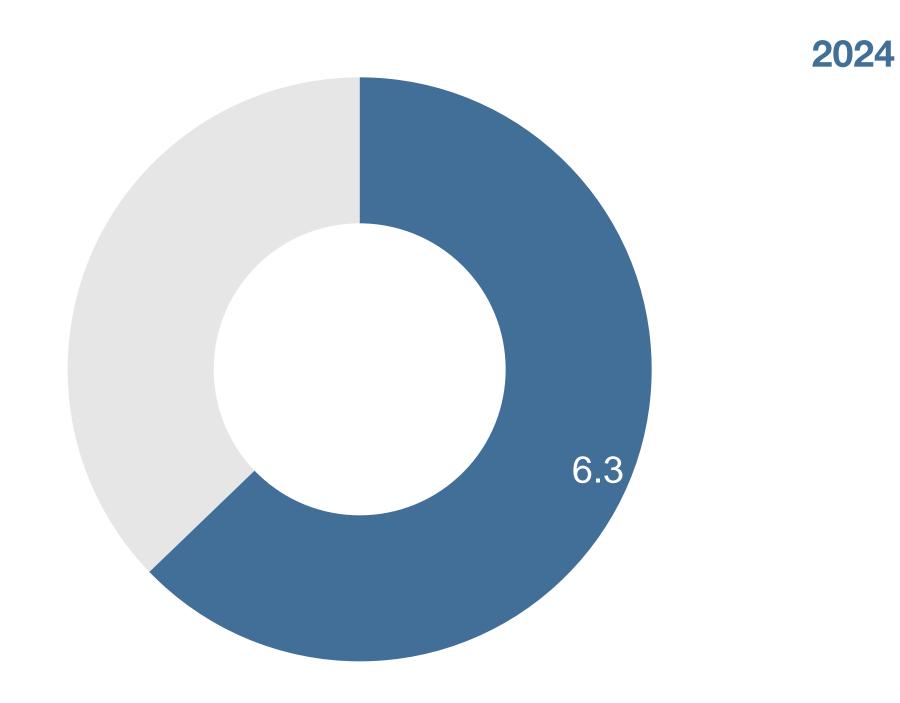
Founder's market sentiment has shifted towards more optimism than past year, aligned with investors' view

Founders' feelings about upcoming year in the tech market^{1,2} Distribution of responses

Investors' feelings about upcoming year in the tech market³
Average response

On a scale of 1 to 10, where 10 is very optimistic and 1 is very pessimistic, how are you feeling about the financing market in the next 1-2 years?





ATLANTICO

Source: (1) Atlantico Founder Sentiment Survey 2023 (n=113); (2) Atlantico Tech Sentiment Survey 2024 (n=132); (3) Atlantico Investors Sentiment Survey 2024 (n= 25)

Unicorn founders remain more optimistic than the average founder, with a strong shift towards financial stability

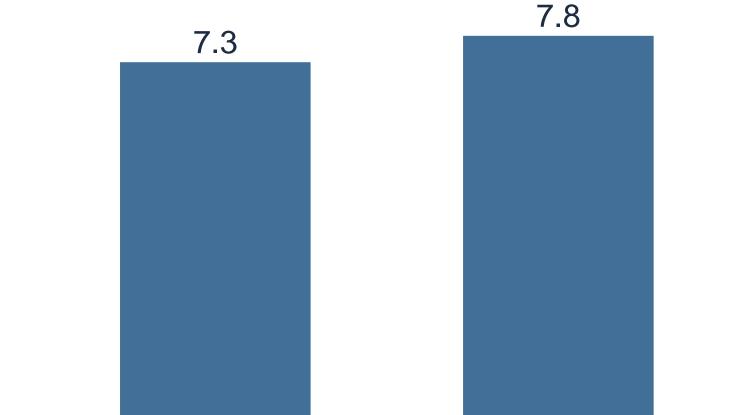


Atlantico's **Good View Summit** is an annual gathering for all Brazilian Unicorn founders and CEOs with the goal to promote industry discussion and invest in a network with highest tech leadership

Unicorn founders' sentiment

Average of respondents

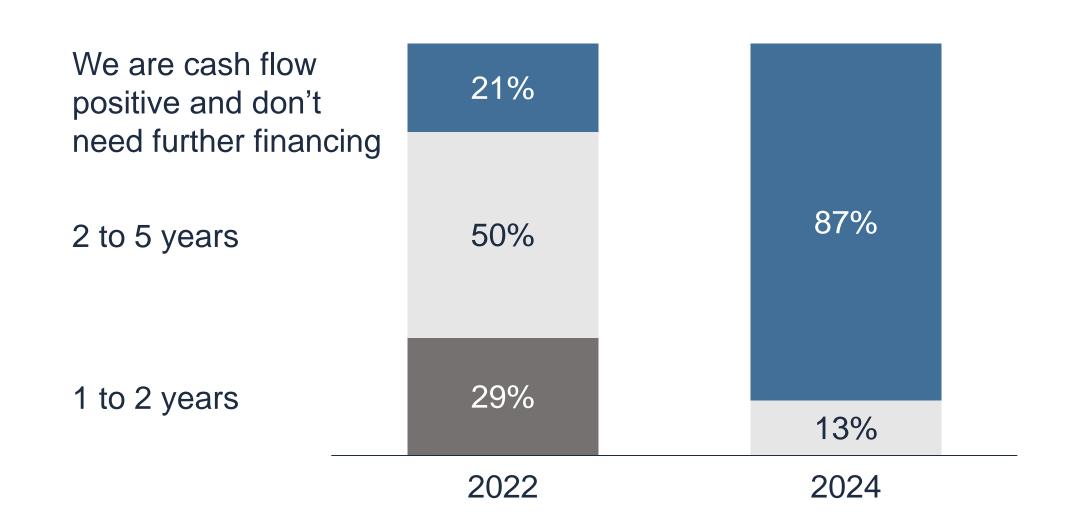
Please describe how you feel about the next 2 years, on a scale of 1 to 10, where 1 means fear and 10 means excitement



Unicorn's runway and funding plans

% of respondents

What is your company's current runway?

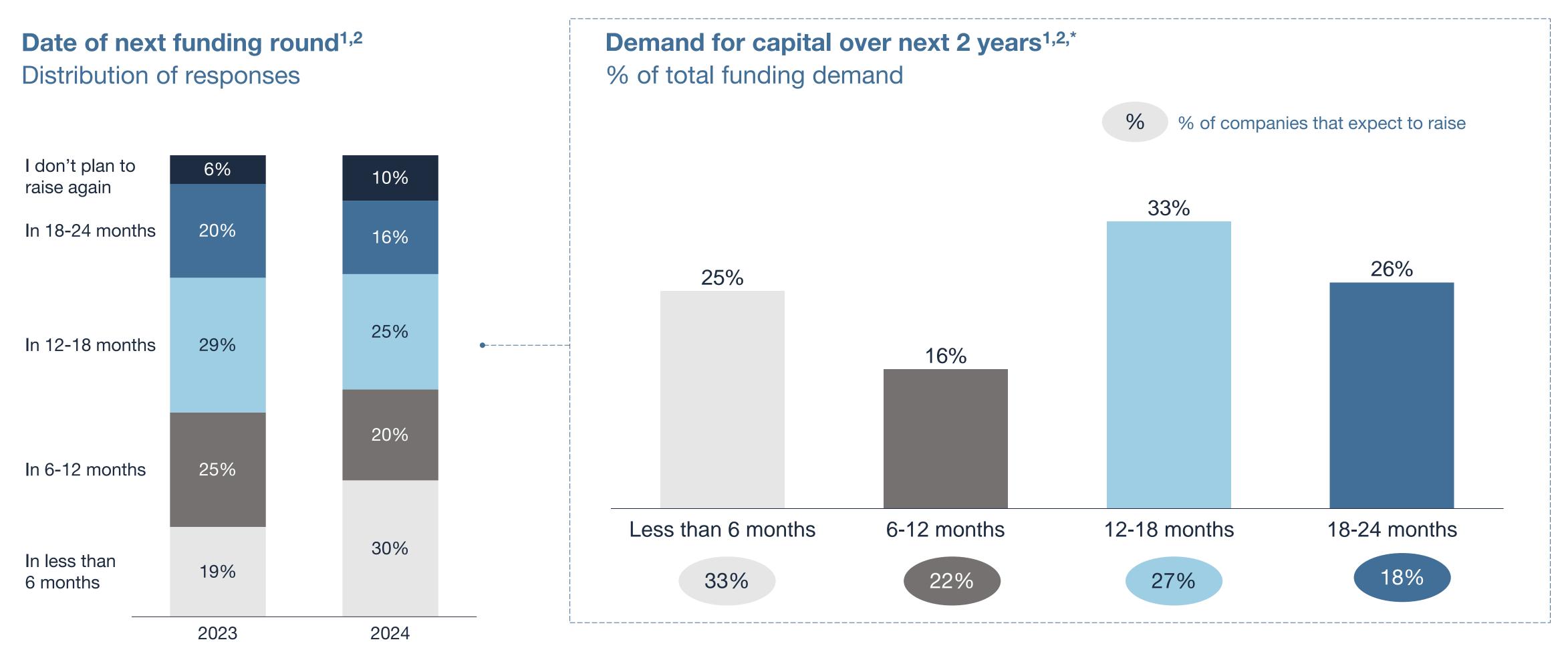




2024

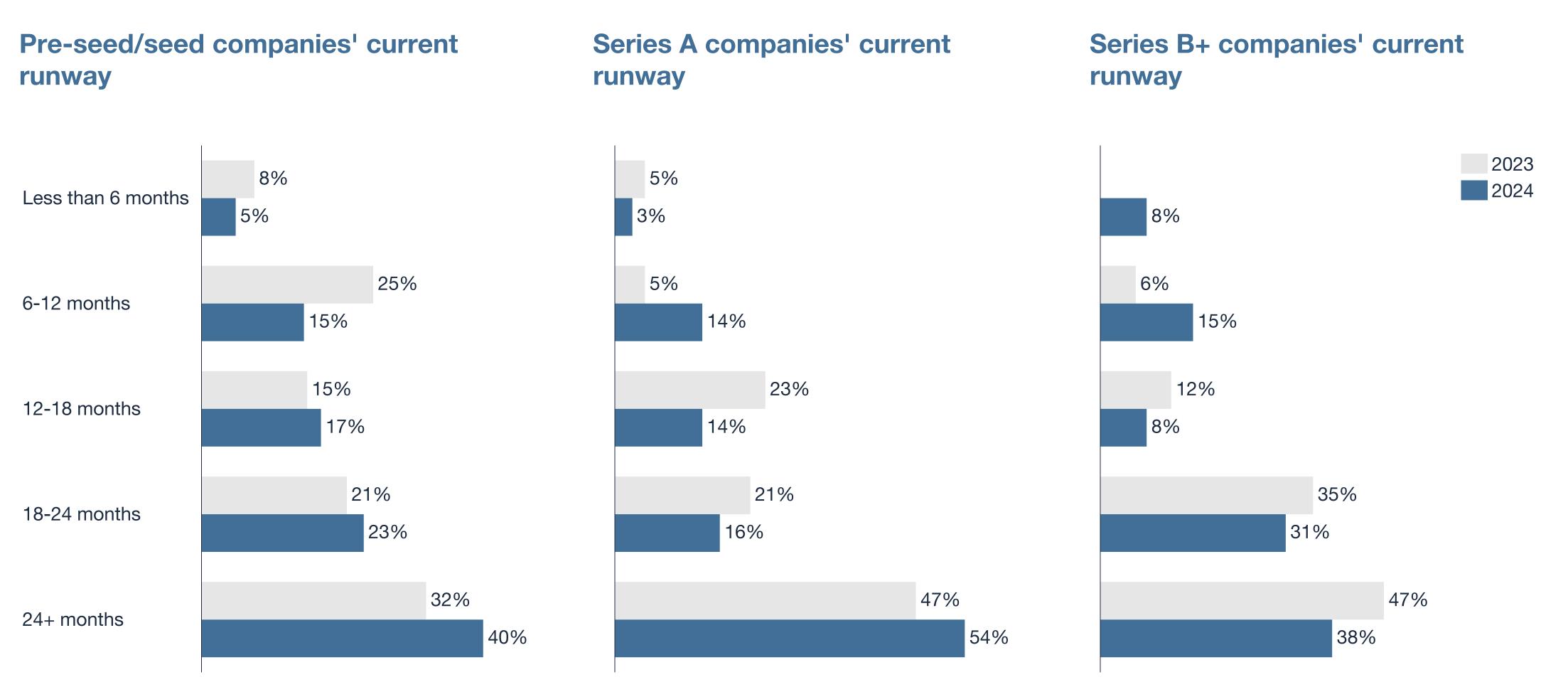
2022

Companies are accelerating their funding plans in 2024, mostly from companies that raised earlier than 2022





Early-stage companies are mostly seeing longer runway than 2023, while late-stagers have a tighter horizon

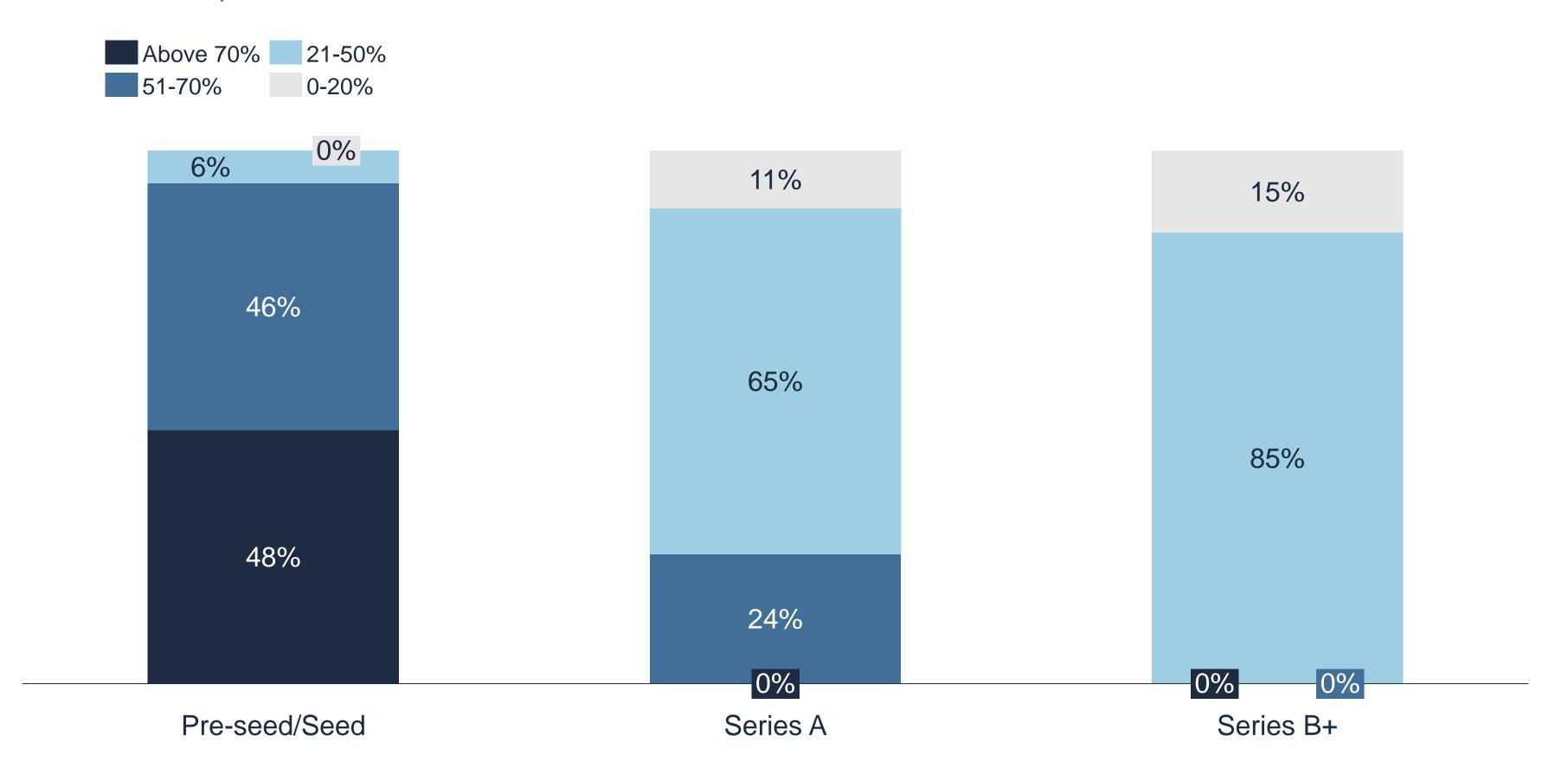




Founders' ownership dilutes significantly across funding rounds, with the majority owning 21-50% by late stage

Founder's ownership by funding round of company



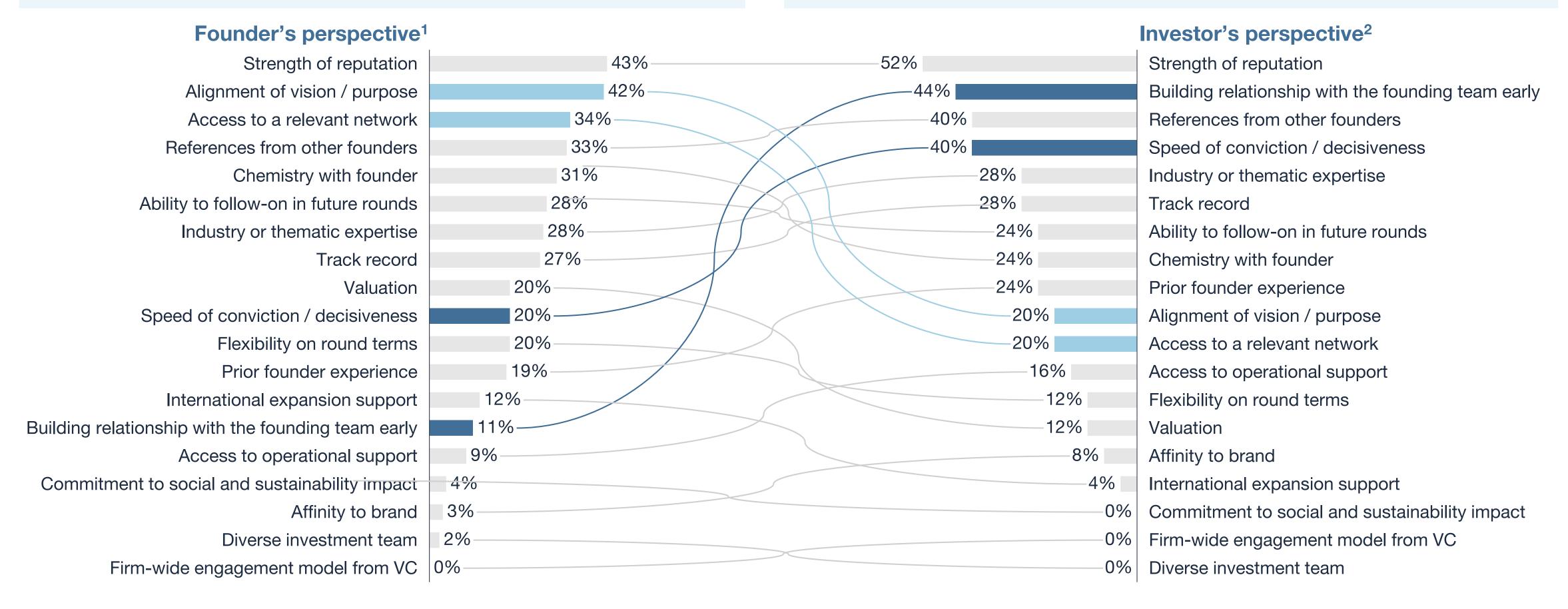




While strength of reputation is a shared priority, founders and investors disagree on key factors for partnering up

What are the most important considerations when selecting an investor to lead your next round?

Over the past 12 months, and thinking generally about the market, what in your opinion have been the most decisive factors to win a competitive deal situation?





Founders are seeking to increase their team sizes following an easier year of recruiting

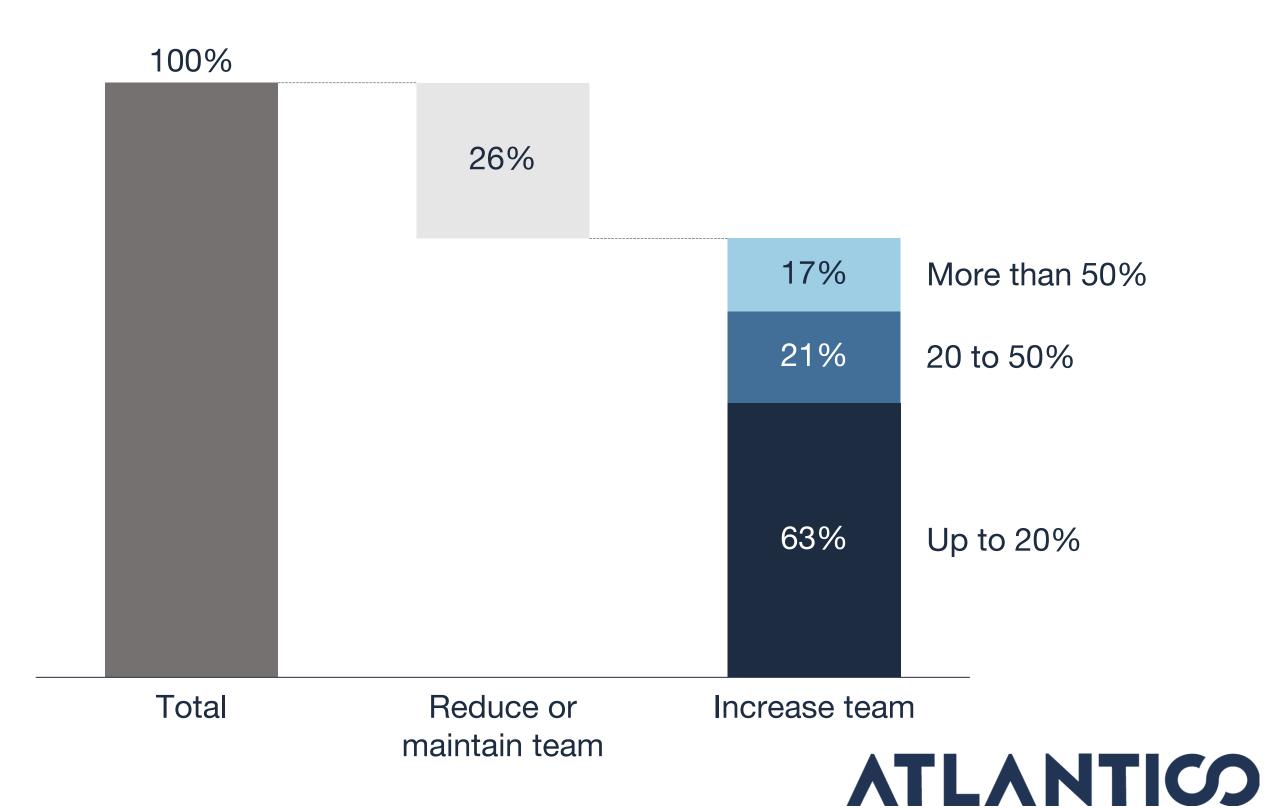
Founders' perception on talent attraction over the past year % of total respondents

How difficult has talent attraction/recruiting been over the past year when compared to the prior year?

Much easier Easier 35% About the same 46% Harder 7%

Founders' recruiting plans for next 12 months % of total respondents

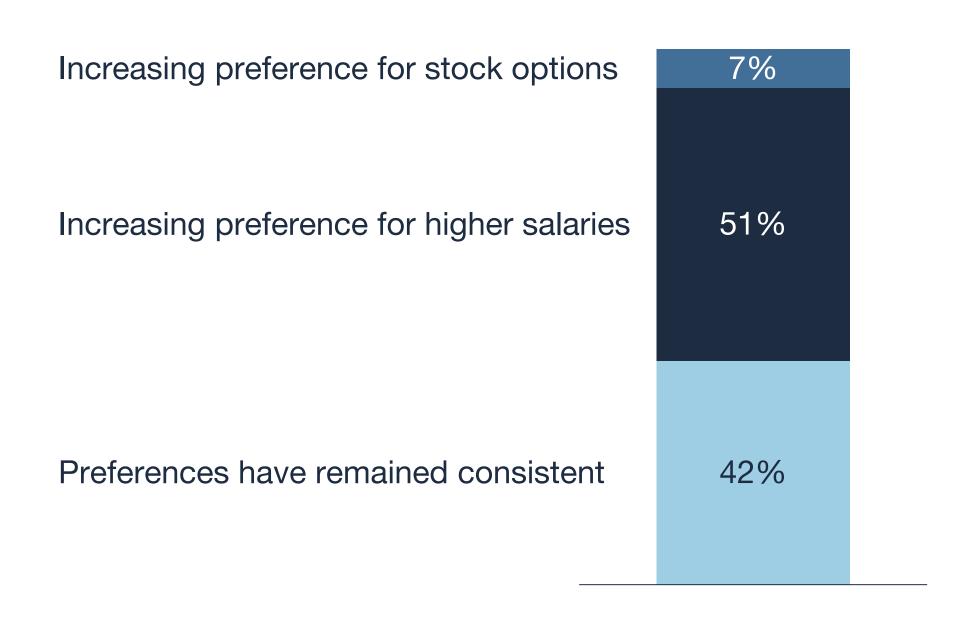
Thinking about the next 12 months, what are your recruiting plans (considering total headcount)?



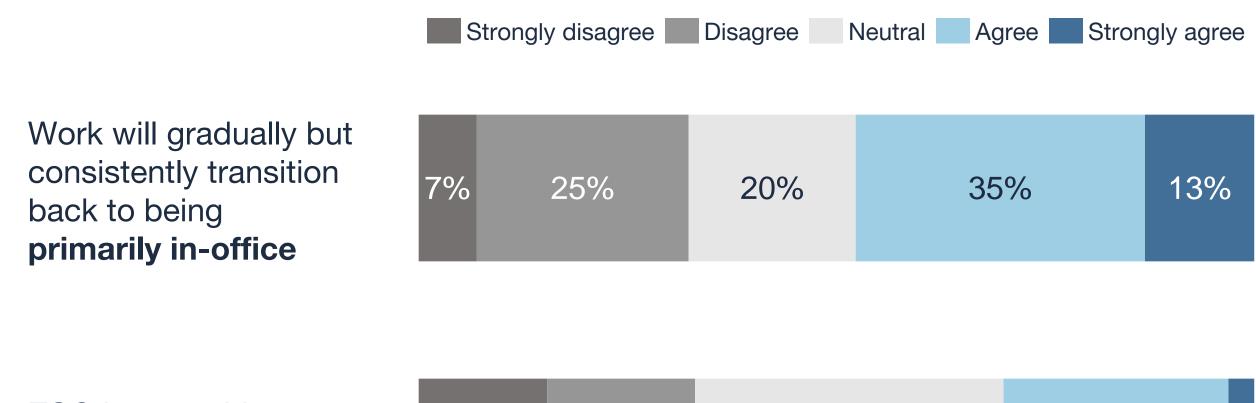
Founders are seeing significant increase in compensation preferences and expect shifts in their cultures

Founders' perception on compensation alternatives % of total respondents

When recruiting for your company, how have talents' preferences for stock options versus salary compensation evolved over the last 2 years?

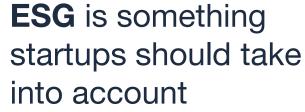


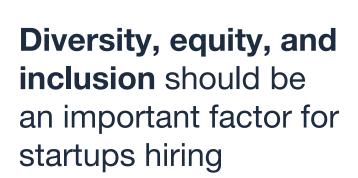
Founders' agreement with selected statements % of total respondents

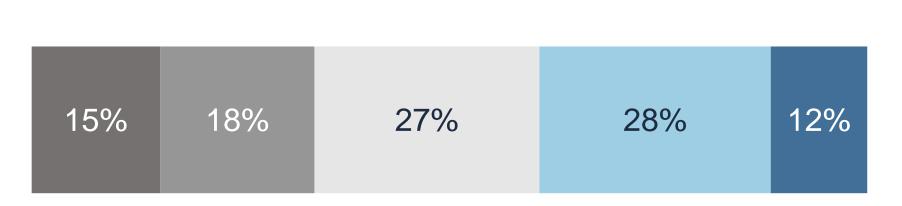


18%

15%







37%



27%

29% of students aim to work in tech in the short term, while interest in entrepreneurship continues to be on the rise

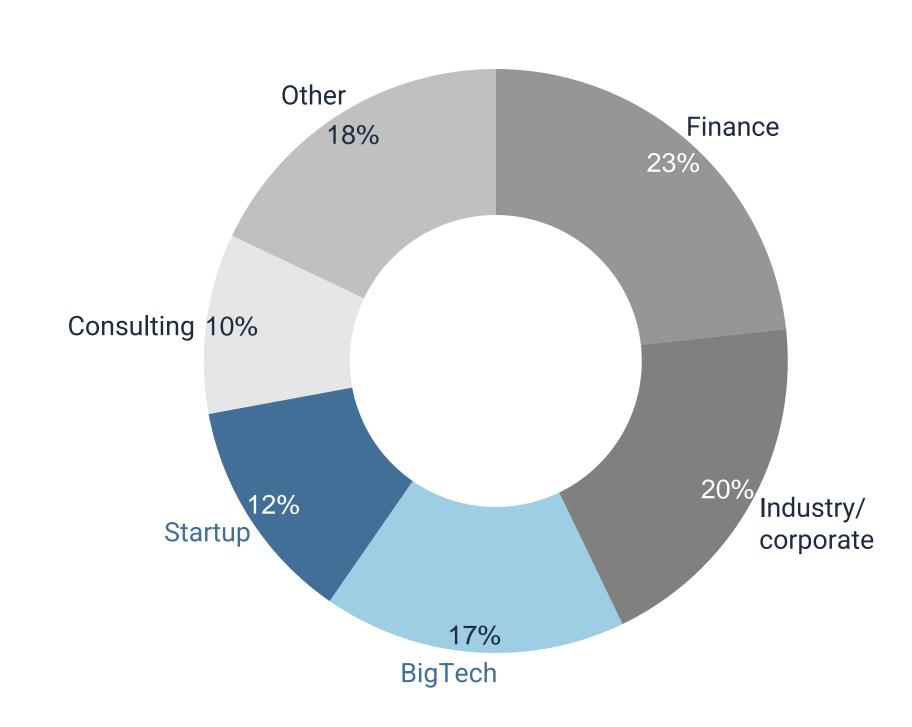
Short term preferred areas of work 2024, % of respondents

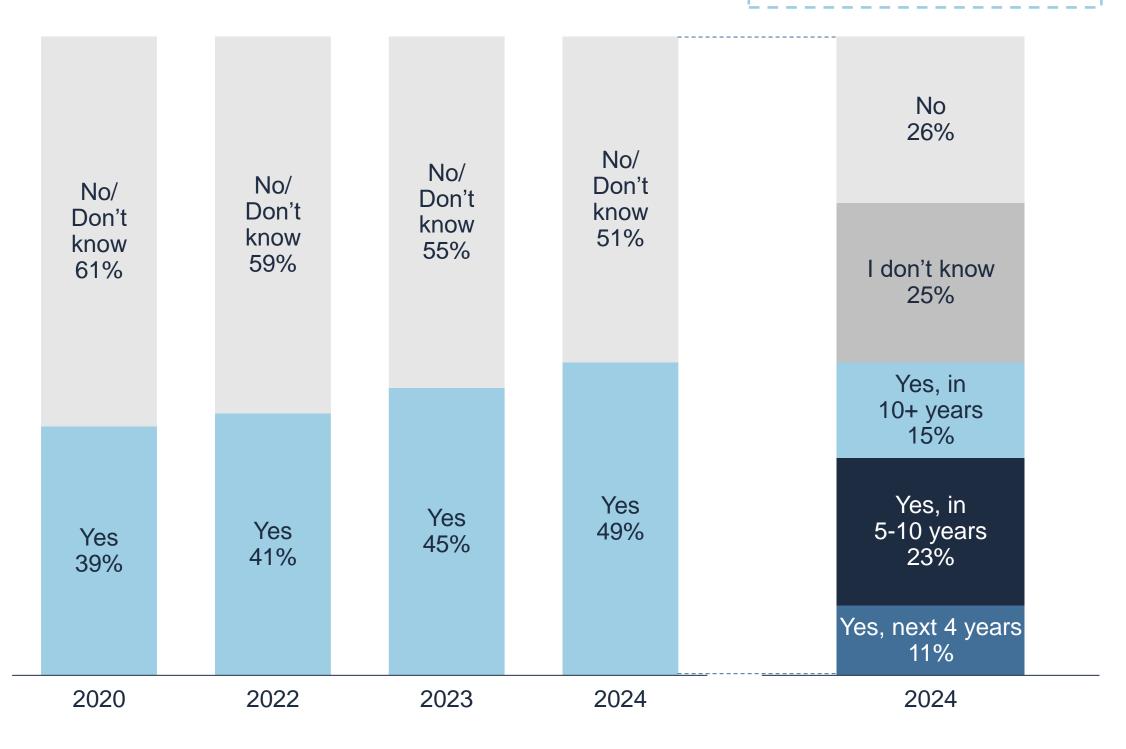
In what area do you see yourself working in the short term (i.e. right after graduation)?

Rising interest in entrepreneurship 2020-2024, % of respondents

Do you have plans to found a company in the future?

Students are adopting more conservative timelines: in 2022, 20% wanted to found companies in up to 4 years, and only 9% in 5-10 years









Tech Tectonics

Latin America remains at the forefront of digital adoption, boasting the highest e-commerce growth worldwide in the past year.

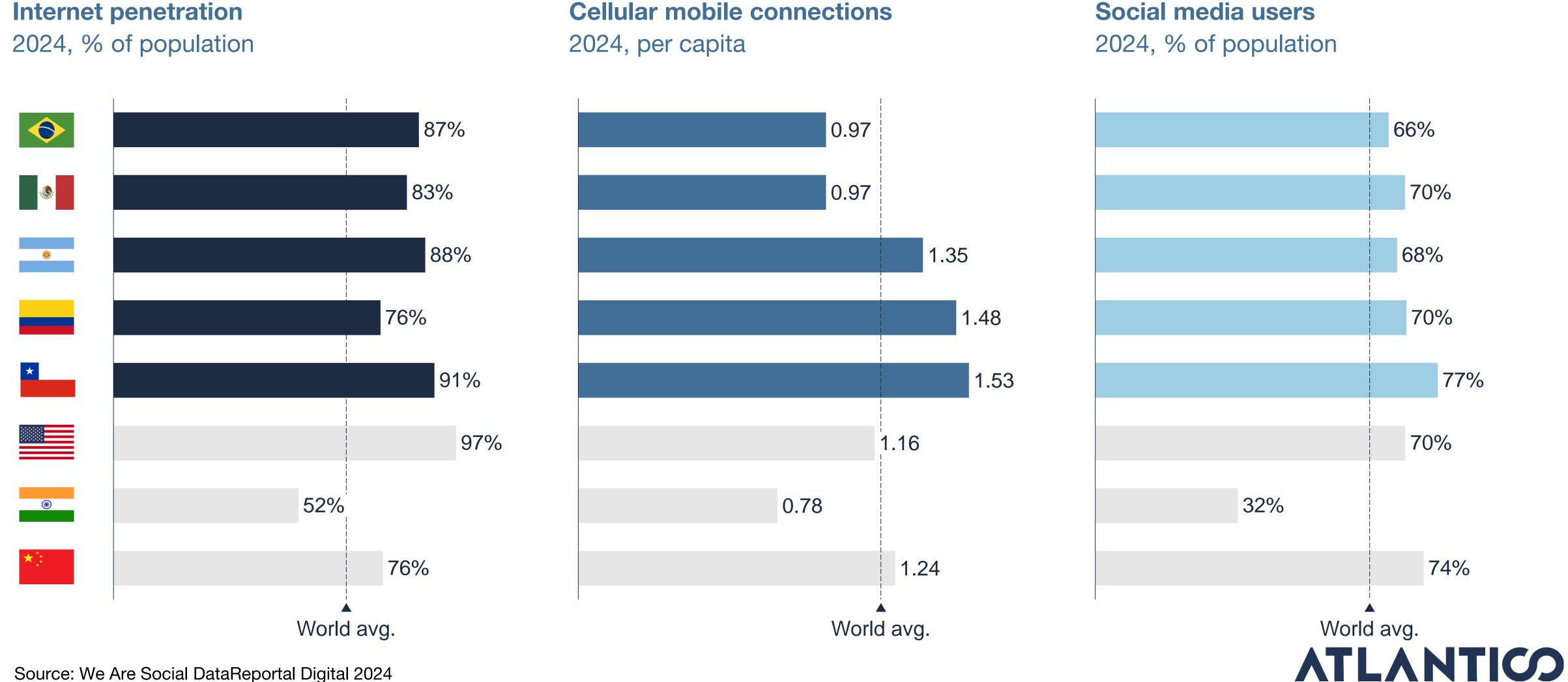
As Al uptake accelerates, talent and capital are fueling new and creative applications.

Meanwhile, digital creators became major forces of consumption, and WhatsApp has reached ubiquity across individuals and businesses alike.

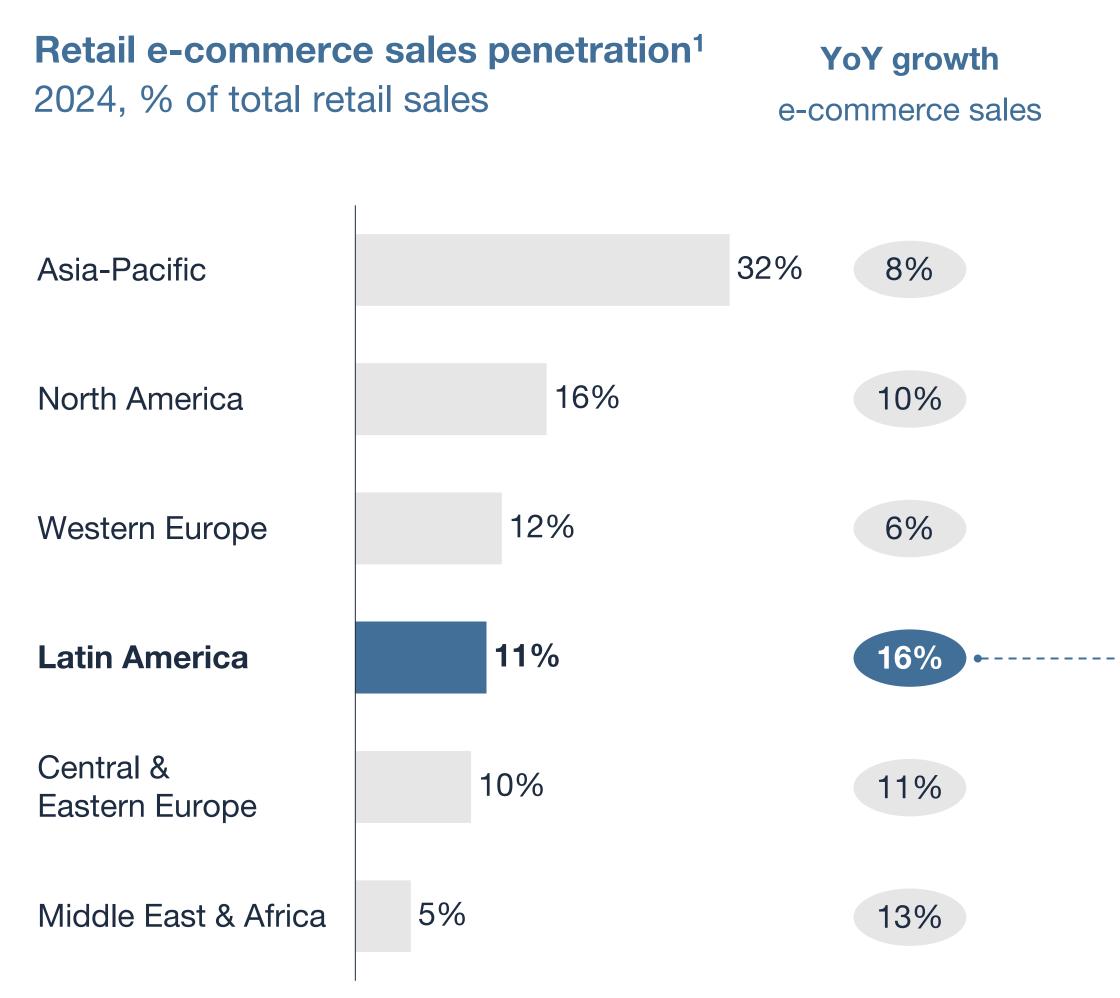
The next decade promises to be one of sweeping digital change: everything, everywhere, all at once.

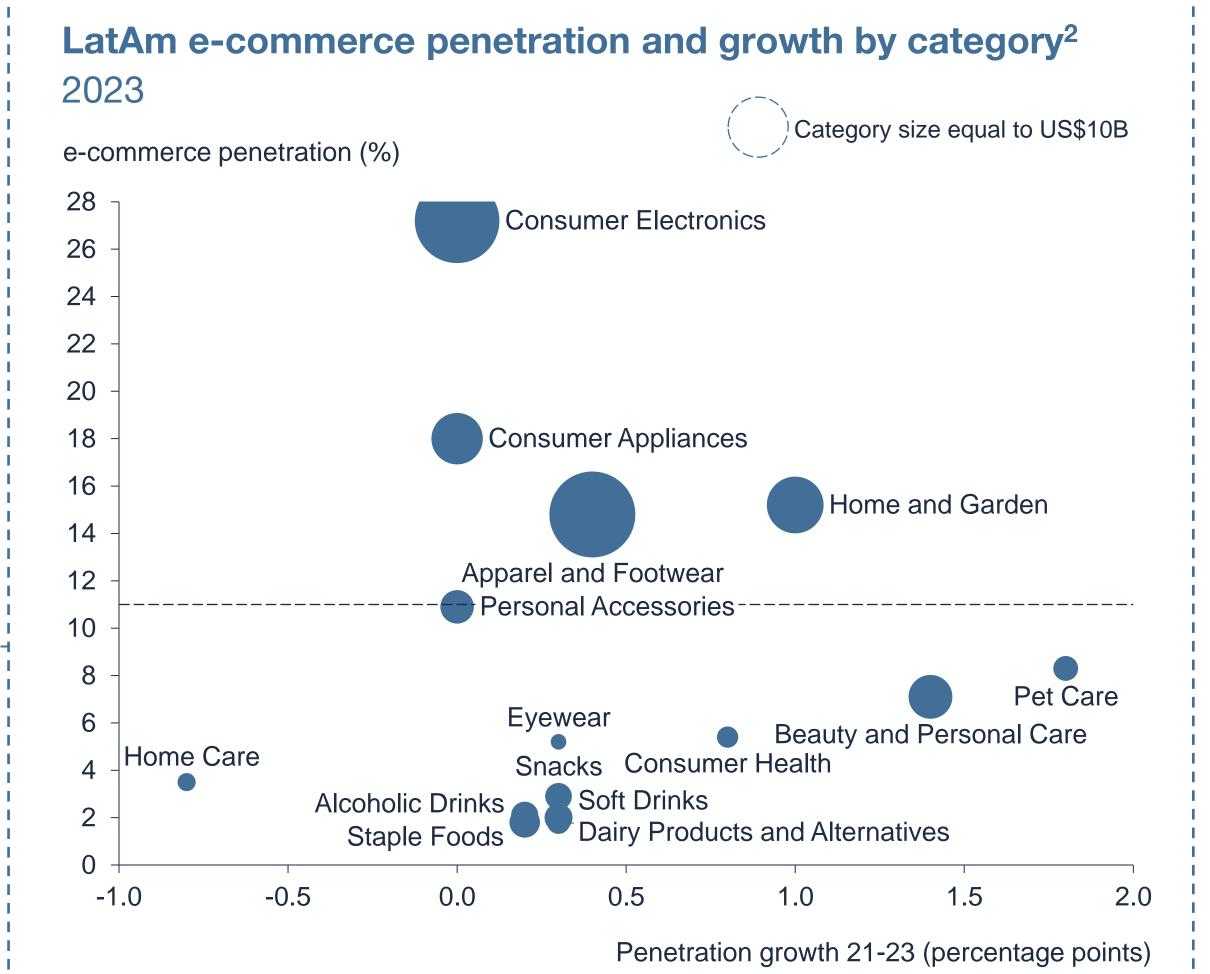


Latin America has digitalization rates comparable to those of the US and China and ahead of other developing economies



In the past year, LatAm saw the highest e-commerce growth, narrowing the gap with more developed regions

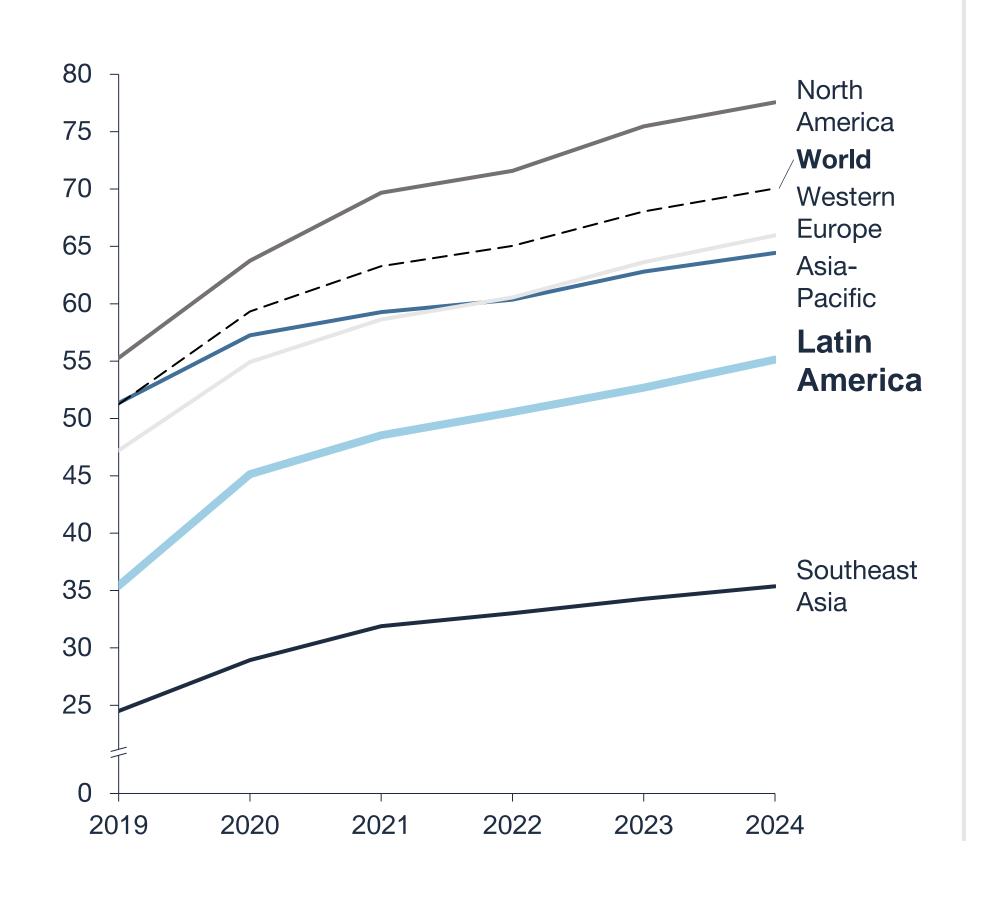


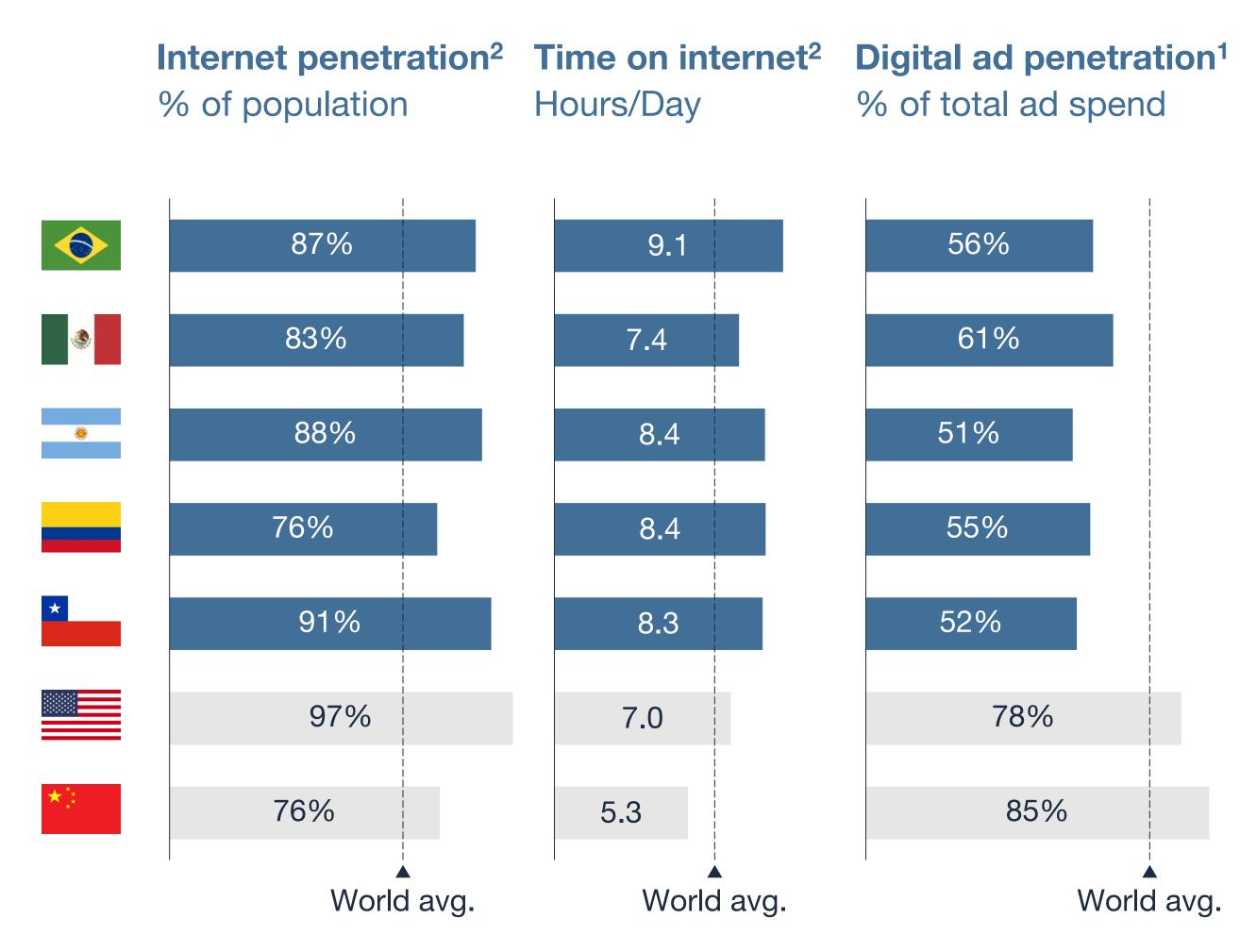




While digital ads penetration in LatAm is rising, it still lags that of the US and China, despite similar internet usage

Digital advertising spending penetration¹ 2019-2024, % of total ad expenditure



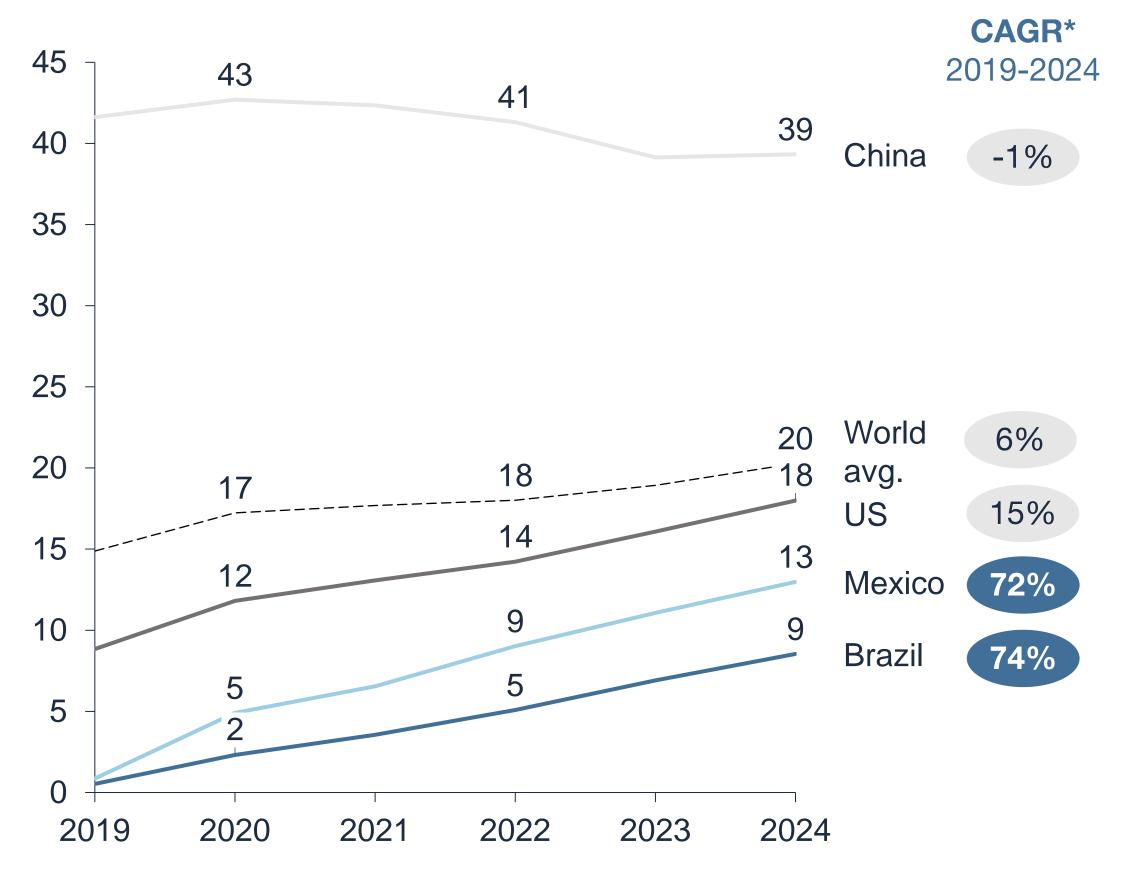


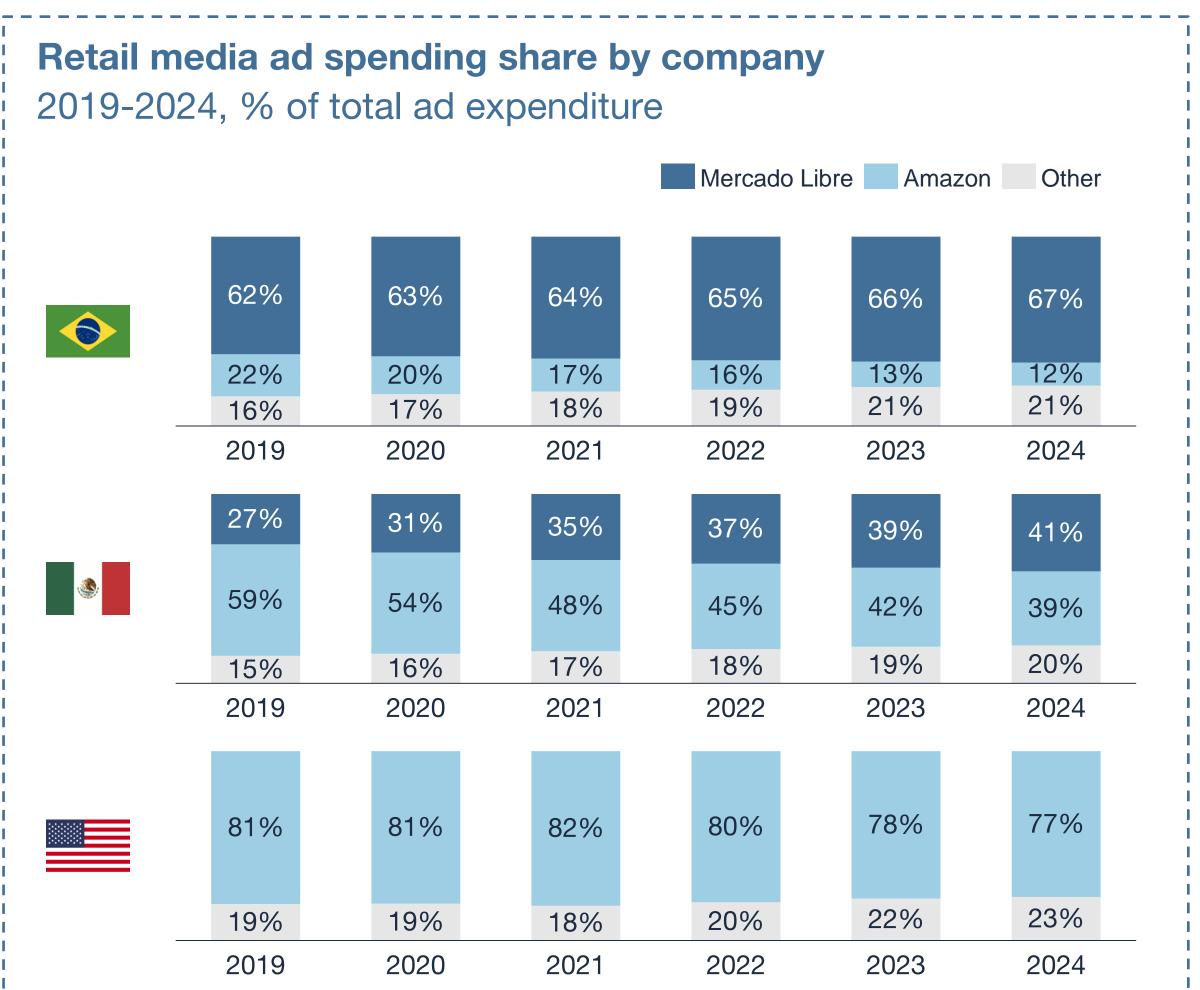


Retail media relevance in Latin America is growing rapidly, with Mercado Libre and Amazon leading in spending share

Retail media ad spending penetration

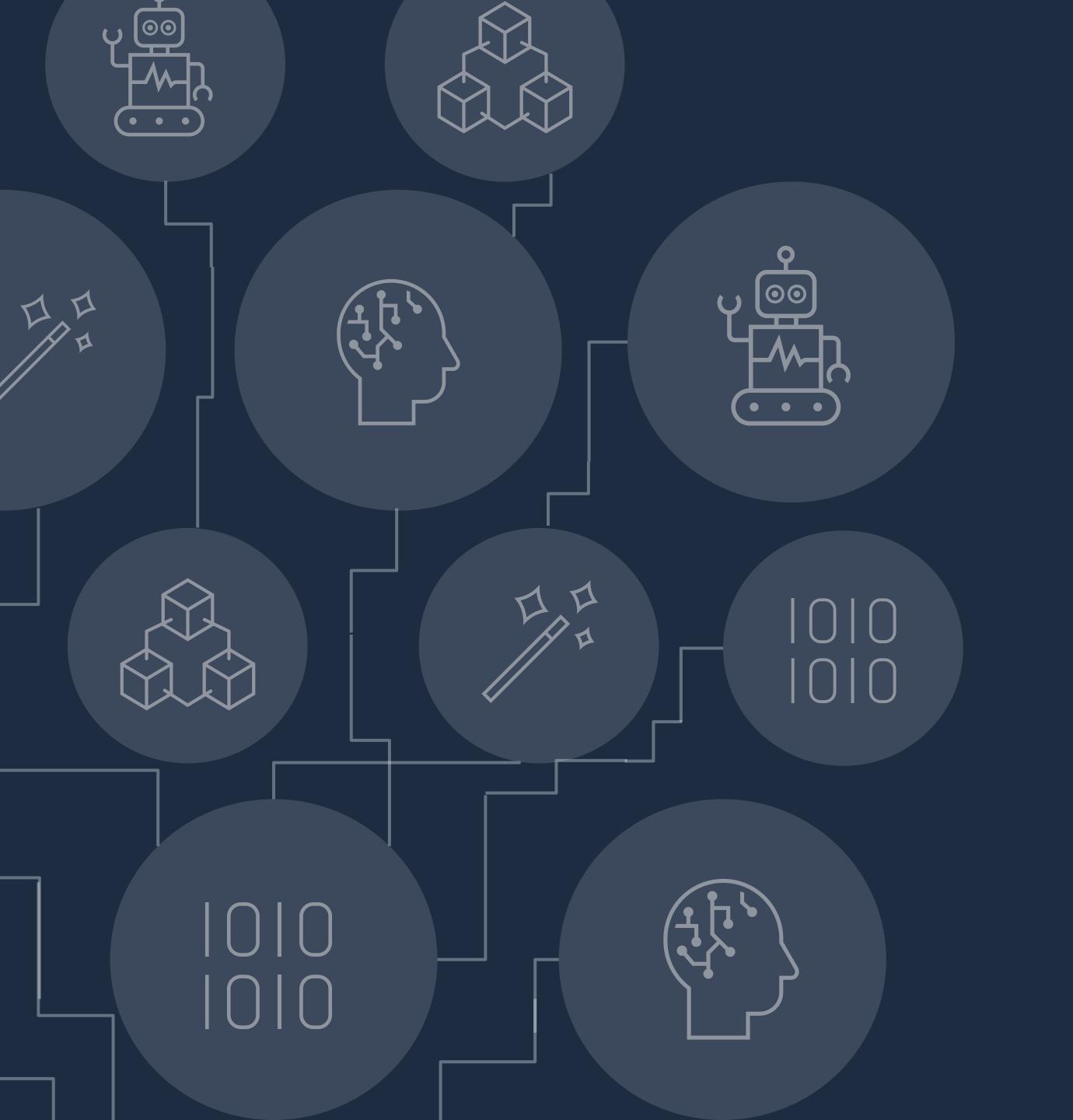
2019-2024, % of total ad expenditure











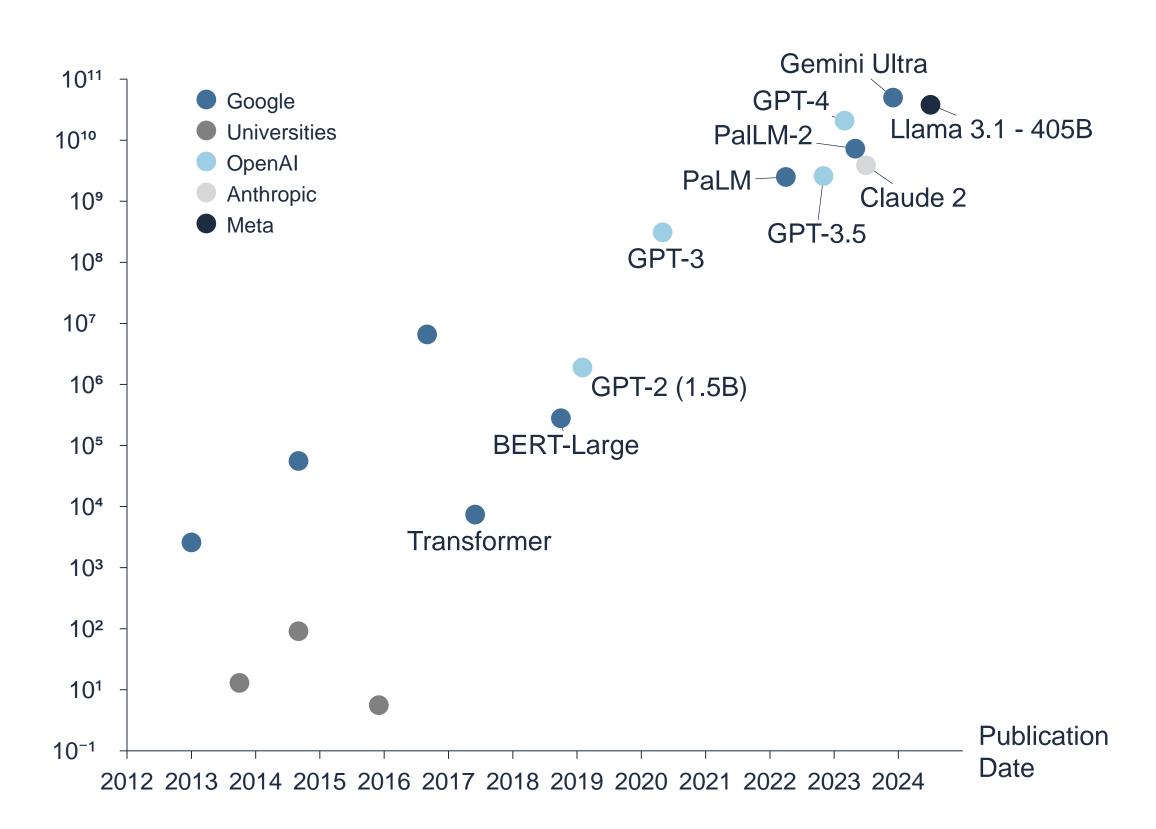
"Any sufficiently advanced technology is indistinguishable from magic"

- Arthur C. Clarke

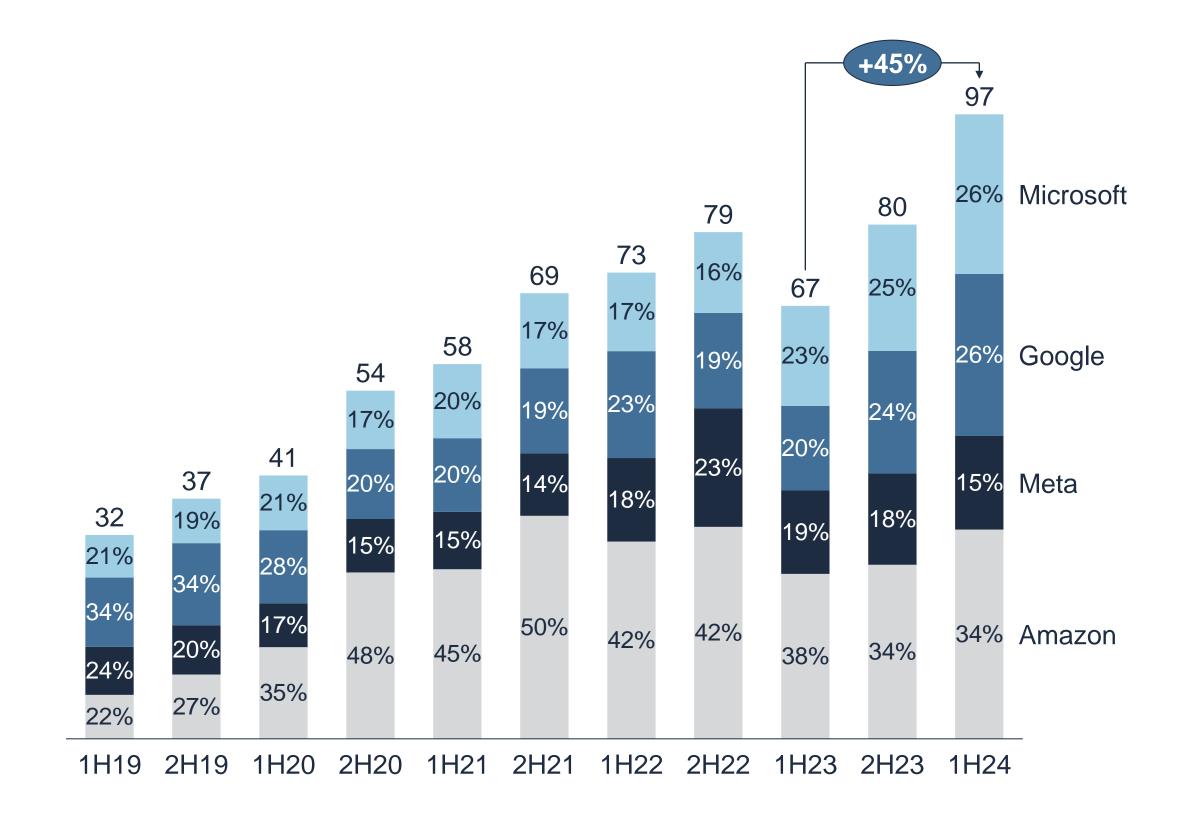
Al, the next digital paradigm, has continued to advance exponentially, with big techs ramping up investments

Training compute evolution for language models¹

Total petaFLOPs* used for training, log scale



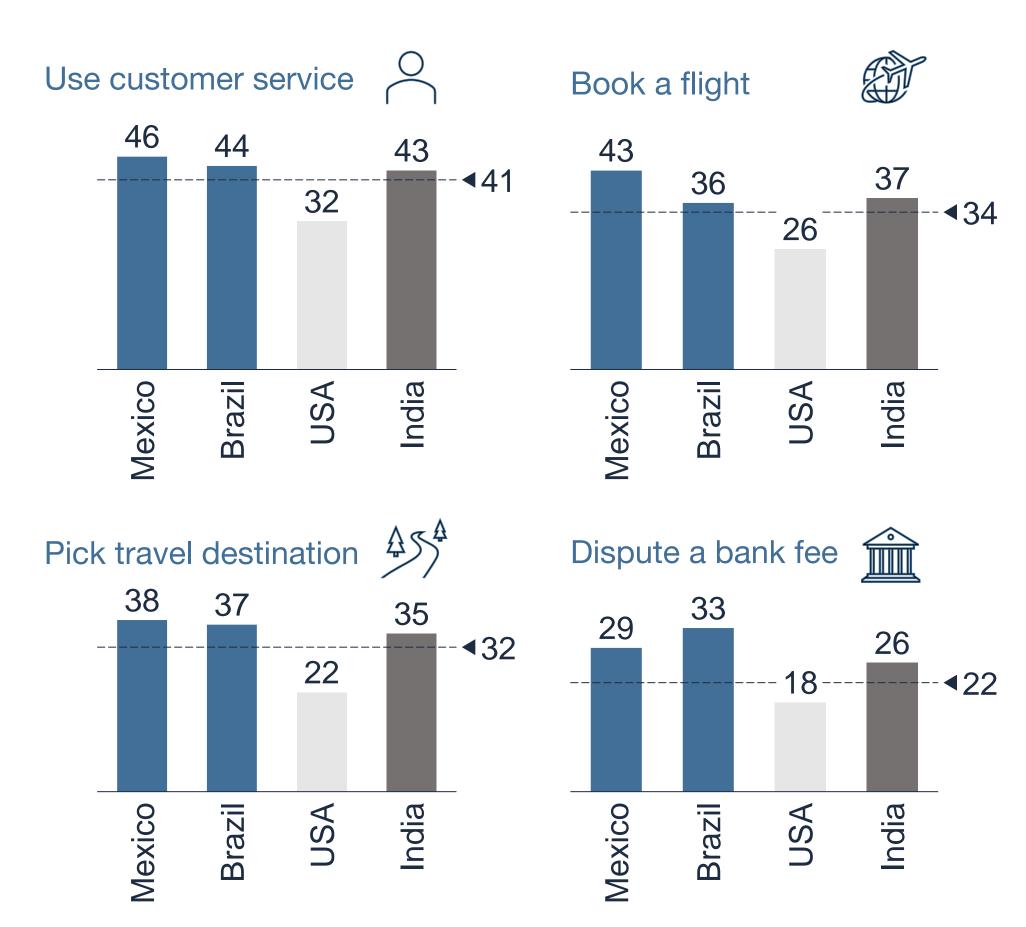
CAPEX evolution in Al model-developing Big Techs² US\$B



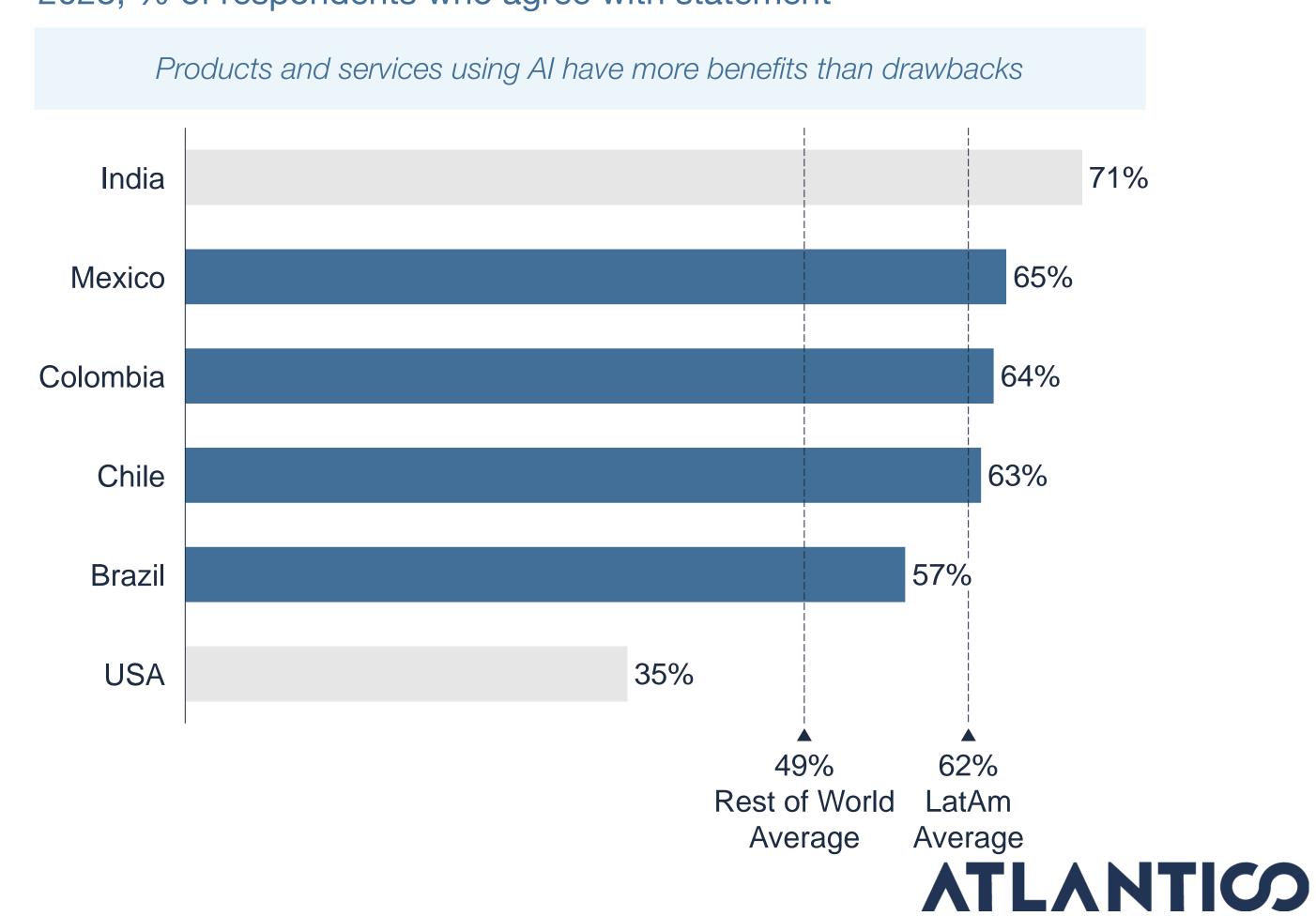


Latin American citizens are willing to experiment with AI, with a more positive perception compared to most regions

Willingness to use Al for selected activities 2023, % of respondents



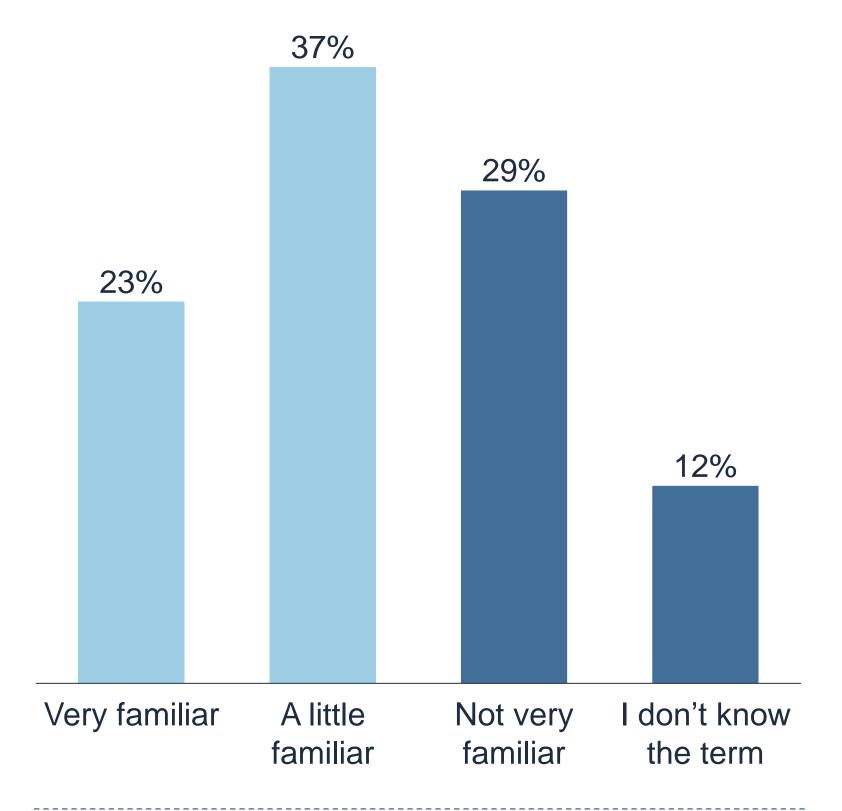
Public perception on Al benefits and drawbacks 2023, % of respondents who agree with statement



Source: IPSOS 2022-2023

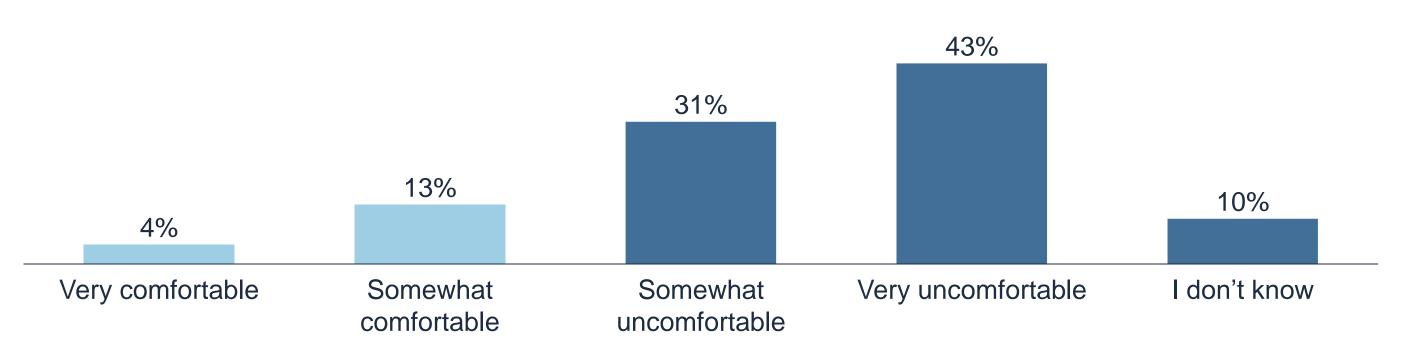
Yet, low levels of awareness and lack of openness to share personal data pose a challenge for further Al use in Brazil

Awareness of Artificial Intelligence in Brazil¹ 2024, % of respondents



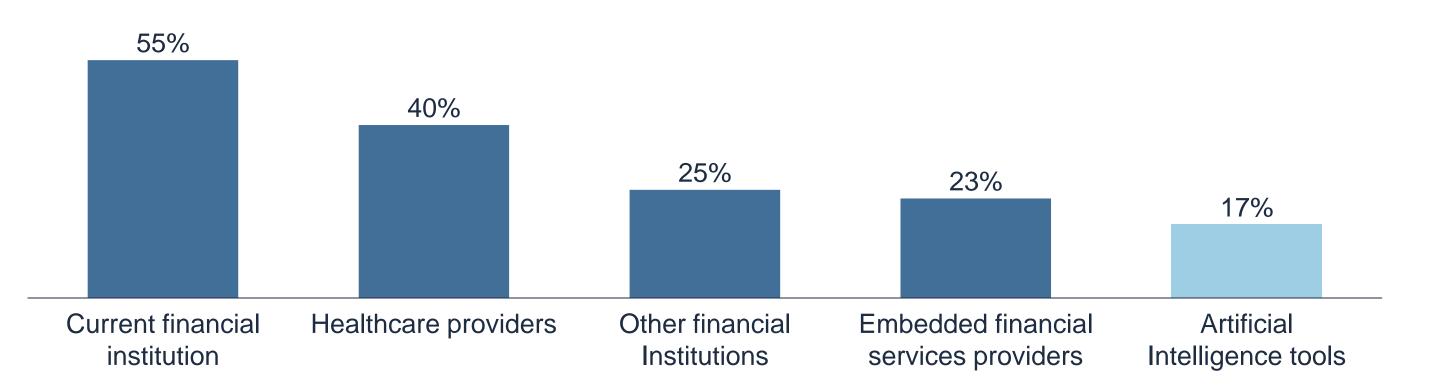
83% of startup founders in Brazil believe there is a need for some Generative AI regulation²

Population willingness to share personal data with Al tools¹ 2024, % of respondents



Institutions with which population would share personal data¹

2024, % of respondents 'very comfortable' or 'somewhat comfortable' sharing data

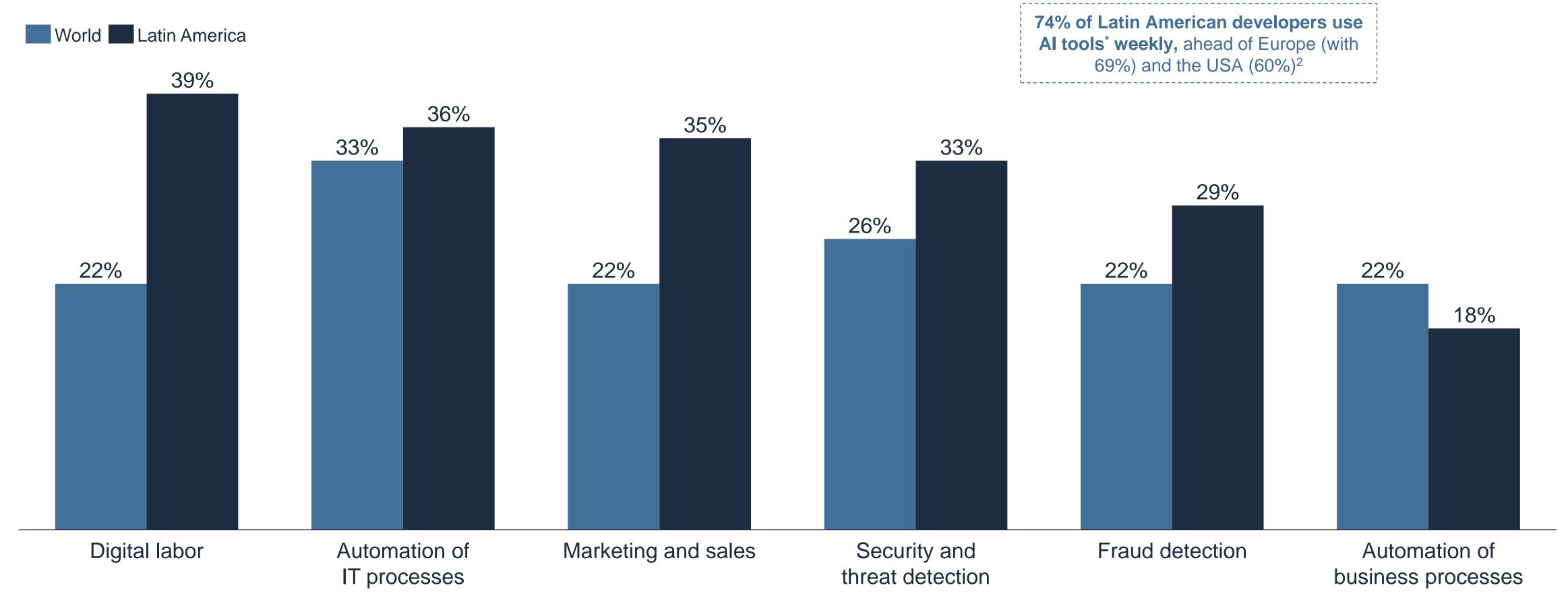




Latin American tech communities have been using Artificial Intelligence tools at a higher rate than the global average

Enterprise adoption of Artificial Intelligence use cases¹

% of enterprise respondents

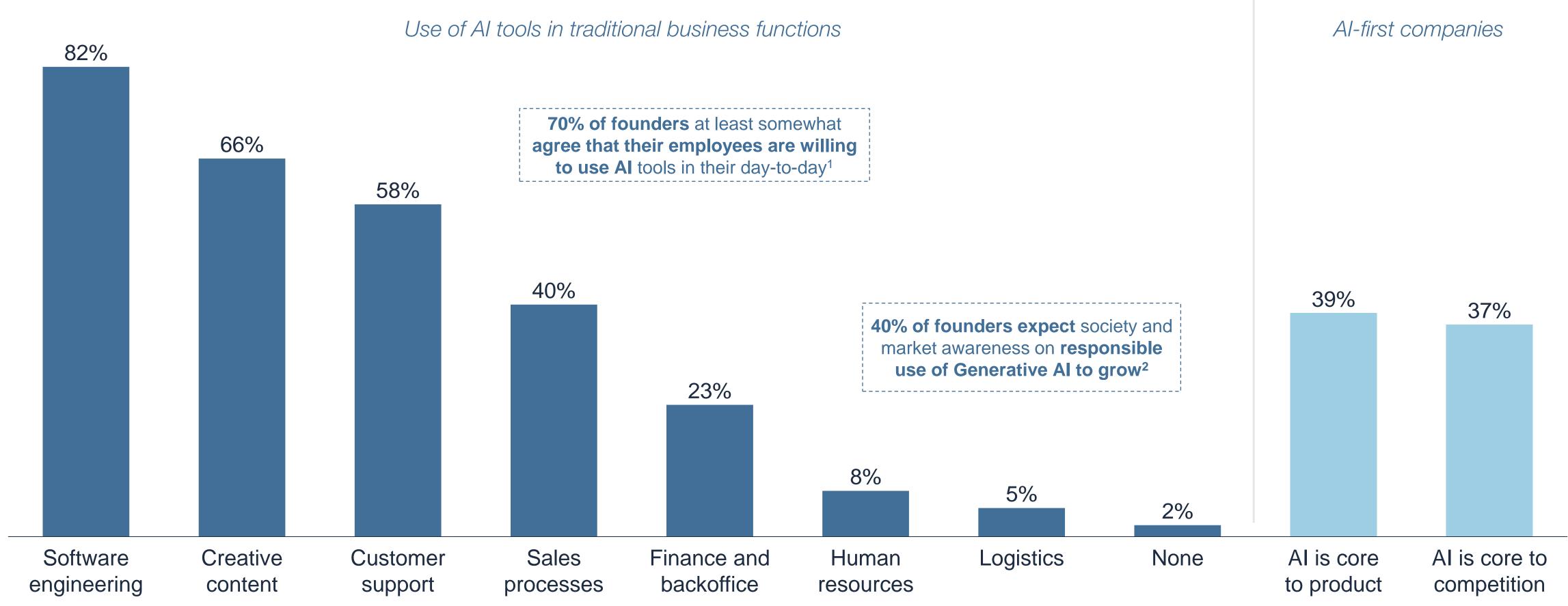




Most LatAm founders are leveraging Al for operational efficiency, while ~40% made it a core part of their business

Al tool adoption by business use case¹







Founders in the region don't always perceive the most frequently adopted Al initiatives as the most impactful

Al tool perceived impact by business use case 2024, % of respondents who use AI for each use case % of founders that use AI for this function Relevant positive impact Neutral impact Negative impact Slightly positive impact No impact observed 82% 66% 58% 23% 37% 40% 8% 5% 39% 1% 0% 0% 3% 0% 0% 0% 0% 0% 0% 4% 2% 0% 4% 1% 0% 6% 0% 2% 5% 1% 0% 14% 17% 18% 17% 15% 22% 45% 18% 29% 55% 63% 55% 57% 45% 77% 71% 57% 54% 39% 32% 28% 23% 18% Software Creative content Logistics Al is core Al is core to Customer Sales processes Finance and Human resources backoffice competition engineering to product support

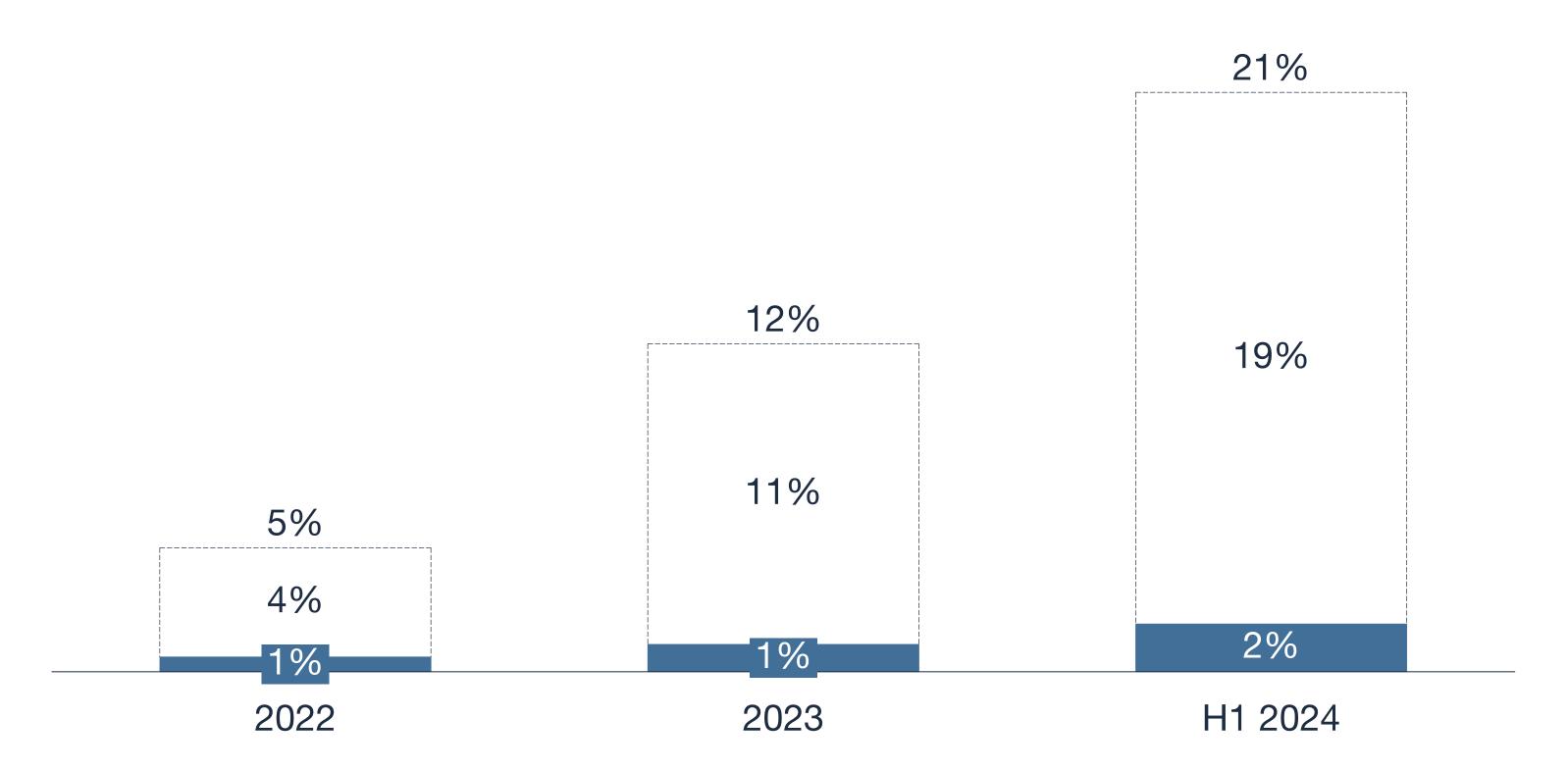


Artificial Intelligence acts as a central or enabling factor for 1 in every 5 new companies getting funded in Latin America

Latitud Al fellowships

% of total fellowship companies

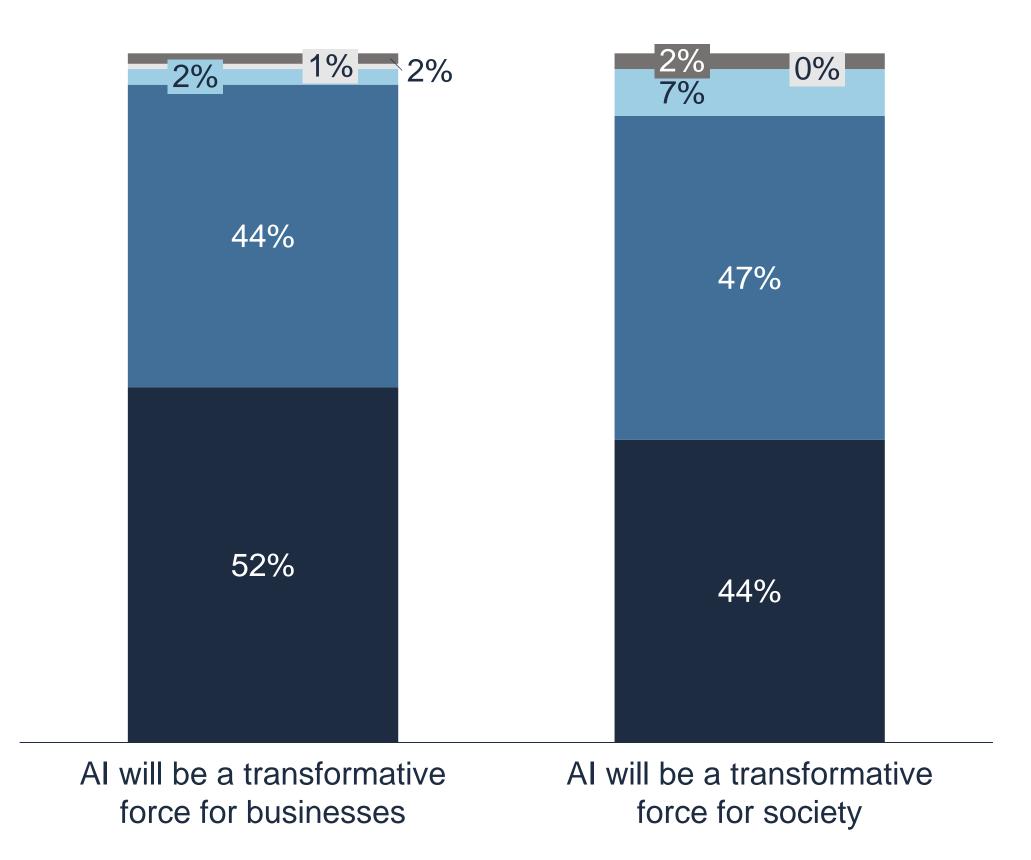






Founders believe in Al's overall transformative power, but remain uncertain on how it will directly impact businesses

Founders who agree with statements about Al 2024, % of respondents



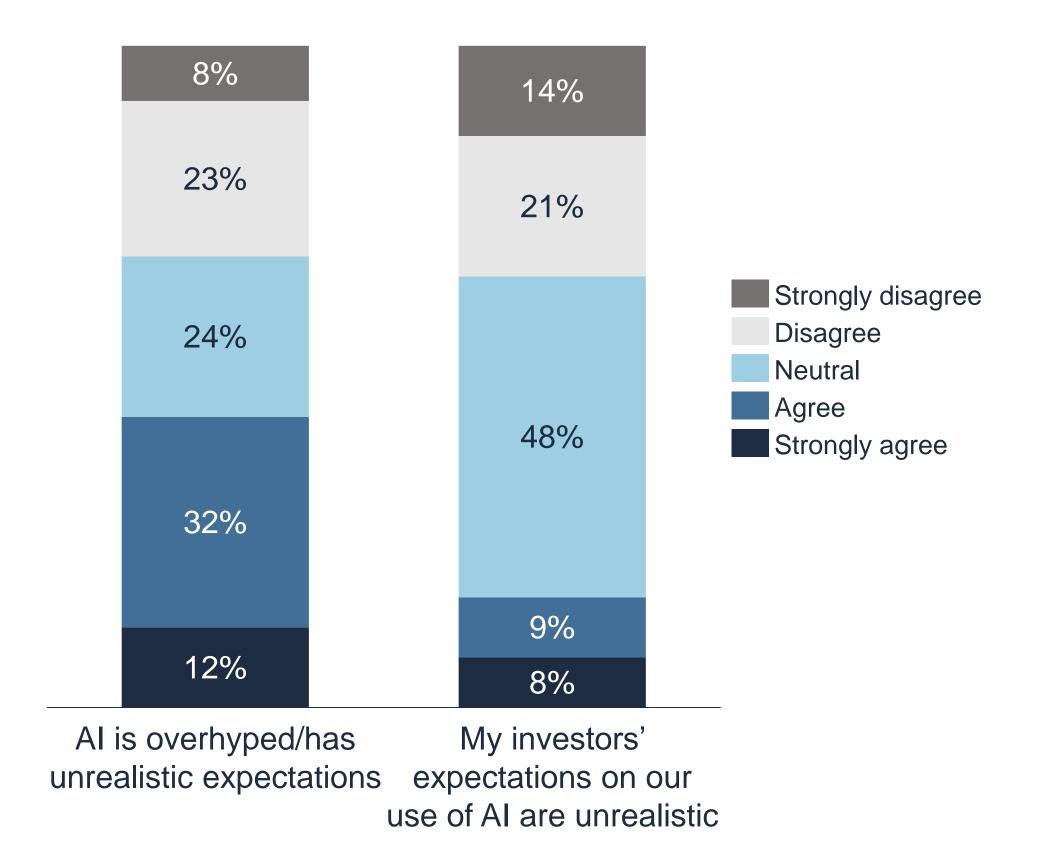
15% 45% 43% 23% 33% 22% Al will help me substantially Al will help me substantially reduce costs increase revenues

ATLANTICO

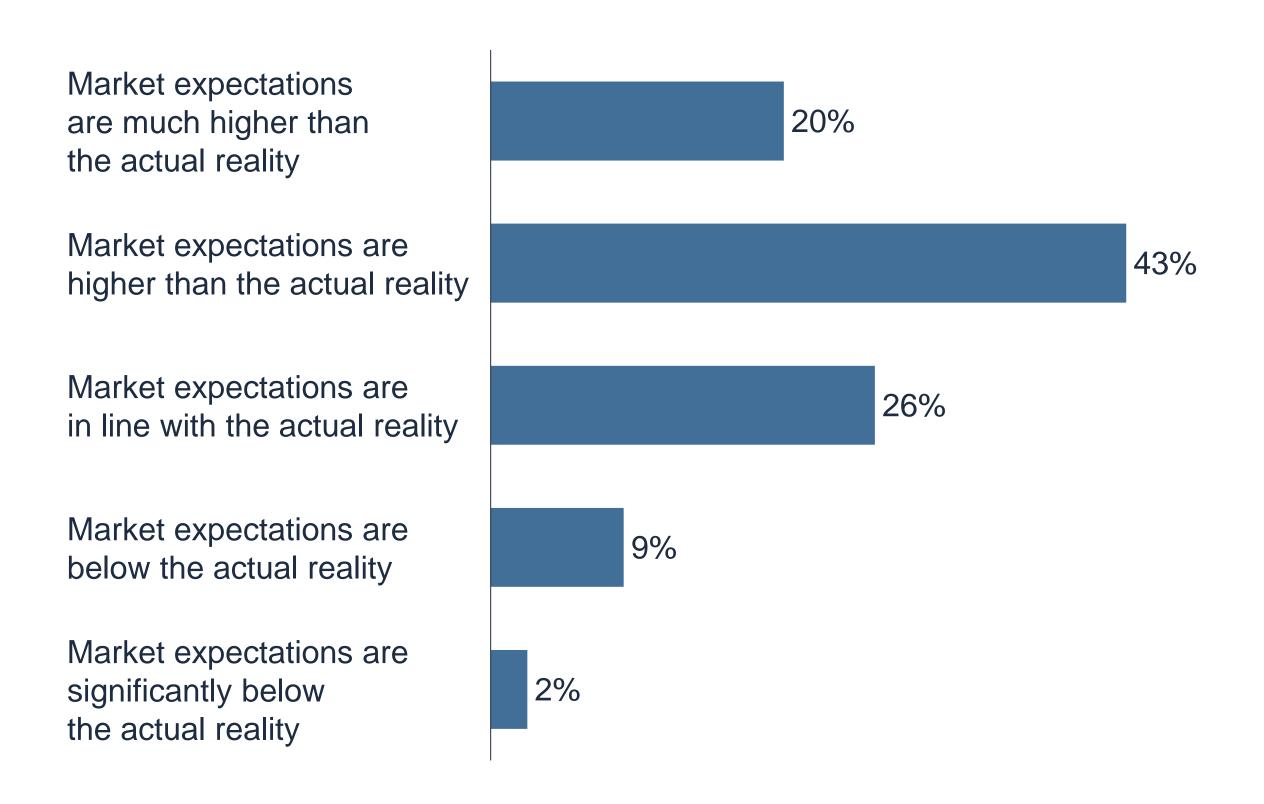
Strongly agree Agree Neutral Disagree Strongly disagree

Most founders believe that market and investor expectations around the impact of AI exceed reality

Founders who agree with statements about Al 2024, % of respondents



Founders perception on Al market expectations 2024, % of respondents

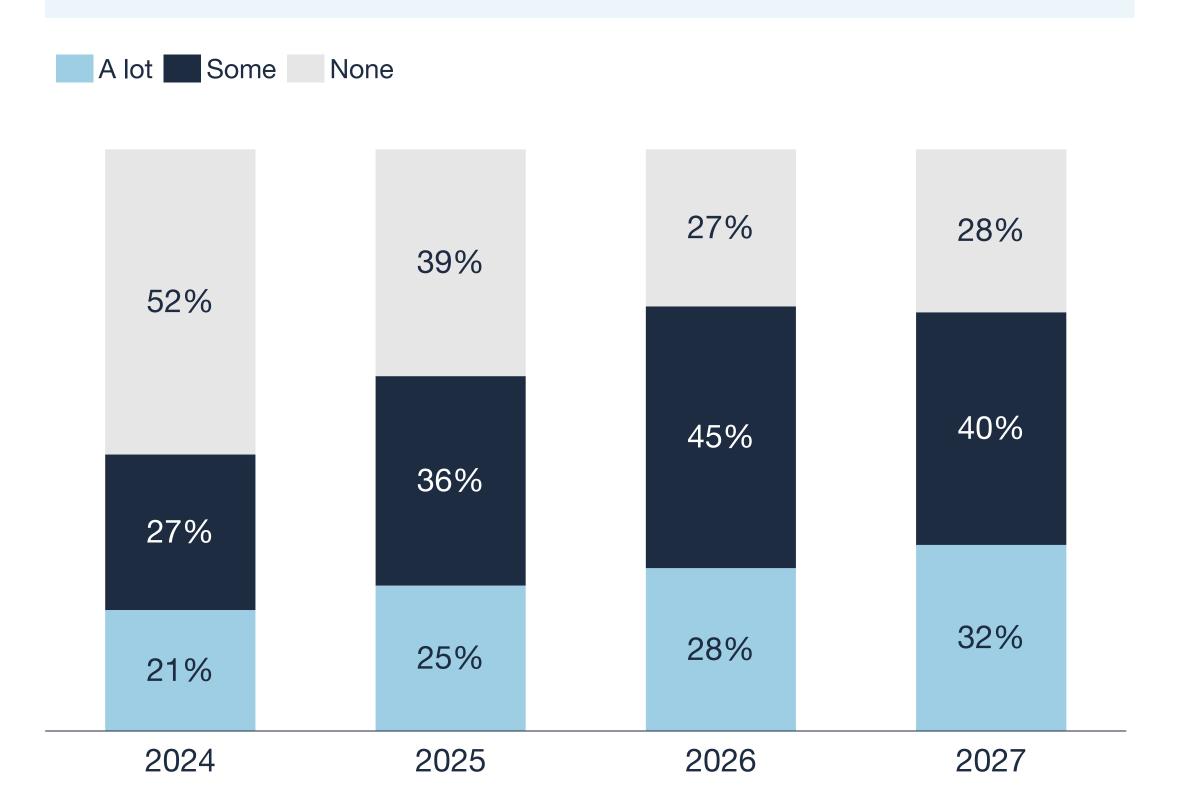




Al has been top of mind for many incoming undergraduate students when thinking about their careers

Al Impact on undergraduates' major choice 2024, % of students by graduation year

What impact have recent advances in AI had on your choice of major?

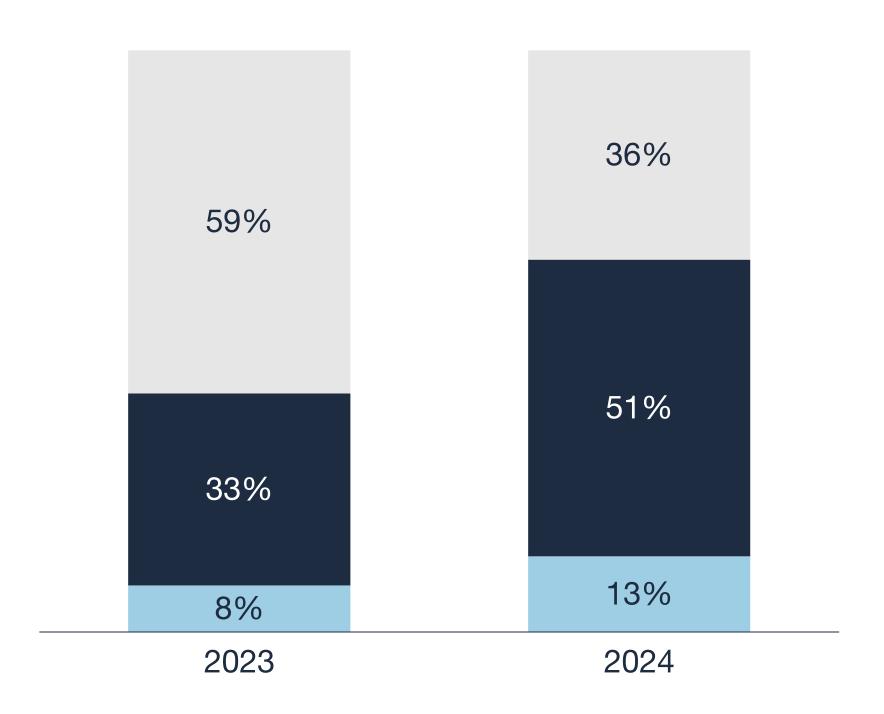


Concerns about the impact of AI on career¹

2023 vs. 2024, % of students

To what extent are you concerned about the implications that Artificial Intelligence will have on your career?





Al-related discussions online continue to grow, mostly related to Technology, Financial Services, and Education

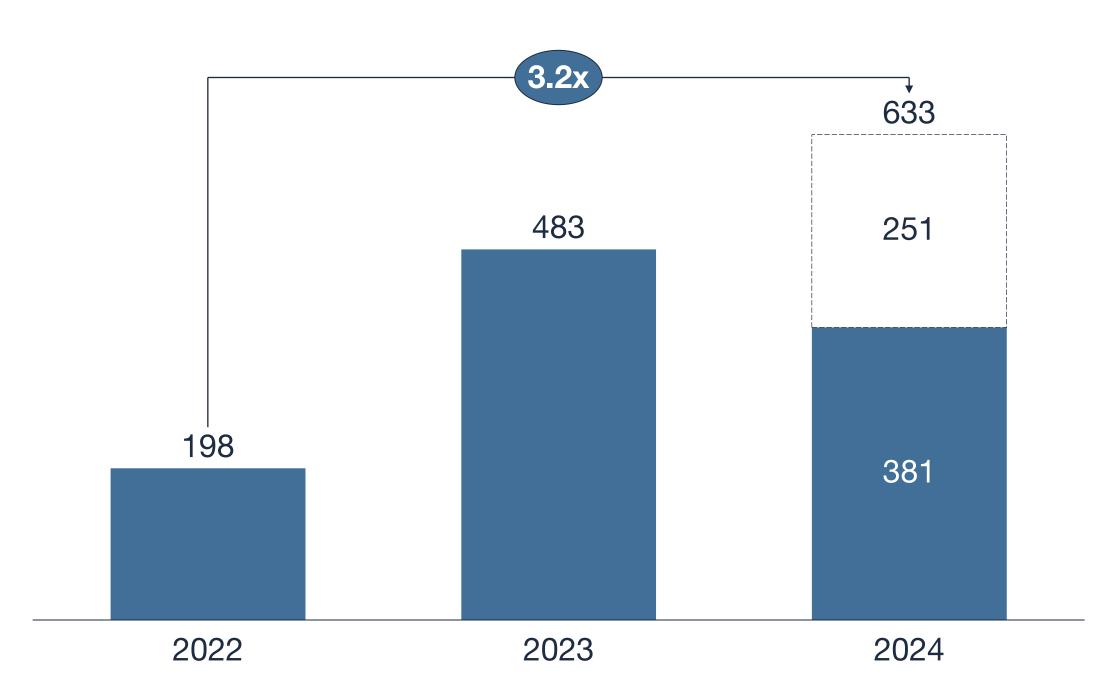


Stilingue is an Al-powered platform that provides real-time data analysis from digital conversations, helping companies monitor trends and online discussions across social media, news outlets, and other digital sources

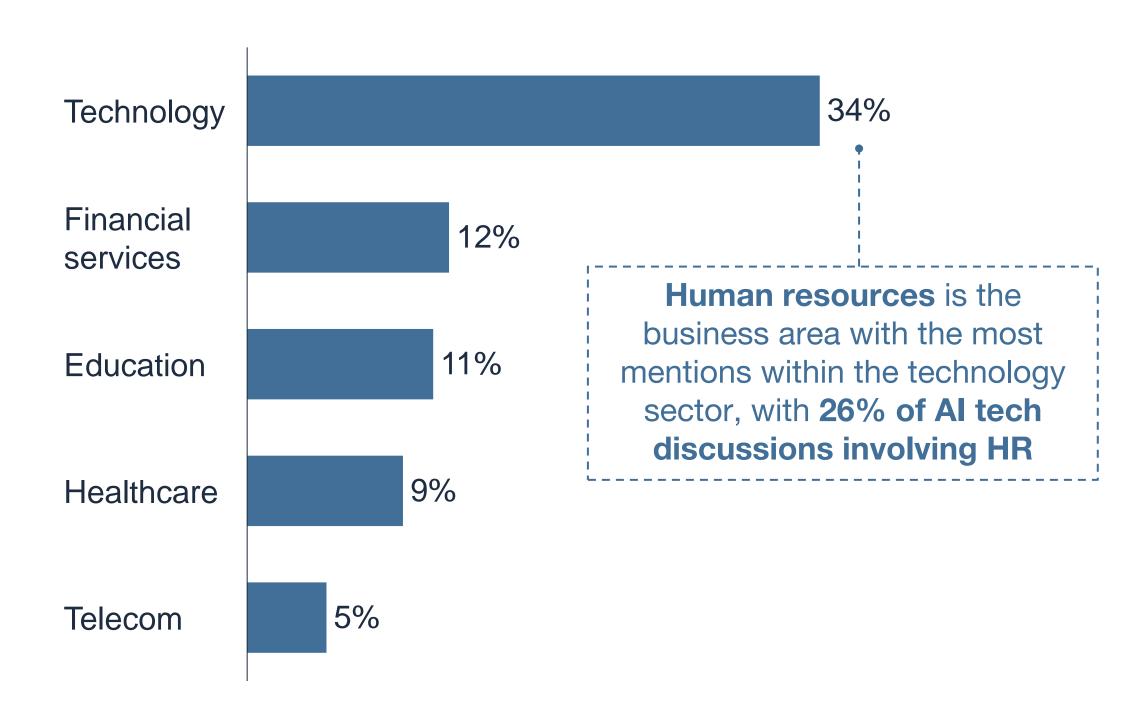
Number of Al-related discussions online

Jan 2022 - Aug 2024, Millions of posts





Distribution of Al-related discussions online by sector Jan 2022 - Aug 2024, % of discussions



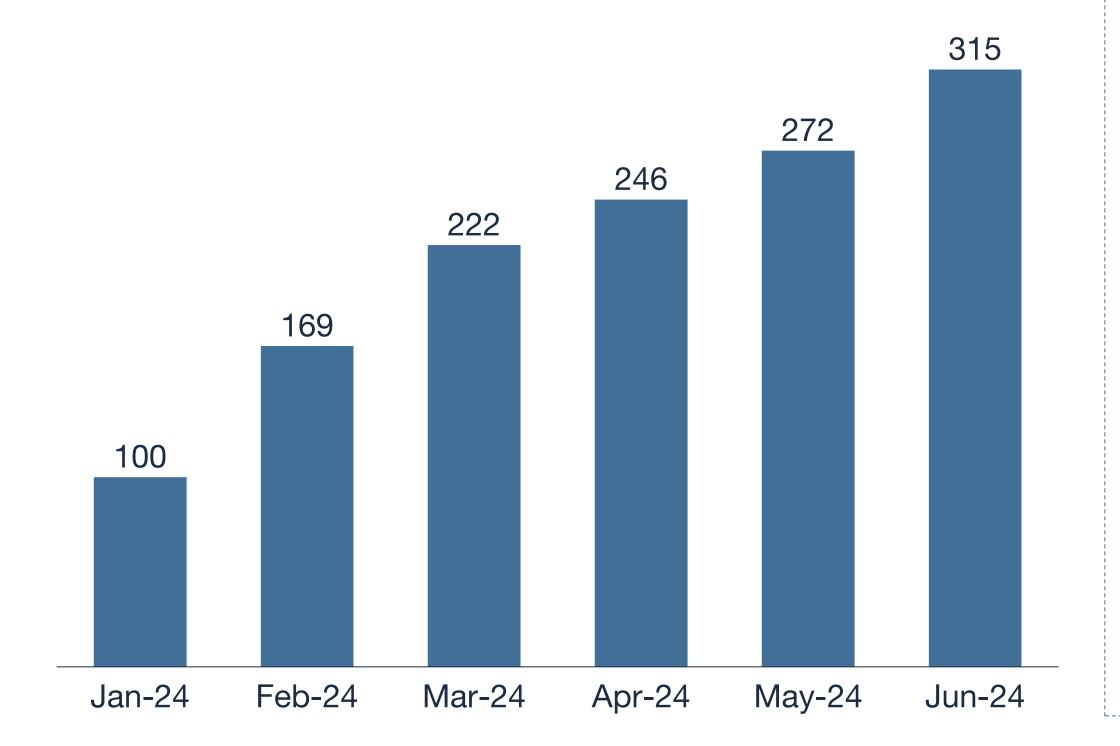


Through its Al lawyer, Talisman empowers enterprises to answer lawsuits more quickly and assertively



Talisman Al uses artificial intelligence to provide hyper-customized lawsuit answers at scale. Its Al models perform exhaustive and detailed analysis of evidence, generate lawsuit responses in seconds and identify nuisance or fraudulent claims

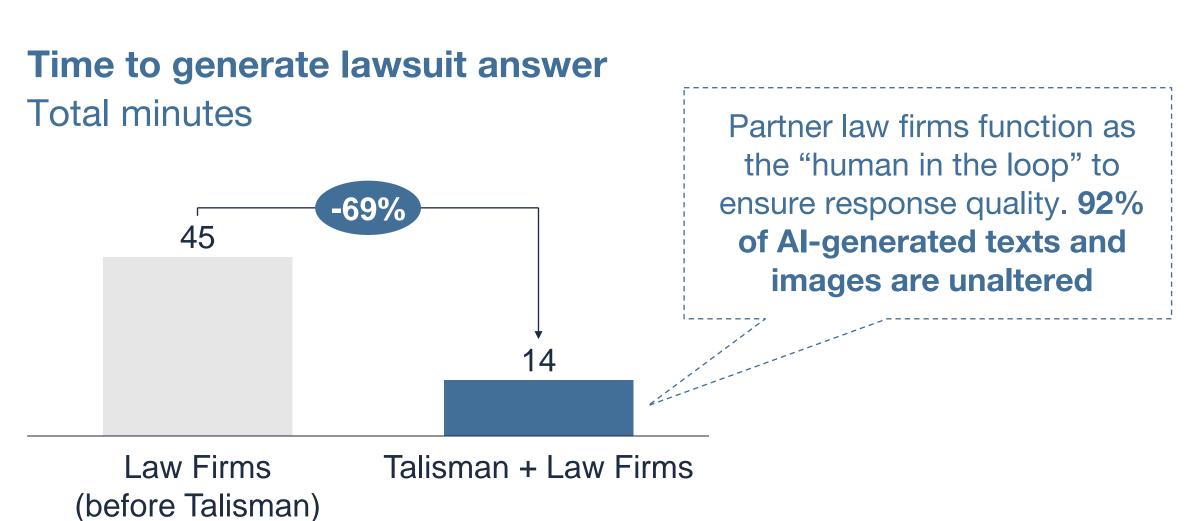
Volume of lawsuit answers written by Talisman's Al Indexed Jan 2024 = 100



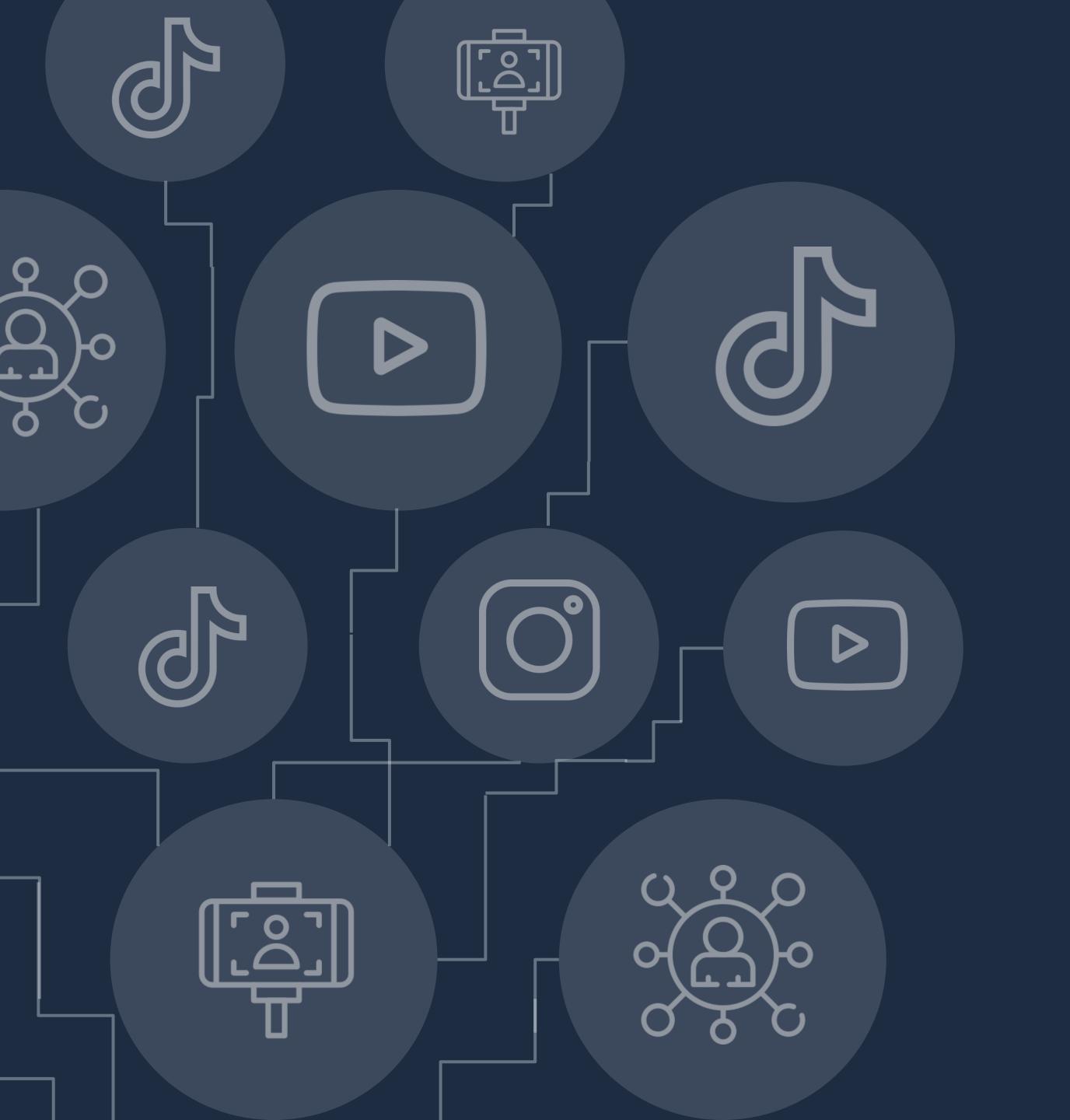
Lawsuit responses for a publicly-traded bank in Brazil

Talisman's Al analyzes the bank's internal documents and proposes the best responses, which are validated by the bank's 11 partner law firms

Over **2,000 lawsuit answers were generated**, with a **15% increase in lawsuit win rate** and a **35% reduction in total time spent** per lawsuit







"In the future everyone will be world famous for 15 minutes"

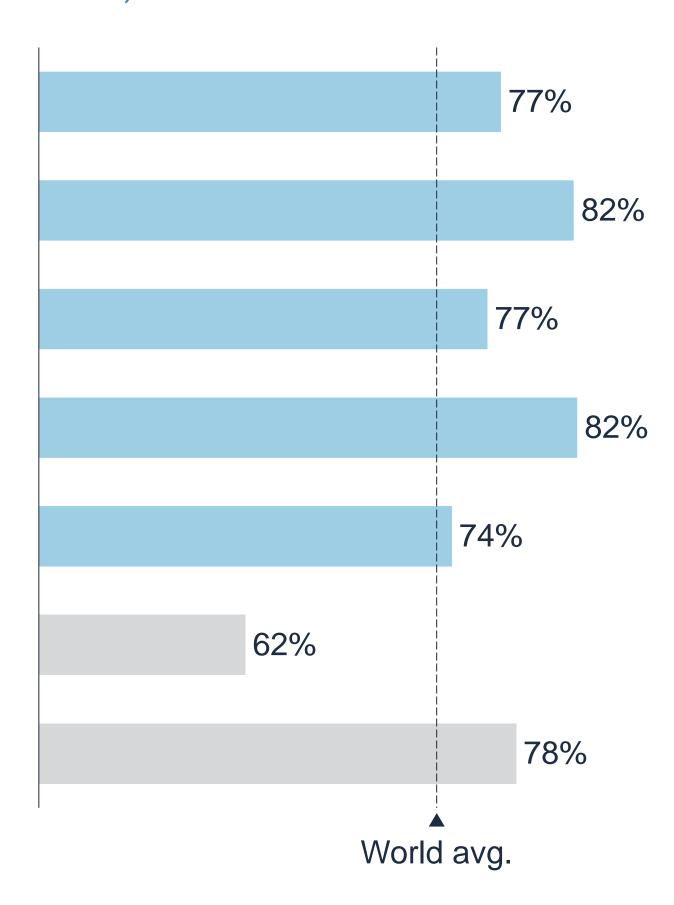
- Andy Warhol



Latin Americans lead in social media usage, particularly for following influencers and researching potential purchases

Population following influencers Average time spent on social media 2024, % of social media users 2024, hours per day 3.6 41% 3.2 27% 3.1 28% 3.4 28% 3.4 29% 2.3 24% 14% World avg. World avg.

Social media for brand research* 2024, % of internet users

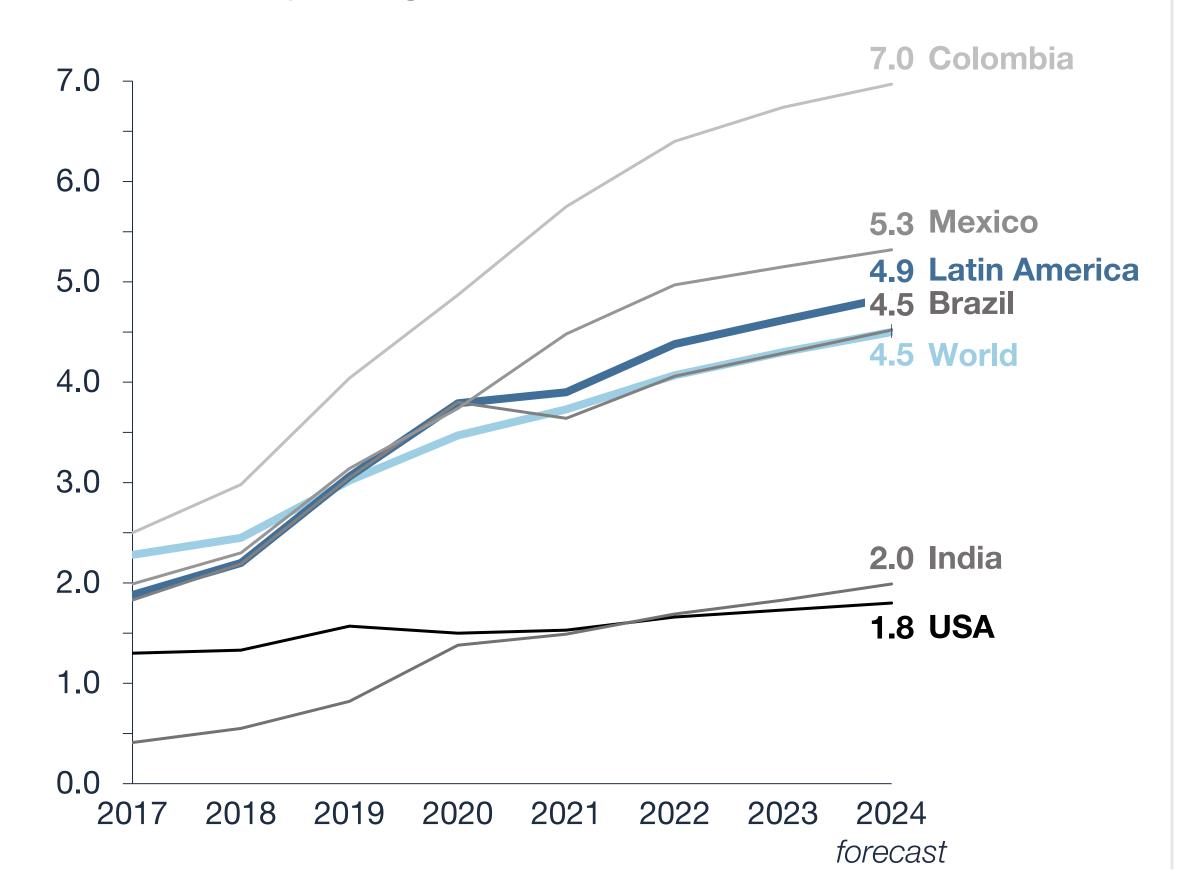




Influencer marketing spend has massively accelerated in the region, along with growing demand for digital products

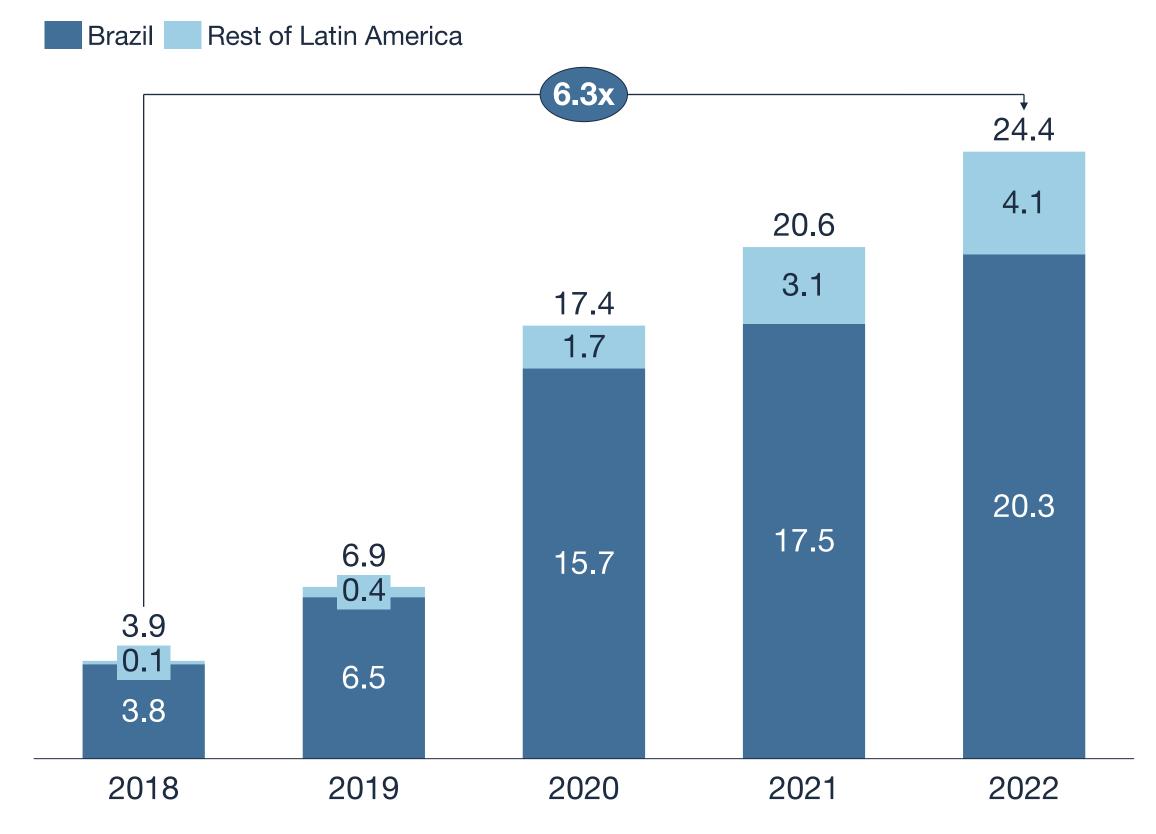
Share of influencer ad spending by region¹

% of total ad spending



Number of digital product buyers²

Millions of buyers

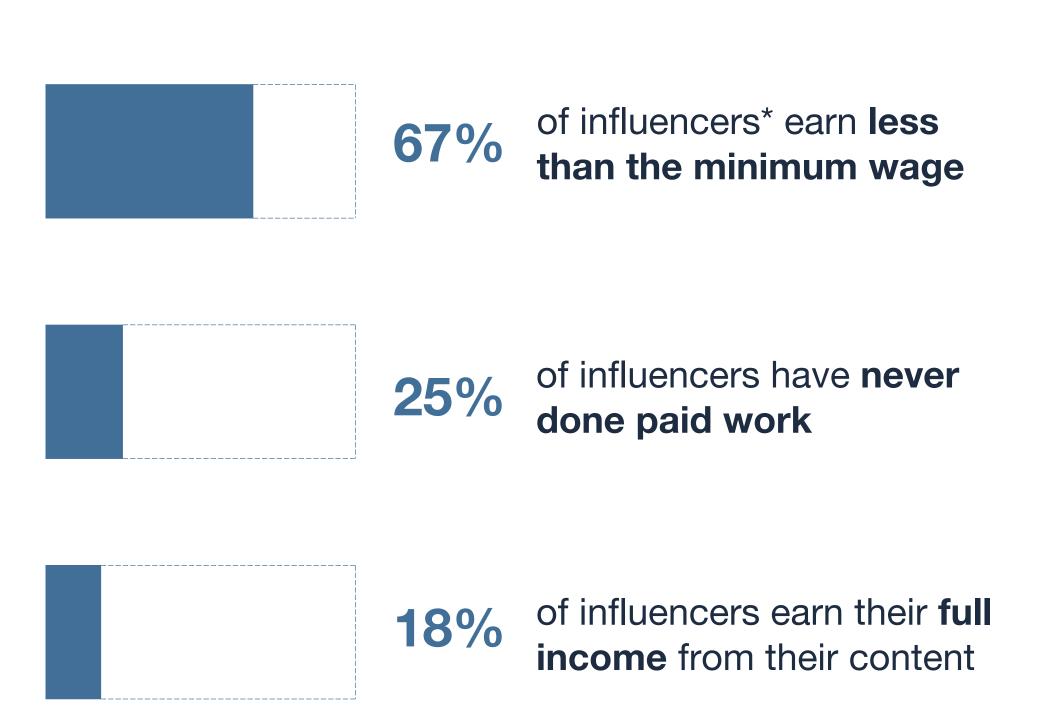




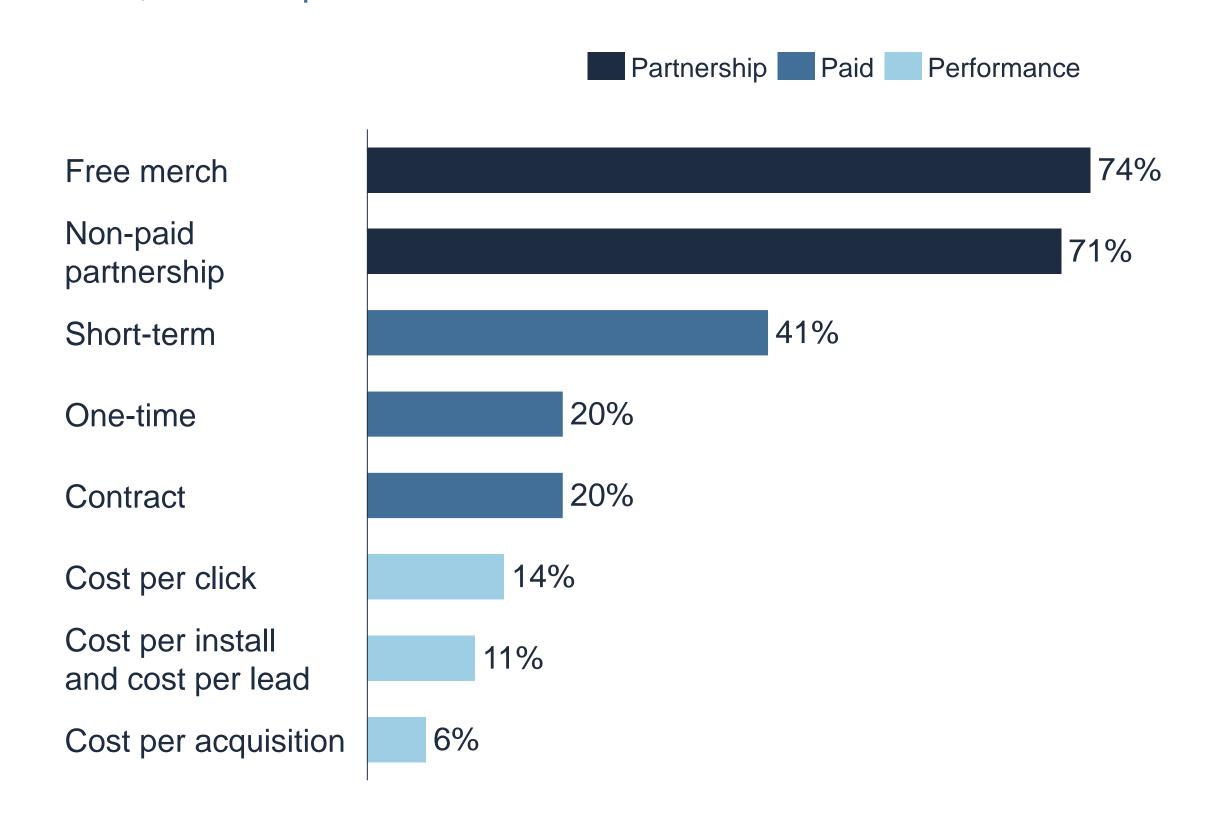
Monetization remains a challenge for creators, who are still mostly rewarded with free merch and unpaid partnerships

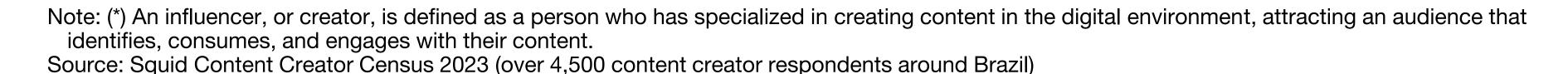
Brazil content creation by numbers

2023, % of respondents



Types of compensation received by creators* - Brazil 2023, % of respondents







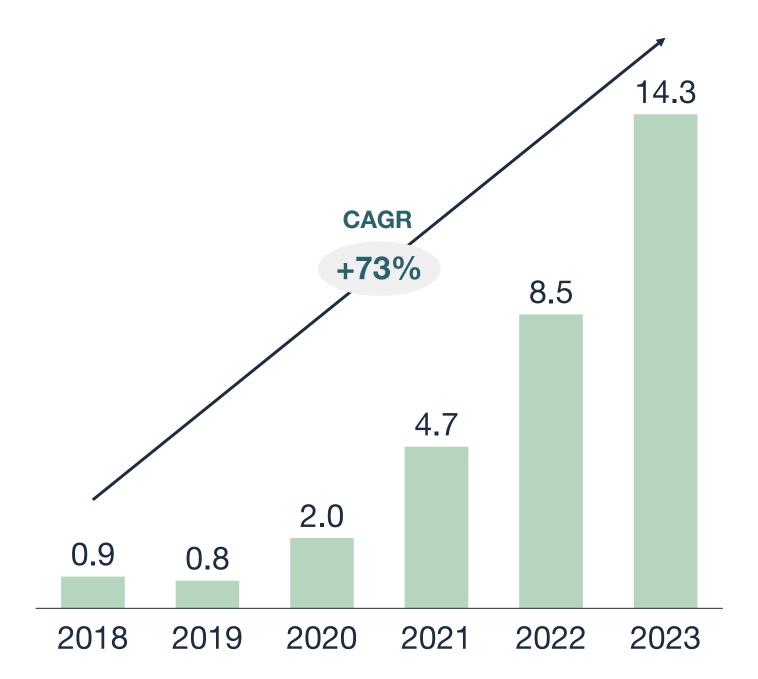
LTK is reshaping influencer marketing and e-commerce by integrating social media content with direct shopping



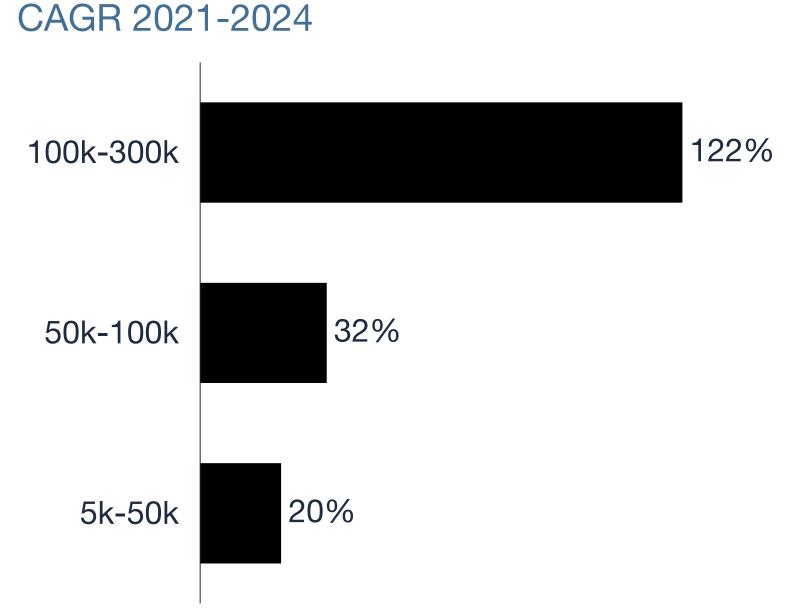
LTK is a US-based consumer platform that integrates social media and e-commerce by allowing users to purchase products directly from posts with influencer-curated content, streamlining their shopping experience

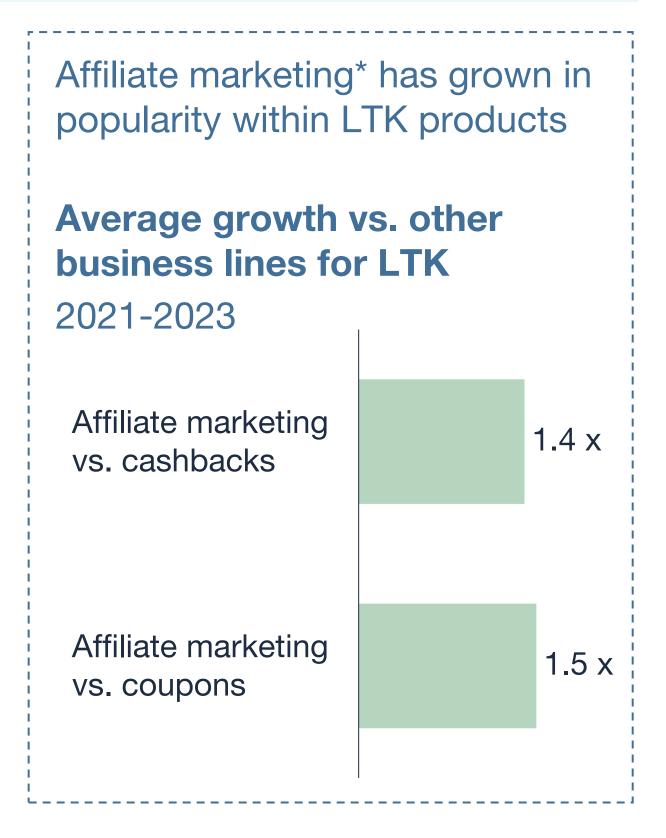
Influencers on LTK platform in Brazil

Thousands of influencers



Percentage increase of commissions received by LTK influencers, segmented by size of follower base





Notes: (*) Affiliate marketing is a performance-based marketing strategy where businesses reward affiliates (partners) for driving traffic or sales through the affiliate's promotional efforts, typically through links or ads

Sources: LTK internal data



Brandlovrs addresses the monetization gap by helping smaller creators meaningfully engage with brands

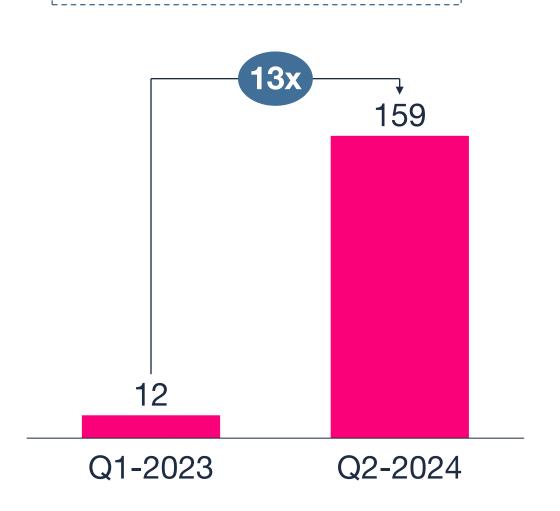


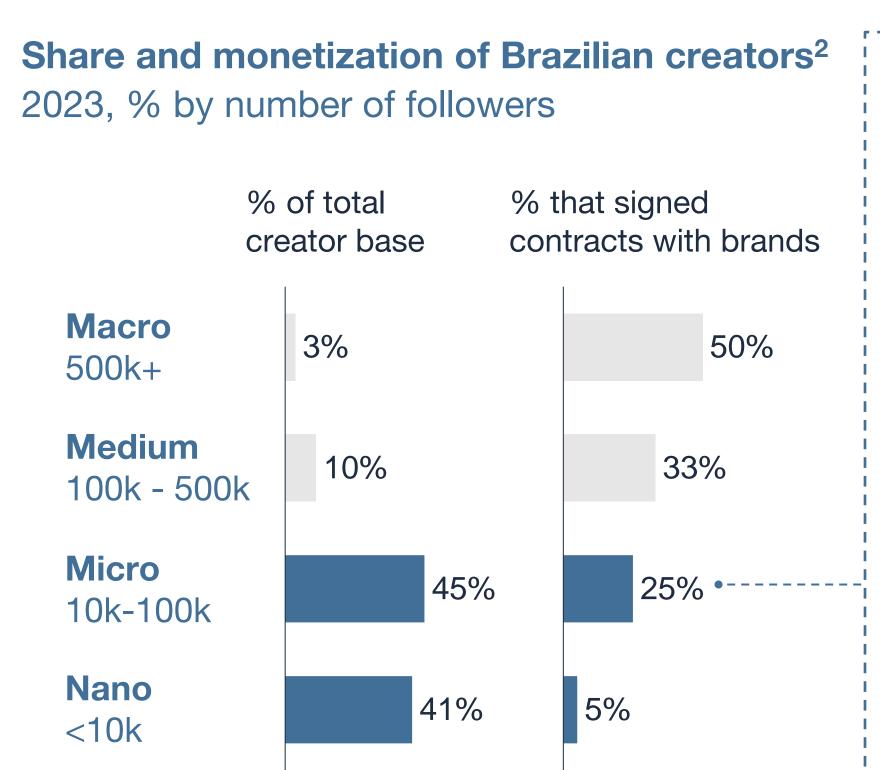
BrandLovrs connects brands with micro and nano* creators in Brazil, focusing on authentic engagements and efficient campaign management. The platform promotes transparency and narrows the monetization gap in the industry.

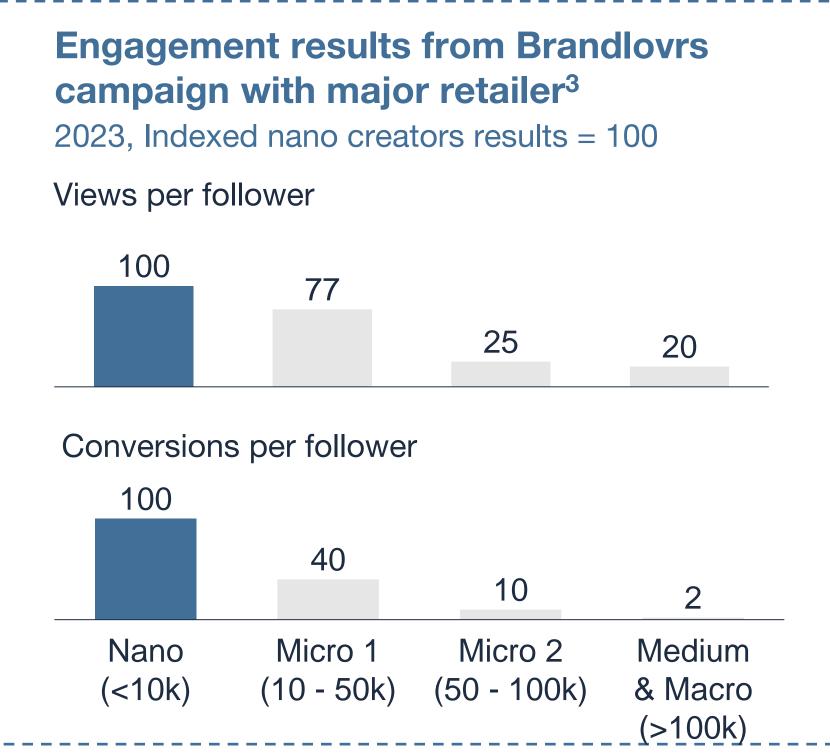
Brandlovrs registered creators¹

Thousands of creators

Brandlovrs grew its platform by
13x in 18 months with zero
acquisition investment







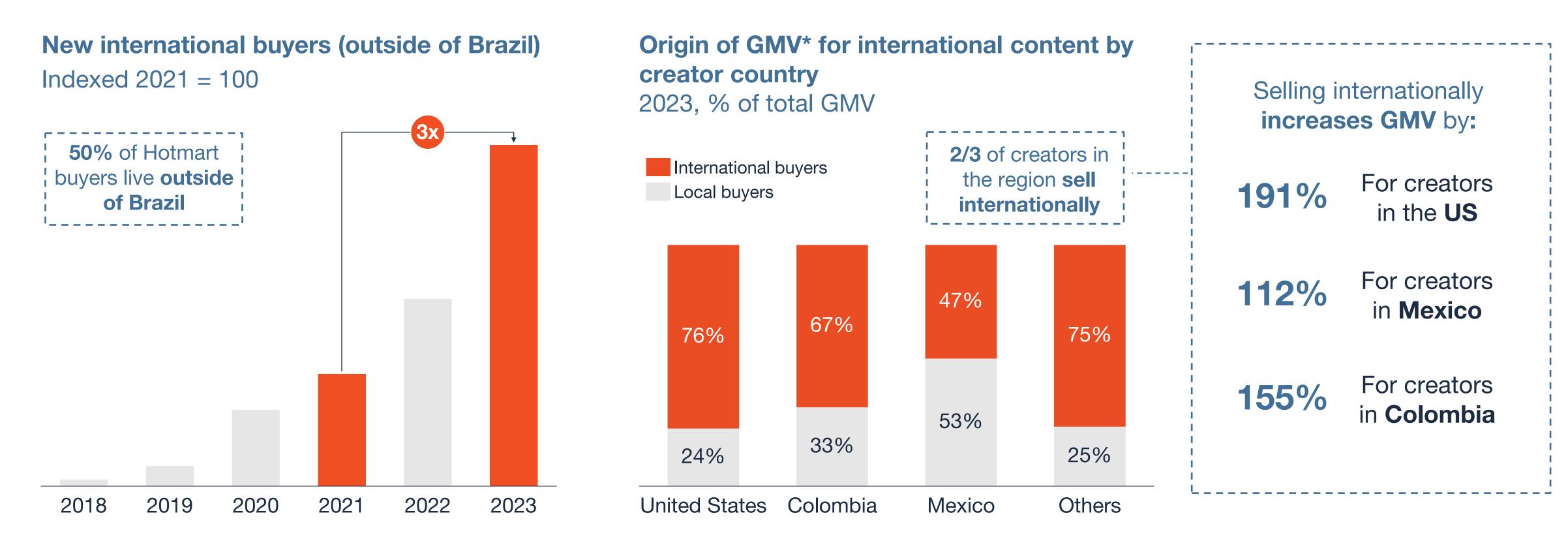
Note: (*) Micro influencers are categorized as having between 10k-100k social media followers while nano influencers are those with up to 10k Sources: (1) Brandlovrs internal data; (2) Squid Content Creator Census 2023; (3) Brandlovrs internal data: campaign with a major Brazilian retailer, which worked with 50 nano and micro creators alongside two celebrities, each with 1.5 million followers



Hotmart is boosting the creator economy by enabling distribution and monetization of digital products globally

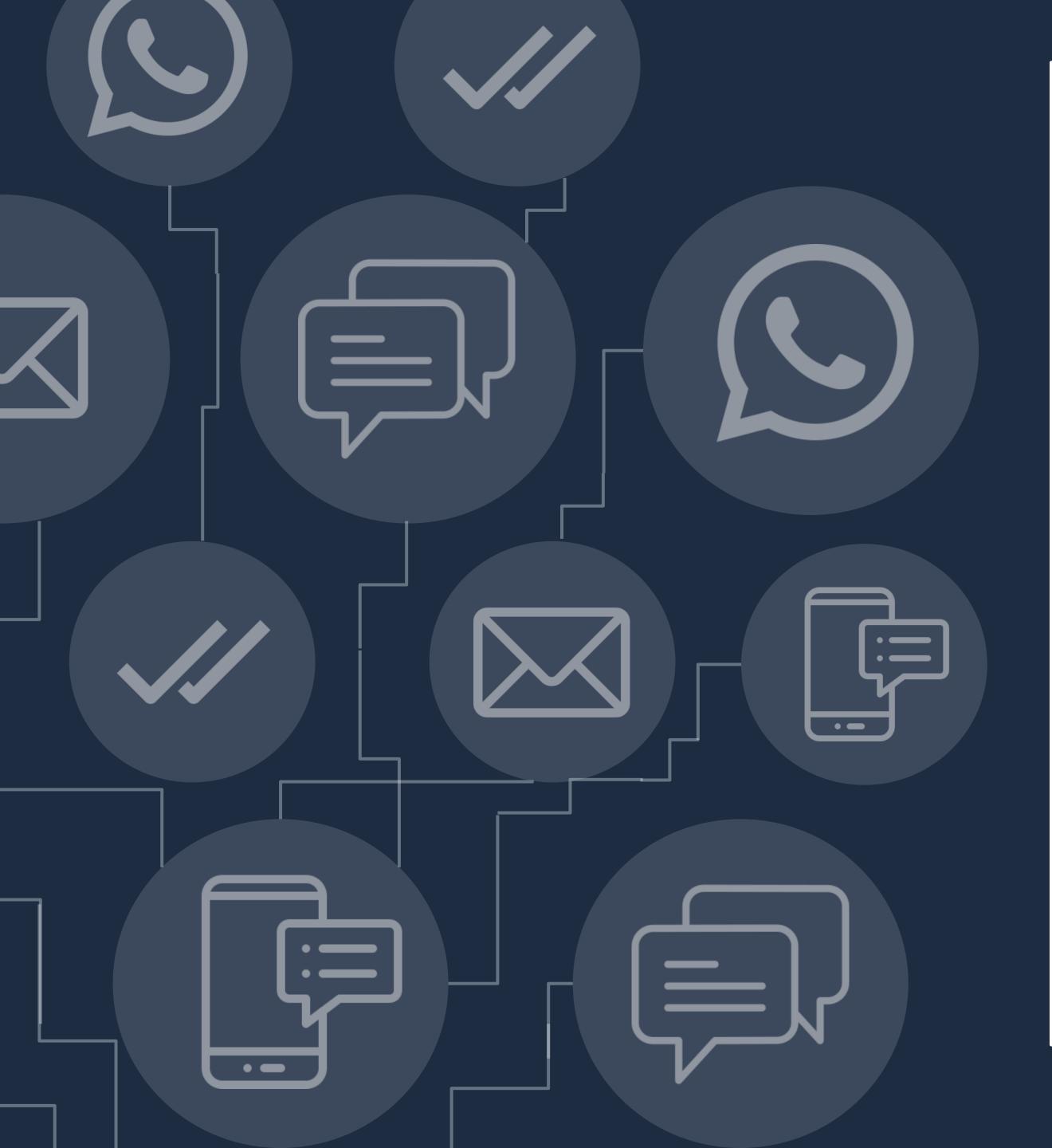


Hotmart is a Brazilian-founded commerce enablement platform that allows creators to sell and scale digital products such as courses, memberships, and e-books. The platform serves creators across Latin America, Europe, and the United States. With Hotmart, creators can sell in 188 countries with +40 payment methods and 22 currencies



Notes: (*) Gross Merchandise Volume Source: Hotmart internal data





"Brazilians send more stickers, participate more in polls, and send four times more voice messages on WhatsApp than in any other country.

Brazil is a country that has truly embraced the power of messaging to connect, express themselves, and do business.

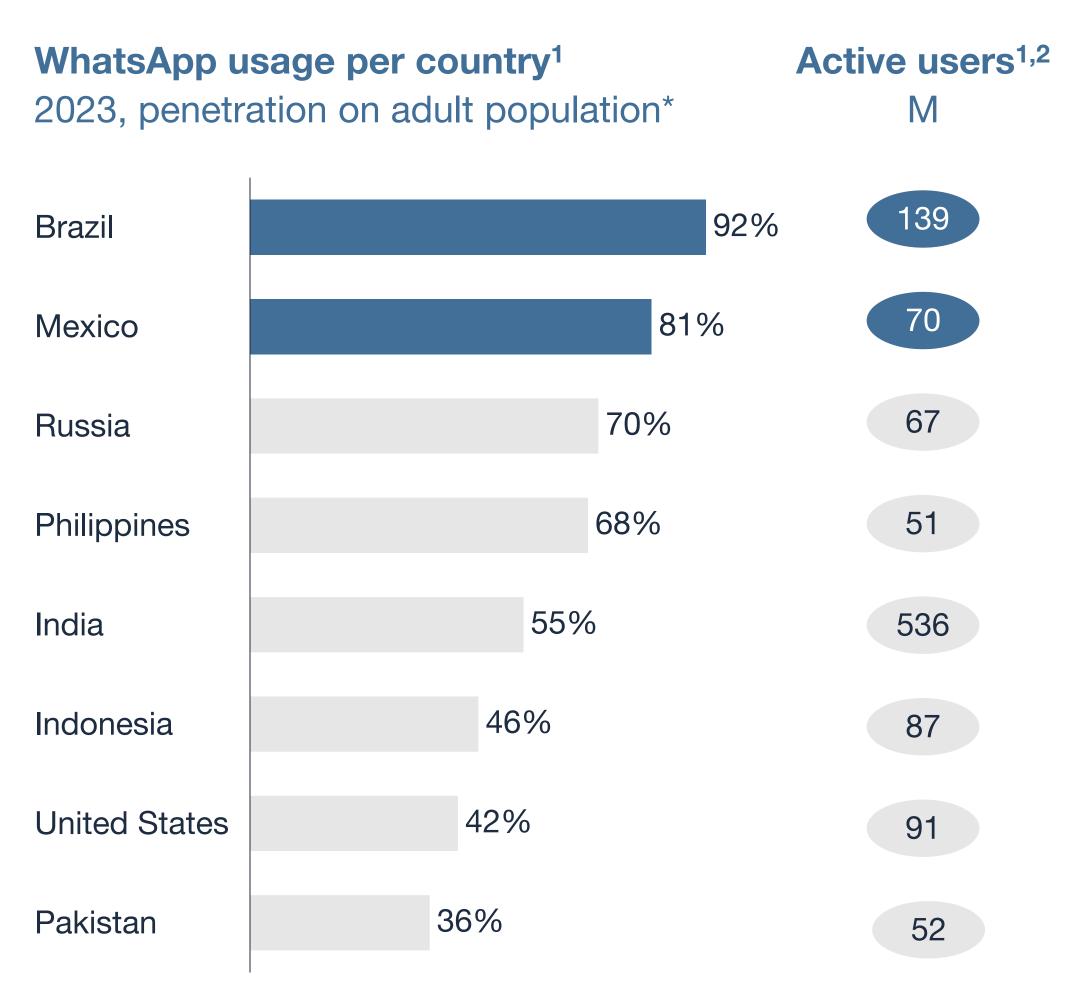
You have made 'Zap Zap' your own, and you are among the most active people in the world on the app"

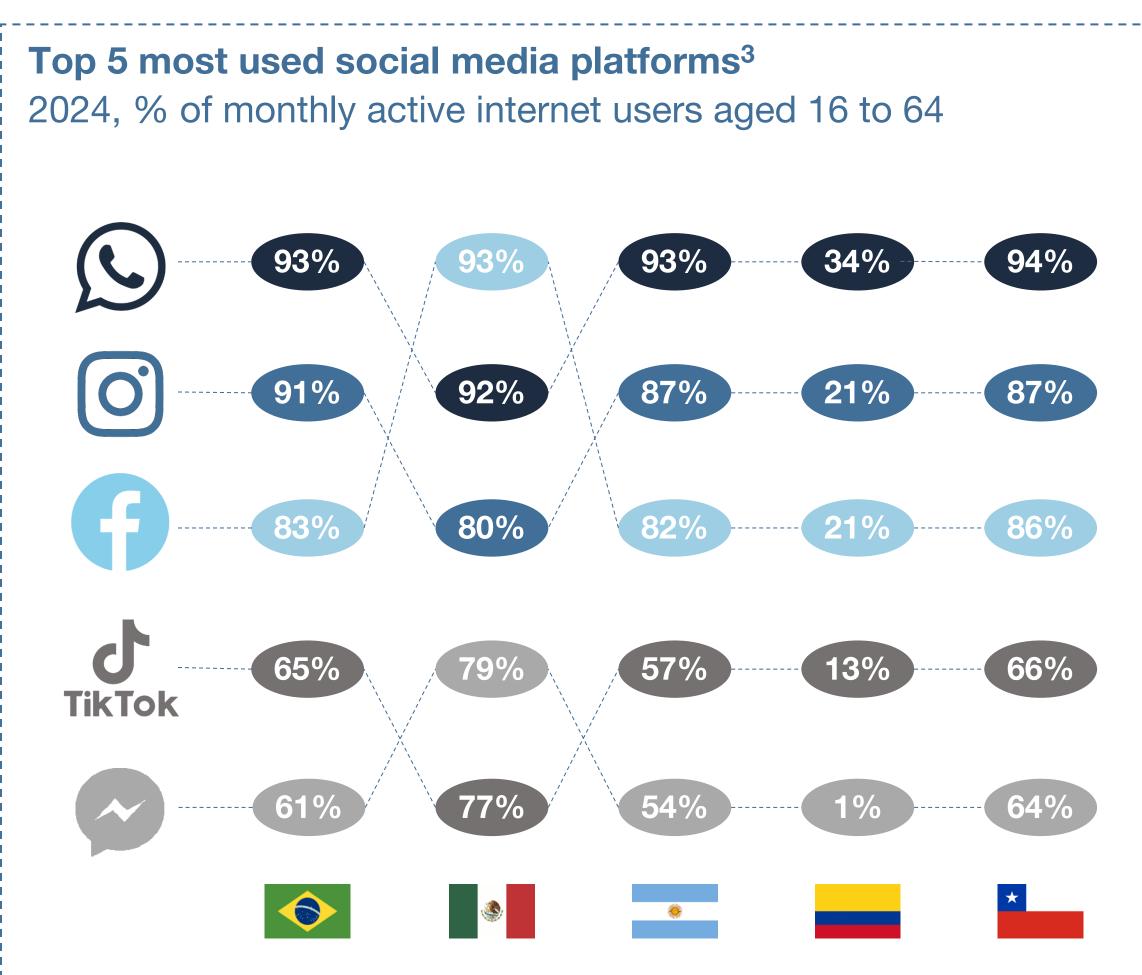
- Mark Zuckerberg

"



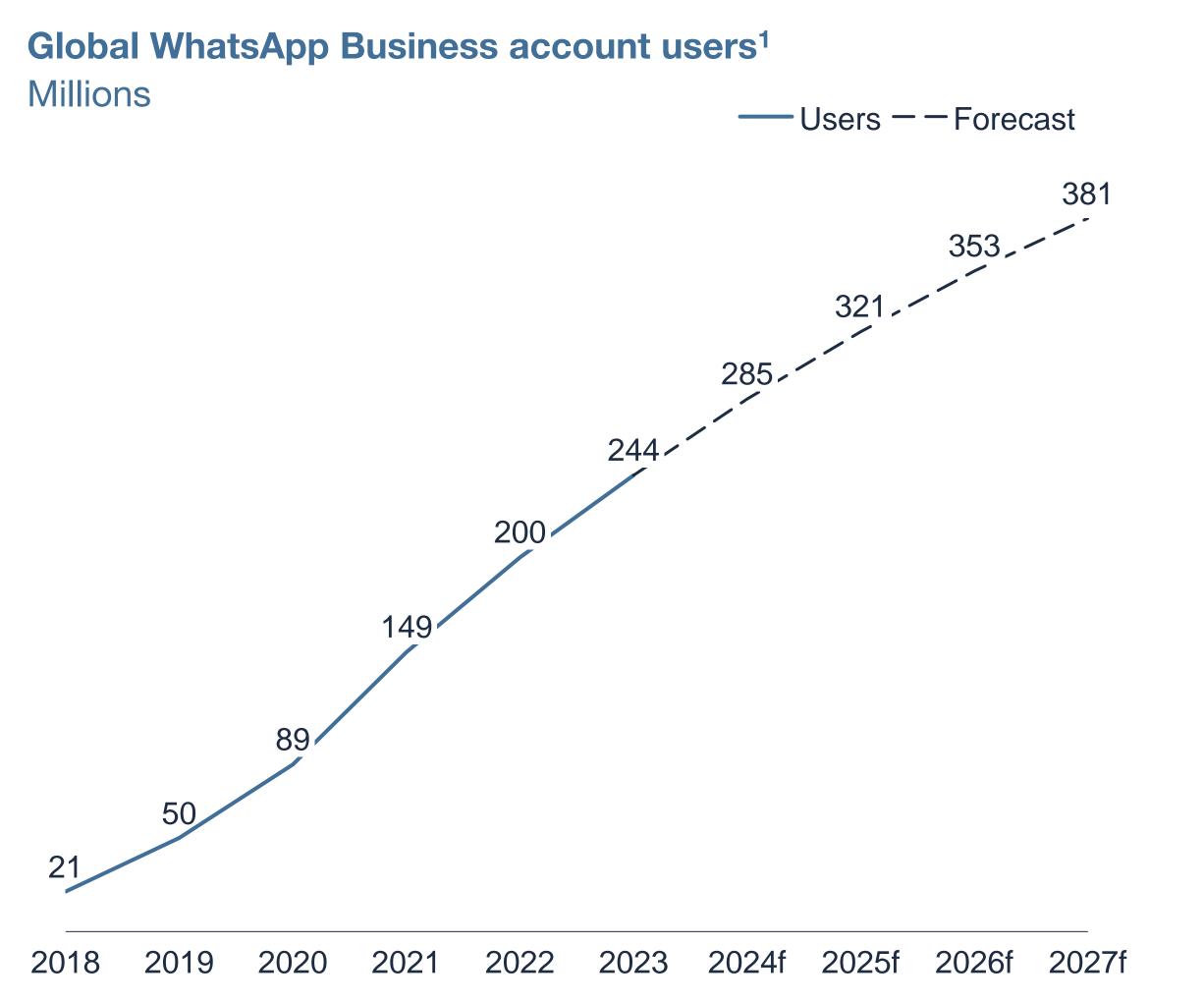
Latin America boasts some of the highest WhatsApp usage rates in the world, with Brazil and Mexico among leaders



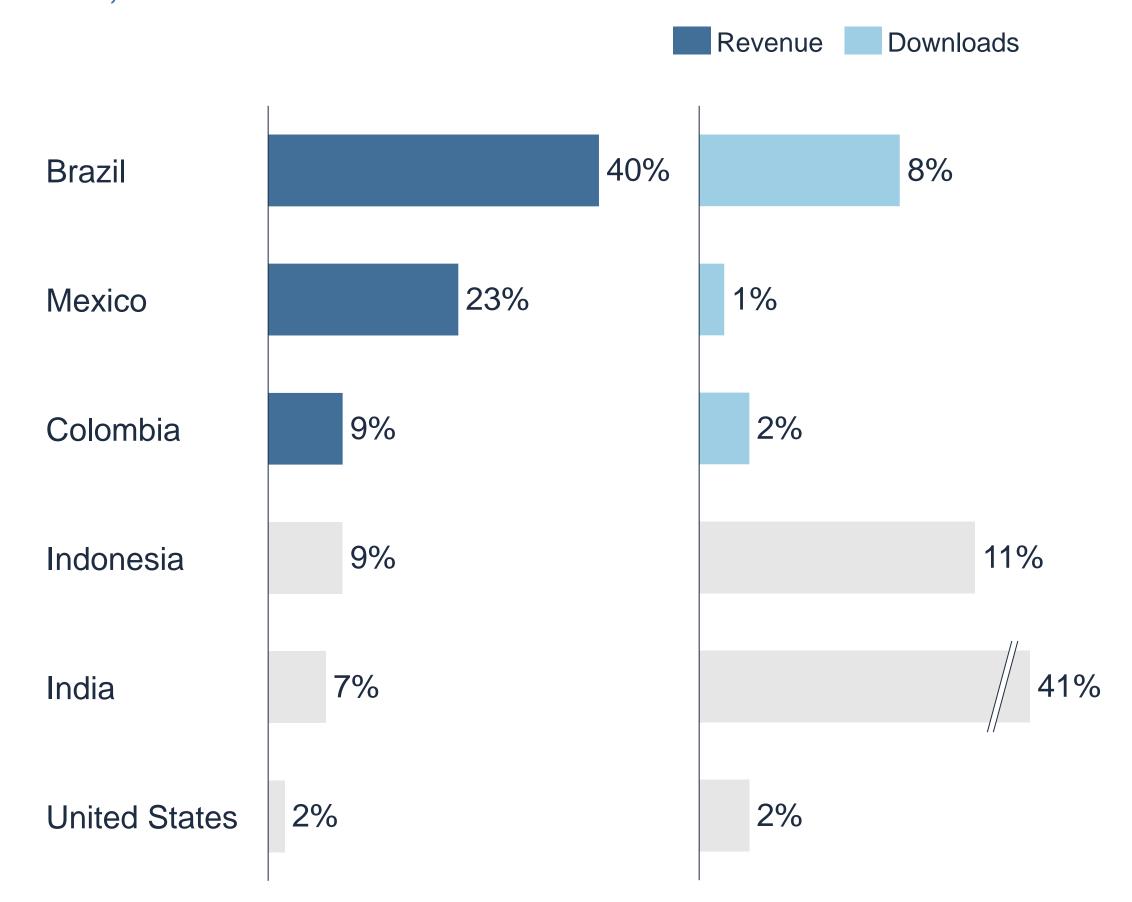




WhatsApp Business is growing across the world, becoming a vital platform and tool for businesses





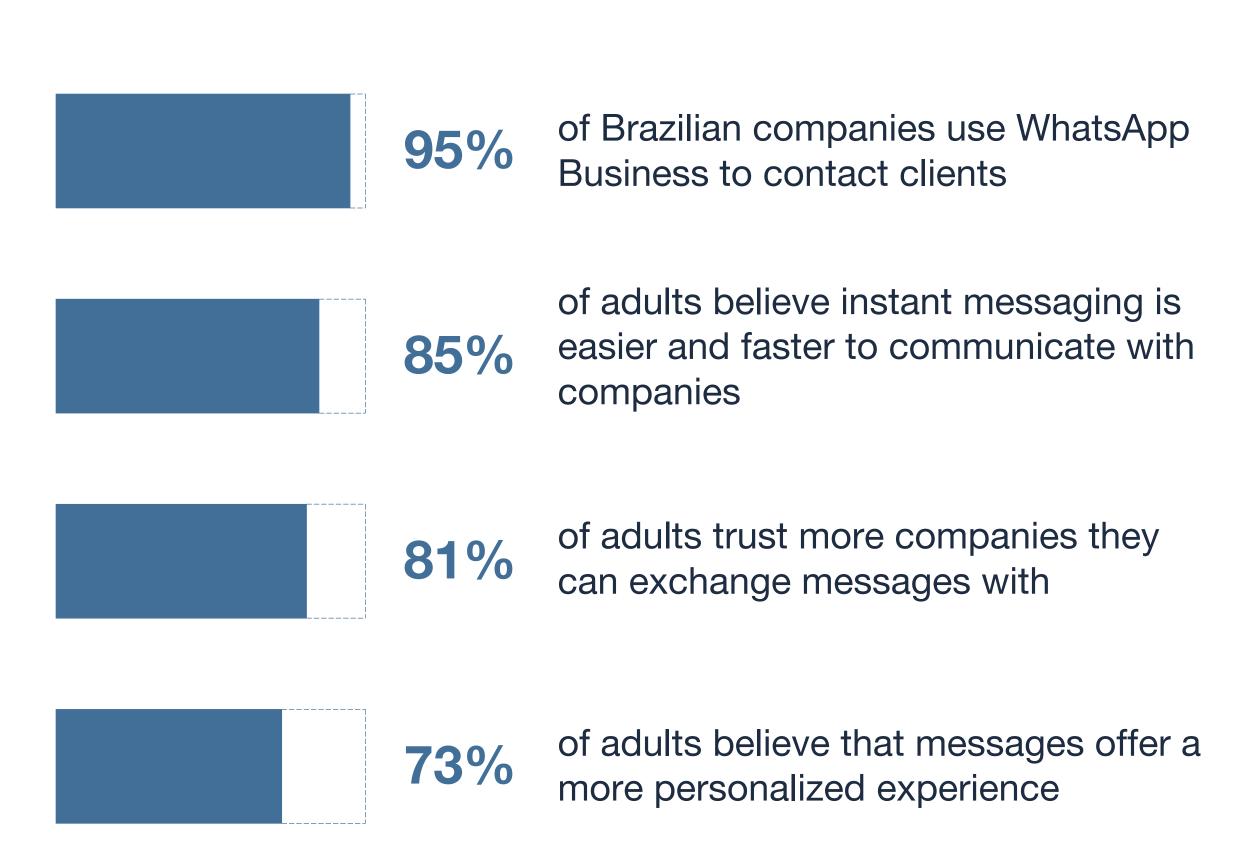




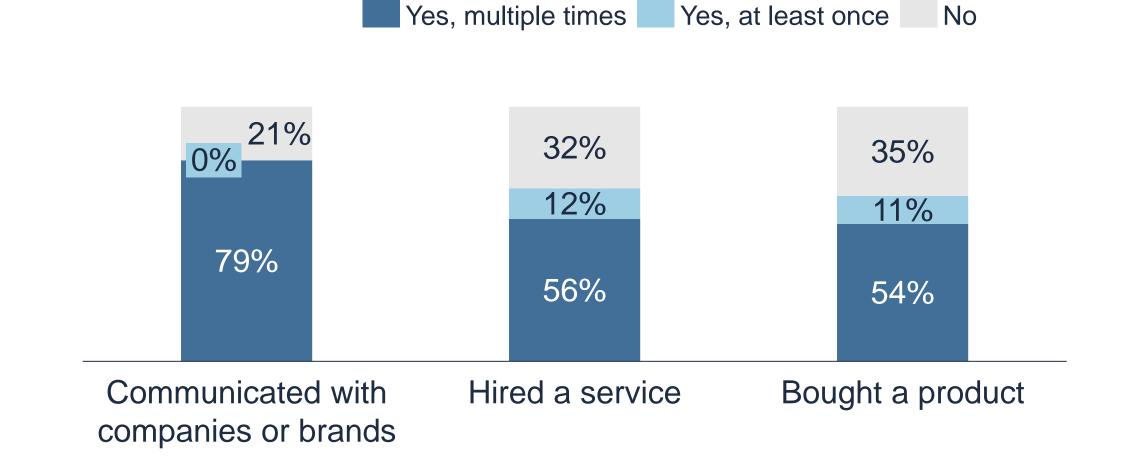


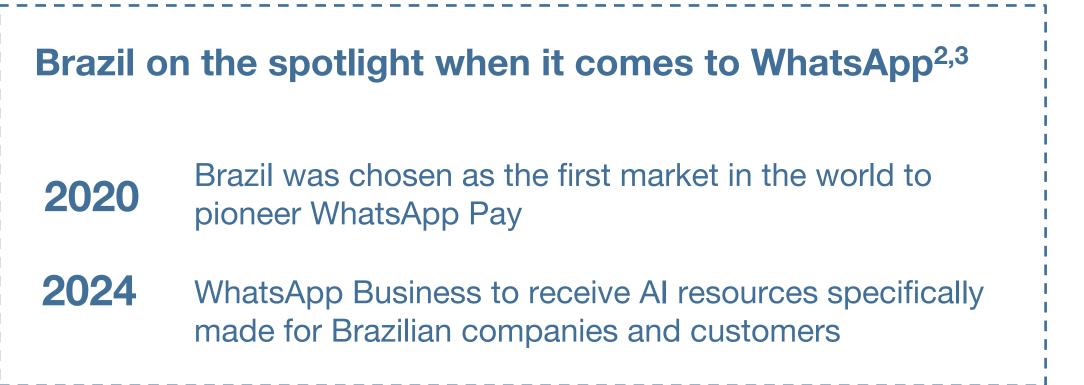
In Brazil, companies and customers choose WhatsApp Business for marketing, sales, and customer support

Preferences of WhatsApp Business in Brazil¹ May 2023



Consumer's adherence to WhatsApp Business¹ May 2023



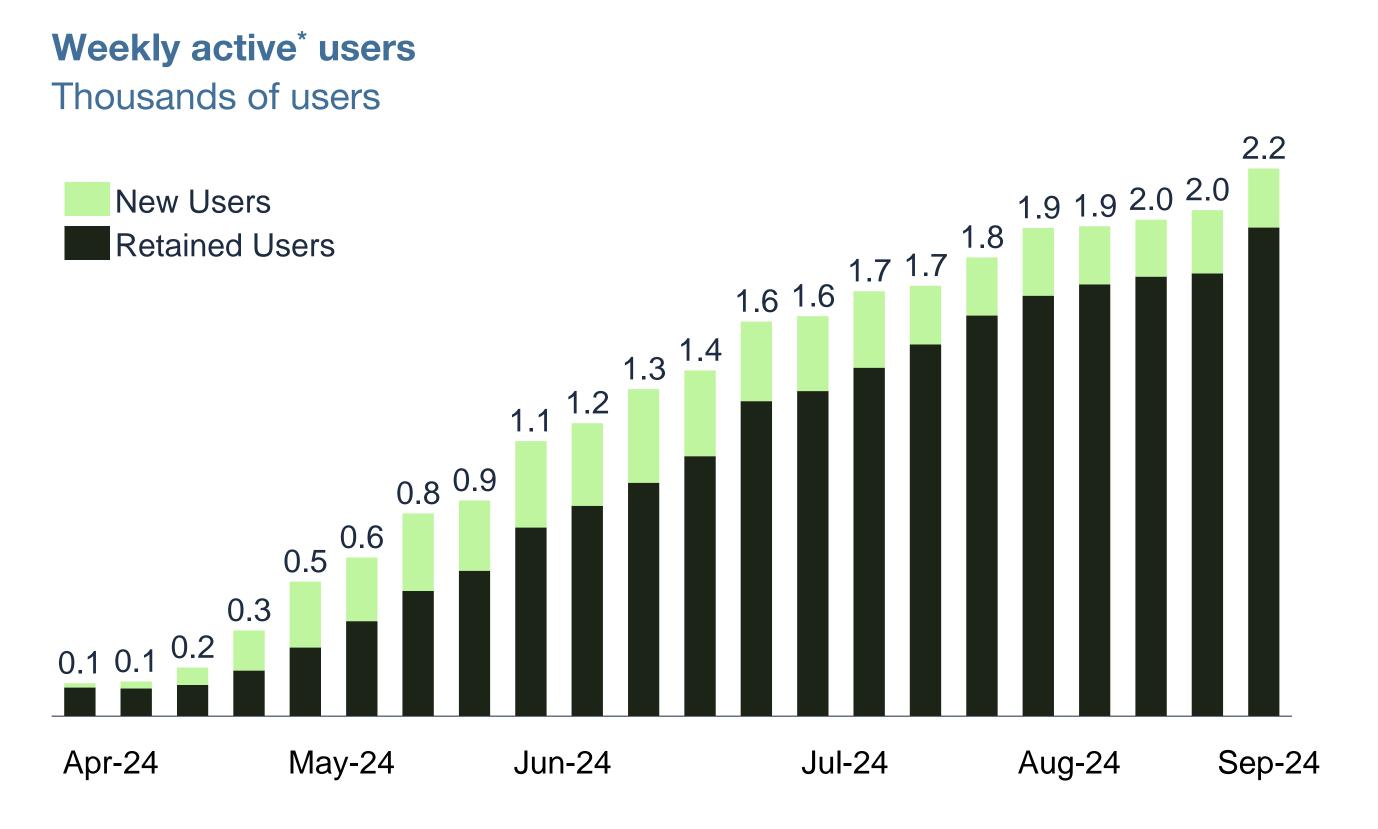


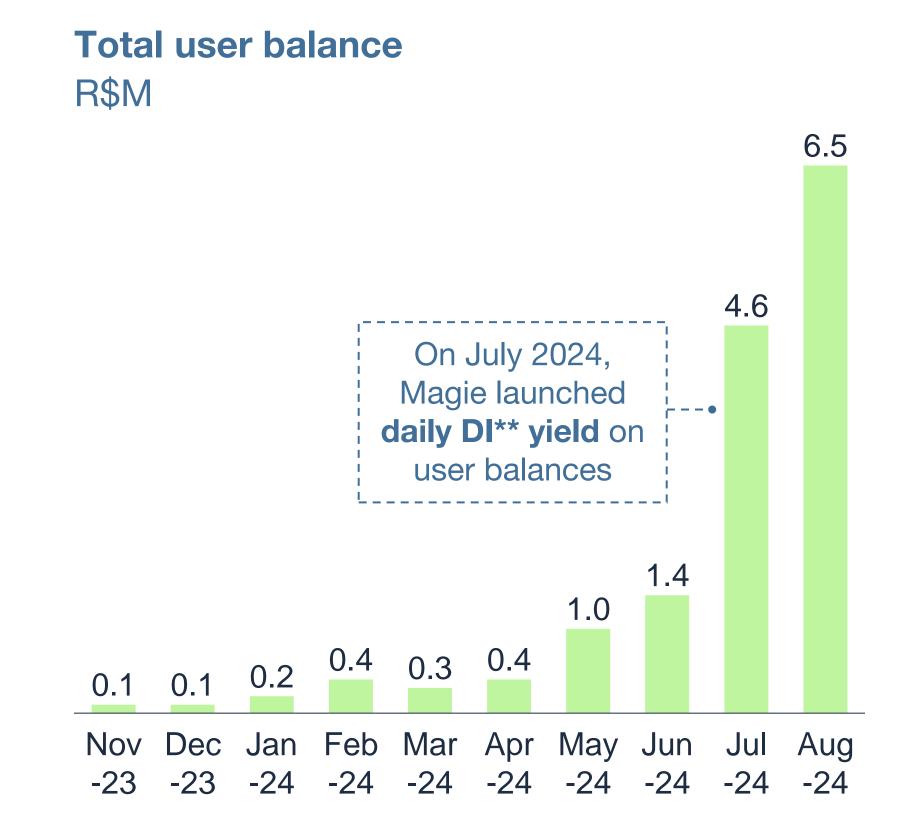


Magie is building on WhatsApp to offer Al-powered financial services such as Pix and savings through a chat-based agent



Magie is an Al-powered assistant for financial transaction management on WhatsApp, allowing users to transact, schedule payment reminders, track open invoices and more, directly through chat





Notes: (*) A user must do a payment of at least R\$1 to be considered active; (**) DI stands for Interbank Deposit and serves as a market benchmark for return rates in Brazil

Source: Magie internal data



Félix has grown 15x over the last year by making crossborder remittances "as easy as sending a WhatsApp"



Félix simplifies remittances to Mexico and Central America, allowing users to **transact through WhatsApp chat.** Félix is integrated with many of the largest Latin American remittance chains, enabling easy in-store pickups

Félix reduces cost and complexity in remittances



Félix uses stablecoins to make remittances **faster** and cheaper, abstracting this back-end crypto complexity for end-users



Clients interact and transact with Félix on WhatsApp, instead of waiting in long physical branch lines



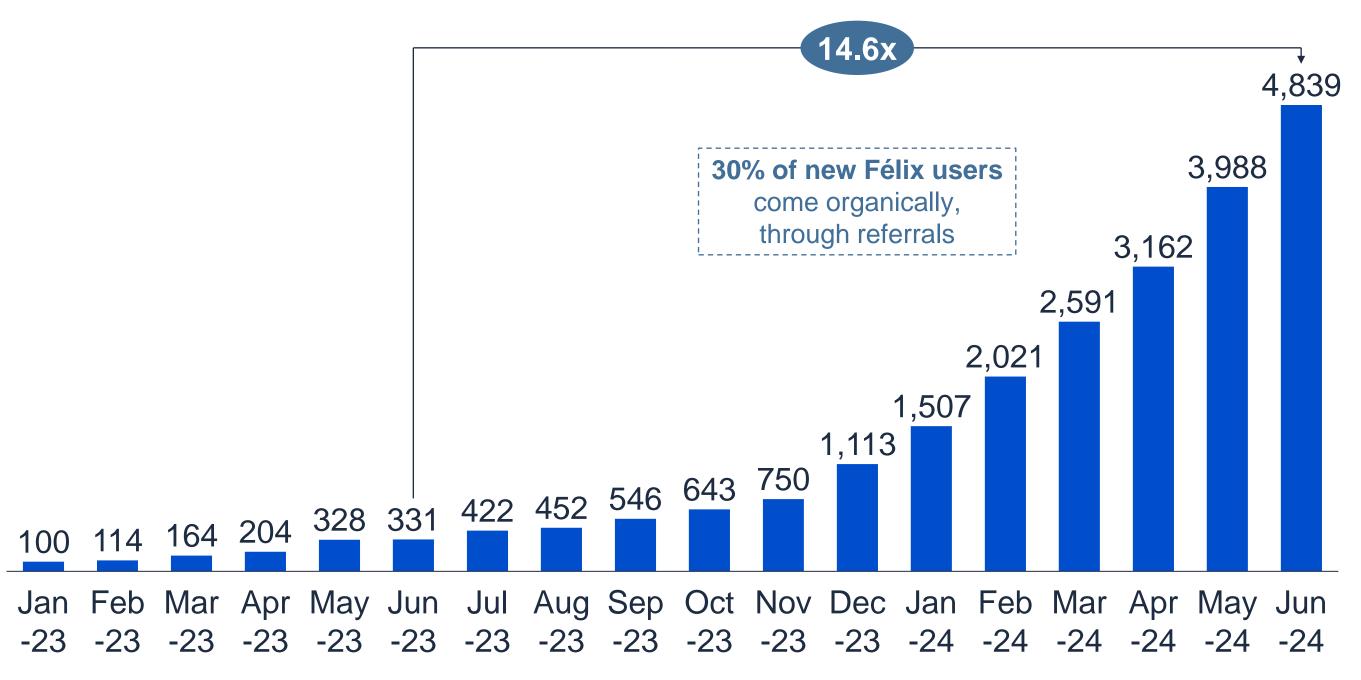
Remittances from the US to Latin America amounted to **US\$155B** in 2023



Félix has achieved a **90 Net Promoter Score** with their users

Félix revenue

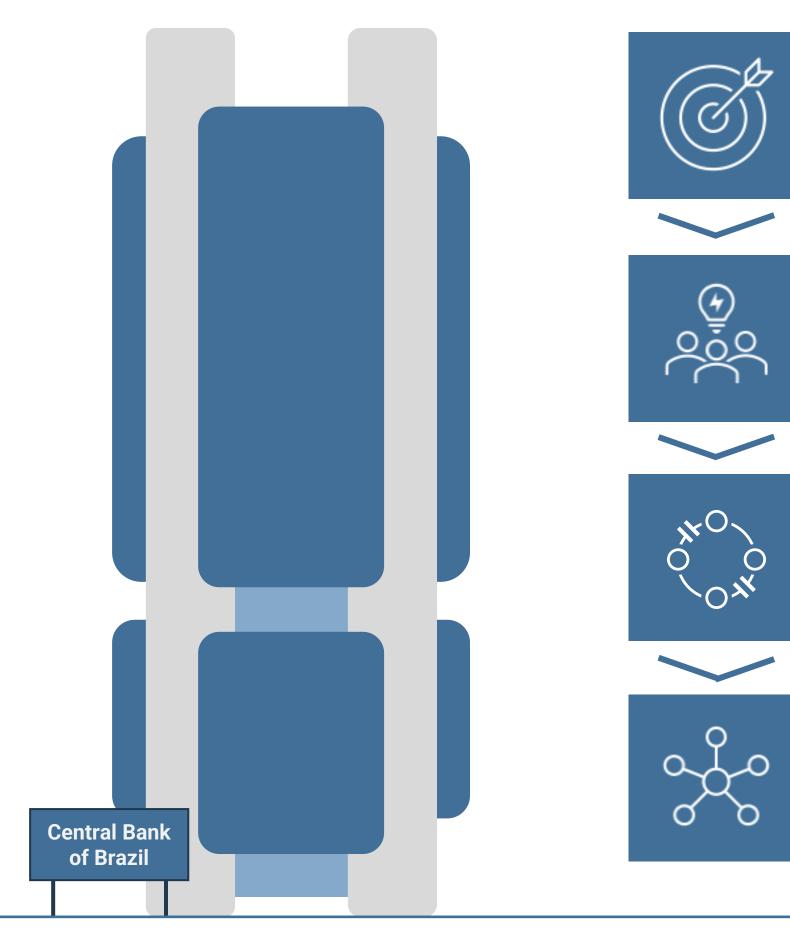
Indexed Jan 2023 = 100







The Tailwinds of Regulation: Brazil's unique history of financial innovation, competition, and shared infrastructure





A goal of offering better products for more people

Increasing financial inclusion and efficiency in the financial system



Achieved through more competition

Breaking oligopolies and welcoming new players and business models



Reducing barriers to entry for sustained innovation

Leveraging regulation and technology to break barriers to entry



Setting the battleground for the future

Creating shared interoperable systems for long-lasting competition and innovation



Stabilizing inflation and restructuring the financial system laid the foundation for the Central Bank to foster competition

1980s

1990s

2000s

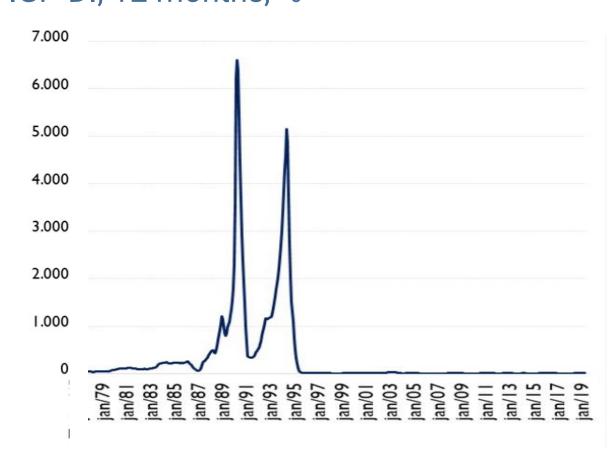
2010s

2020s

Hyperinflation

Hyperinflation dominates, reaching its peak in the late 80s and early 90s. After 5 failed financial plans, in 1994, teams from the Ministry of Finance, the Brazilian Central Bank (BCB) and the Mint implement the successful "Real Plan," stabilizing the economy

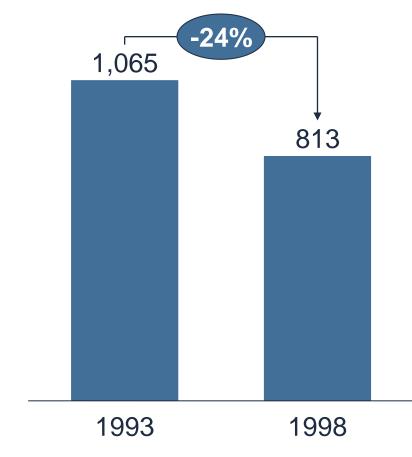
Inflation rate in Brazil¹ IGP-DI, 12 months, %



Consolidation and Restructuring

BCB oversees the **consolidation** of institutions **unable to adapt to monetary stability.** In 2002, it restructures the Brazilian Payments System (SPB), enabling the **real-time settlement of interbank transfers**, reducing systemic risk

Financial institutions in Brazil*² Number of institutions



Breaking barriers

BCB begins looking into retail: it fosters competition and efficiency by removing barriers to entry across a range of services, only made possible by technology

Sample Services



Acquiring



Payments



Accounts



Credit



Receivables

Future battleground

"BC#" agenda continues to push for innovation, creating shared interoperable networks that allow competition to happen at the product offering level

Pillars



Pix
Instant payments



Open financeSharing of financial data



DrexTokenization of assets



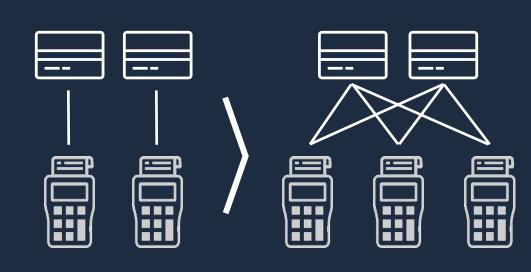




2010: Acquiring

Rede (formerly Redecard) and Cielo (formerly Visanet) had exclusivity contracts with Mastercard and Visa, respectively. This resulted in high costs for merchants in POS rent and discount rates

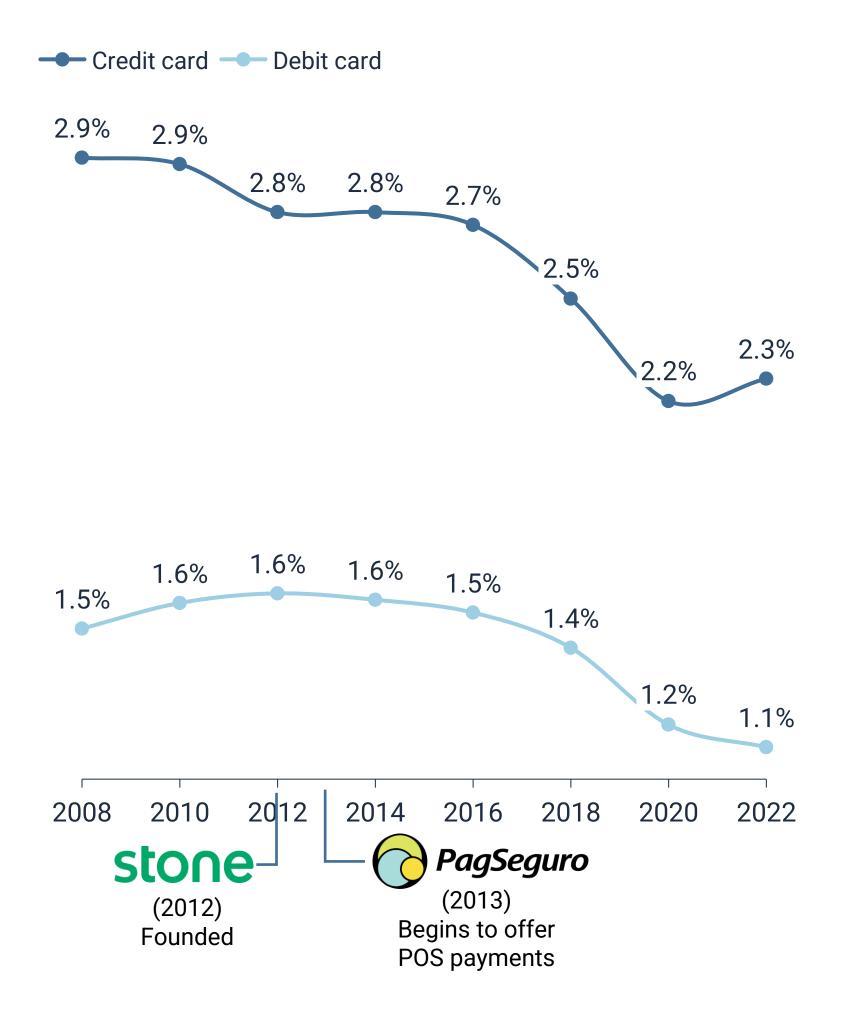
New regulation: Based on Brazil's Central Bank studies, CADE (antitrust agency), releases a resolution to end exclusivity contracts, opening the market to new entrants to foster competition



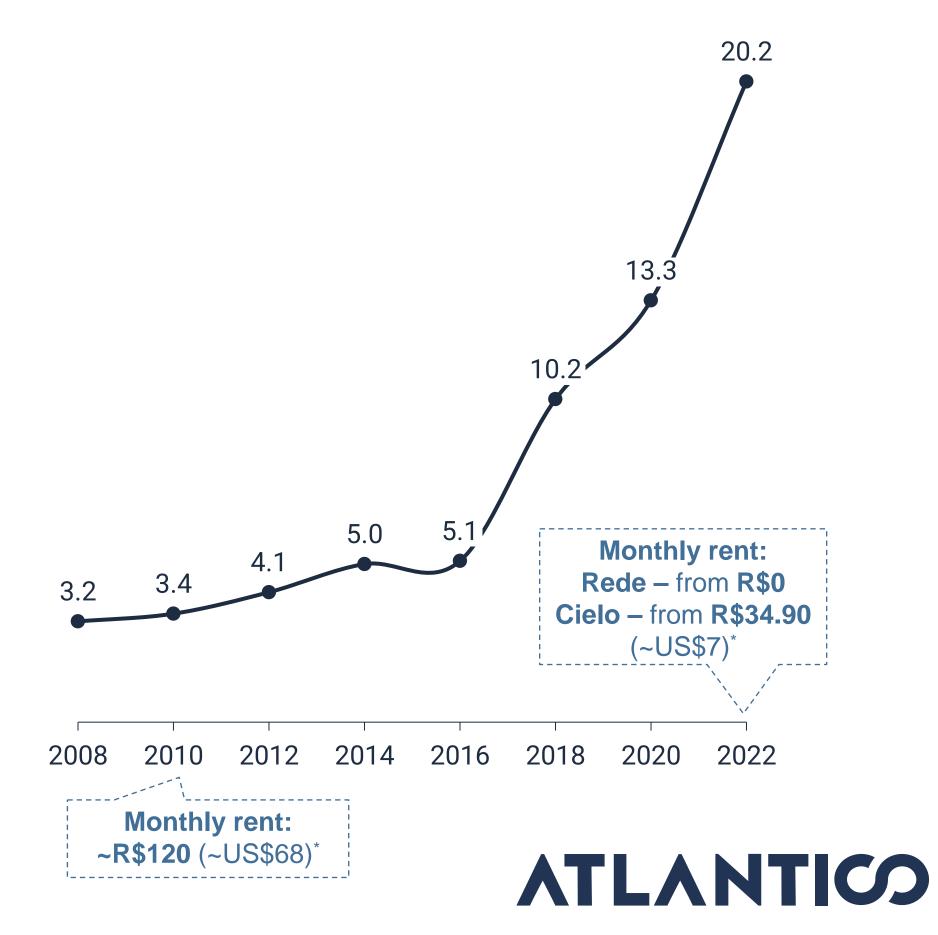
Note: (*) Avg. FX rate for 2010 and 2022 Source: Central Bank of Brazil

End of acquirer duopoly led to a decrease in discount rates and increase in POS access

Merchant Discount Rate (MDR) over time % of transaction value



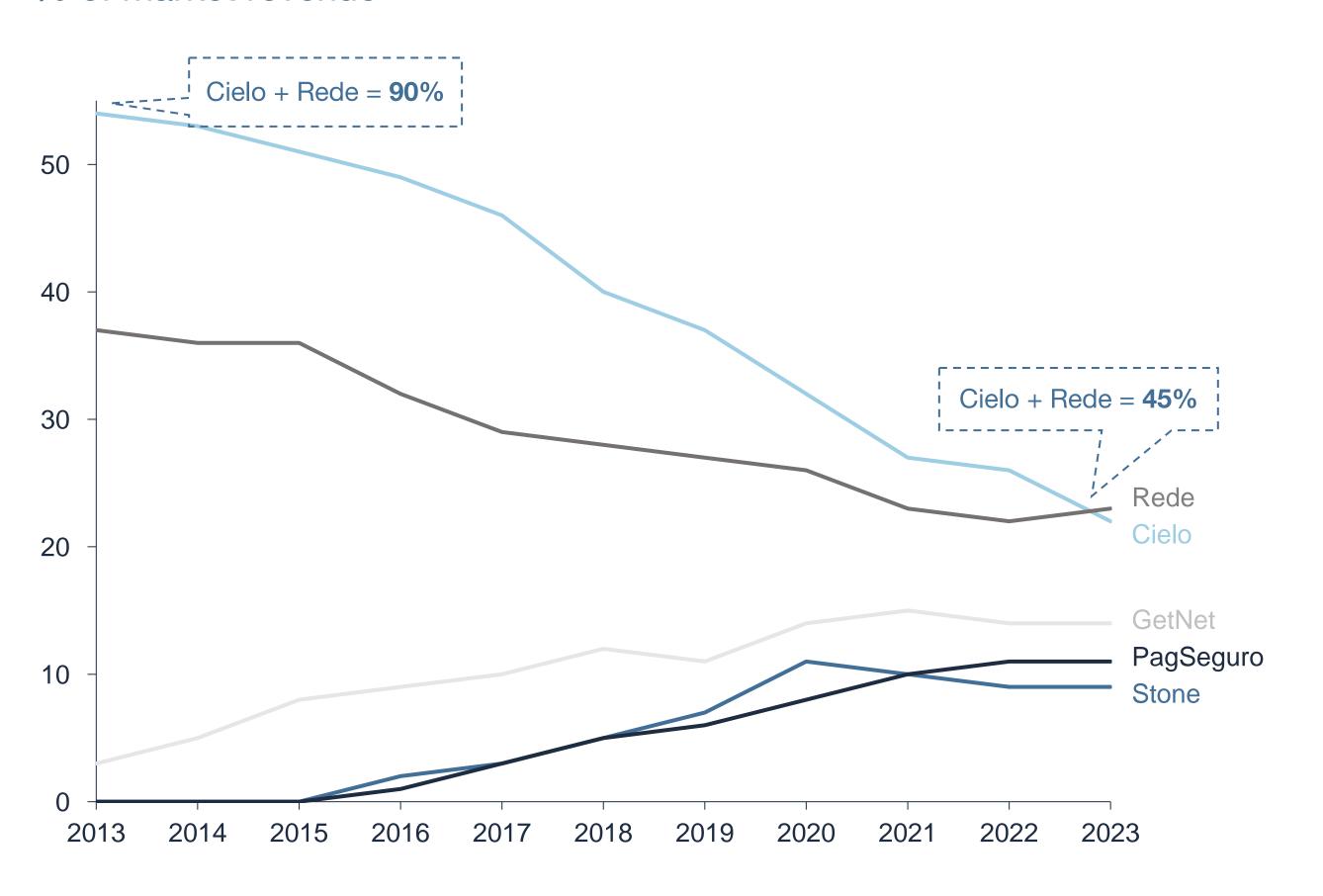
Number of Point of Sale (POS) Devices¹
Millions of devices



New players grew by targeting neglected market segments; incumbents were slow to respond, bleeding share as a result

Market share of acquirers in Brazil (TPV)

% of market revenue





The strategy: Stone grew fast by targeting small & medium businesses, traditionally negleted by market leaders. Their hub-based field sales operation and inhouse customer support allowed them to achieve industry-high customer satisfaction.



The strategy: PagSeguro decided to enter the micromerchant market by selling POS terminals, while others rented – too high of a fixed cost for these microbusinesses. They unlocked an untapped market segment, leveraging their parent company's media power to strengthen customer acquisition.





2013: Payment Institutions

Before: The payments market was dominated by traditional banking institutions

New regulation: Law 12,865 enables the Central Bank to regulate payments and it, in turn, creates "Payments Institutions" (IPs): non-bank entities that can provide payment services and maintain payment accounts under a lighter license. IPs didn't need to be authorized by the Central Bank until they reached ~US\$100M in annual transactions

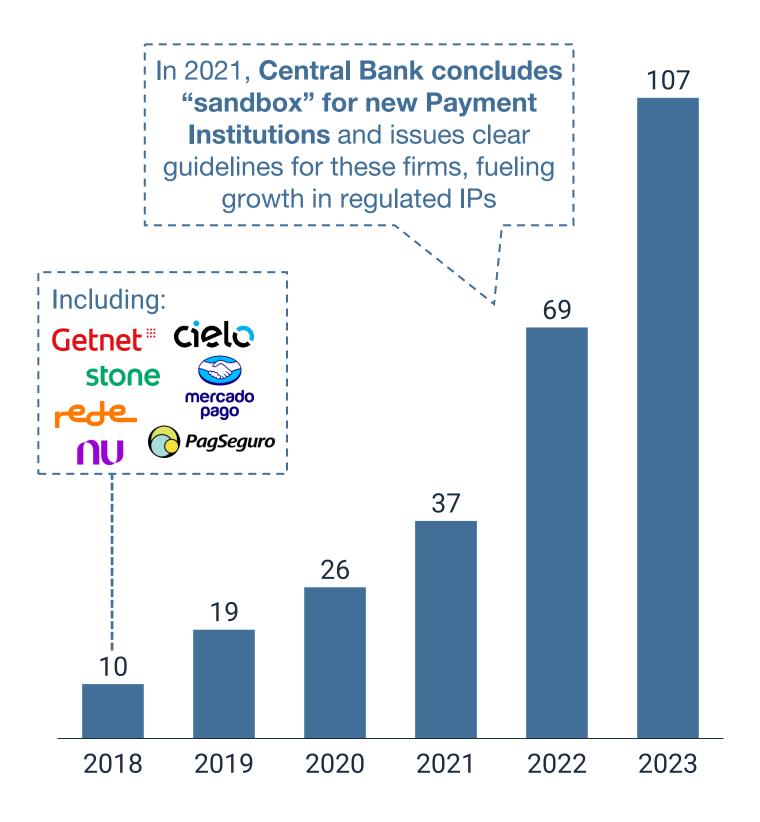


With a lighter regulatory burden for offering accounts and payments, new players emerged

Types of Payment Institutions¹

Can manage **prepaid payment accounts** and enable payment transactions based on the Electronic currency in that account. Can also convert **Money Issuer** funds into physical or scriptural currency **Postpaid** Can manage **postpaid payment accounts** Payment and enable payment transactions based on Instrument that same account Issuer Without managing payment accounts, can: (i) enable the acceptance of payment instruments issued by financial institutions; **Acquirer** and (ii) participate in the **settlement process** as a creditor vis-à-vis the issuer Can initiate payments upon the request of a client but cannot touch the money nor keep Payment passwords to execute payments on their Initiator behalf

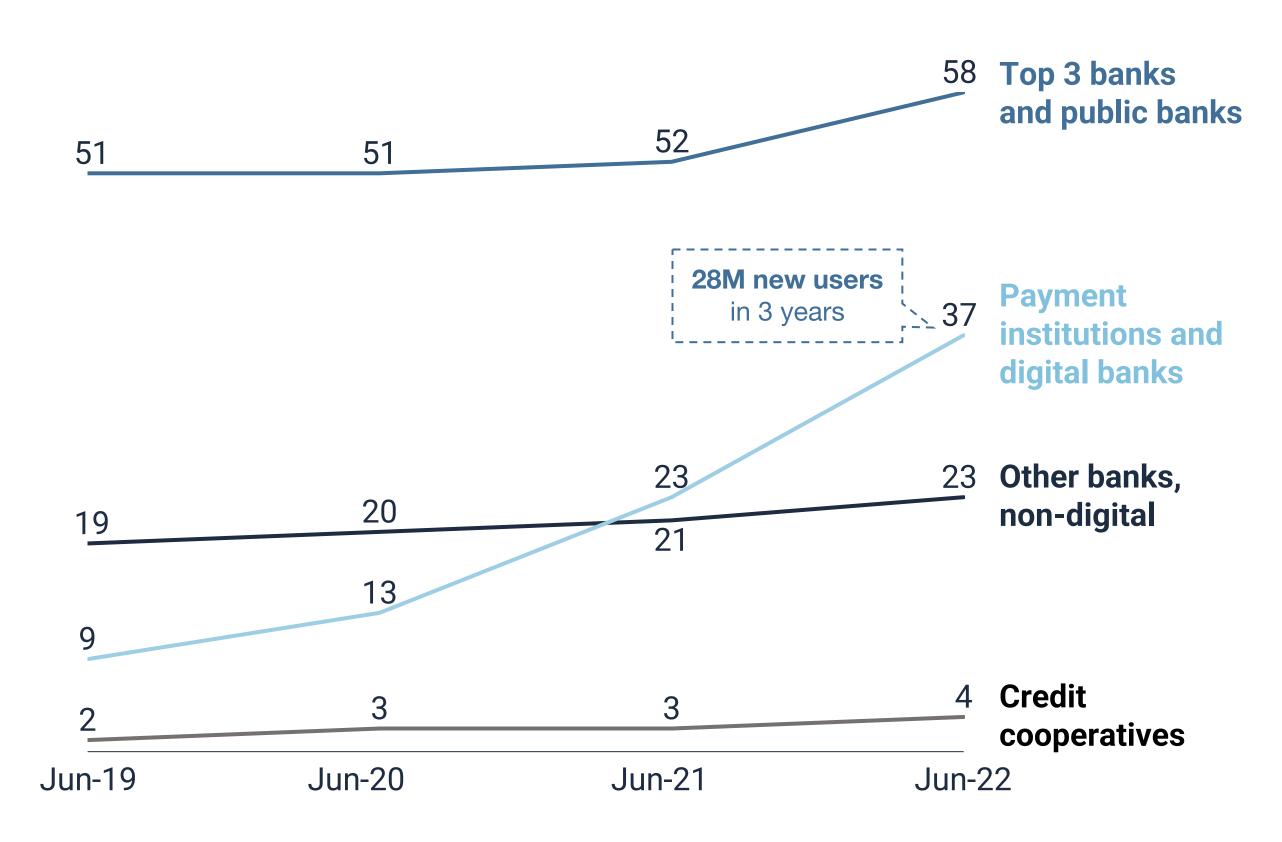
Regulated Payment Institutions (IPs)²
Number of institutions

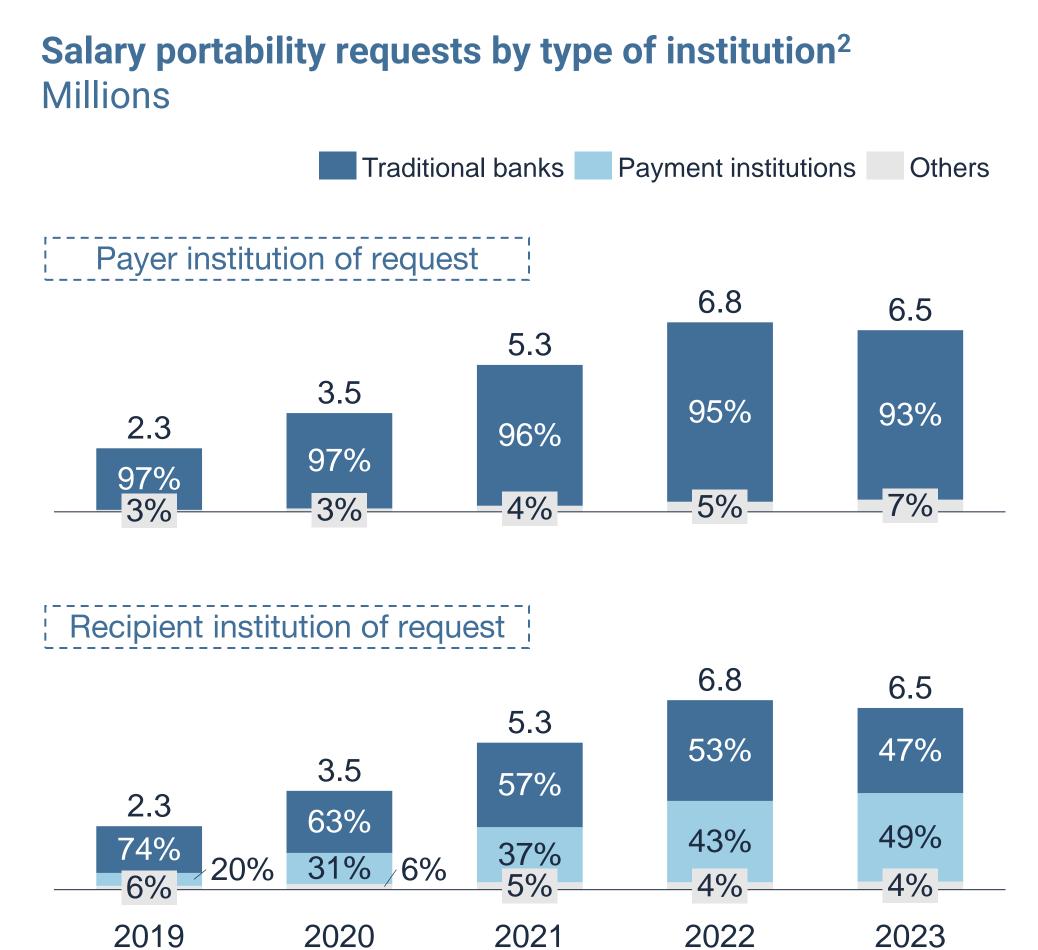




Payment institutions and digital banks continue to drive growth of credit card users and battle for their share of wallet

Credit card users by type of institution^{1,*} Millions









2016: Opening accounts digitally

Before: Opening a bank account required customers to visit a branch in person and exchange physical documents

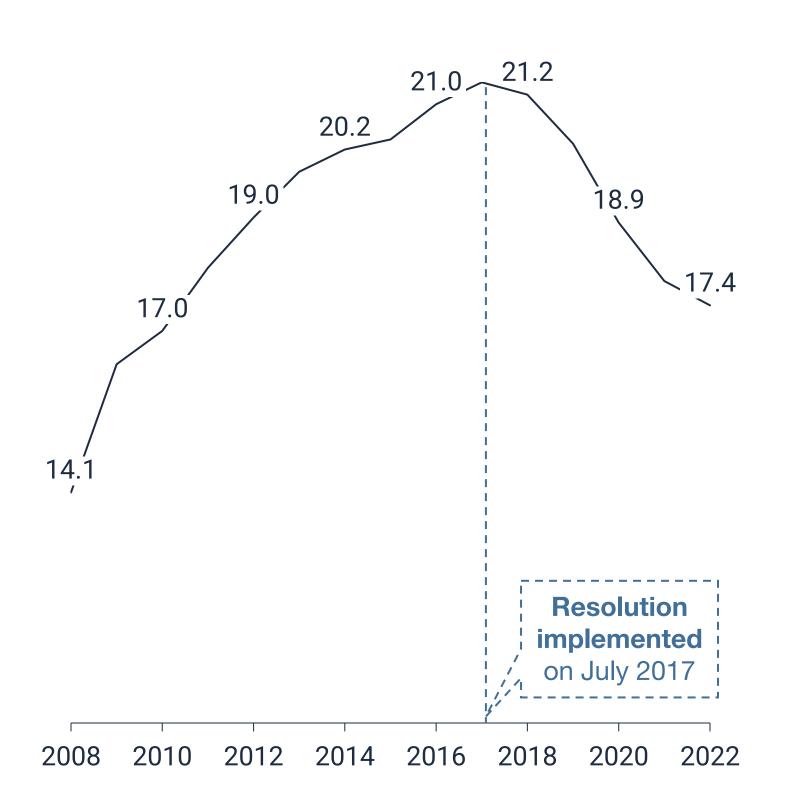
New regulation: Resolution number 4480 allows customers to open and close bank accounts digitally. This removed physical access barriers, streamlined banking processes, and allowed the creation of fully digital banks



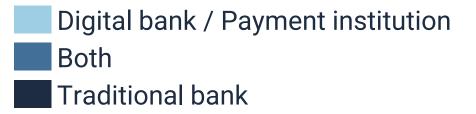
Digital growth surged with 43% of people having a digital account while incumbents cut branches

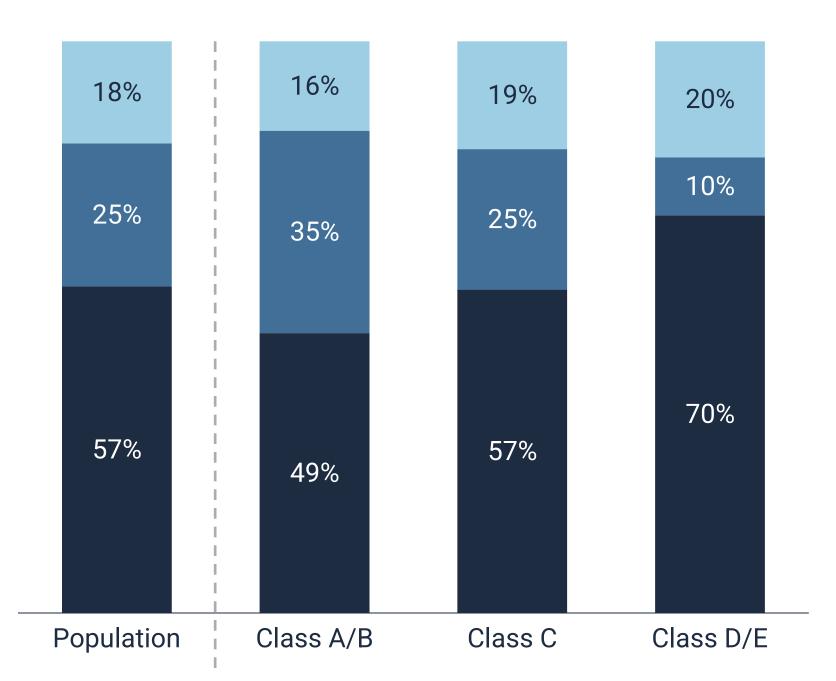
Physical branches of financial institutions in Brazil¹

Thousands



Survey with individuals - Institutions where average respondent holds an account² 2022, % of respondents

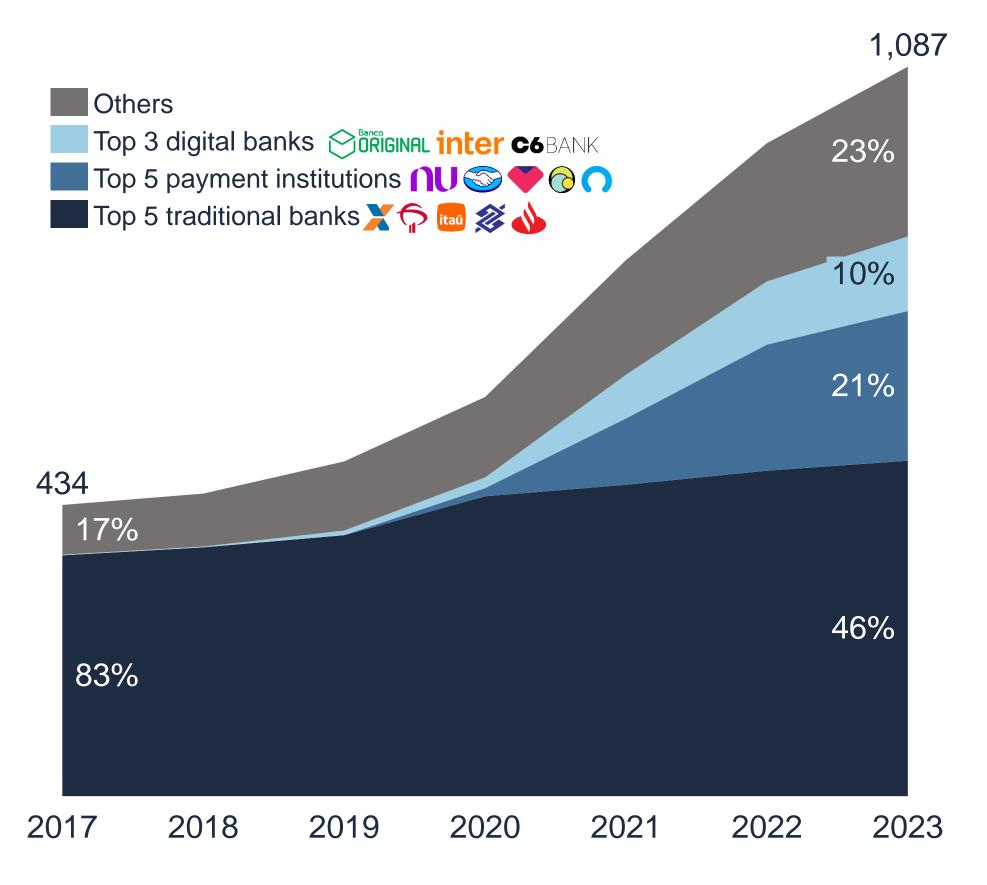






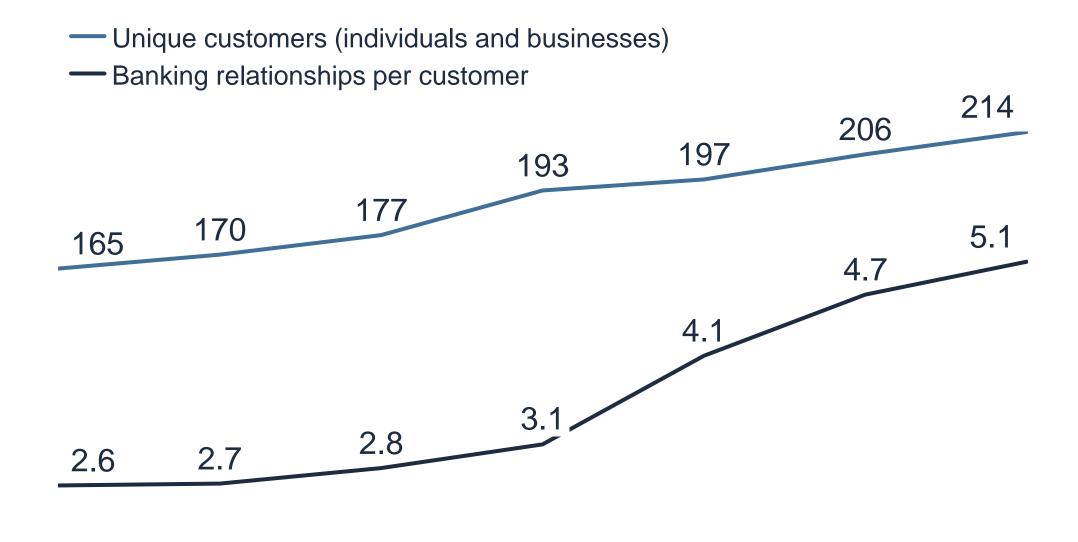
As people opened accounts with digital banks, significant growth came from those having multiple bank relationships

Number of customers* by type of institution Millions

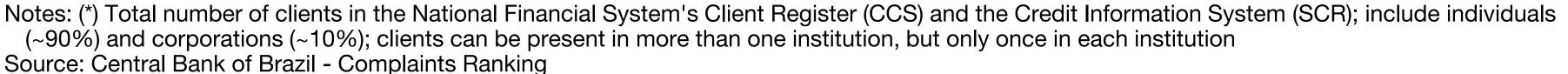


Number of unique banking customers and number of relationships per customer

Millions of customers, average number of relationships









2017: Segmentation of Financial Institutions

Before: The regulatory framework treated all financial institutions similarly, regardless of their size

New regulation: Through resolution 4553, the Central Bank introduces a segmentation system for financial institutions, applying regulation proportional to their size and risk profile and removing the regulatory burden from smaller institutions



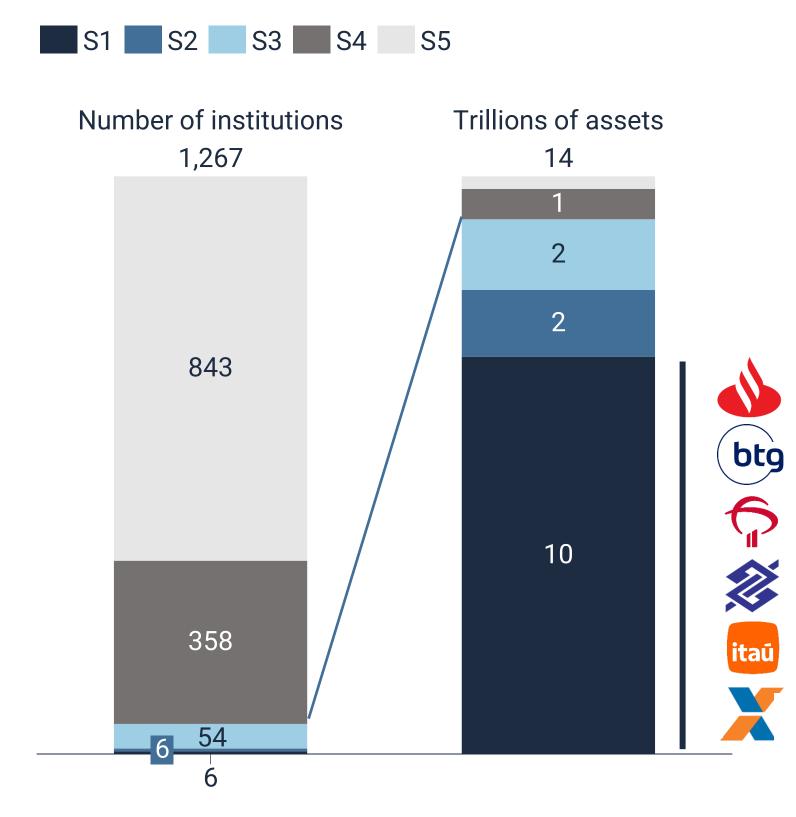
Simpler regulation enabled smaller players to grow and capture ~30% of total assets

Financial institutions (FI) segmentation¹

Segment	Size* (% of GDP)	Proportionality in Prudential Regulation	Example Institution
S 1	Banks >10% (or relevant international activity)	Full alignment with Basel recommendations	Itaú
S2	Banks 1-10 % Other FI >1 %	Full alignment with Basel recommendations, with specific exceptions	Safra
S3	Banks / Other FI 0.1-1.0 %	Simplified rules for market risk and interest rate variation, risk coverage, and transparency and access to information	Nubank
S4	Banks / Other FI <0.1 %	Further simplification in prudential requirements, risk management structure, and transparency and access to information	PagSeguro
S5	Other FI with simplified risk profile <0.1%	Simplified management structure and methodology for calculating minimum prudential requirements	Small credit corporatives

Number of institutions and total assets by segment²

mar/23, number of institutions and R\$T



Notes: (*) The size of the institutions is measured by the ratio of total exposure or total assets relative to the GDP Sources: (1) Central Bank of Brazil – Prudential Regulation; (2) Central Bank of Brazil – IF Data





2018: Credit fintechs

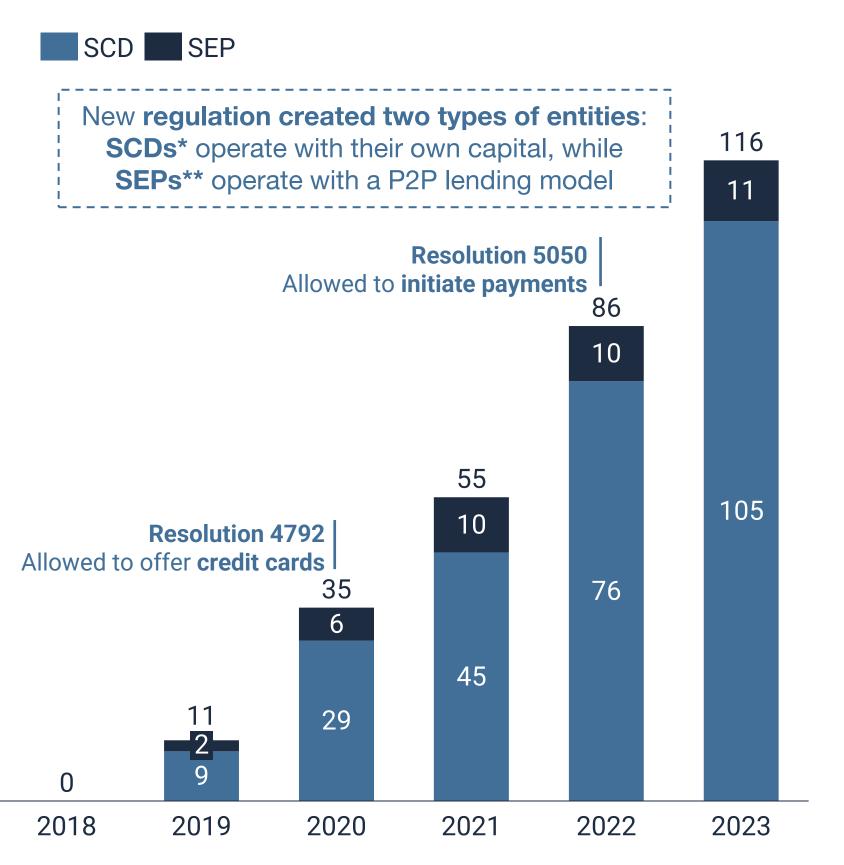
Before: Credit could only be offered by banks or institutions that had formal partnerships with banks

New regulation: Resolution 4656 allows fintechs to offer credit through digital platforms, remove the need for bank partnerships and establish a minimum capital of only R\$ 1M. This aimed to increase access to credit and reduce the cost of credit for the consumer



Credit fintechs have more than doubled market share but still represent <1% of credit in Brazil

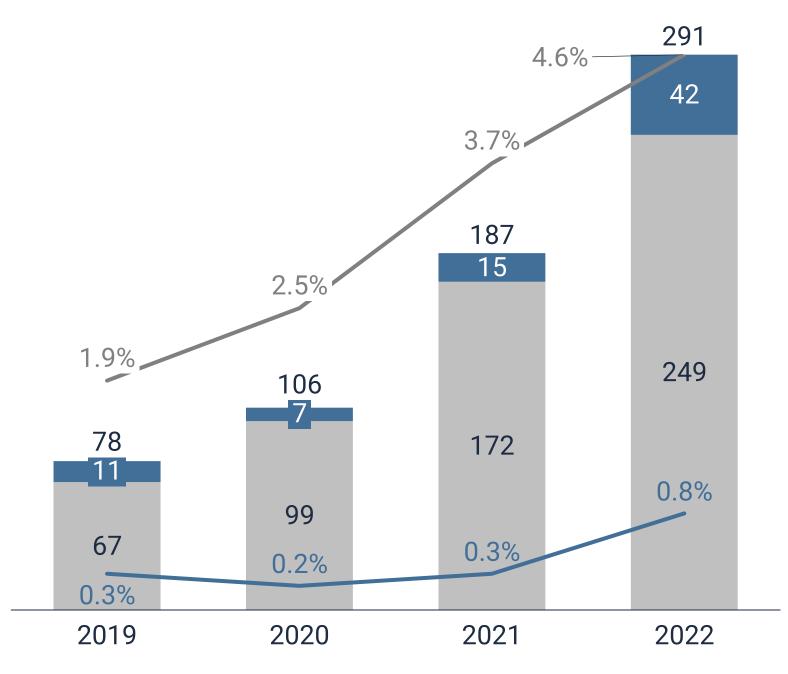




Digital entities credit balance and share in total credit in Brazil²

%, R\$B



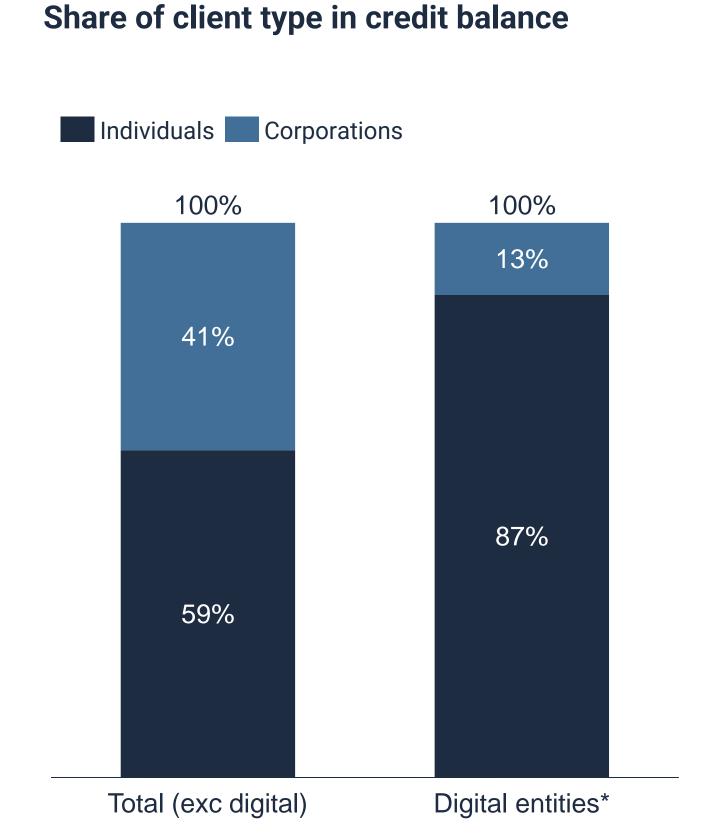


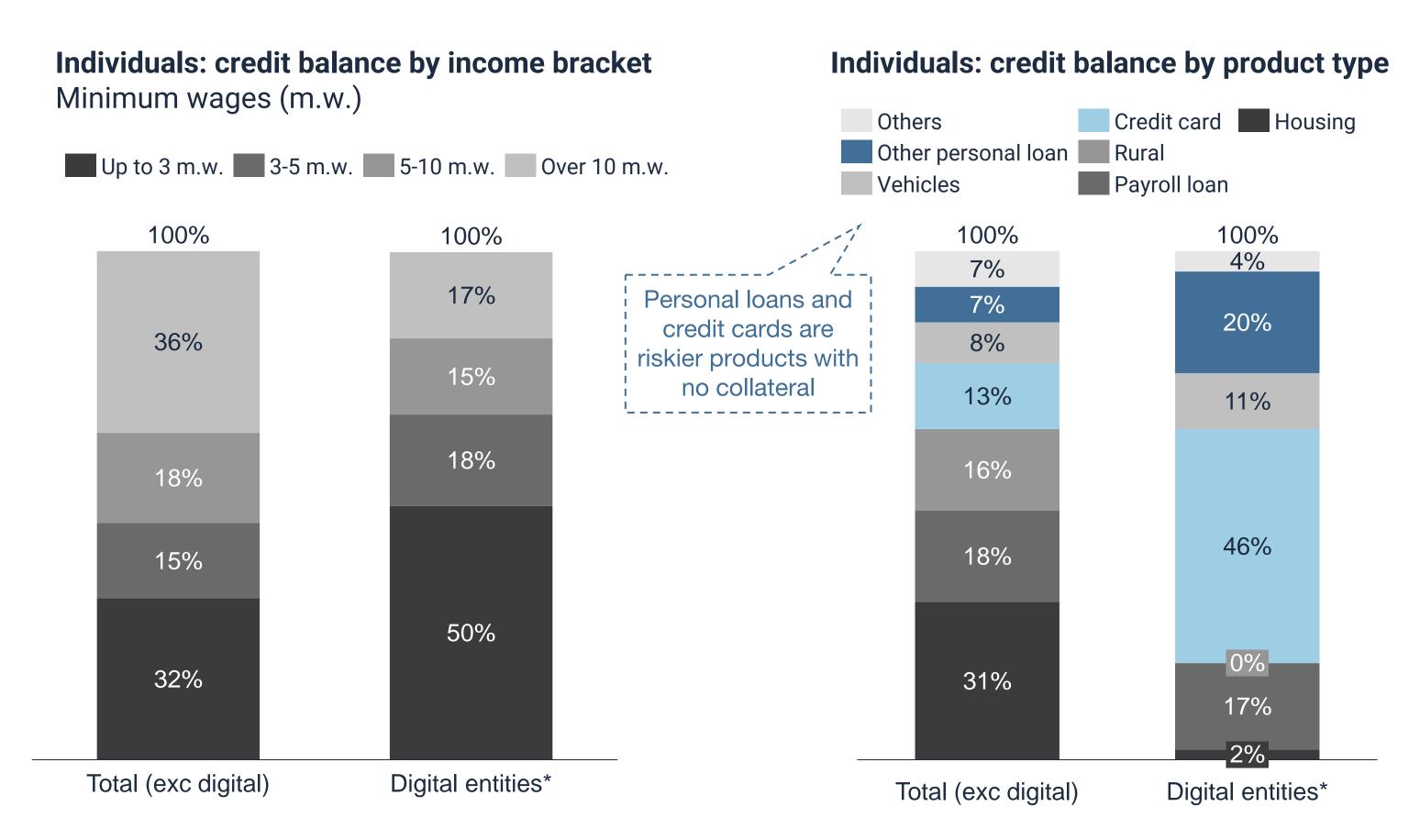
Notes: (*) Direct Credit Society; (**) Society of Loans Between People Sources: (1) Central Bank of Brazil - list of active institutions in the country; (2) Central Bank of Brazil "Banking economics report 2022 – Profile and Evolution of Digital Entities in the National Financial System"



Digital credit entities have broadened access to credit for lower income individuals, offering riskier lending products

Profile of digital entities^{1,*}
December 2022





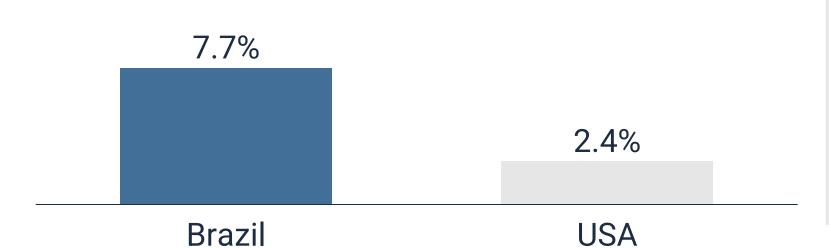


Creditas is leveraging collateralization and a capital efficient business model to build a dominant financial ecosystem

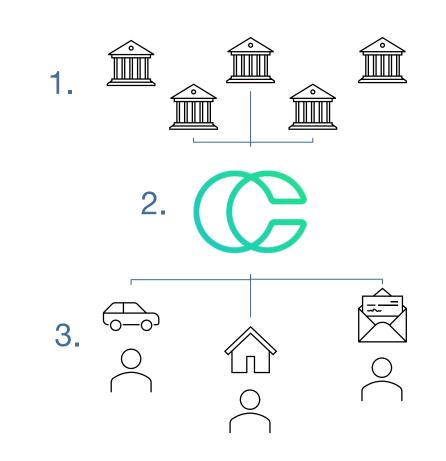


Creditas is building a financial solutions ecosystem upon a core foundation of collateralized lending. They excel in asset recoverability in underwriting, and are growing in insurance, consumer solutions, and investments

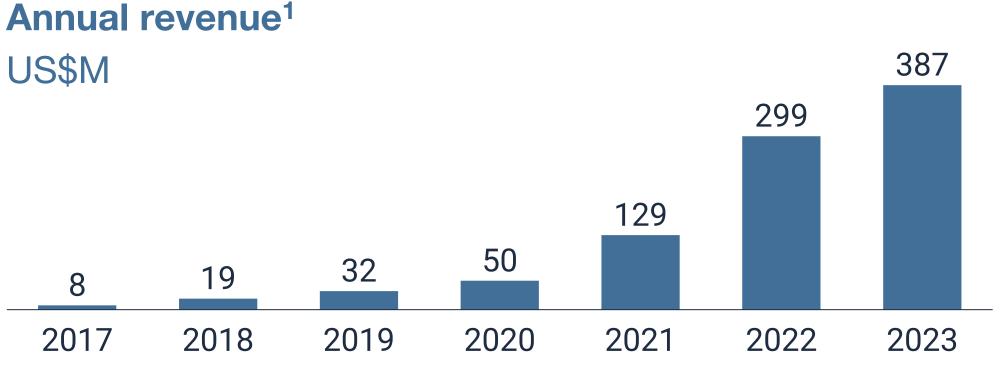




2023, Share of delinquent loans



- 1. Investors provide financing, attracted by the loan profitability generated by collateralization and long durations, which reduce volatility and capital reserves demand; Creditas technology matches investors to the funds that best fit their profiles;
- 2. Creditas pre-underwrites borrowers, focusing on asset recoverability and legal liabilities involved;
- 3. Creditas then sells multiple types of secured loans to the market at competitive fixed returns, ensuring capital efficiency while keeping a large carried interest providing significant financial upside



Creditas reached positive net income for the first time in Q1 2024, with a total loan portfolio of ~US\$1B



Notes: (*) SCD is a 'Direct Credit Society'; (**) Unsecured Loan rate based on Personal Loan, Secured Loan rate is average of Car and Home Equity Loan Source: (1) Creditas – annual revenue converted to USD, (2) Valor Investe – Crédito, (3) Federal Reserve Bank of St. Louis.



2019: Positive credit scoring

Before: Credit scoring systems primarily focused on negative credit events, and individuals had to "opt-in" to have positive data registered

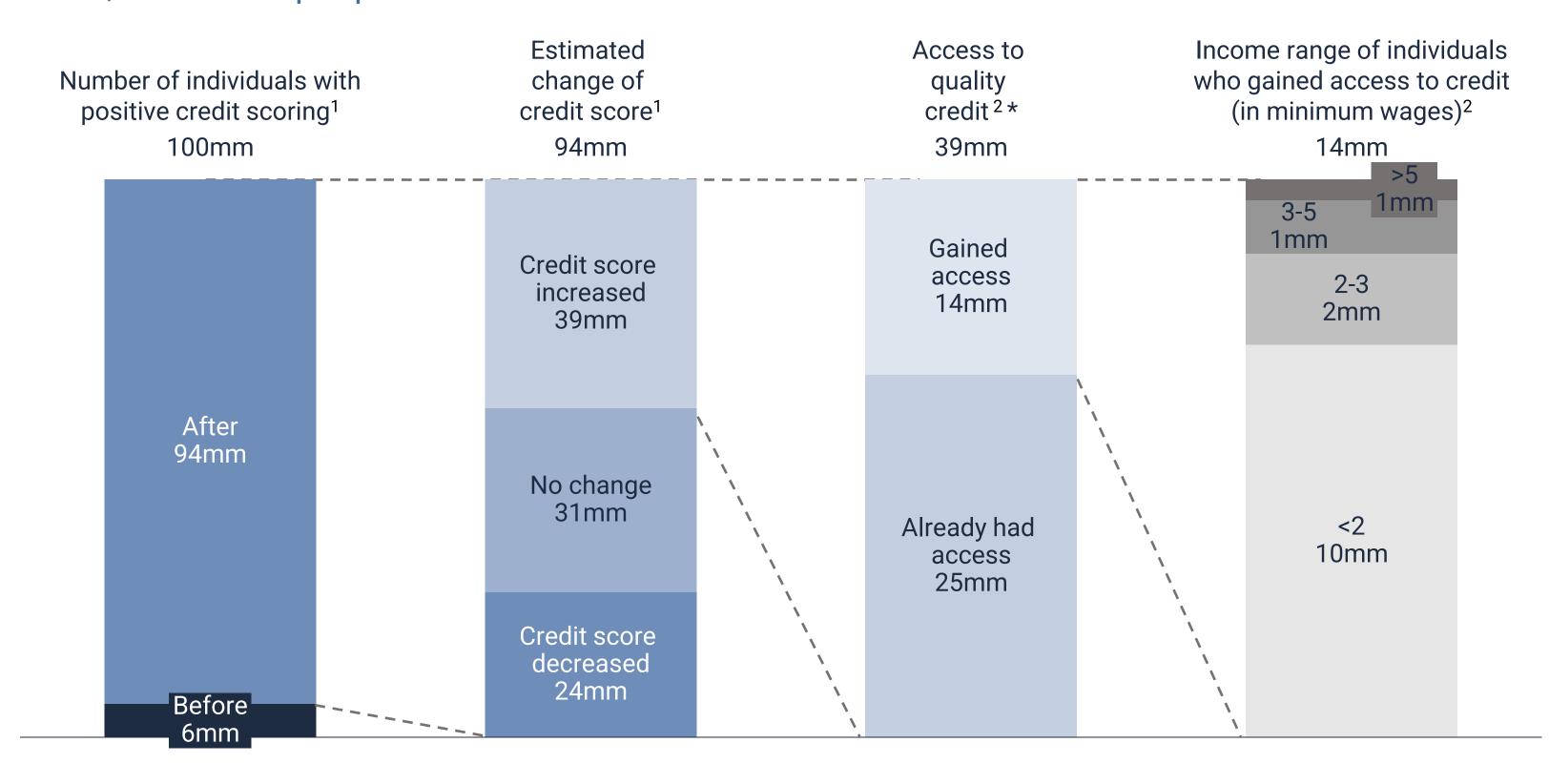
New regulation: Law 12,414 and resolution 4737 introduce automatic positive credit scoring ("opt-out" basis). The inclusion of positive credit information in consumers' credit histories allow for fairer credit assessments, potentially lowering interest rates and encouraging responsible financial behavior





Through positive credit scoring, more than 14 million people gained access to credit

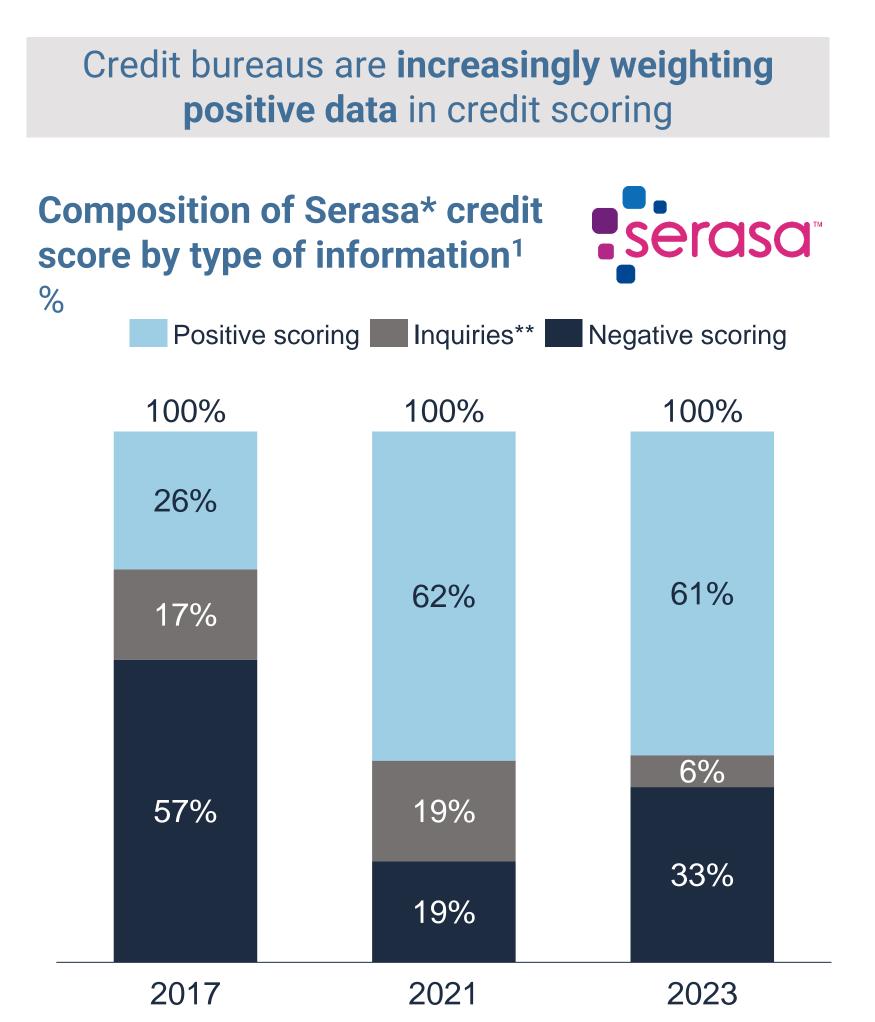
Impact of automatic positive scoring in access to credit^{1,2} 2023, number of people



Notes: (*) "Quality credit" defined by Serasa as Serasa Score > 500 ("good" or "excellent") Sources: (1) Central Bank of Brazil – "Analysis of the effects of positive credit scoring" (2021); (2) Serasa study (July 2023)



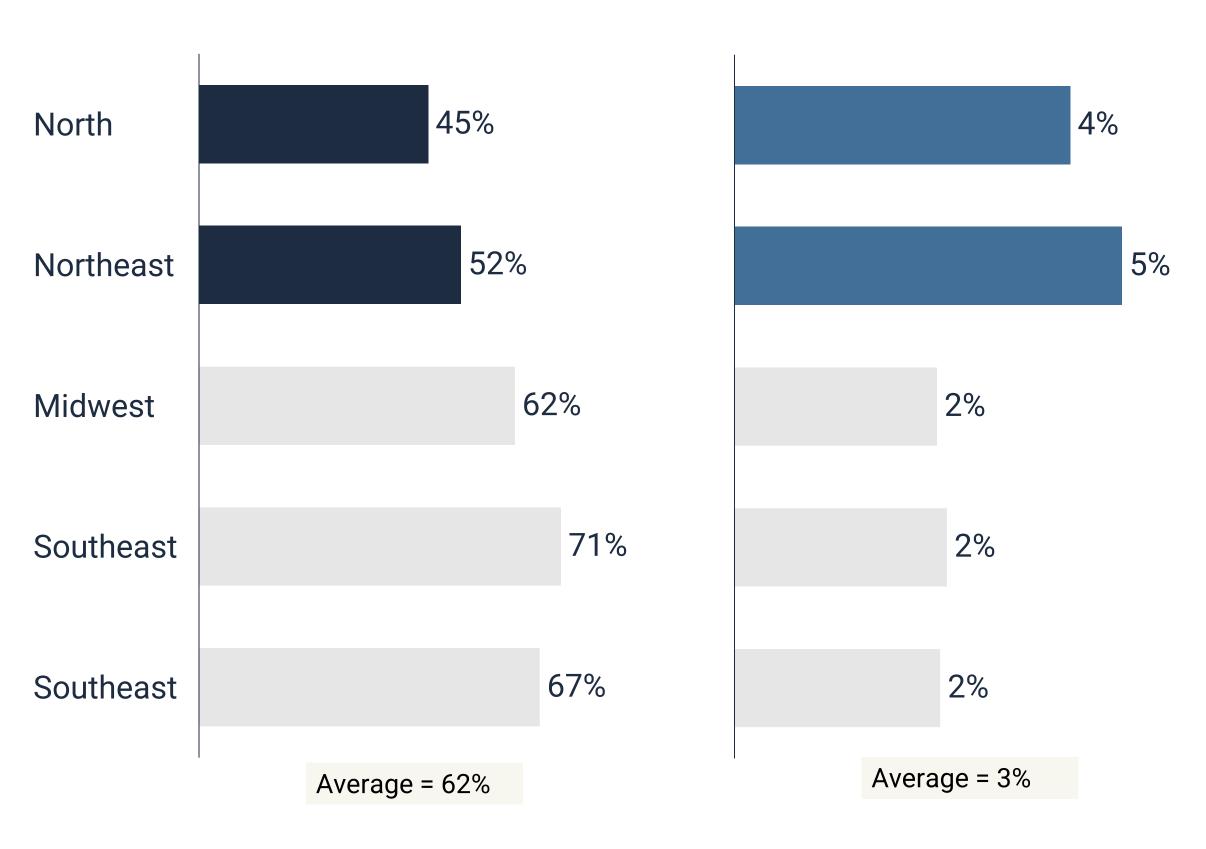
Financial institutions are relying more heavily on positive scoring, especially impacting access in lower income regions

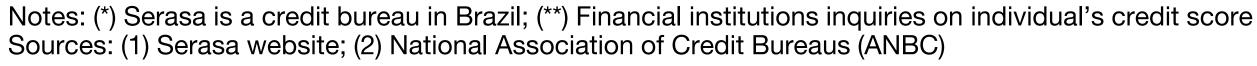






Feb/22, % of individuals with positive scoring



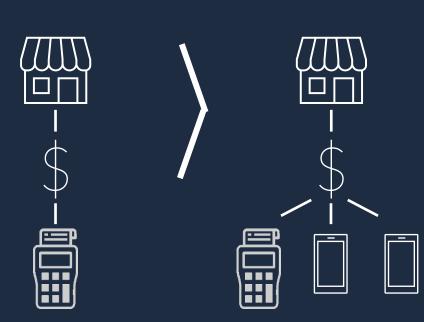




2019: Receivables registries

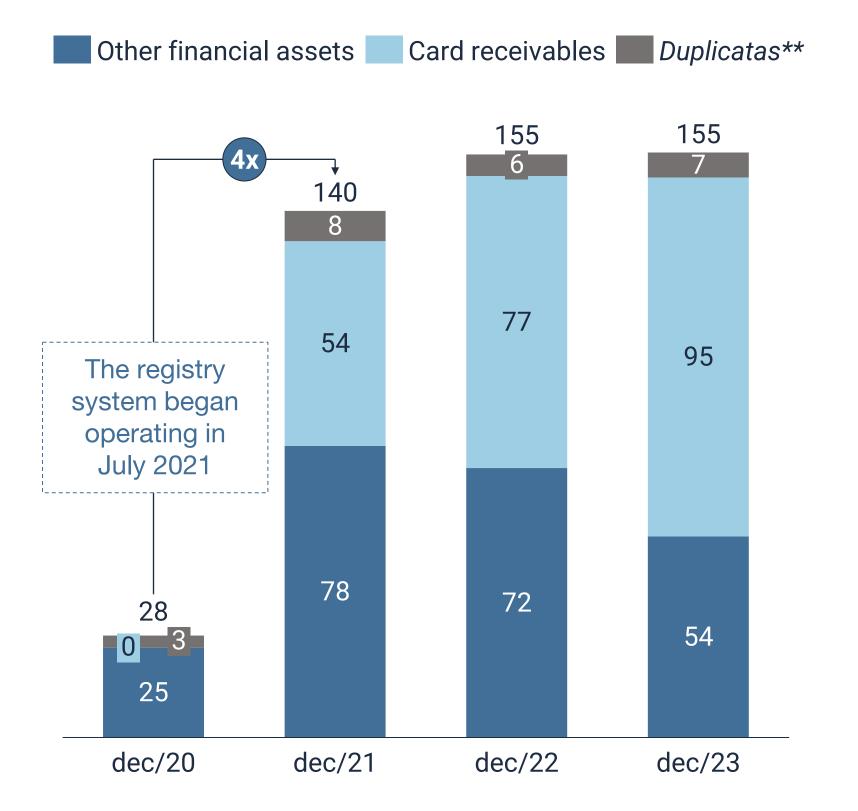
Before: Merchants' receivables were tied to their respective acquirers, who held exclusive rights to negotiate them

New regulation: Resolution 4734 determines that acquirers no longer own merchants' receivables. Instead, receivables are registered in one of four Central Bank-authorized registries and are accessible to other credit grantors. This allows merchants to either advance or leverage their receivables as colateral with a credit provider of their choice



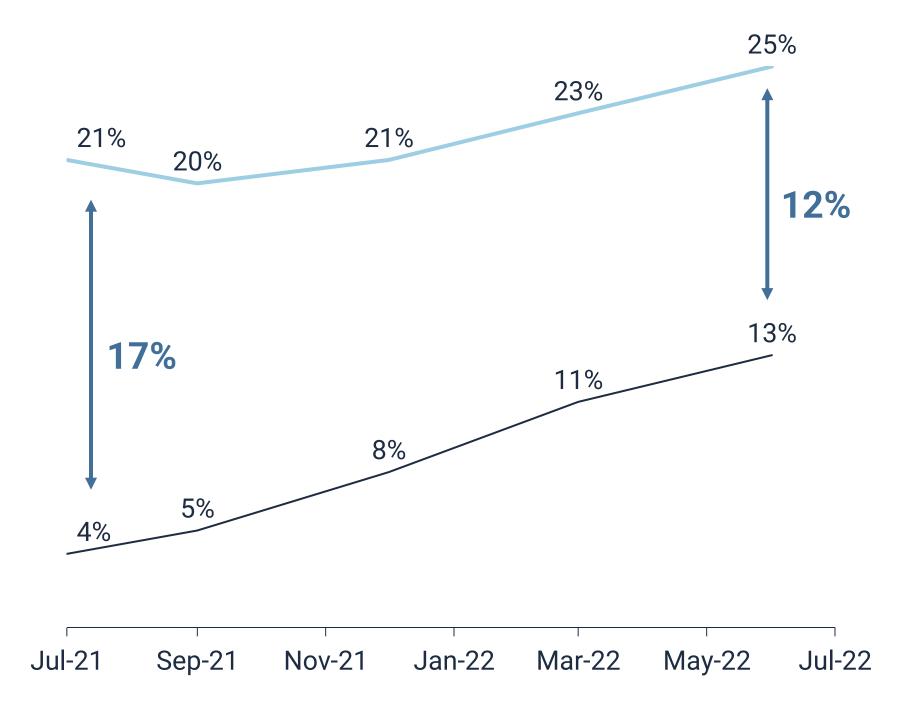
Public infrastructure for registering receivables helped reduce merchants' discount rate

Monthly financial volume registered in CERC*1
R\$B



Median discount rate for receivables advance² % per year

Discount rate — Base interest rate



Notes: (*) CERC is one of the four Central Bank-authorized receivables registries; (**) Duplicatas are credit securities of an installment transaction

Sources: (1) CERC "Estatísticas de Ativos"; (2) CERC + Pinheiro Neto webinar on credit card receivables (jul/22) and Brazil's Central Bank "Taxa Selic"





2023: Electronic Trade Receivables

Before: Trade receivables were managed directly by issuing company, often involving complex analog processes for negotiation and discounting.

New regulation: Resolution 5094 requires that electronic trade receivables be registered in a centralized system. This standardization increases transparency and allows financial institutions to access and offer financing options based on these receivables, giving businesses greater flexibility

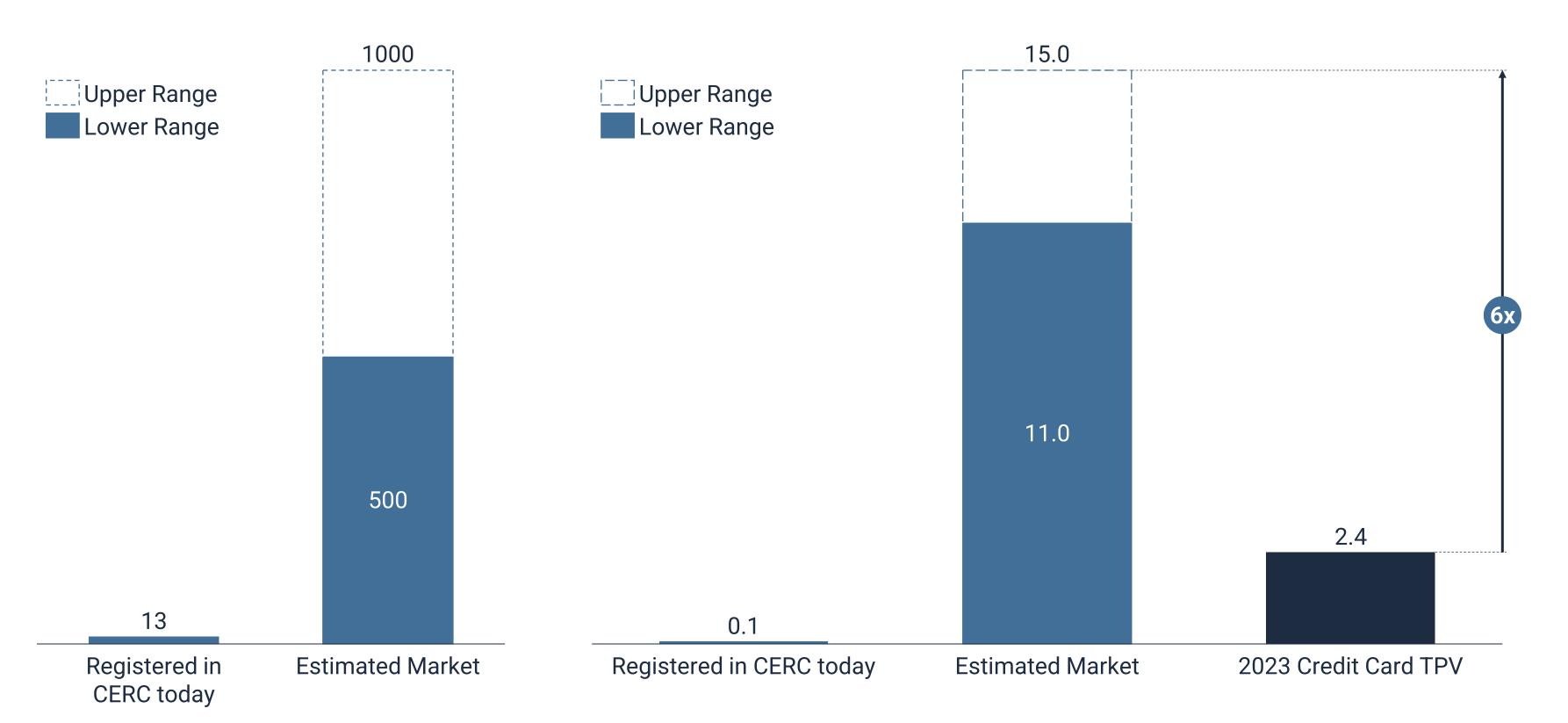


The new frontier – registry of trade receivables could unlock a market 5x the size of credit cards

Estimated number of other trade receivables

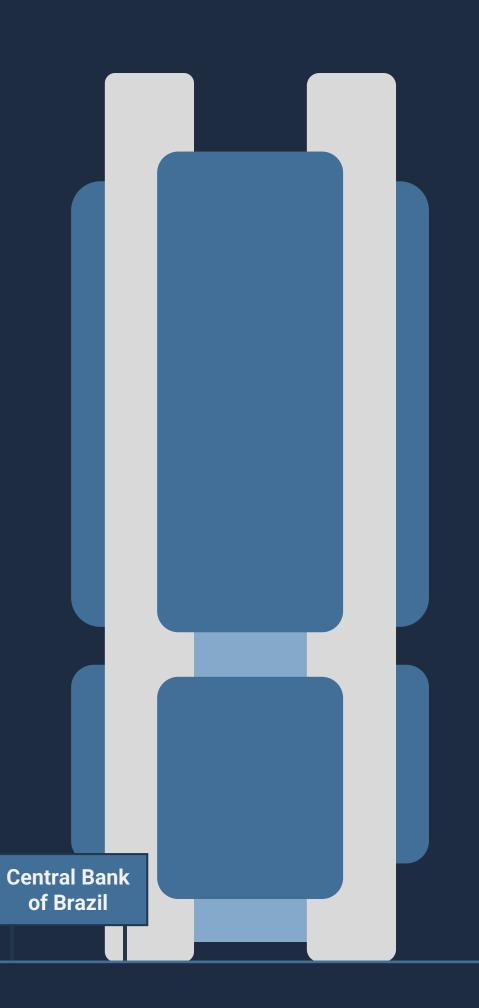
Millions

Estimated financial volume of other trade receivables vs. Credit card annual TPV in BrazilR\$T





The 2019 "BC#" agenda is increasing efficiency, competition and access through regulatory change and infrastructure





Setting the battleground for the future

Creating shared interoperable systems for long-lasting competition and innovation



Pix

Brazilian instant payments platform operated by the Central Bank



Open Finance

Regulatory framework for customers to share their financial data between institutions



Drex

Brazil's Central Bank Digital Currency (CBDC) and tokenization of financial assets





Pix

Brazilian instant payments platform operated by the Central Bank



Since launch, continual improvements and new features are fueling Pix's ability to replace traditional payment methods

Pre-launch (2020)



Infrastructure

[Jun] BCB Establishes the Instant Payment System (SPI) and its regulations to support real-time financial transactions in Brazil



Pre-registration

[Oct] Users are invited to preregister their Pix keys, leading to a marketing race between banks, boosting Pix adoption



Launch

[Nov] Pix is officially launched, offering instant, 24/7 payments, every day of the year, through registered financial institutions





UX improvements

Gradual improvements occur, such as integration with user's contact list, limit management, shortcut to customer support



Payment initiation

As part of the **Open Finance** roadmap, institutions with transactional accounts can offer **payment initiation with Pix**



Withdrawal and change

Consumers can exchange Pix transfers for cash at stores (optional participation from stores)



Pix collection

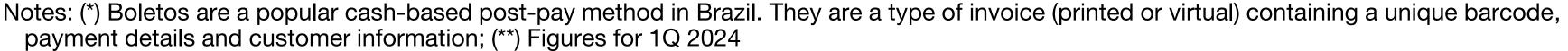
Enables businesses to issue QR codes for billing and collection purposes, potentially replacing boletos*



- Cash withdrawal transactions: **280 M** (equivalent to 2% of Pix transactions)**
- Cash withdrawal volume: **BRL 288 Bn** (equivalent to 5% of Pix volume)**

Analogue use case: **Boletos***

- Boletos transactions: 1.3 Bn (equivalent to 10% of Pix transactions)**
- Boletos volume: BRL 1.9 T (equivalent to 35% of Pix volume)**



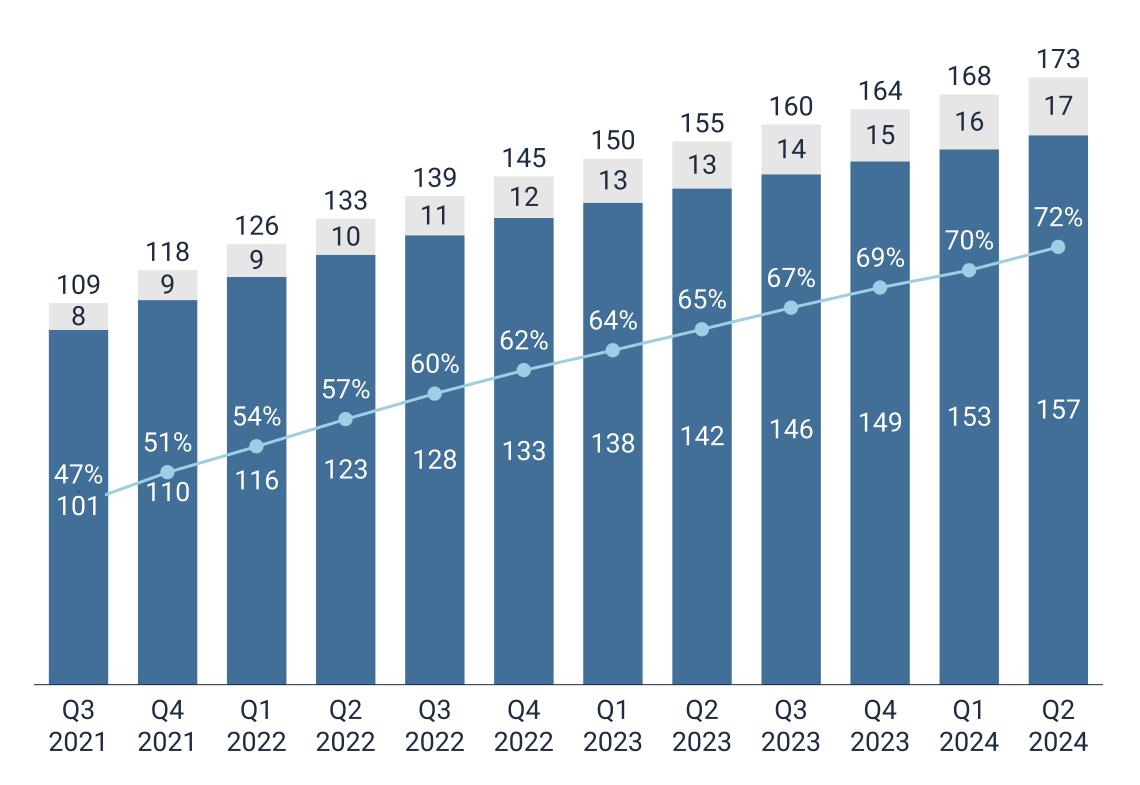
Sources: Central Bank of Brazil



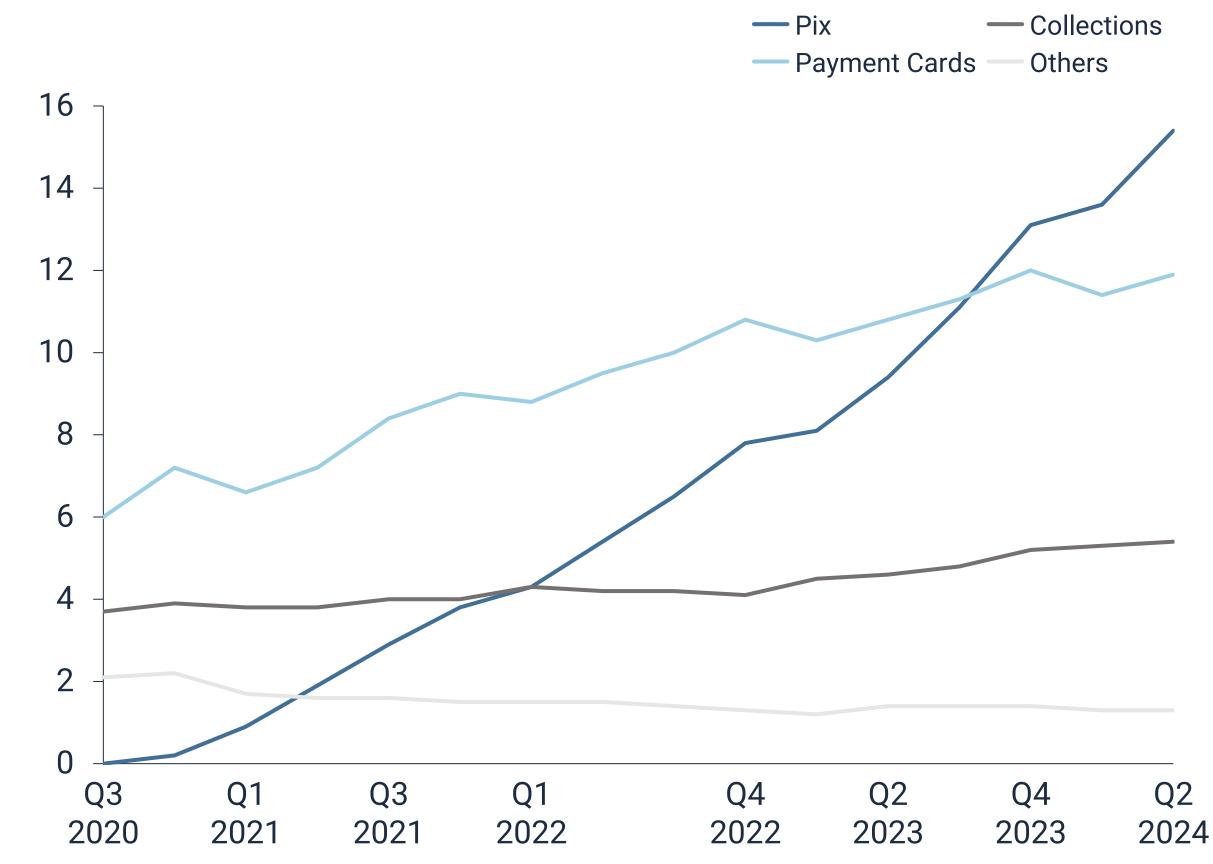
The new normal: Pix achieved 72% adoption for individuals, recently surpassing cards as the preferred payment method

Number of Pix users by type Millions, % of total population





Number of transactions by payment method Billions



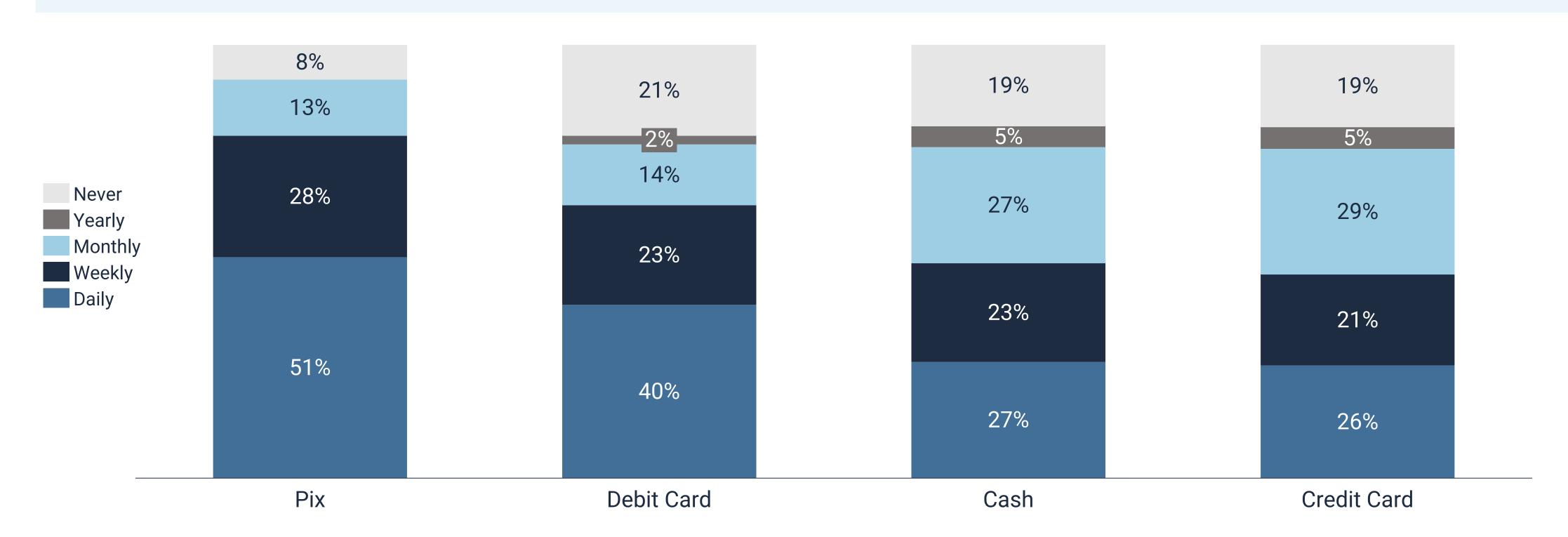


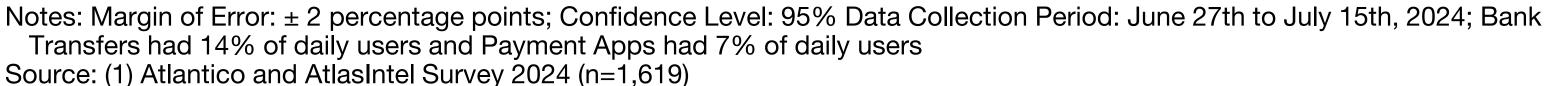
In Brazil, Pix has skyrocketed to become the most used payment method

Frequency of use of select payment methods¹

2024, % of respondents in Brazil





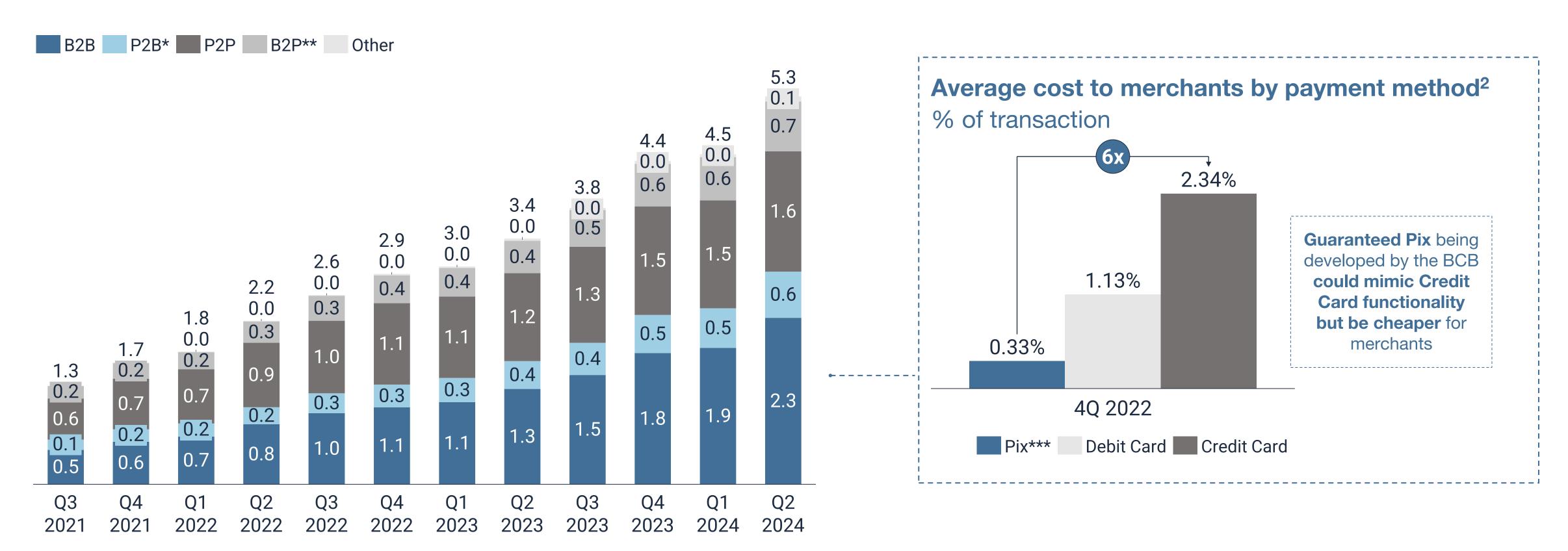


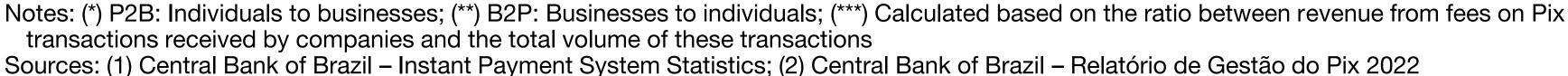




Pix business transactions continue to grow in relevance, as cost-benefit for merchants become increasingly evident

Total Pix transacted volume by segment¹ R\$T



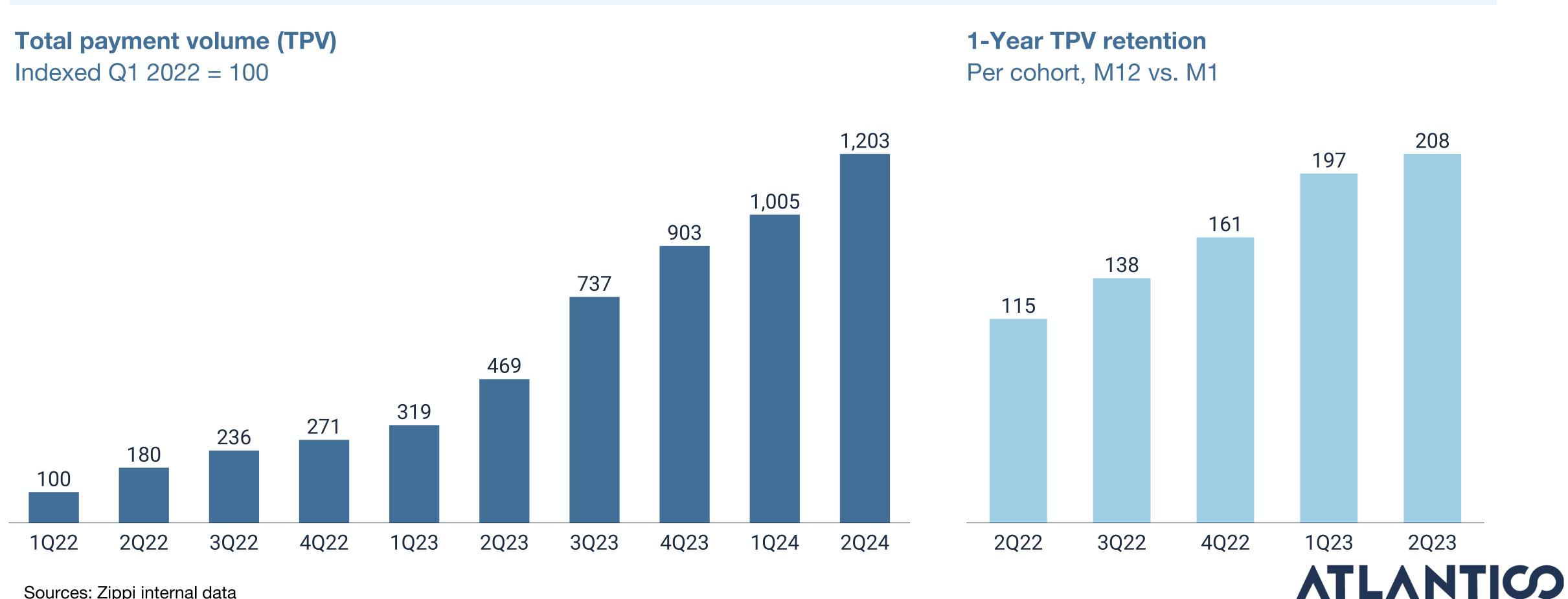




Zippi is leveraging Pix to tackle the small business credit gap with short-term revolving credit



Zippi provides credit for micro and small businesses in Brazil, offering up to 2-week payment terms in Pix transfers. Zippi leverages the Pix payment rail to serve their customers with revolving credit lines for working capital



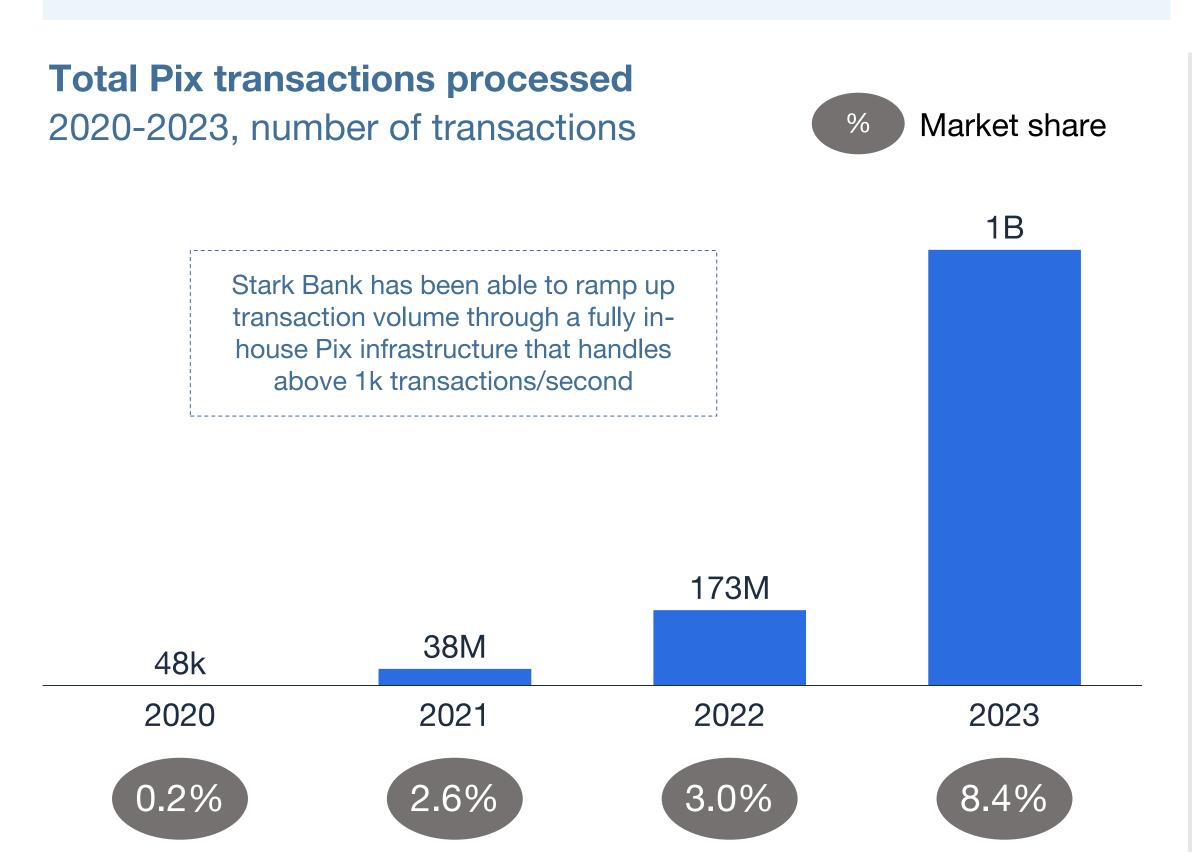
Stark Infra is leveraging proprietary Pix tech built at Stark Bank to serve the growing market of indirect Pix participants

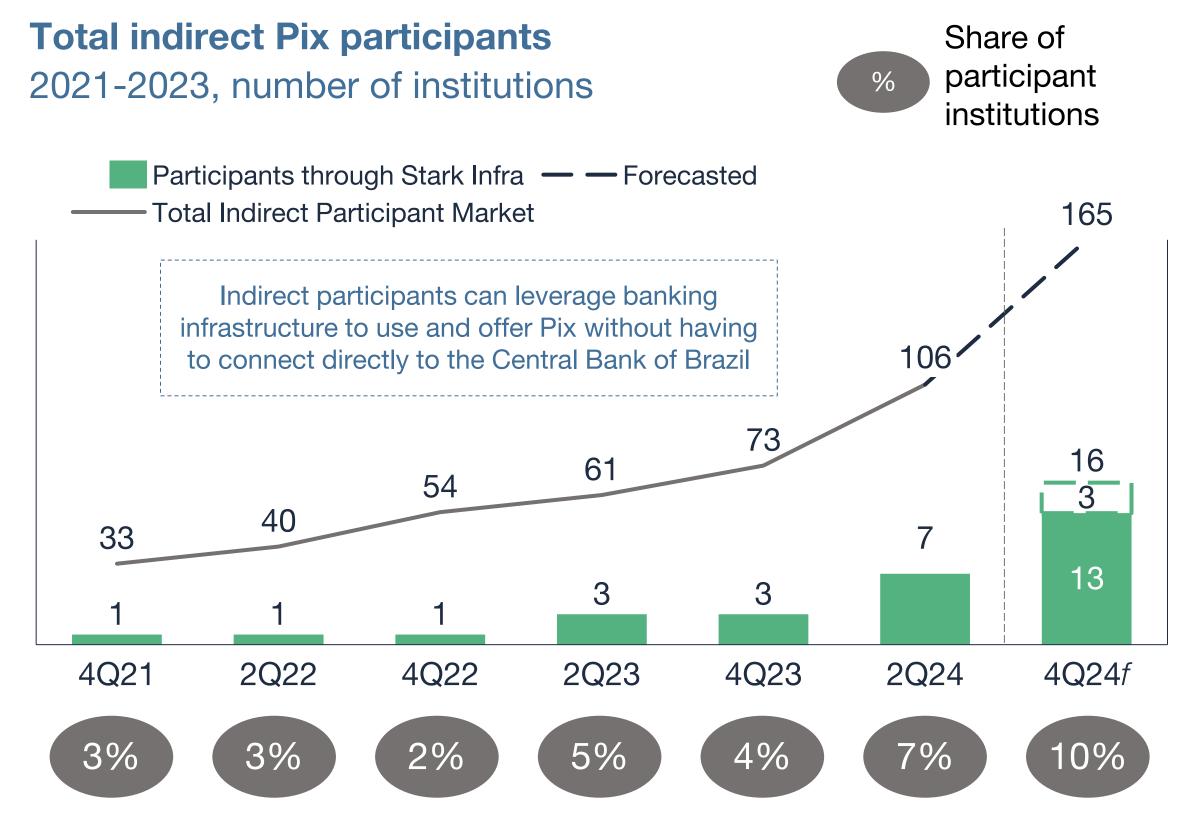


Stark Bank is a B2B bank that uses technology to help companies scale and solve challenges in cash management, corporate cards, payments, investments, spending control, and more



Stark Infra is a financial infrastructure platform providing scalable APIs for Pix participants, card issuing, ledger lending, and connection to the Central Bank of Brazil







Despite recent delays, the Pix roadmap promises to further disrupt payment methods by introducing novel use cases

Future (2025-)



Automatic Pix

Users will be able to authorize the **automation of recurring payments**, which is expected to reduce default rates



- Direct debit transactions: **1.3 B** (10% of current Pix transactions)
- Direct debit volume: R\$ 250 B (5% of current pix volume)*

Current Official Launch date: June 2025 Original Launch Date: April 2024



Guaranteed Pix

Users will be able to use Pix for installment payments, presenting to merchants a cheaper alternative to cards (like buy now pay later)



- Credit card transactions: **4.7 B** (35% of current Pix transactions)
- Credit card volume: R\$ 600 B (11% of current pix volume)*

Current Official Launch date: not officially announced



Payer QR code

Will introduce payer-generated QR codes, enabling users to pay with Pix while offline, something that is already possible with cards today



New forms of initiation

Will allow other forms of Pix initiation, such as NFC, RFID and facial recognition, closing the gap between Pix's and cards' UX



International Pix

Will enable transactions to be carried out between **global bank accounts** instantly and free of charge





Other Latin American countries are making reforms to develop their own instant payment systems

Colombia —



Immediate Low-Value Payment System (Bre-B)¹

Peru () Interbank Real-Time (IRT/LBTR)² Chile ___

Financial Instruments Clearing & Settlement System (SSI)³

México (*) Interbank Electronic Payment System (SPEI)⁴

Creation

The Bre-B system has been under development since 2022 by the Central Bank of Colombia, along with public and private financial actors

Architecture & Operating System

- The Central Bank of Colombia leads the consolidation of Bre-B. It will use a Centralized Clearing House Directory
- Bre-B promises payment settlement in up to 20 seconds. Participant institutions have to display the Bre-B brand on all their channels
- Banks can choose whether they **charge** consumers for transactions
- The Central Bank of Colombia will officially launch Bre-B in H1 2025⁶

Creation

The IRT/LBTR was created in 2000 by the Central Bank of Peru (BCRP) and was designed to process and settle interbank transactions immediately

Architecture & Operating System

- The IRT/LBTR is managed by the BCRP, which oversees operations to ensure integrity and reliability
- The LBTR is used for significant financial transactions, including corporate payments, government transfers, and financial market dealings
- Financial institutions must integrate with the LBTR infrastructure to use system
- **Adoption: 22 financial institutions** and banks participate in the LBTR²

Creation

The SSI (Sistema de Liquidación y **Compensación de Instrumentos** Financieros) was created in 2009 and began operations in August 2010

Architecture & Operating System

- The SSI is overseen by the Central Bank, which determines rules and regulations for the system's operation
- SSI was designed to enhance the efficiency, security, and reliability of financial transactions within the country.
- It handles the clearing and settlement of payments and securities transactions in real-time, reducing counterparty risk
- Adoption: In 2023, ~447k payments were made using SSI in Chile³

Creation

The SPEI payment system was created in 2004 to facilitate real-time interbank transfers and improve payment efficiency

Architecture & Operating System

- SPEI operates as a centralized system managed by the Bank of **Mexico**, with a focus on security
- **SPEI** was designed for high availability and reliability to ensure continuous operation.
- The system employs advanced security measures to protect transaction data and mitigate fraud
- Adoption: 6 out of every 10 Mexican citizens use SPEI⁵





Open Finance

Regulatory framework for customers to share their financial data between institutions



Brazil's Open Finance agenda is seeing steady adoption from financial institutions, but consents remain limited

Feb.2021

Phase 1

Participating financial institutions must share standardized information on banking products, services and channels

Data on Participating Institutions

Aug.2021

Phase 2

Customer Data

Customers can now consent to financial institutions having access to registration and transactional data

Oct.2021

Phase 3

Open Finance meets Pix

Customers gain access to financial services outside financial institutions. Companies from different sectors can become **payment initiators**

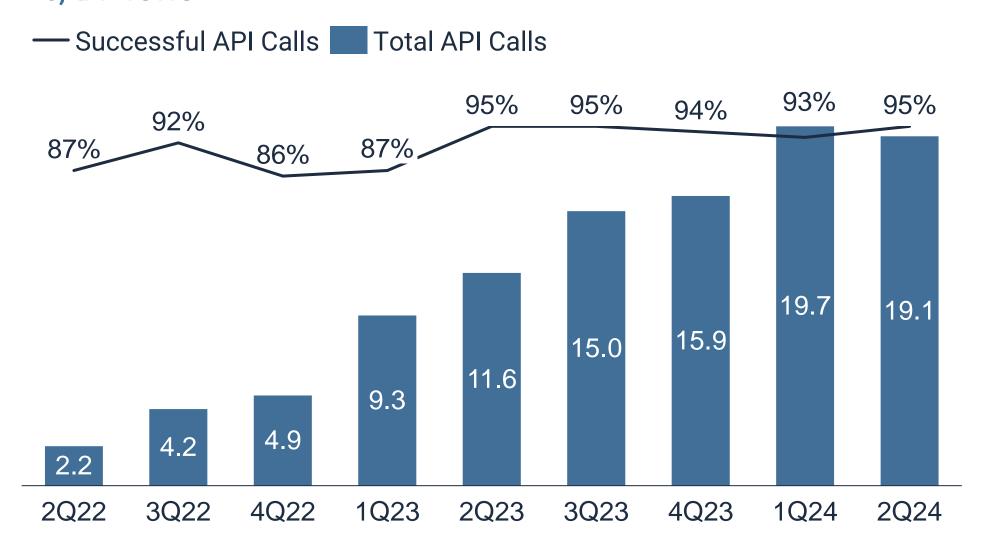
Oct.2023

Phase 4 Data Expansion

Additional customer information can be shared: foreign exchange, accreditation, insurance, investments, and pensions

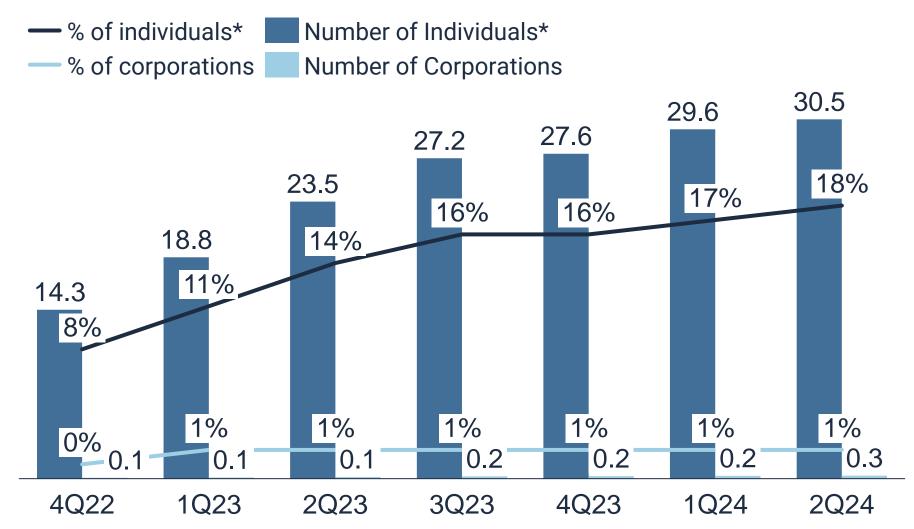
Banking API calls in Brazil¹

%, Billions





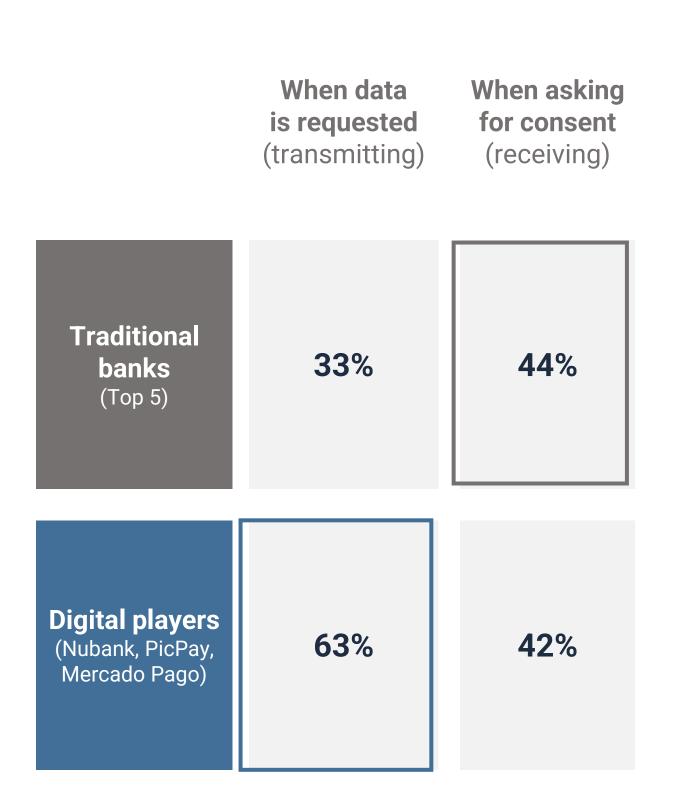
%, millions





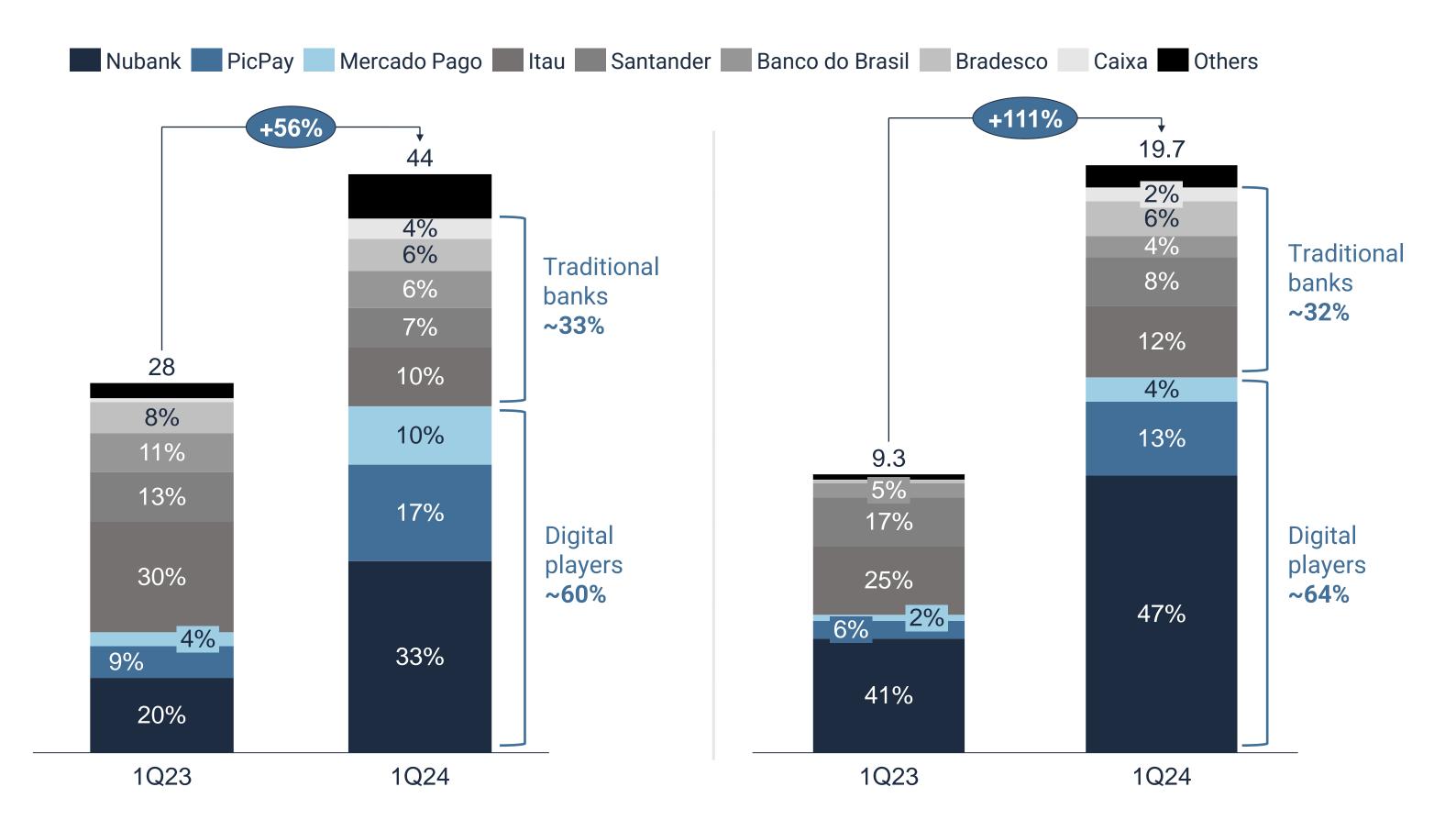
Digital players are adapting faster compared to incumbents, representing the majority of consents and API calls

Consent funnel
March/24, % of approved requests



Active consents by player Millions

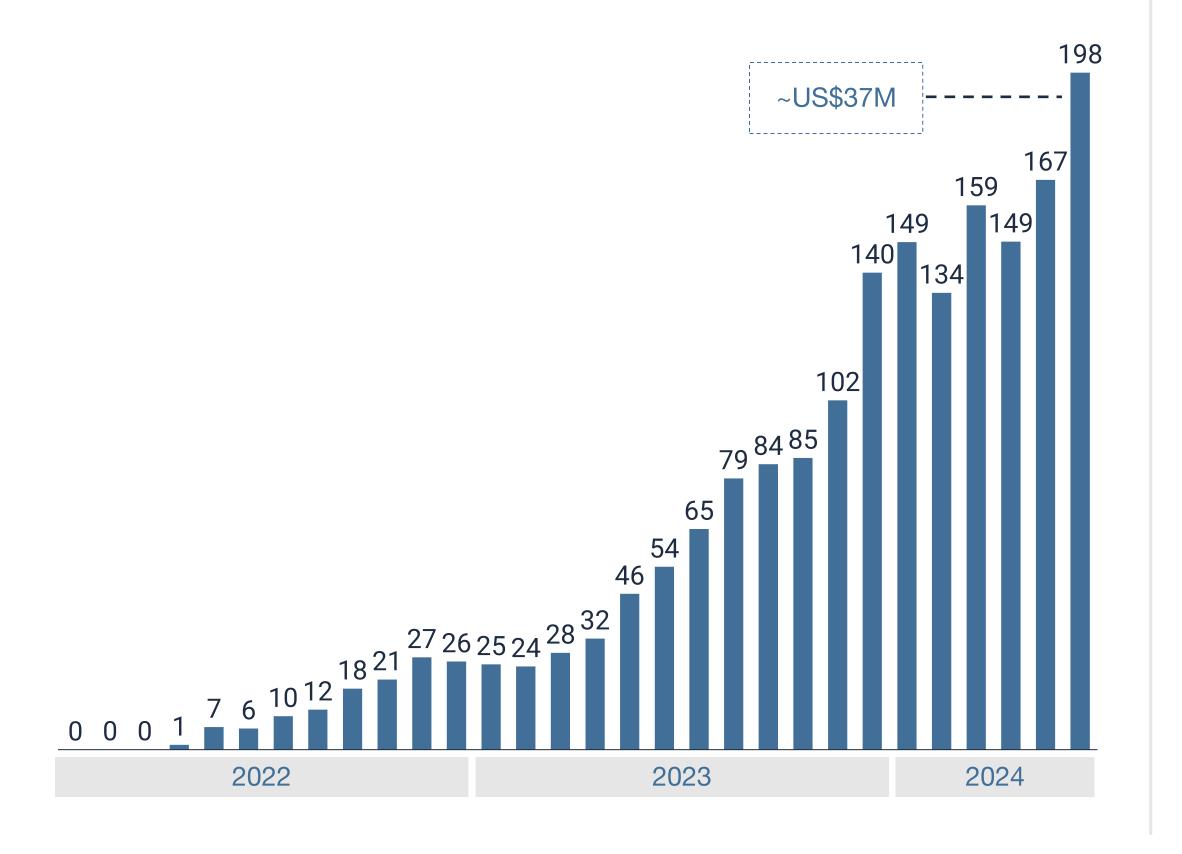
Banking API calls in Brazil by player Billions





The creation of payment initiators offers a clear path for non-financial institutions to leverage the Pix interface

Total Pix volume initiated by payments initiation institution Jan/22 – Aug/24, R\$M



Open Finance payment initiation initiative

Payment initiators currently can...

Execute a single transaction with user consent through **one-time initiation**, primarily used for cash-in on platforms like gaming and e-commerce;

Use a single user consent to schedule up to 60 same-value transactions through **recurrent payments** for up to two years;

Execute multiple transfers within same-ownership accounts through intelligent transfers; users can set tailored rules and integrate with personal finance solutions

- And soon will be able to... --

Perform **batch payments (4Q24)** with a single authorization, enabling users to get multiple cashouts efficiently

Enable users to perform a frictionless journey with **real-time transfers** (1Q25) that can be **tap to pay** and feature **biometric authentication** with specific rules and limits via a verification layer. Resolutions (BCB number 406 and 407) mandate the 13 largest banks to adopt this, enabling full integration

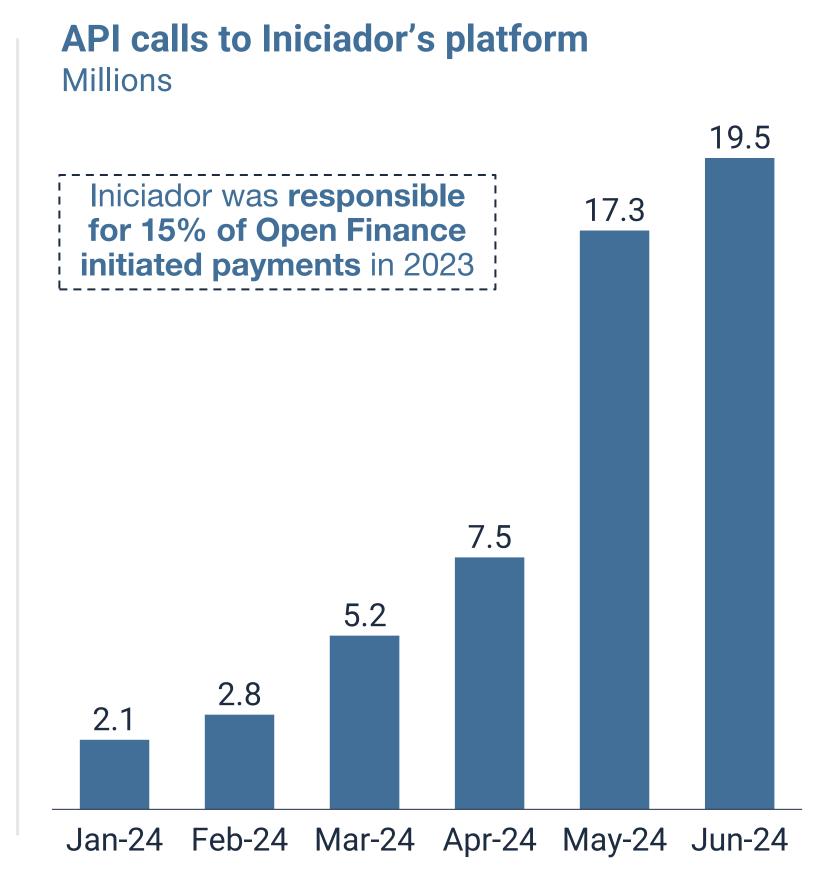


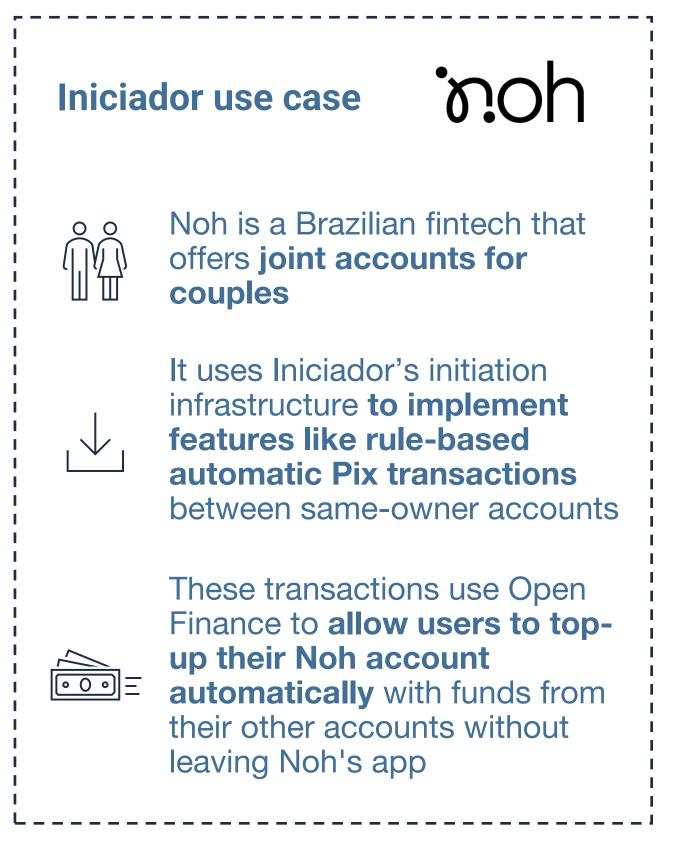
Iniciador is the leading payment initiation infrastructure provider and is enabling new Open Finance-based models



Iniciador is a specialized infrastructure platform for Open Finance that enables Payment Initiation and Data Access. They handle technology integration and compliance for clients, either with Iniciador's license or their own

Payment initiations by institution Jan/23 – Jun/24, Millions 23.1 Nubank 12.7 PicPay 5.7 Bradesco 5.2 Iniciador 5.0 Itaú 2.9 Santander 2.1 Votorantim Mercado Pago Sicredi 0.4







Drex

Brazil's Central Bank Digital Currency (CBDC) and tokenization of financial assets





Brazil's Drex initiative aims to tokenize the economy by bringing efficiency to wholesale financial products

WHAT IS DREX

Drex is the Central Bank's project for the tokenization of the economy: The creation of an institutional blockchain infrastructure to enable the tokenization of financial assets at a national and international level. It includes the creation of Brazil's Central Bank Digital Currency (CBDC)* for organizations and individuals to interact with this system in a seamless, secure and scalable way

DIFFERENT FROM OTHER CBDC'S

IN MISSION

Focus on wholesale versus retail

- Pix increased access to bank accounts and digital payments, serving as a retail payment system
- Drex aims to bring efficiency to other financial products, largely wholesale, including credit

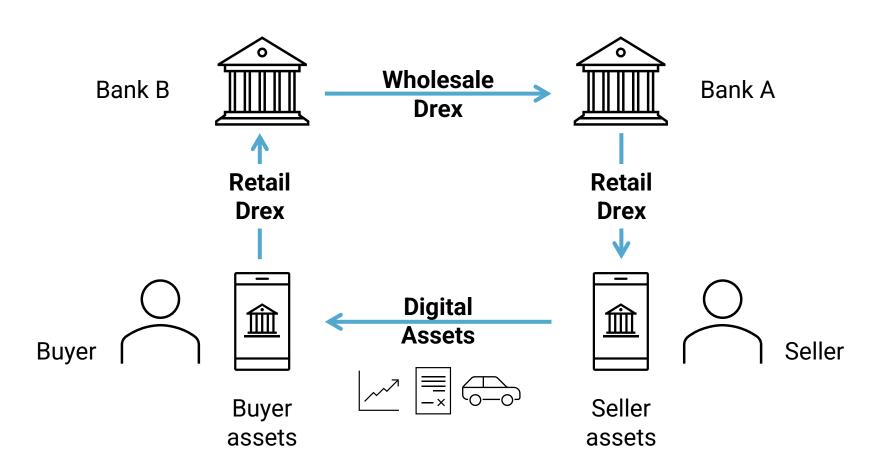
IN TECHNOLGY

100% DLT** and based on deposits

- Solution 100% based on DLT (Digital Ledger Technology), unique for CBDCs worldwide
- Doesn't need new regulation, as it inherits deposits regulation
- Doesn't disintermediate bank balances (no new assets/liabilities in the Central Bank balance sheet)

WHOLESALE VS. RETAIL DREX

Only **financial institutions** will be able to access Drex directly via the Central Bank (**wholesale Drex**); end users will have access to versions **intermediated by banks** (**retail Drex**)



Notes: (*) "Central Bank Digital Currencies" – digital currencies issued, centrally managed, and fully regulated by Central Banks; (**) "Distributed Ledger Technology" is a technology that provides a platform for proposing, validating, and storing transactions in a distributed ledger, which is mirrored across a network formed by various independent devices, eliminating the need for a centralized trusted authority to maintain a "single" copy of the ledger Source: Central Bank of Brazil



The extent to which real-world assets will be tokenized remains to be seen and will be determinant for Drex's impact

PREDICTED BENEFITS

Transparency and programmability

Compatibility with **smart contracts**, making "programmable money" and reducing risks; transparency to banks can also **decrease spread**

More liquid markets

Feasibility of **tokenizing and fragmenting** low-liquidity financial assets, also to use assets as collateral **without the need for liquidation**

Cost reduction

Instant, programmable, flexible, and transparent payment system allows for a leaner operation for financial institutions

User data strategies

The integration of new user data with the Open Banking system

WHAT WILL BE TOKENIZED?



Currency

First to be tokenized, separated into retail and wholesale models



Financial assets

Next to be tokenized. The Central Bank (which regulates financial assets) is creating groups to study the tokenization of financial assets (e.g., bonds, stocks)



Real world assets

Will be tested in the 2nd phase of the pilot. More agents involved, complex custody rules, amongst other challenges (e.g., property, cars)



"If you are planning to buy a car, you might be afraid that you will pay for the asset beforehand, but the seller will not transfer the vehicle's ownership. With Drex, it doesn't matter who makes the first move, because the contract will only be concluded when both occur. Thus, the money and the ownership of the car will be transferred simultaneously. If one of the parties fails to comply with their share of the transaction, both the paid amount and the car return to their respective owners" – Central Bank of Brazil



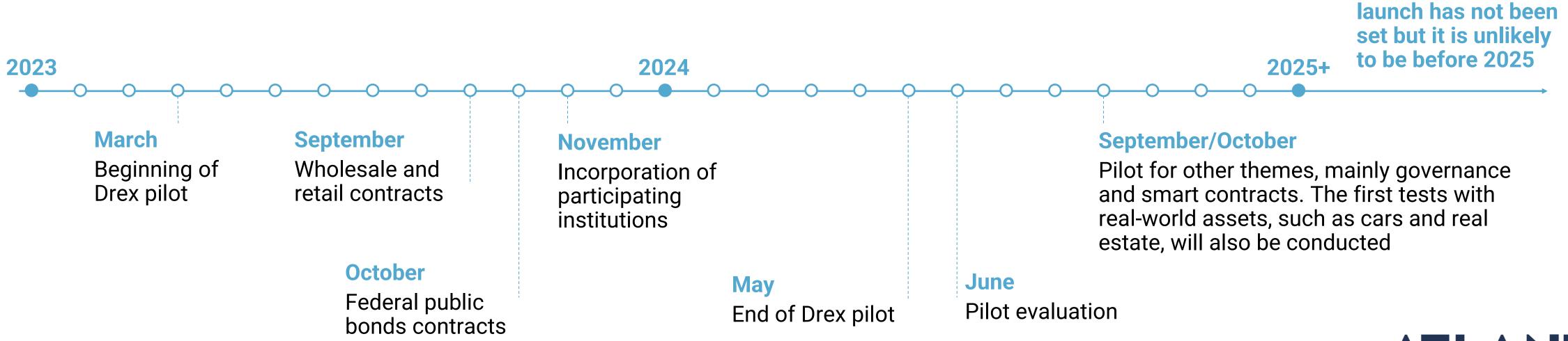
The Drex 2024 pilot is testing infrastructure and its privacy, using federal public bonds; launch is likely to come in 2025

PILOT

TIMELINE

- It is still unclear how to conciliate scalability, decentralization, and privacy in this model
- Pilots are still being conducted to evaluate the infrastructure and privacy of Drex transactions and tokenized deposits in a simulated environment. The first phase of the pilot focused on the tokenization of Federal Public Bonds, where privacy is less relevant
- Three companies are working on solutions, but no decision has been made: **Anonymous Zether, Starlight, and Parchain**. Microsoft is also developing an outside solution which will be evaluated

If Drex is successfully launched, Brazil will have the first digital currency based 100% on Digital Ledger Technology



The date for Drex's

Opportunity Ahead: atop new regulation and infrastructure, innovation in financial services is set to go beyond inclusion



Credit

Following a rise in access to credit, fintechs are ready to expand to new product offerings and customer segments



Wealth

After a decade-long effort to increase access to investments, fintechs now seek to disrupt the status quo



Insurance

As new regulations emerge and consumers become savvier, insurtechs surf a new era of adoption and product innovation



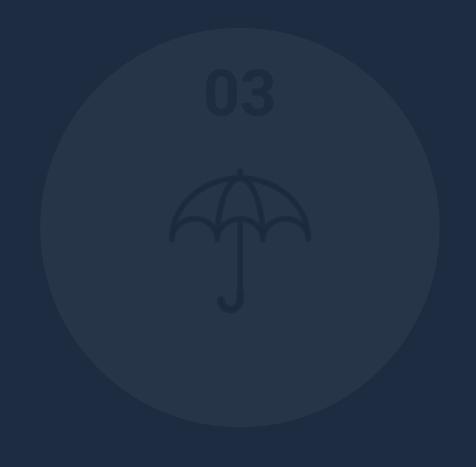


Credit

Following a rise in access to credit, fintechs are ready to expand to new product offerings and customer segments







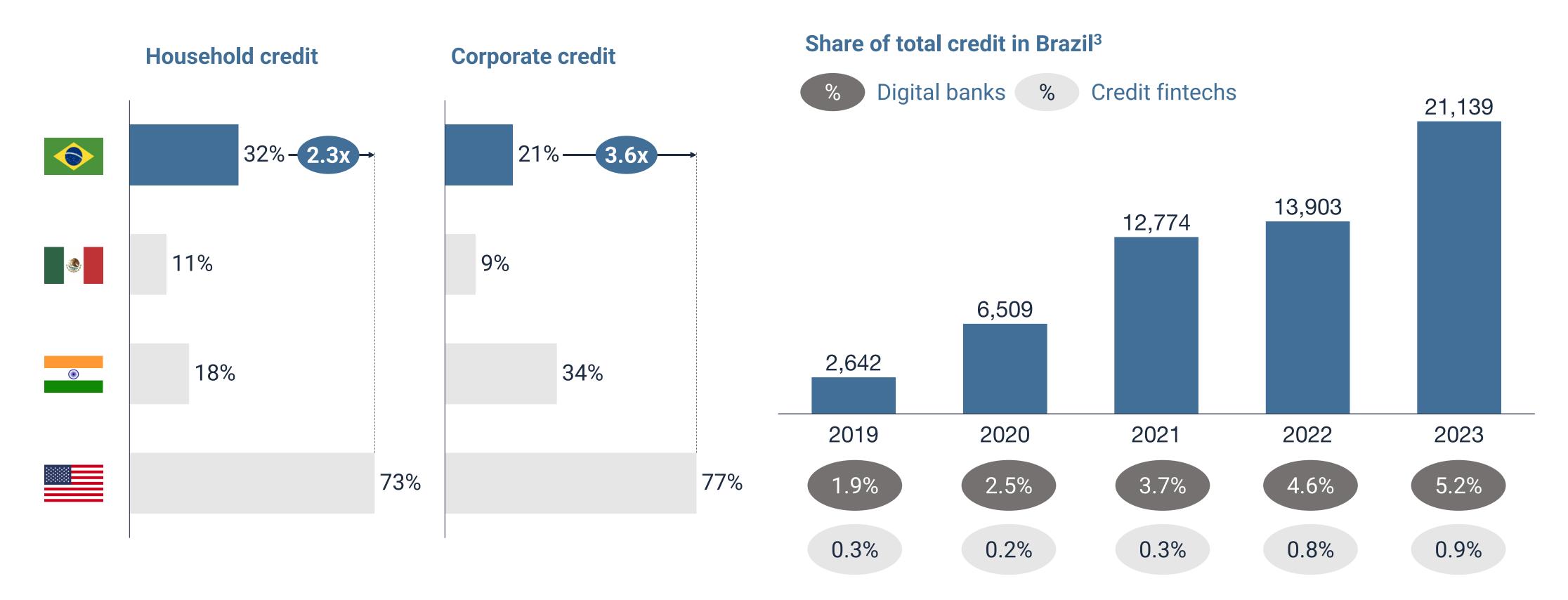
As new regulations emerge and consumers become savvier, nsurtechs surf a new era of adoption and product innovation



Despite recent growth, credit fintechs remain a small piece of the market and have plenty of room for expansion

Household and corporate credit penetration in Brazil¹ 2023, % of GDP

Total credit volume granted by credit fintechs* in Brazil² R\$M



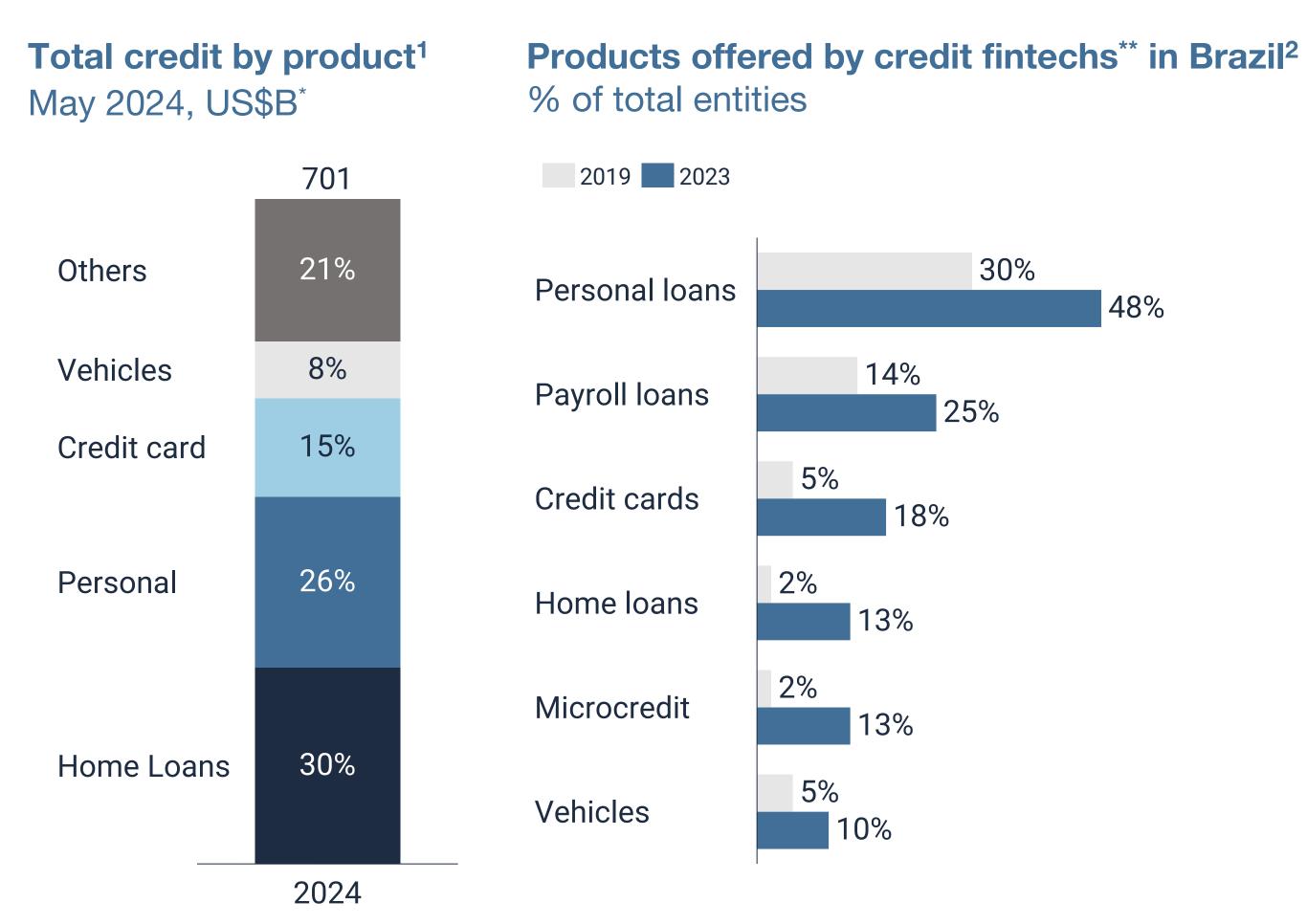
Notes: (*) Credit fintechs presented in the ABCD and PwC study encompass 40 digital credit companies in a mix of direct credit societies, payment institutions, societies of loans between people, and banking representatives

Sources: (1) Central Bank of Brazil, Banco de Mexico, Reserve Bank of India, US Federal Reserve; (2) PwC "Digital Credit Fintechs Survey 2024" for ABCD; (3) Central Bank of Brazil "Banking economics report 2022";

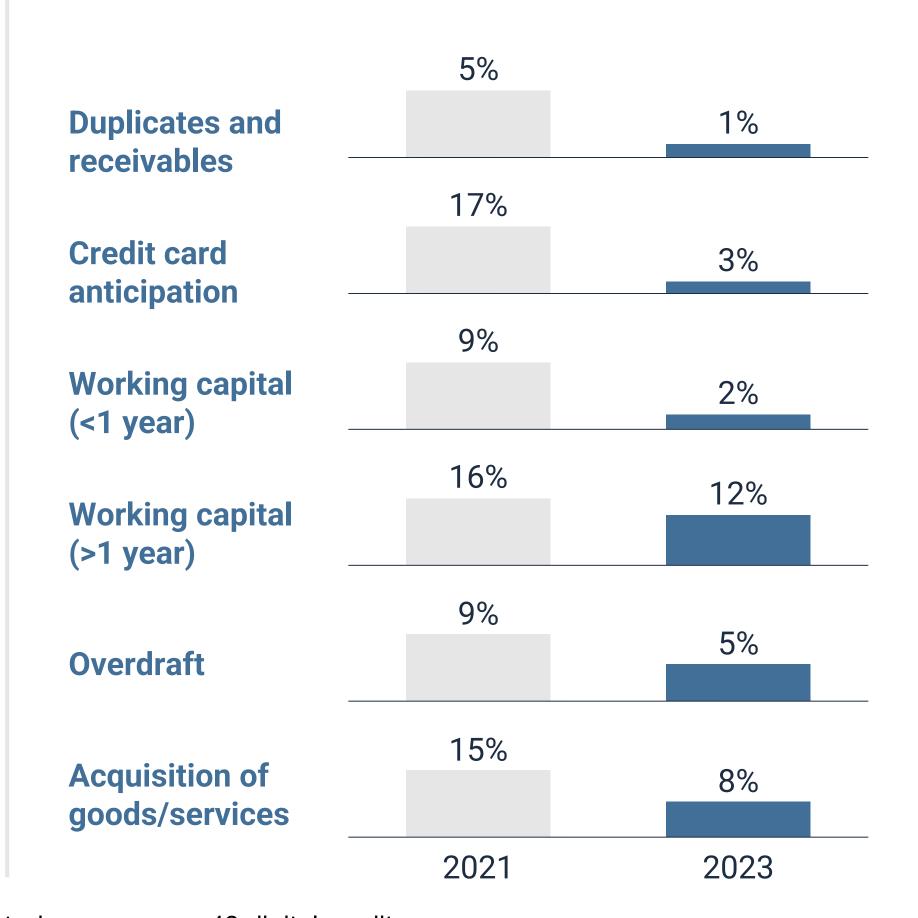




Credit fintechs are expanding beyond their core offerings, all while reducing delinquencies across categories



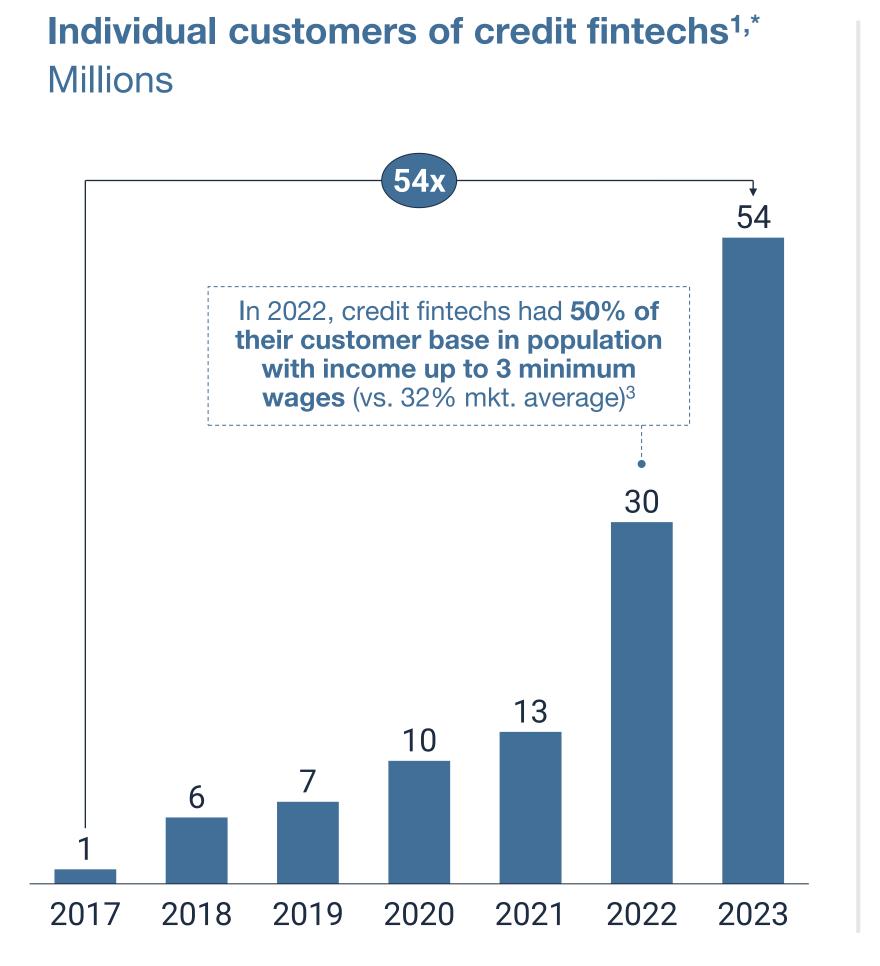


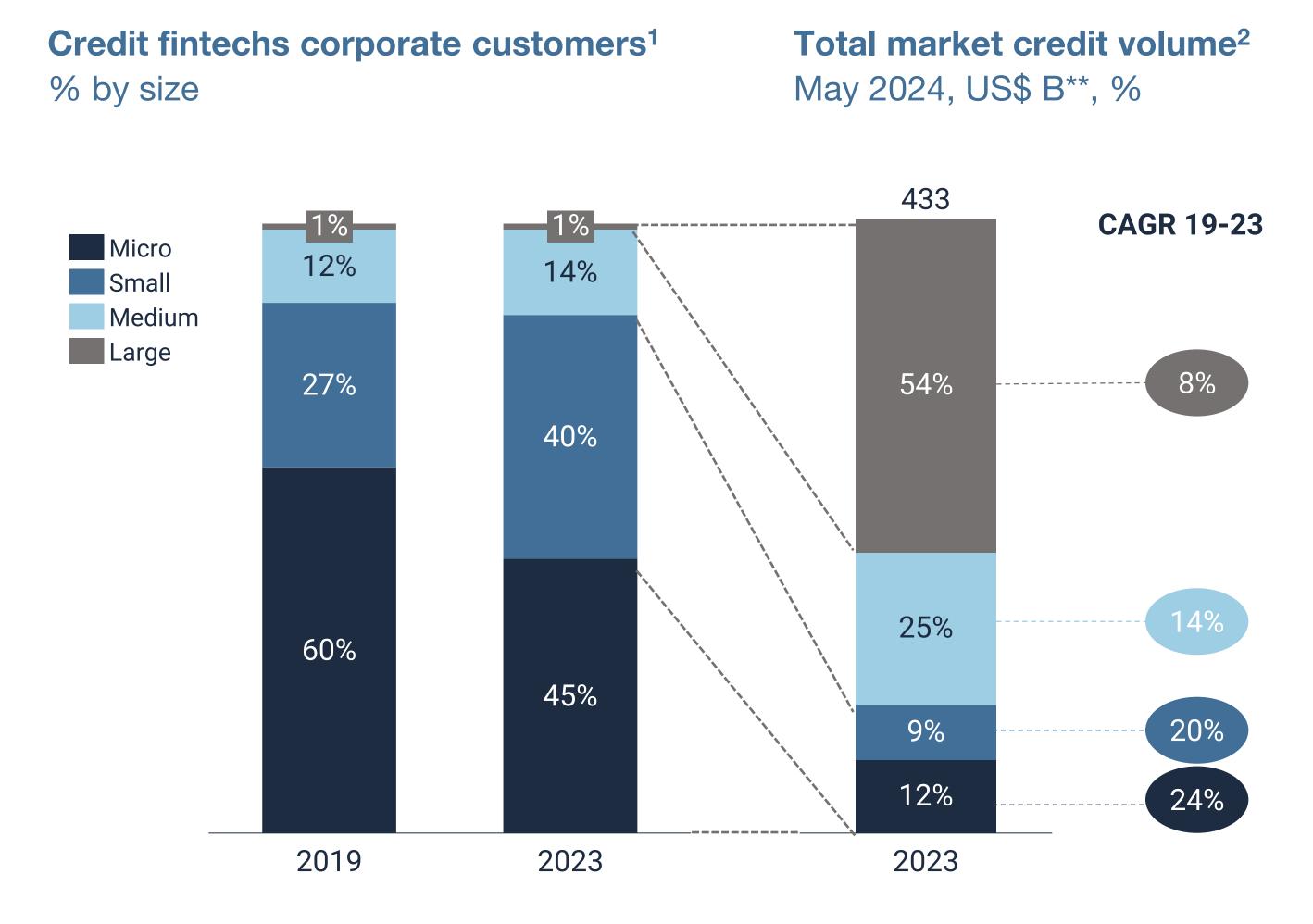


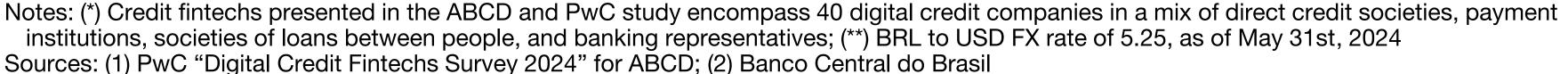




Credit fintechs continue to diversify across segments, growing in presence in lower income and smaller businesses





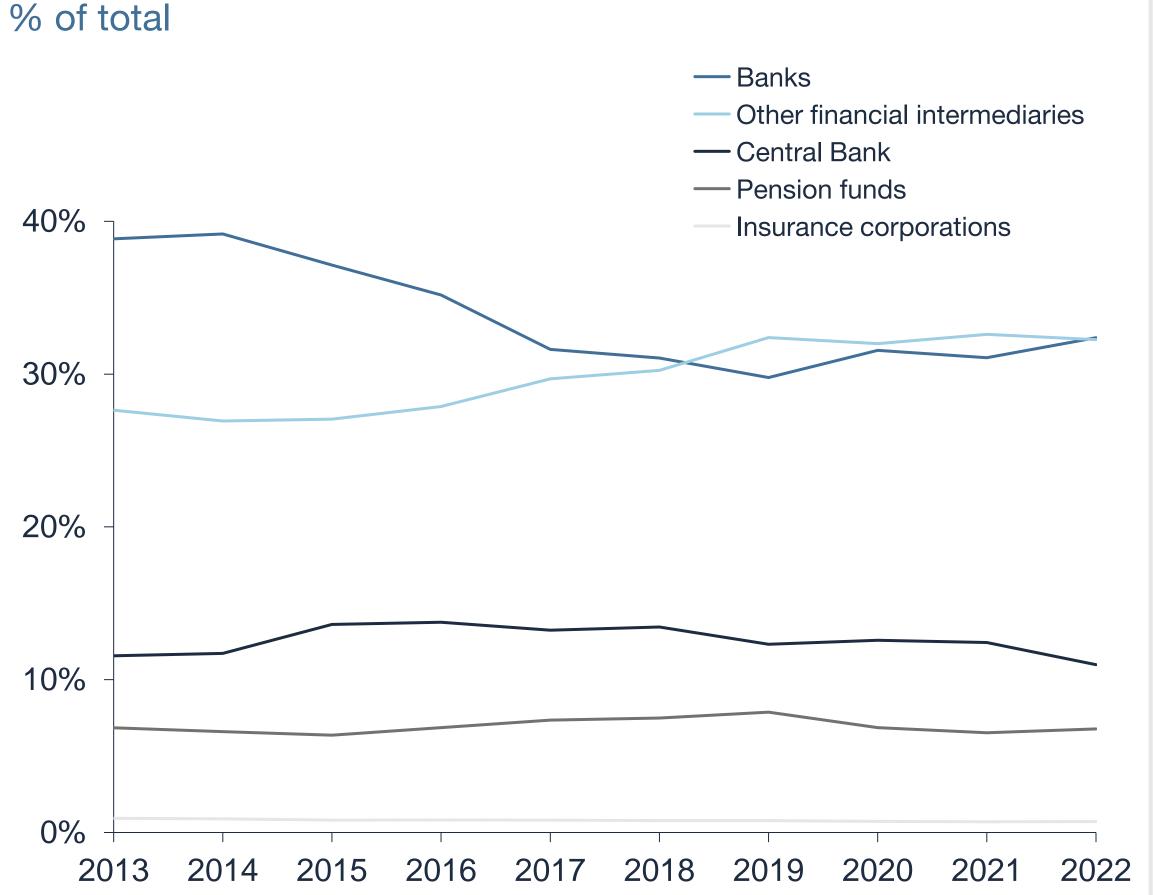




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Brazil has seen a spike in financial assets growing outside banks' balance sheets, enabled by 3 key drivers

Share of total national financial assets by jurisdiction¹



Key factors driving the growth of other financial intermediaries



Origination of assets: Credit origination is moving beyond banks, with fintechs, embedded finance, and non-bank institutions turning future cash flows into securitized financial assets



Supply of capital: Brazil has ample domestic capital, with savings and appetite for private credit. Asset managers, banks' private banking and asset management division, multi-family offices and even retail investors are fueling liquidity outside the banking system



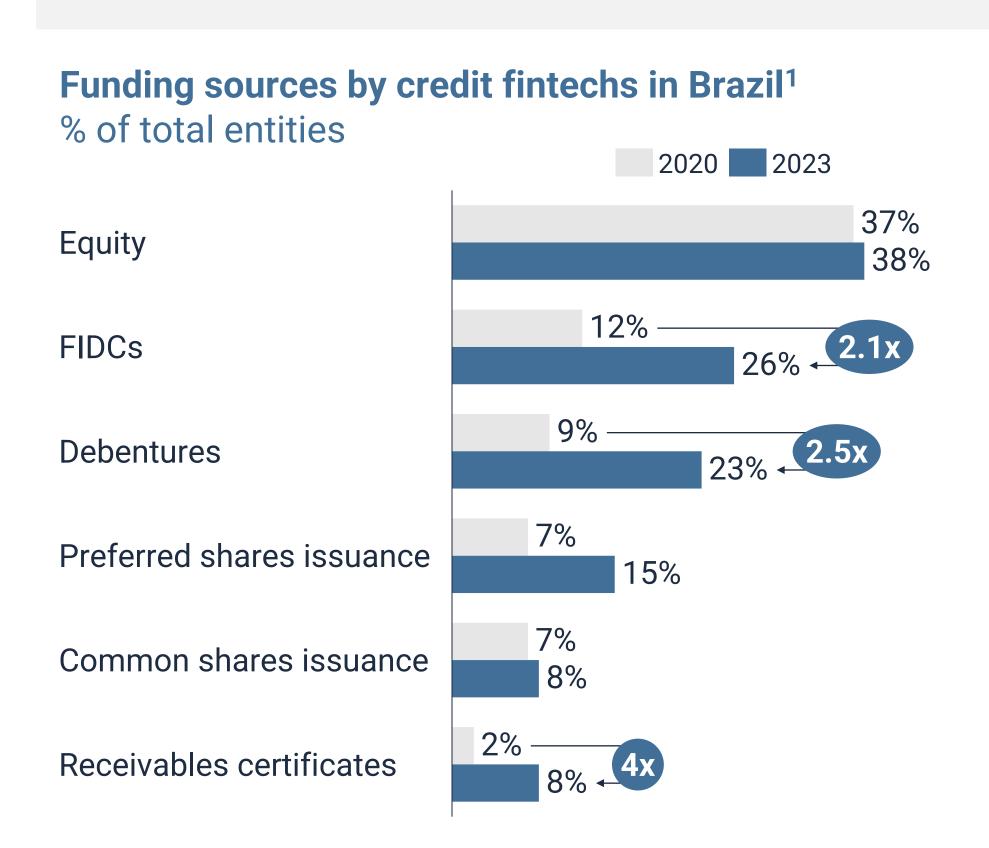
Regulatory environment: Brazil benefits from regulators promoting innovation in technology, infrastructure, and regulation. This innovation push comes along with a robust, transparent, and safe framework

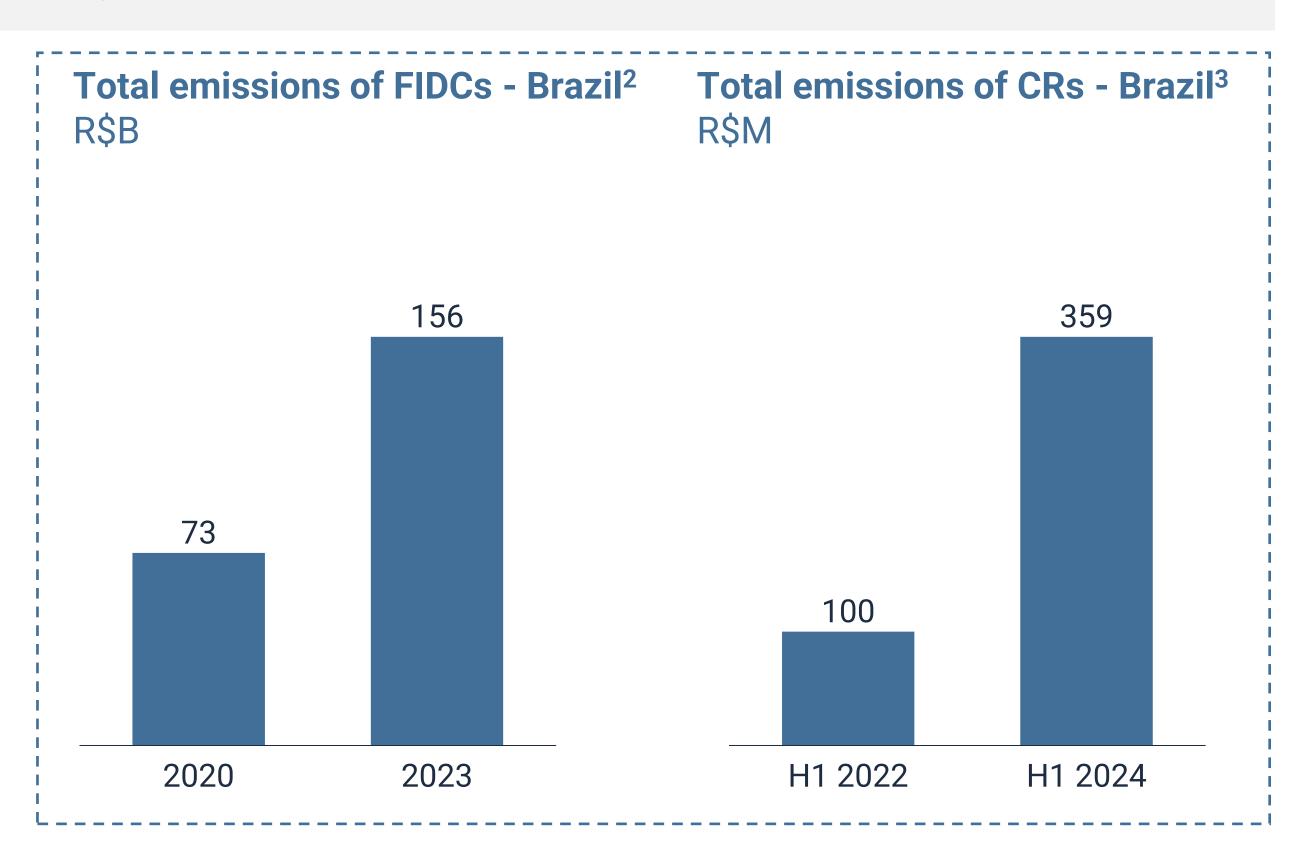




Credit fintechs are using lending facilities for capital, reducing need for equity fundraising for financing

Two key credit vehicles in Brazil's funding ecosystem are FIDCs and CRs. FIDCs are funds that pool credit receivables from various sectors (e.g., commerce, finance). CRs, created in 2022, are securitized investments backed by receivables. Both offer direct exposure to the cash flows of these assets.









Kanastra provides tech infrastructure for securitized assets, a key enabler of credit funds and fintechs



Kanastra provides tech-driven backoffice, combining all licenses and proprietary tech for private assets management. It offers software and fiduciary services, plus banking products for credit operations

Industry pain points



Fragmented business model



Low data quality and availability



Lack of proprietary technology

Kanastra's solution



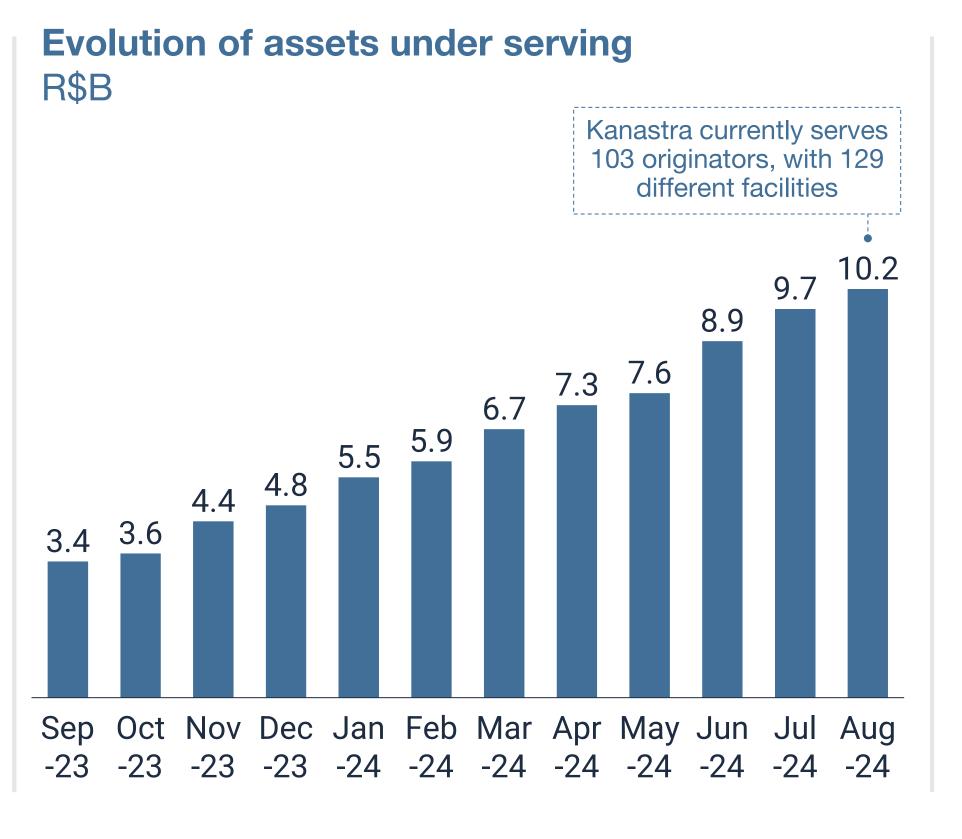
Integrated, verticalized services



Focus on data and analytics



Proprietary software



Kanastra's product offering



Fund services: fund management, administration, and custody (FIDCs, FIFs, FIPs)

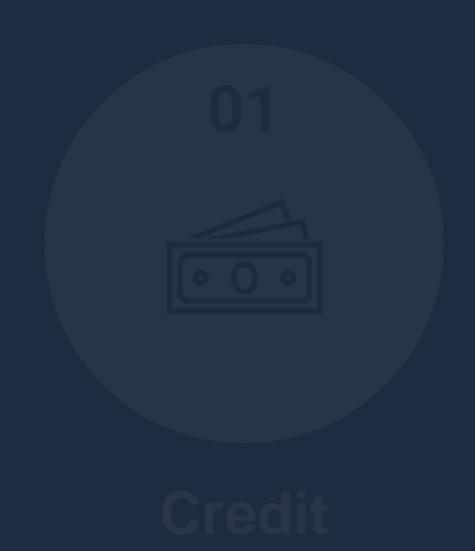


Securitization services: issuance, bookkeeping, backup servicing (CRI, CRA, CR, debentures)



Banking services: CCB, commercial notes, escrow accounts, payments

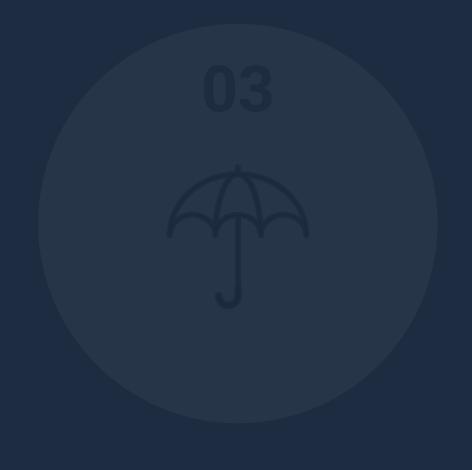




Following a rise in access to credit, fintechs are ready to expand to new product offerings and customer segments



After a decade-long effort to increase access to investments, fintechs now seek to disrupt the status quo

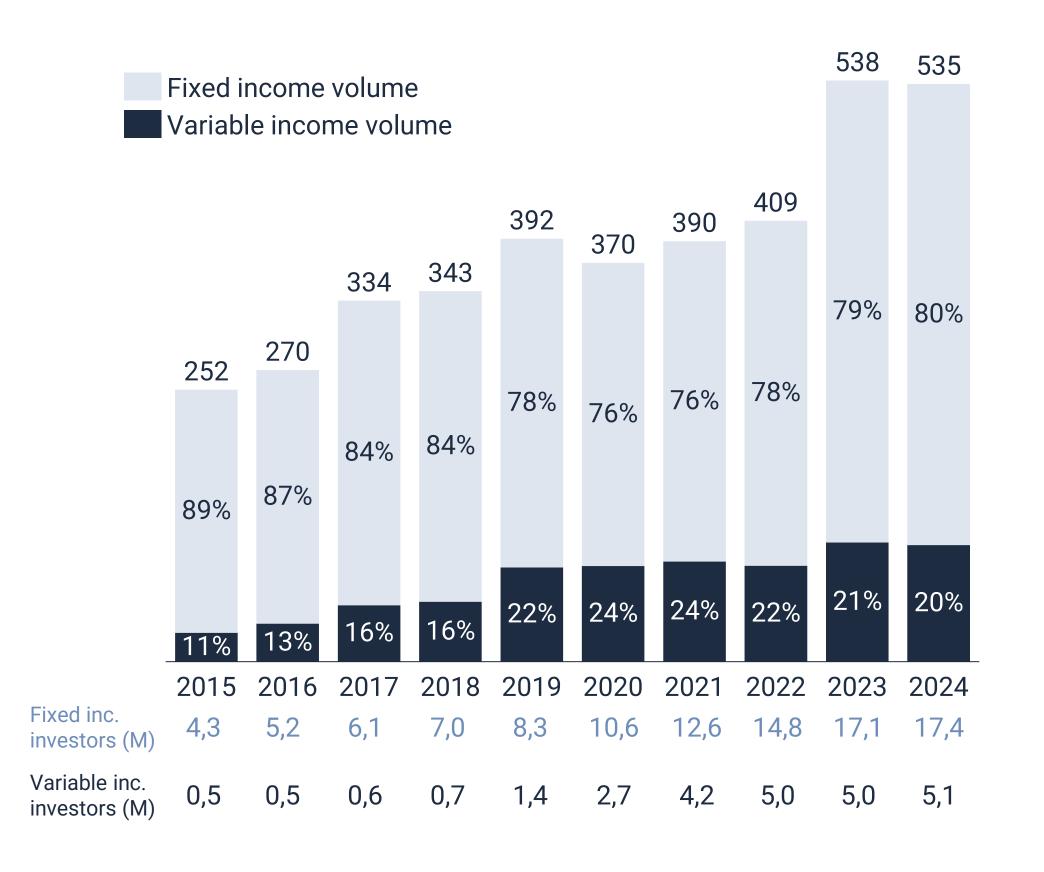


As new regulations emerge and consumers become savvier, nsurtechs surf a new era of adoption and product innovation

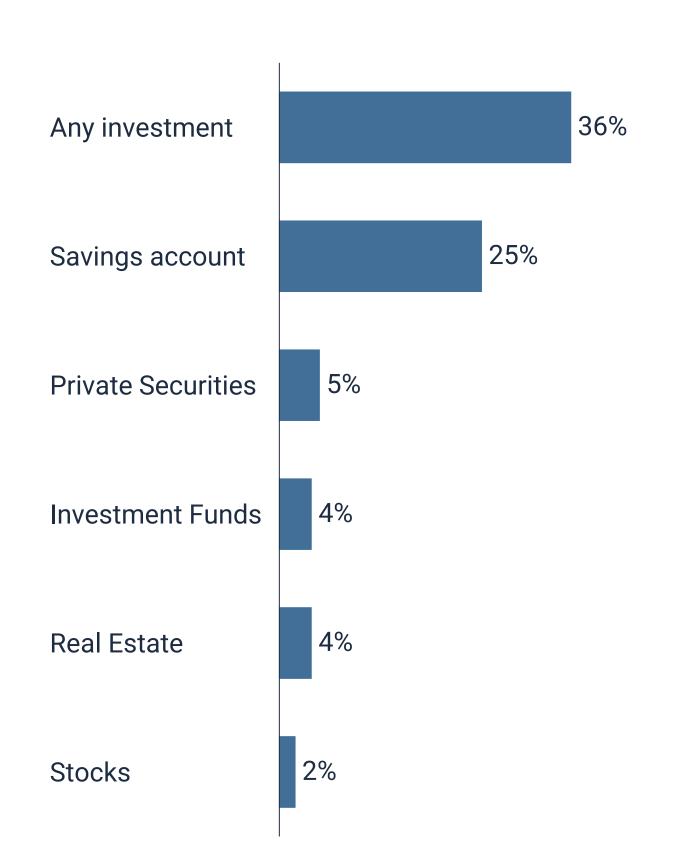


While the number of individual investors surged, overall penetration is low and there is still plenty of room for growth

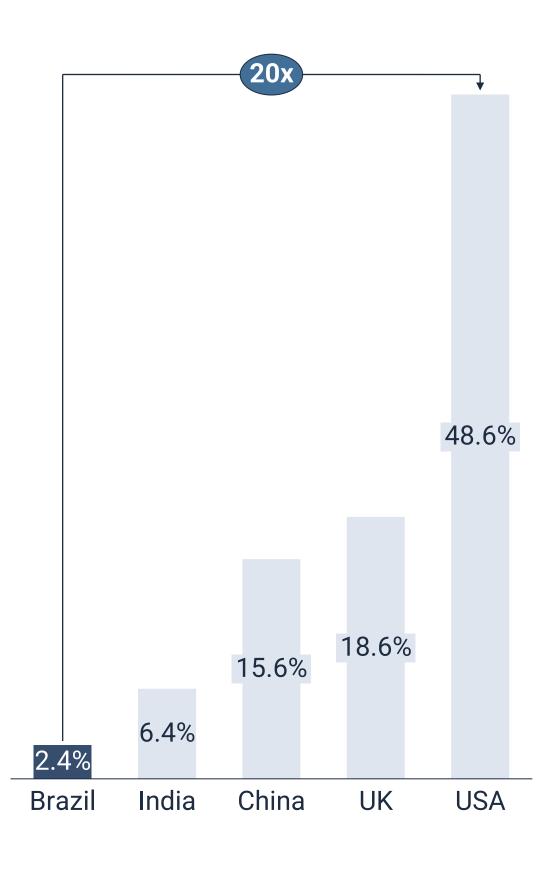
Individual investors market evolution¹ US\$B*



Investment products penetration² 2023, % of total population



Stock market penetration³ 2024, % of total population

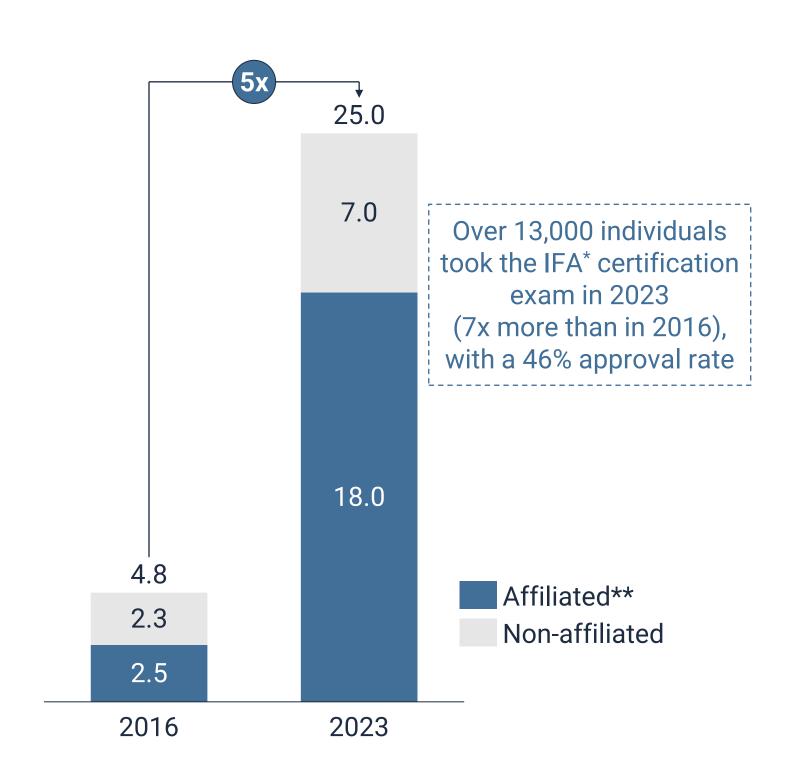




While advisors popularized a novel way of investing, banks are still retaining most of Brazilian investors

Independent Financial Advisors' evolution¹

Thousands of certified IFAs* in Brazil



Challenges of the Advisory Model



Increasing competition among advisors, with growing test participation and approval rates



Potential client misalignment

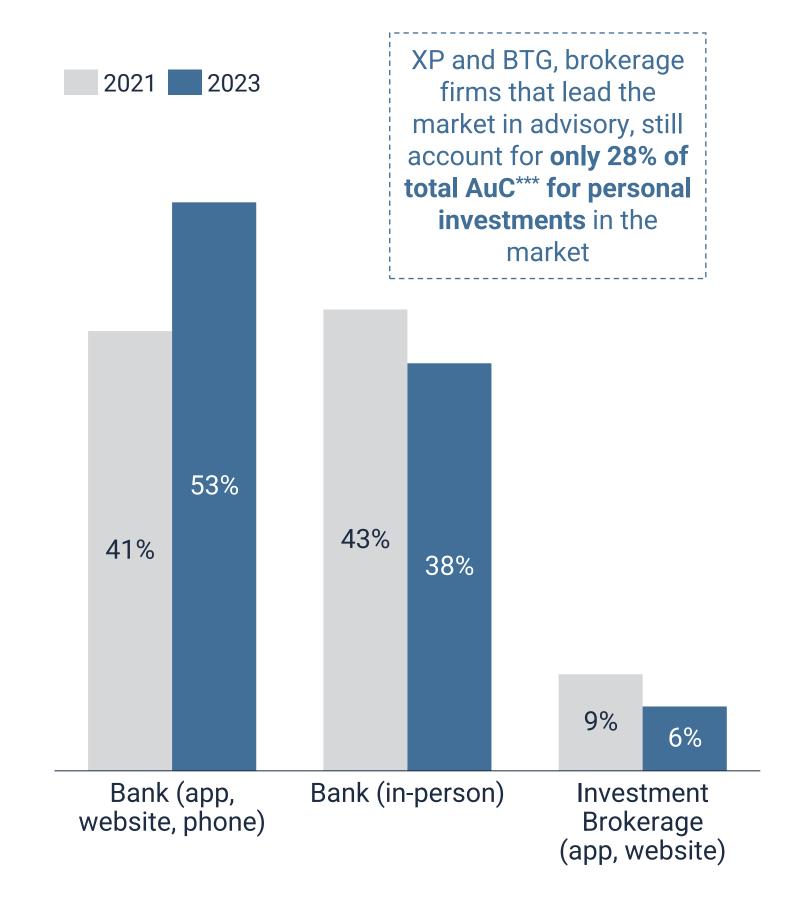
due to commission-based structure, as advisors may push higher-commission products and rotate portfolios more often as they earn on every trade

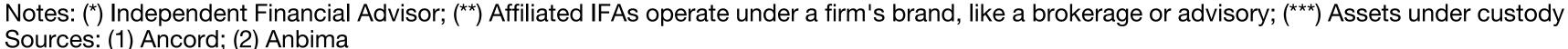


Retail advisors focus on client acquisition to rapidly advance to high-income/private segments and earn more, leading to frequent changes in the advisors supporting clients

Preferred channels for investing in Brazil²

% of population that invests







Reinvent is empowering their investment advisors with AI, boosting productivity while delivering superior client support

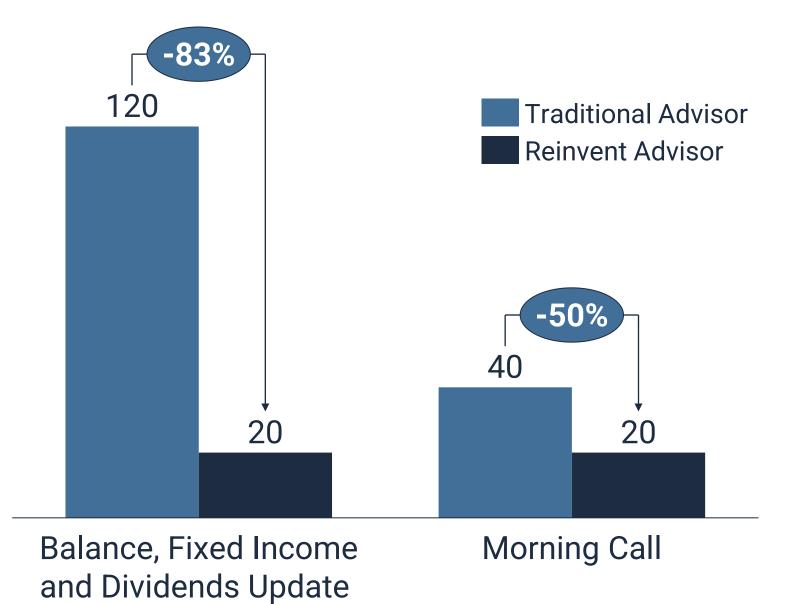


Reinvent is an **Al-enabled investment advisory firm**. They use Al-supported human advisory to offer **hyper-customized services**, with a fixed fee model that better aligns incentives between advisors and clients

Reinvent's AI copilot captures and leverages market and client data to enhance human advisors' efficiency

Daily time spent per activity

Minutes



Not only are advisors experiencing boosted productivity...



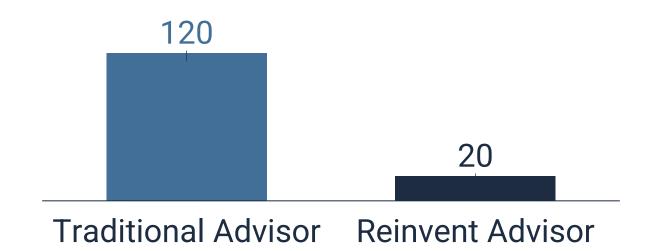
3.5 Hours saved per day, per advisor



108% increased capacity to have more clients

Client onboarding demand

Minutes spent in call



...but clients are also enjoying enhanced satisfaction



95 Net Promoter Score



80% of clients feel closer due to frequent market communications



87% of clients feel peace of mind entrusting their investments to Reinvent

Despite excellent results of human +
Al services, 67% of Reinvent investors
say they wouldn't feel comfortable
interacting solely with Al



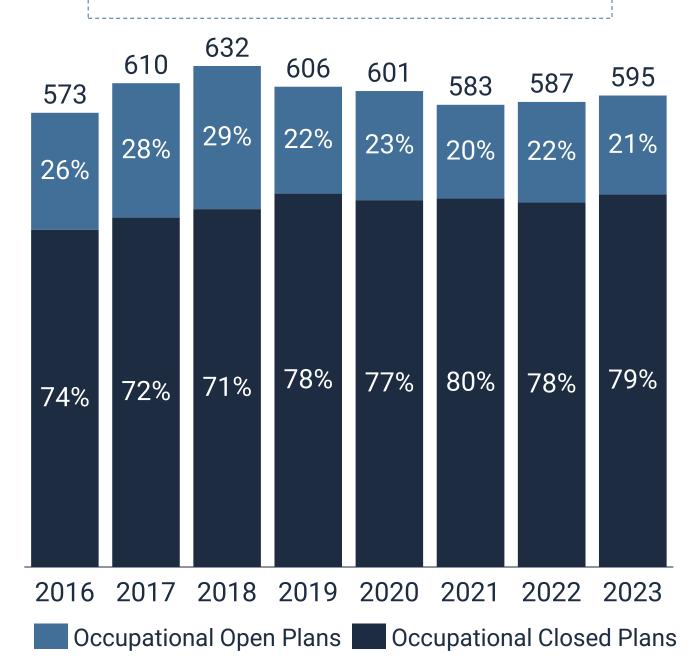


Despite stagnant private pension growth in recent years, structural tailwinds could trigger acceleration

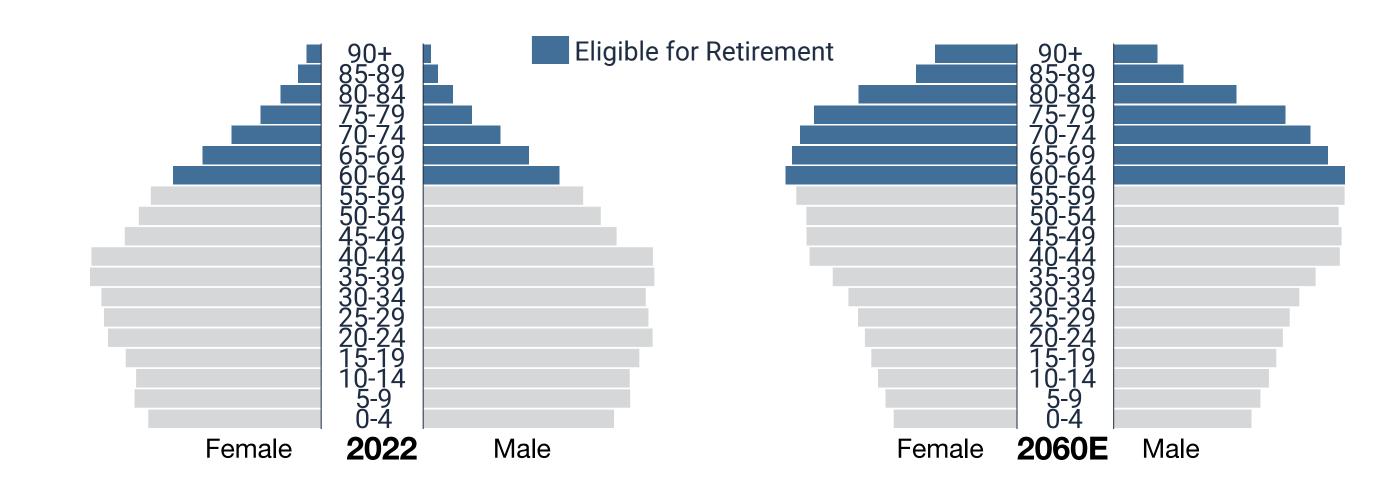
Real private pension plans evolution¹

Assets under Management (in 2023 prices)*, R\$B

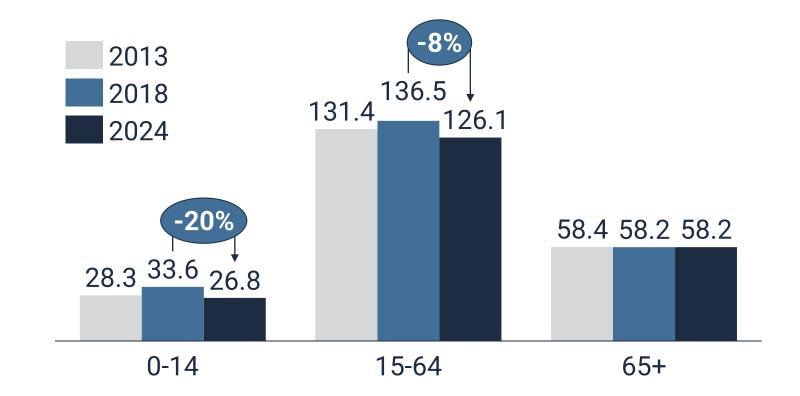
With only 30% of Brazilians managing to save money in 2023² (33% in 2017), pension building has been facing a penetration challenge in recent years



The population is not only aging, but at a faster rate than previously expected³



Revision of IBGE 2060 population estimates² Millions



As a major way to tackle the challenges of an aging population, Brazil's 2019 pension reform has the potential to significantly boost pension fund volumes by extending working years, increasing contributions, and encouraging higher long-term savings





Onze unlocks demand for private corporate pension plans, increasing enrollment and satisfaction via a digital solution



Onze provides private pensions plans as a corporate benefit for mid to enterprise clients in Brazil. They integrate their solution with HR and payroll systems, improving the experience for CFOs, HR managers and employees

Onze is targeting a massive market with historically very little innovation



Over R\$1T in corporate pension AUM, with room for higher penetration given benchmarks



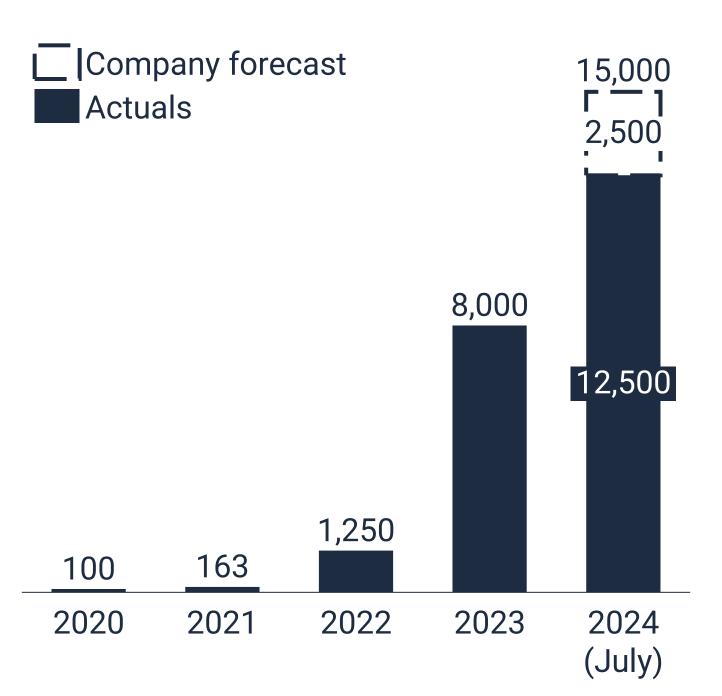
Large incumbents hold more than 90% of the market but lack modern technology and innovation



HR struggles to manage current solutions, and employees lack understanding and engagement

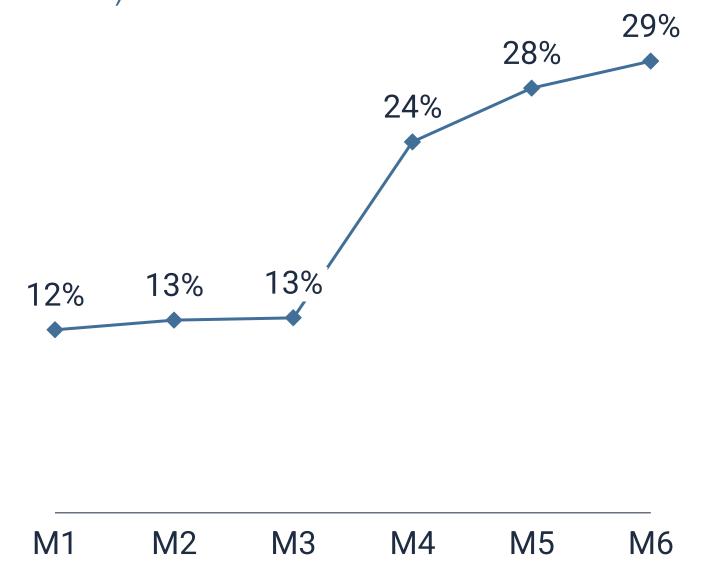
AUM growth since commercial launch

Indexed 2020 = 100, cumulative YoY

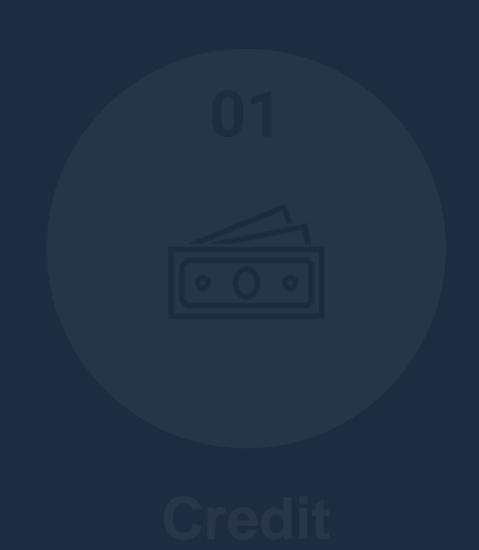


Growth in employee enrollments in companies after migrating to Onze

(increase in employee enrollment months after launch)







Following a rise in access to credit, fintechs are ready to expand to new product offerings



After a decade-long effort to increase access to investments, fintechs now seek to disrupt the status quo



Insurance

As new regulations emerge and consumers become savvier, insurtechs surf a new era of adoption and product innovation





Positive structural changes increase total premiums sold while also strengthening the distribution ecosystem

Since 2019 Brazil's Insurance Regulator: SUSEP has adopted multiple measures¹ to:



Reduce bureaucracy: lowered state interference, simplified legal directives, implemented electronic systems, reduced document storage requirements



Lower barriers to entry: flexibilized reinsurance activities, reduced taxes, and allowed debt instruments to be issued based on reinsurance risk



Facilitate new types of insurance: allowed for insurance on-demand with flexible contract length and ability to activate/deactivate coverage in real-time

Including initiatives that encouraged startup progress:



Open Insurance: Robust framework facilitating data-sharing between users and across multiple platforms or institutions



Regulatory Sandbox: Sponsored environment for prototyping and refining technological products in the insurance space with facilitated approval

Total New Broker Registries²*

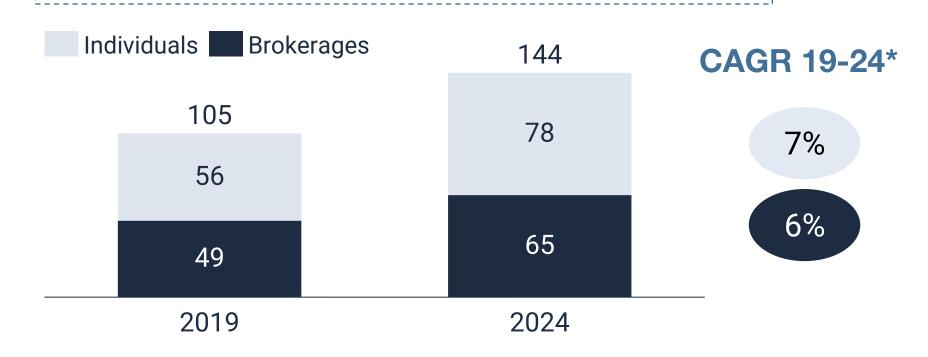
Thousands



Registered Insurance Brokers²

2019-2024, thousands

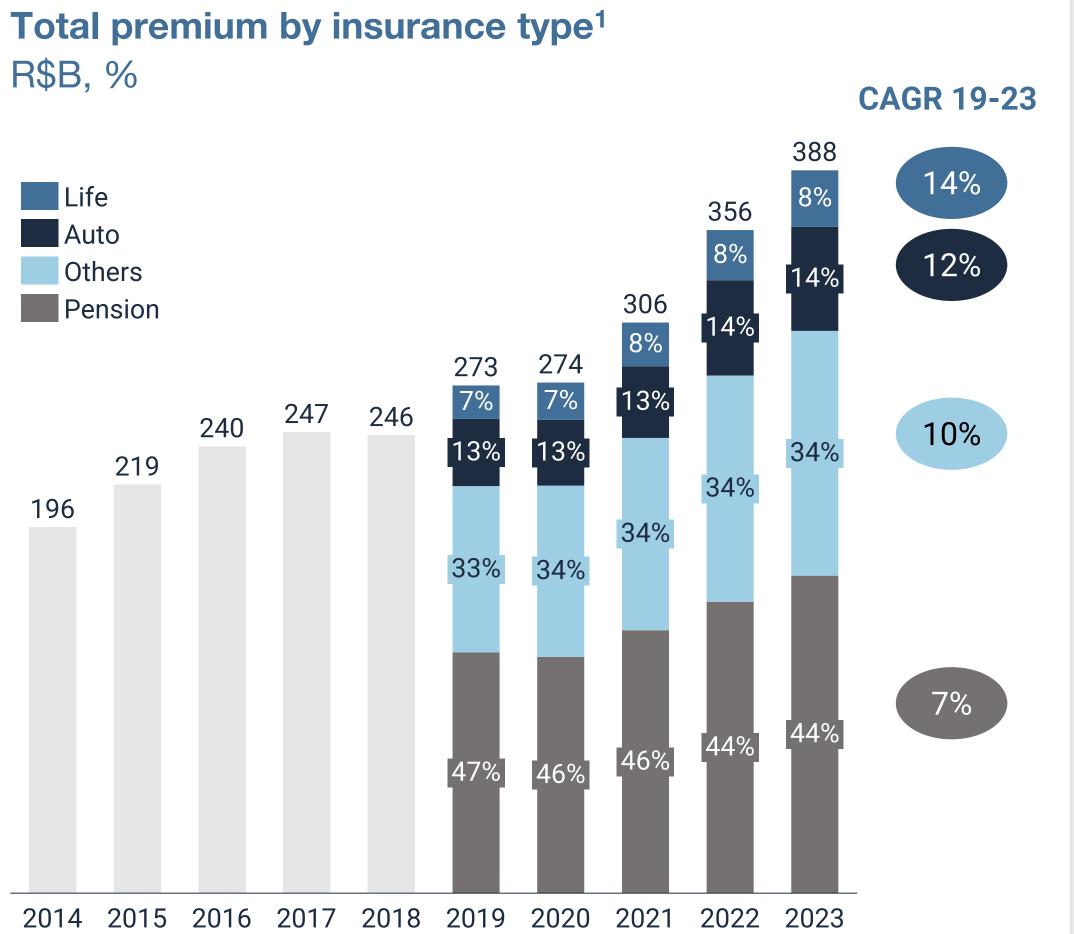
Decentralized sales network: 80% of total insurance premiums in Brazil are distributed through insurance brokers

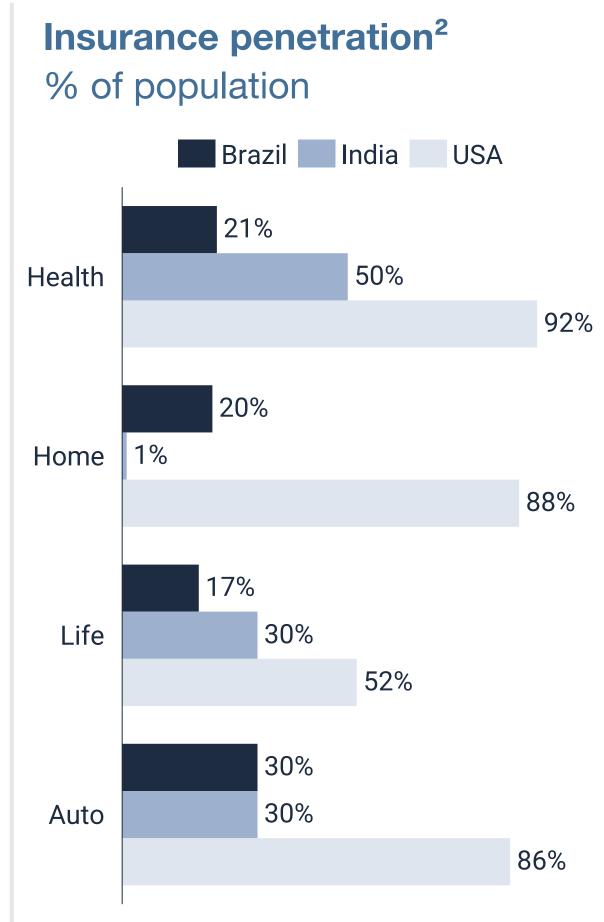


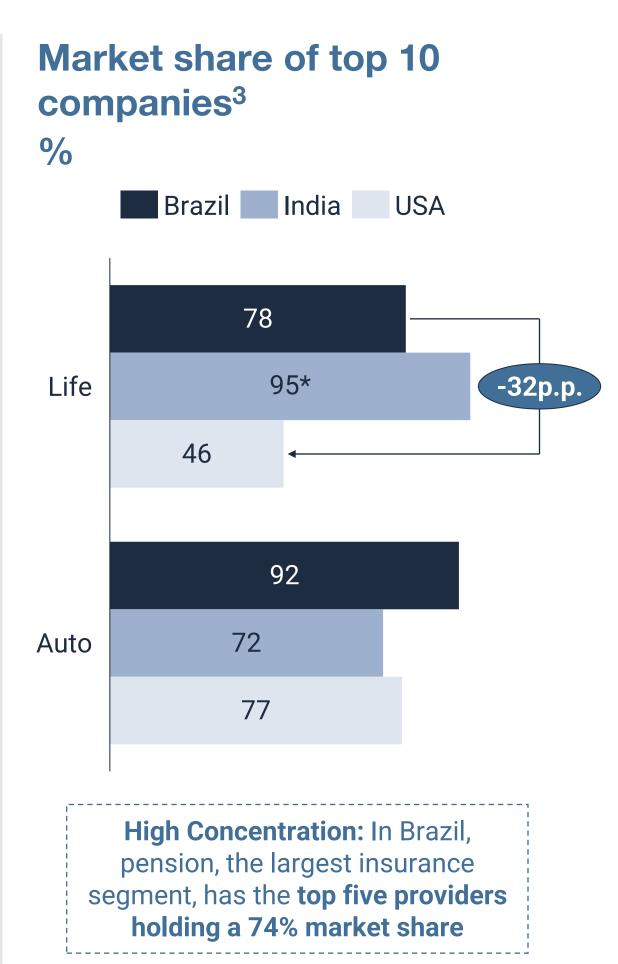




Brazil's insurance market has seen substantial growth in premiums sold, yet it holds potential for further expansion









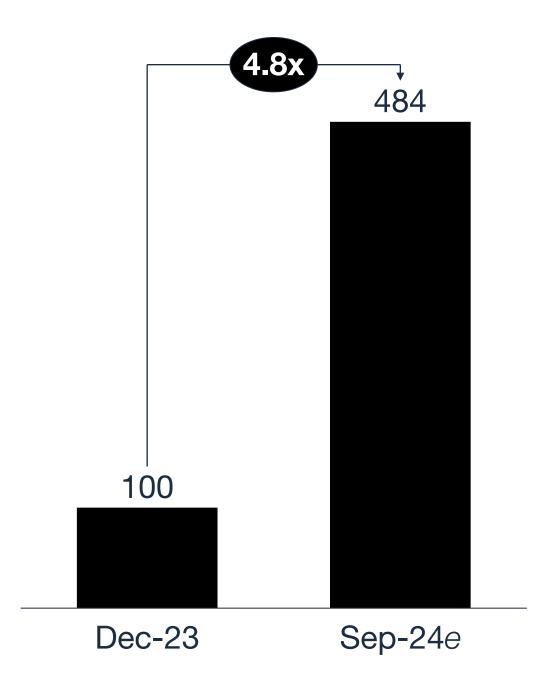
180 Insurance is working to close the insurance penetration gap by enabling broader and more efficient distribution



180 Insurance is a full-stack insurance-as-a-service provider in Brazil. They allow companies in multiple sectors to extend customizable insurance products, like extended warranties, residential insurance, and credit protections

180 Gross Written Premiums

Indexed Dec-23 = 100



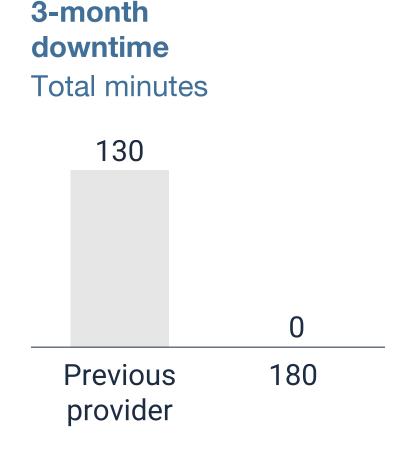
180 Case Studies

Open Co offers credit for individuals* and SMBs

Loan insurance allows Open Co to improve experience while benefitting from better credit risk and profitability

Previous provider suffered from data inconsistency, high downtimes, and slow API responses, leading to loss of sales, higher costs, and a degraded customer experience

Insurance sales conversion uplift Indexed 100 243 100 180 Previous (1st month) provider



CredPago facilitates rentals with no guarantor

Offering residencial insurance makes CredPago's sales more convenient while increasing revenue and retention

Incumbents offer restrictive, off-the-shelf products, plus poor analytics and reconciliation. This hindered CredPago's scaling efforts in the past, negatively impacting operations.





Insurance sales partner growth since migration Total agencies, base 100

CredPa





Note: (*) Data refers to individual loan insurance Source: 180 Seguros internal data



The New Face of Fraud

With great power comes great responsibility. The advent of digital payments and new technology have given fraud a new face.

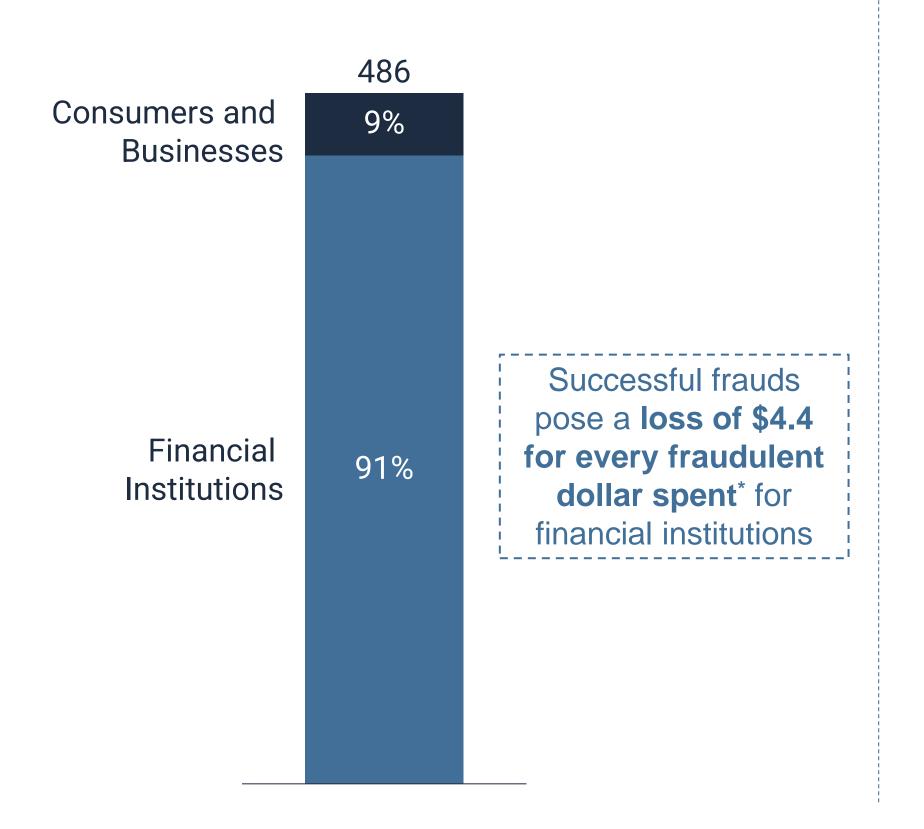
In Latin America, the problem is particularly striking, as companies grapple not only with loss of revenue but also heightened costs and regulatory scrutiny.

The urgency has spurred new and creative solutions, bound to change the way companies in the region approach compliance and fraud today.



As fraud volumes skyrocket globally, prevention becomes core to consumers, businesses, and financial institutions

Global loss to fraud by bearer of cost¹ 2023, US\$B



Definition and growth of consumer fraud by fraud type² 2023 vs. 2019, Volume growth multiple

Consumer Fraud** is especially relevant and happens in three core ways:



Payments and Financial Fraud Stolen or cloned payment methods; Money laundering





Identity Fraud:

Use of stolen/falsified documents; false claim of stolen identity

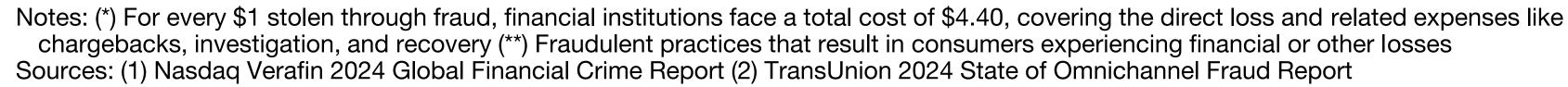




Information Fraud:

Providing false information; concealing real information





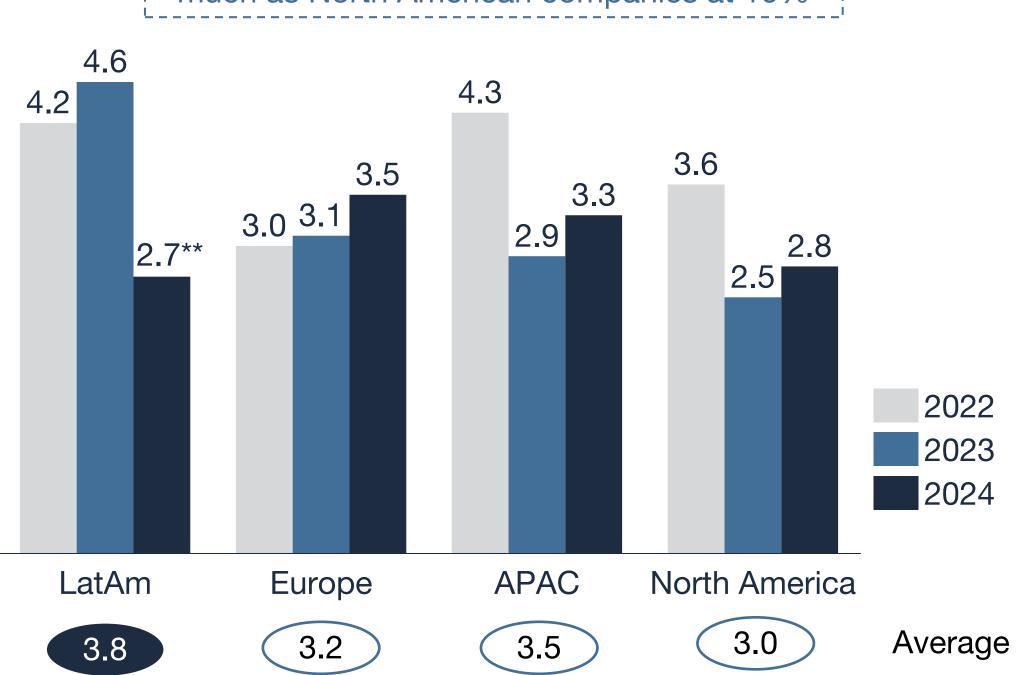


The fraud problem in Latin America is particularly striking, as the region ranks highly in key fraud indicators

Lost e-commerce revenue from fraud¹

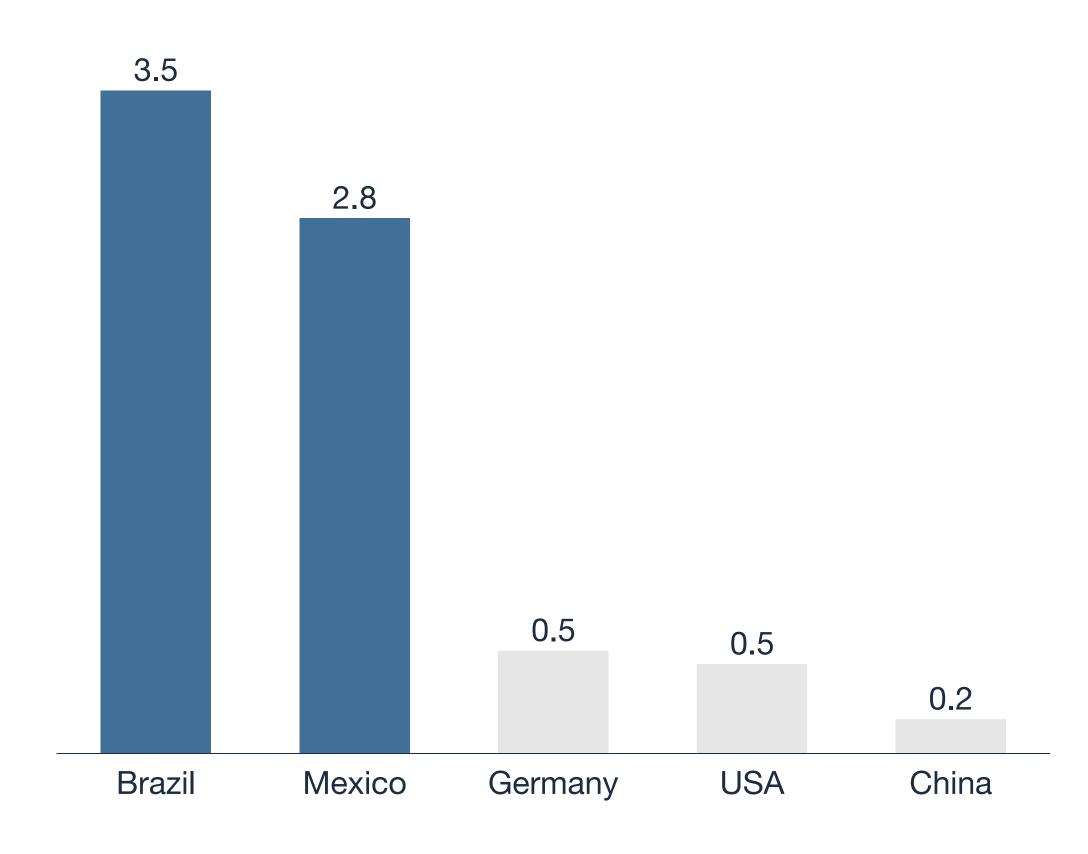
2023, % of revenue lost to fraud by region

LatAm companies spend 19% of e-commerce revenue on fraud management*, almost 2x as much as North American companies at 10%



Chargeback rate by country²

2023, % of transactions charged back by country



Notes: (*) Calculated as spending to manage payment fraud relative to annual e-commerce revenue (**) Significant variation may be due to the small base of companies in Latam 2024 dataset
Sources: (1) 2023 and 2024 Global Ecommerce Payments And Fraud Reports; (2) Clearly Payments - Chargeback Statistics in Credit Card Processing



Tuna orchestrates payment flows and antifraud solutions to combat chargebacks and fraud while optimizing approvals



Tuna provides a high-quality portfolio of products that help companies achieve optimal performance in payments processing, reducing chargebacks and fraud while optimizing for approval rates, fraud costs and processing fees

Tuna's product suite



Payment gateway with advanced orchestration and integration with acquirers, payment facilitators and biometrics

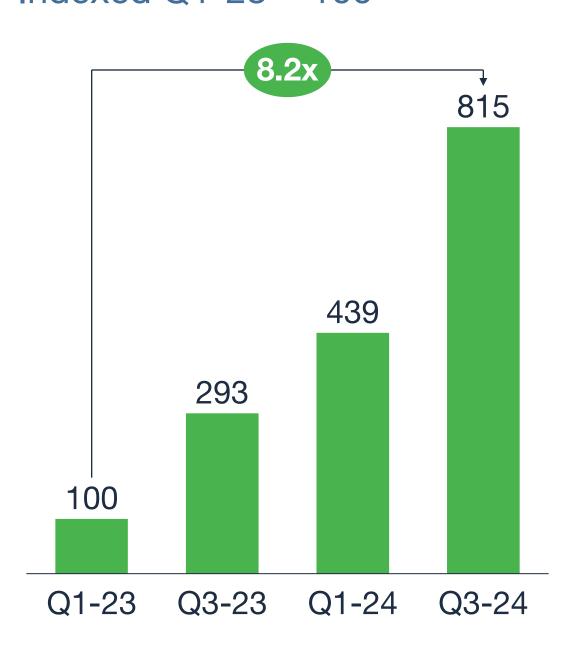


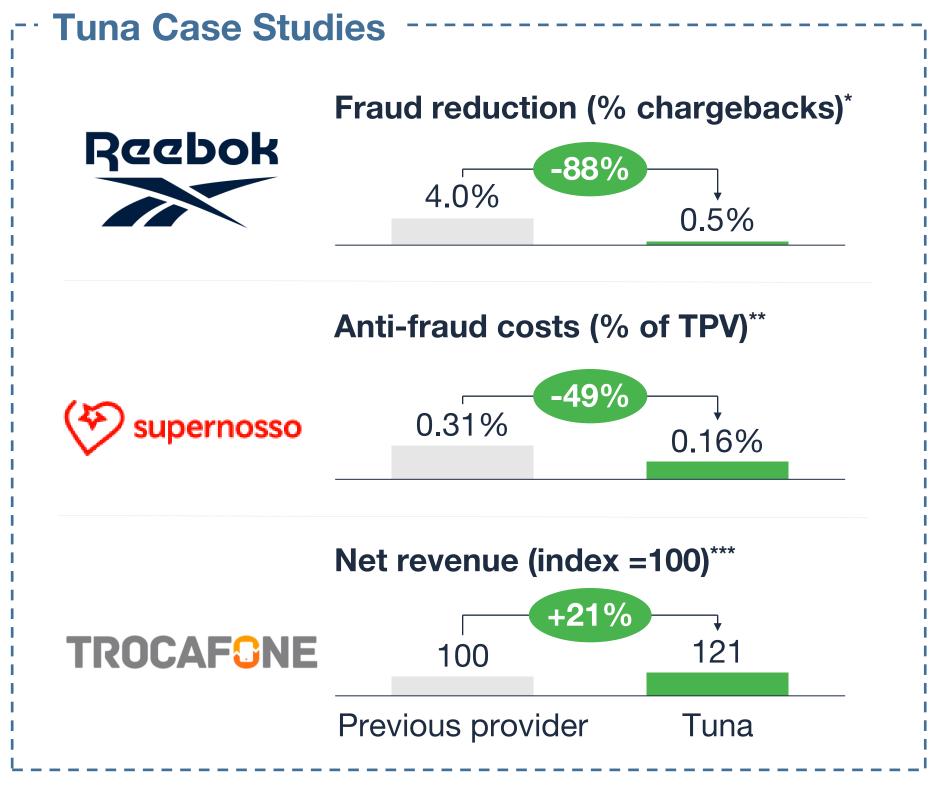
Payment facilitator that supports all forms of payment and offers advanced marketplace functionality



Proprietary anti-fraud modules and partnerships with major anti-fraud providers

Tuna Total Payment Volume Indexed Q1-23 = 100





Notes: (*) In partnership with Cybersource, Tuna redesigned the fraud journey; (**) Leveraging the same anti-fraud provider, ClearSale, Tuna redesigned the flow so recurring users would not run through ClearSale's antifraud solution; (***) In partnership with Unico, Tuna recovered false-positive anti-fraud declines using facial recognition and retries via acquirers

Source: Tuna internal data



Despite a cultural lack of trust, Latin Americans believe in technology and are willing to adopt security measures

Generalized trust¹

2022, % answering most people can be trusted

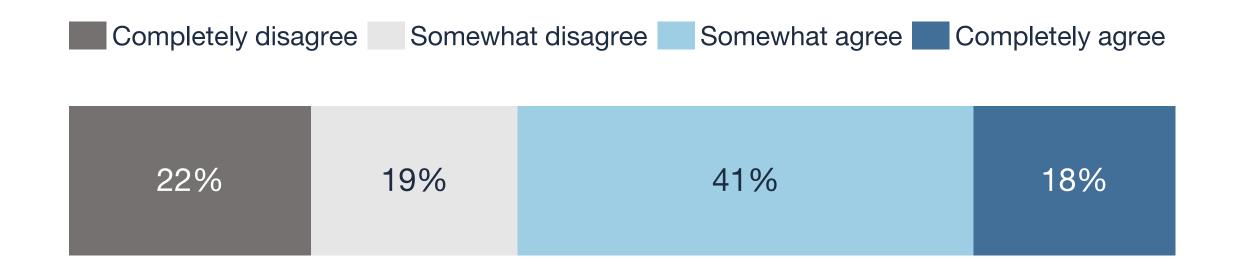
Generally speaking, would you say that most people can be trusted, or that you need to be very careful in dealing with people?



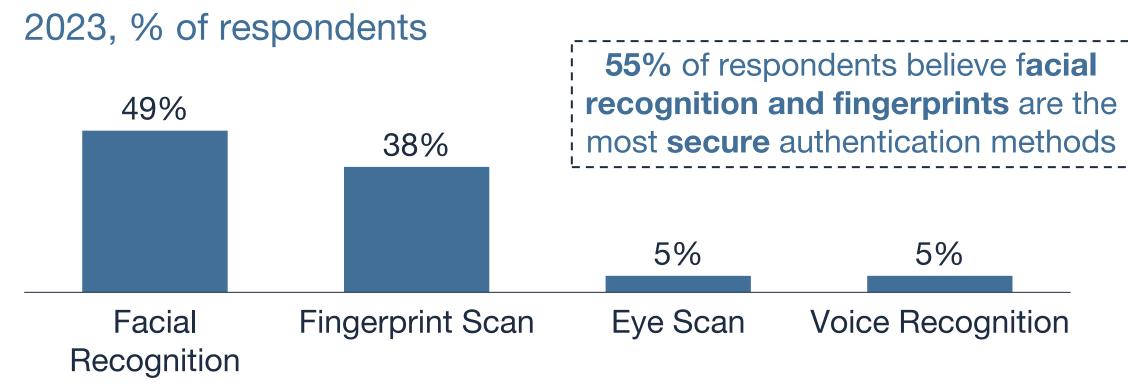


"The benefits I obtain from using online services are greater than my concerns with data privacy"²

2024, % of respondents



Main authentication methods used in own smartphone³



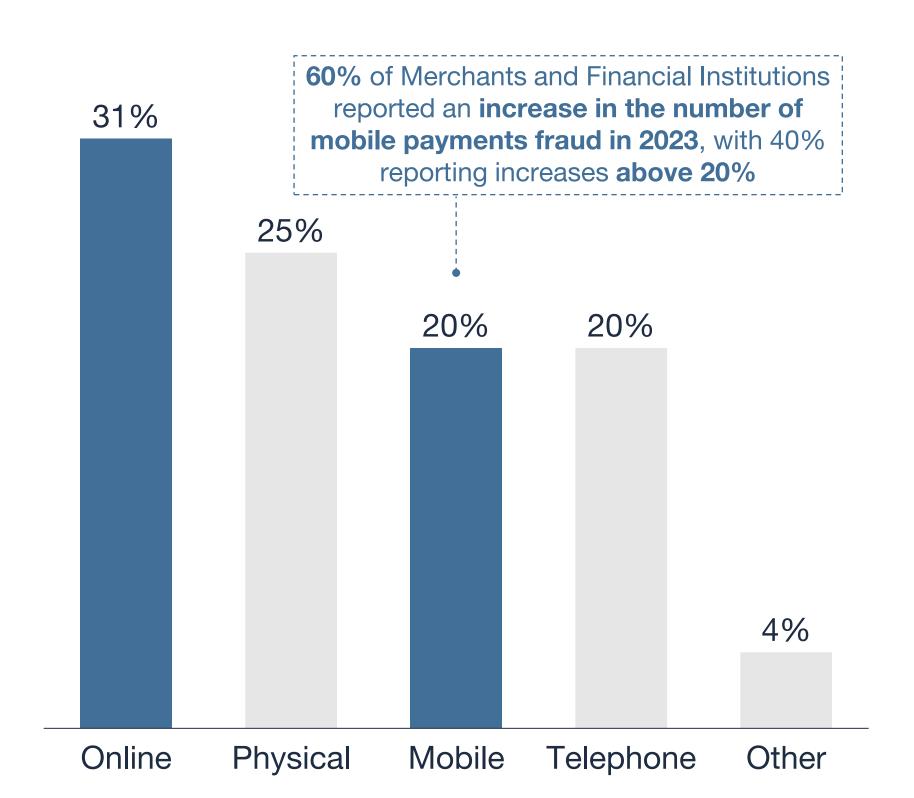


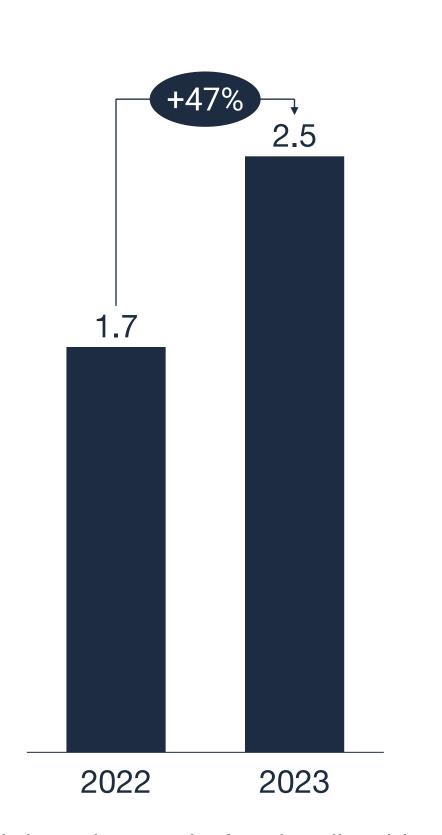
New technologies, including the rise of digital payments and breakthroughs in Gen Al, are changing the face of fraud

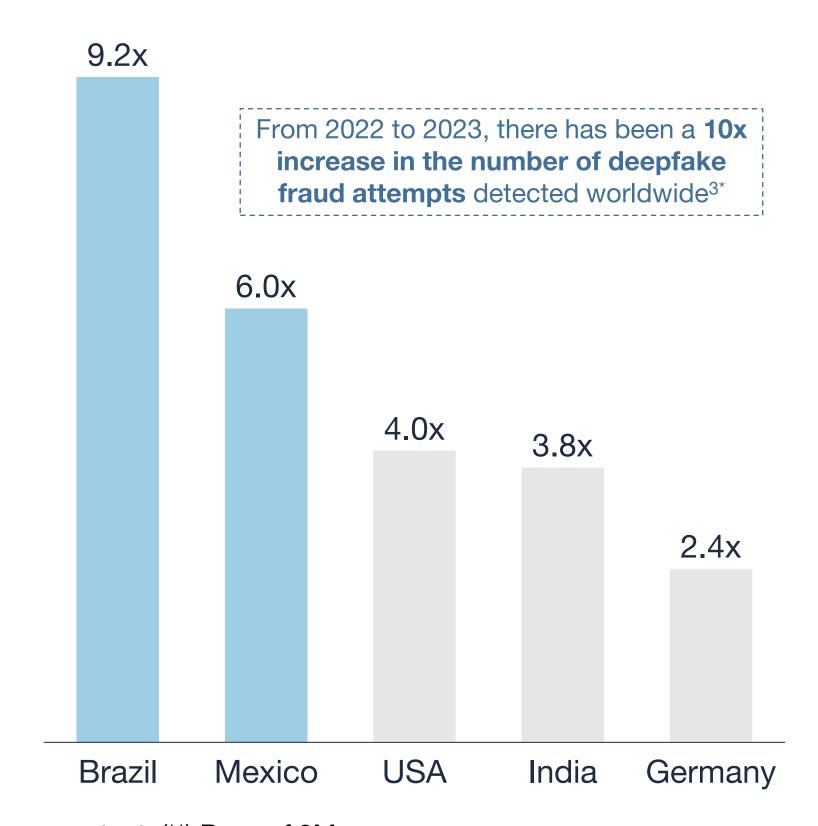
LatAm fraud losses by origination channel¹ 2023, % of fraud originated

Fraud-related Pix refund requests in Brazil²
Million requests

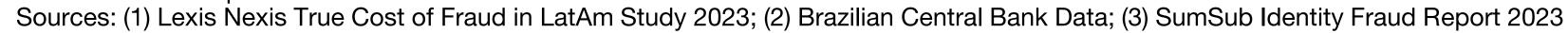
Change in deepfake* fraud attempts¹ 2024 vs. 2023, Volume growth multiple







Notes: (*) Deepfake refers to use of Generative AI to create realistic-looking but fabricated or manipulated audio, videos, or image content, (**) Base of 2M total fraud attempts worldwide

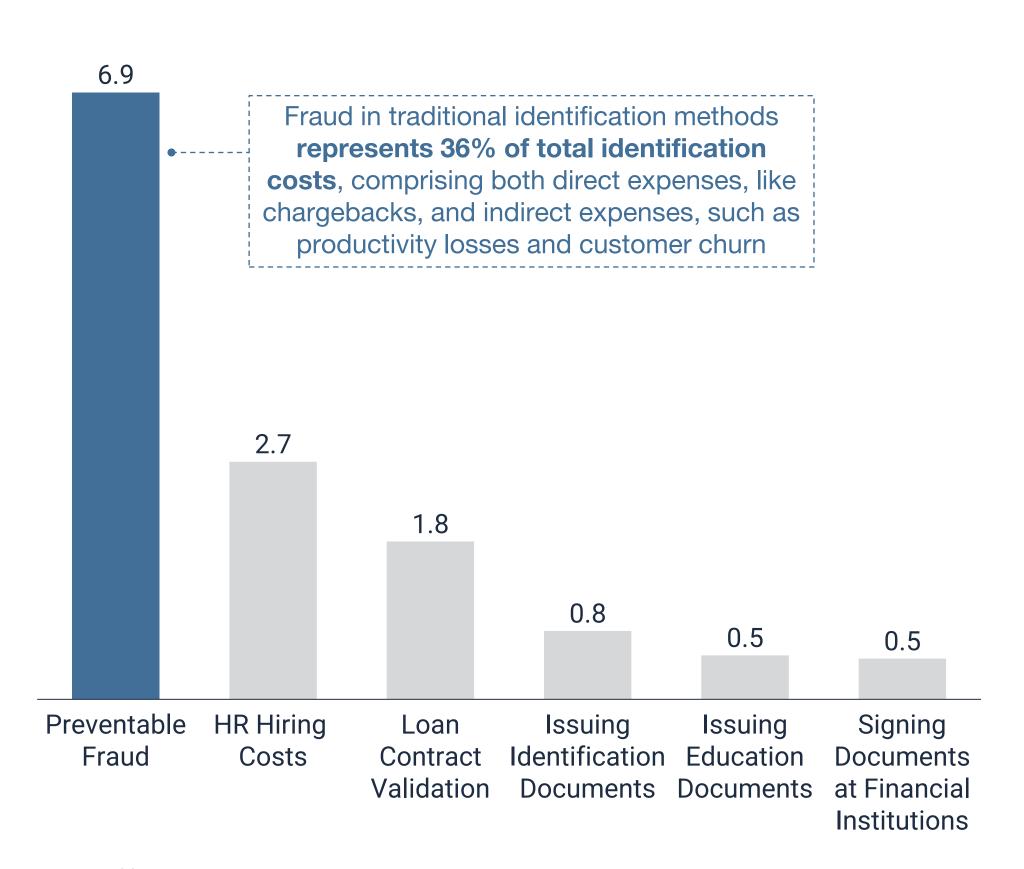




Manual identification processes cost billions in Brazil, but digitalization promises higher efficiency and security gains

Annual costs associated with traditional identification methods* in Brazil¹

2021, US\$B



Digitalization of the identification process represents a major opportunity to reduce costs and enhance efficiency

1.6%

of Brazil's GDP can be potentially saved by digitalizing identification processes¹

Up to **68%**

of a minimum monthly wage is spent annually by each Brazilian with traditional identification¹

13%

of GDP increase expected in Brazil by 2030 with widespread digital ID adoption²

LatAm digital entities are already deploying the solutions

incode

Leverages AI, identity checks, and deepfake detection to provide solutions that detect and prevent sophisticated fraud attempts

Unico

Combines biometrics and digital identity verification to deliver scalable solutions that prevent fraud and streamline authentication



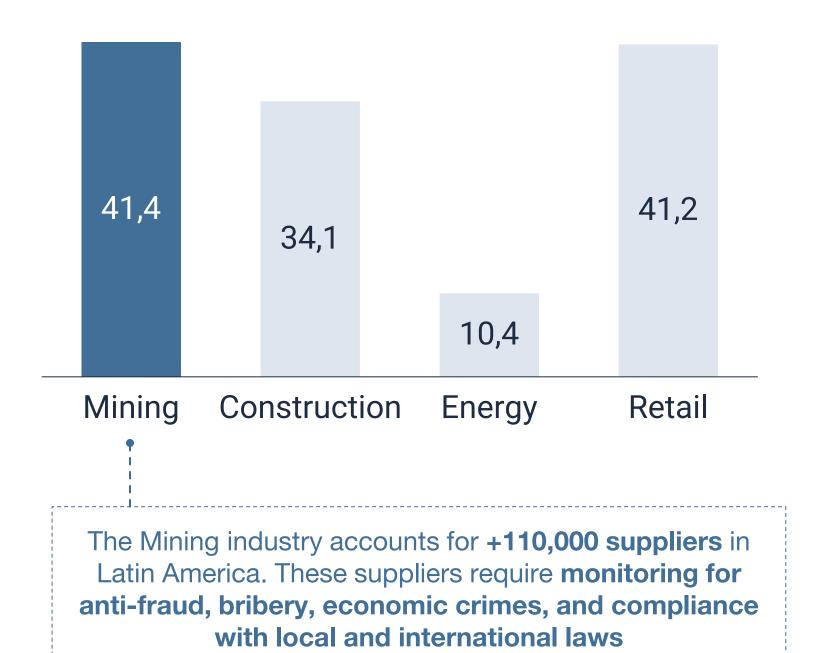
Provides an all-in-one
digital identity platform
that boosts security,
reduces costs, and
improves client
conversions



Plutto is automating customer and supplier KYB* for enterprises across LatAm, ensuring real-time compliance

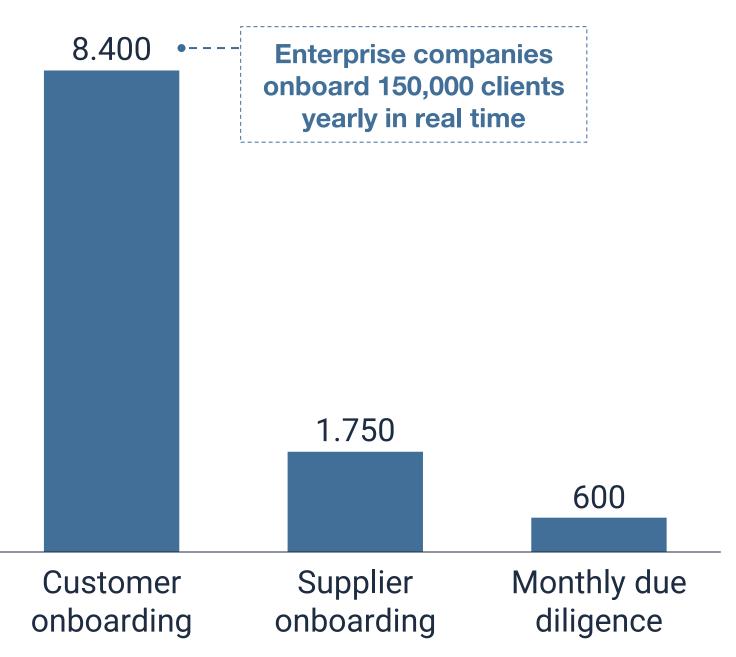
Plutto offers B2B KYC and KYB solutions across Latin America. It simplifies due diligence by automating the evaluation and monitoring of customers and suppliers to assess compliance and legal risks in real time

Estimated** fraud volume in LatAm Selected industries, 2023, US\$B



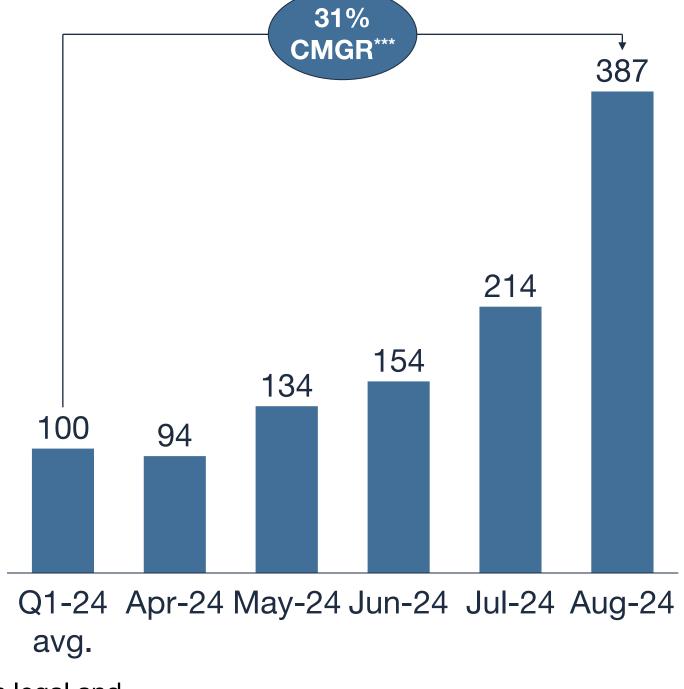
Average annual volume per operation type of middle-market clients

Thousands of operations



Plutto's monthly revenue growth

Indexed Q1-24 monthly average = 100



Notes: (*) KYB (Know Your Business) are processes used to verify the identity and legitimacy of businesses to ensure compliance with legal and regulatory standards and reduce losses to fraudulent activities; (**) 5% fraud rate (ACFE); (***) Compound Monthly Growth Rate Sources: (1) Plutto Internal Data; (2) Occupational Fraud 2024, ACFE







The Planet Ahead of Us

Latin America is uniquely positioned to lead the world as we race to solve the climate crisis.

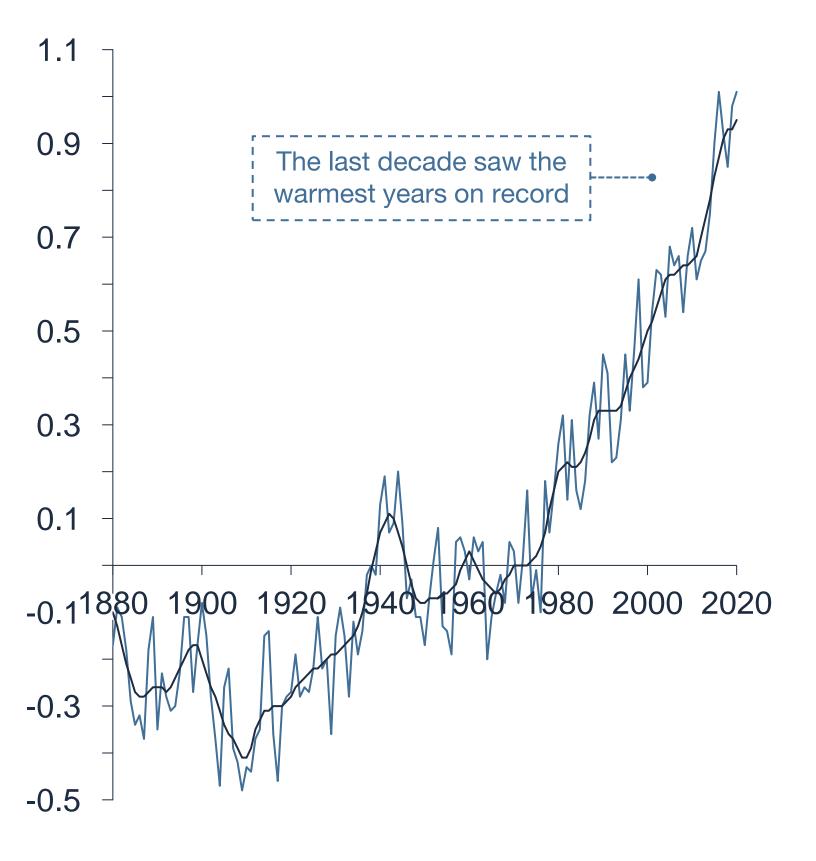
Blessed with dense rainforests, rich mines, sunlight and rivers, the region is bound to play a critical role in the clean energy transition.

Regulatory tailwinds and the rise of new technology across transportation, agriculture and offsetting can usher in a **golden age of innovation in energy,** that stands not only to generate immense value but also safeguard our planet.

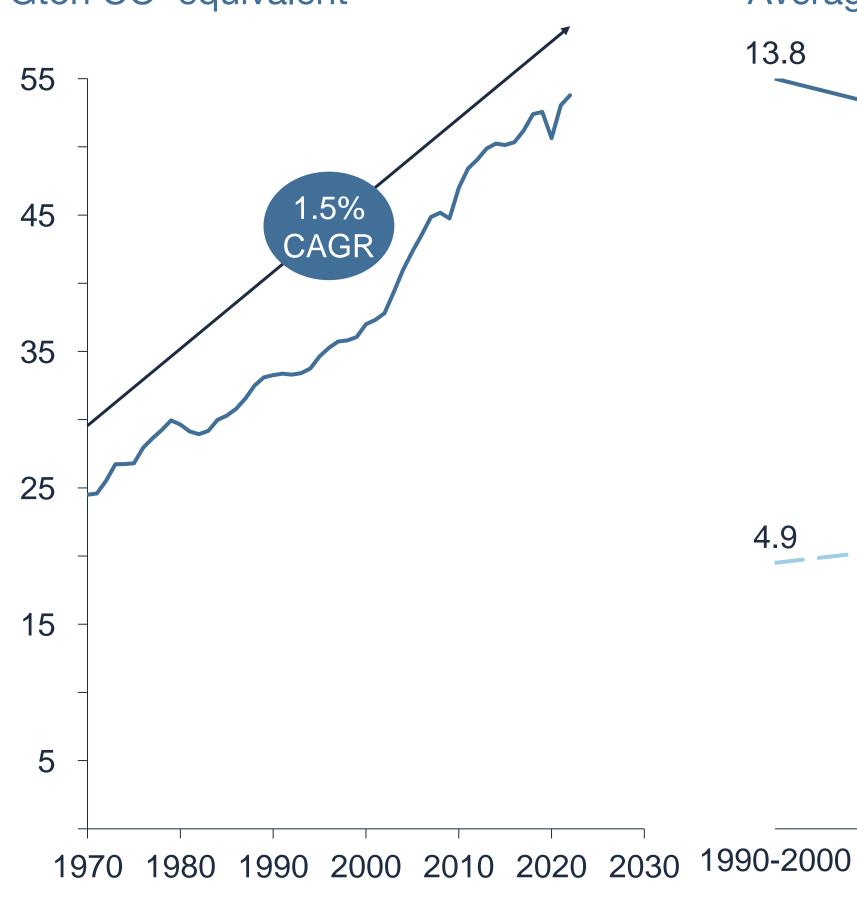


Climate challenges continue to mount and represent an urgent theme to be addressed over the next decades

Global temperature growth¹ Change in degrees Celsius

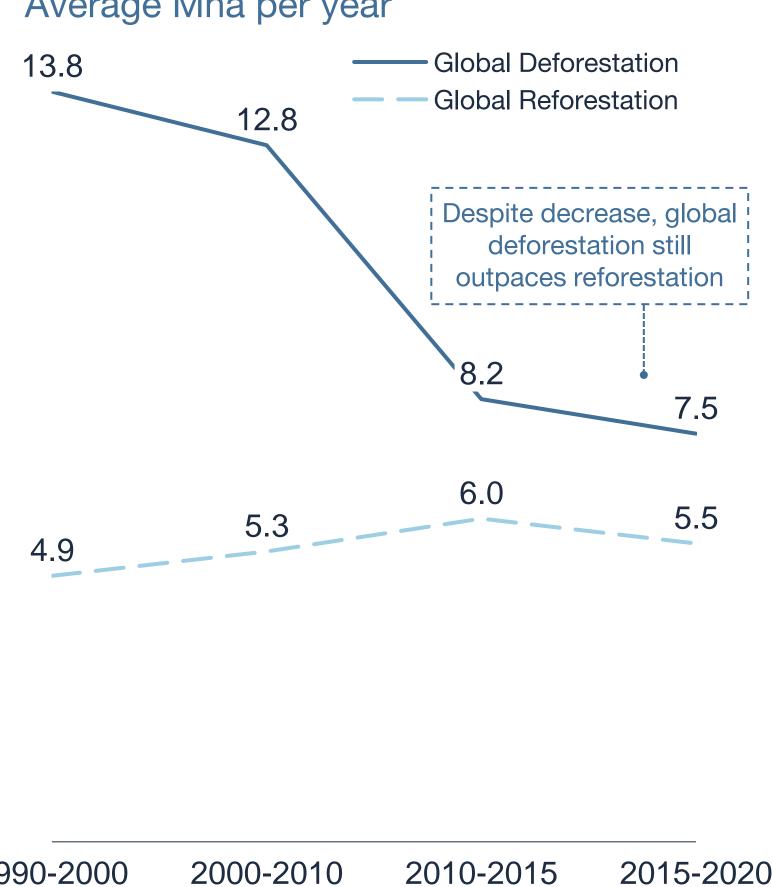


Rise in Global GHG* emissions² Gton CO² equivalent



Rise in Global Deforestation^{1,3}





Note: (*) Greenhouse gases

Sources: (1) NASA Climate Database; (2) EDGAR Emissions Database for Global Atmospheric Research: GHG emissions of all world countries, 2023 Report; (3) FAO Global Forrest Resources Assessment, 2020

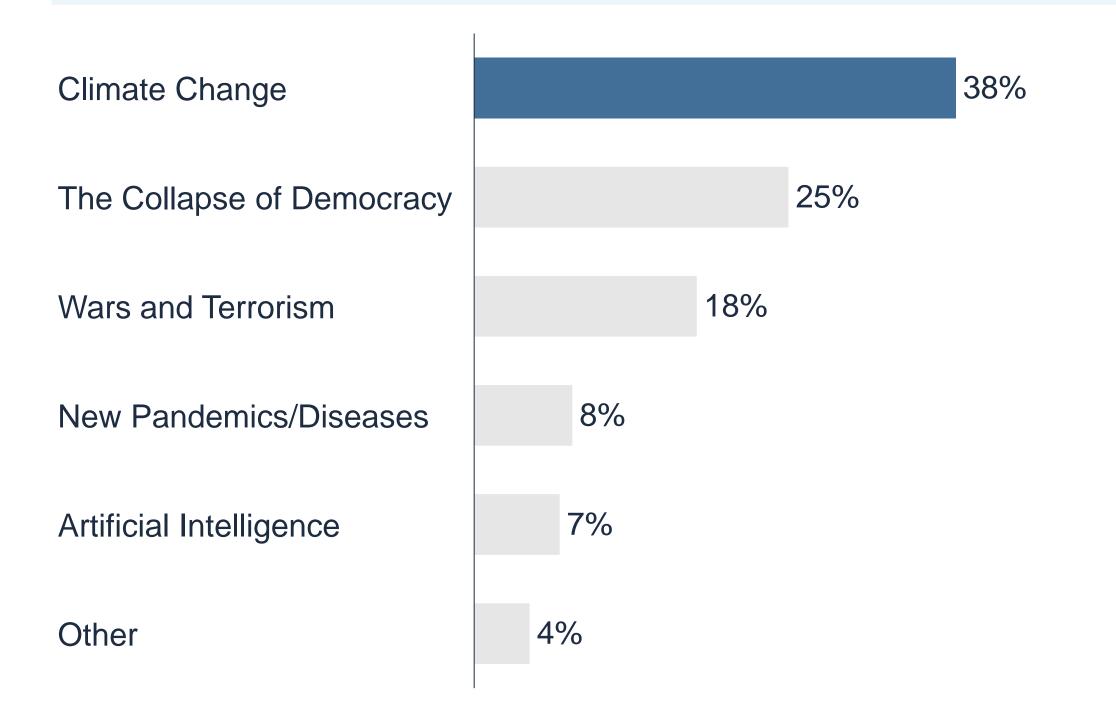


Climate change is seen by Brazilians as the number one risk to the planet, ahead of any other societal threat

Perception about main risks for the planet¹

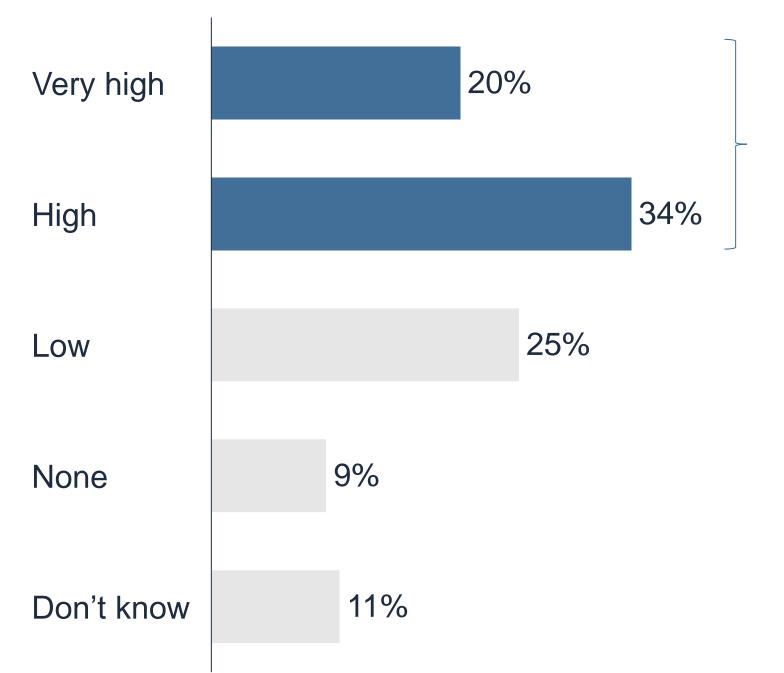
2023, % of respondents in Brazil

Thinking about the future, what is the greatest risk for our planet?



Opinion about being affected by climate change¹ 2023, % of respondents in Brazil

In your opinion, what is the likelihood of you being personally affected by climate events over the next 5 years?



54% of respondents think they will be affected by climate change





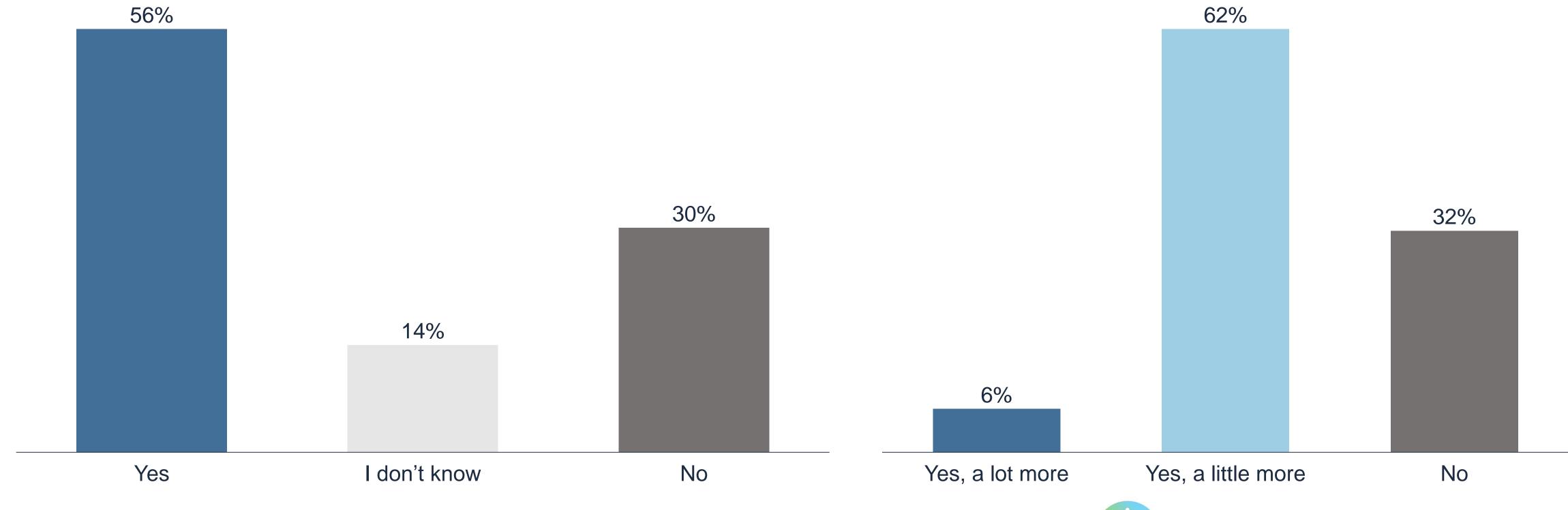
The majority of the population is willing to invest more to fight climate change and support sustainable products

Opinion on governments prioritizing climate action¹ 2024, % of respondents in Brazil

In your opinion, should the government have the combating of climate change as a priority, even if this involves costs, like raising taxes?

Opinion on pricing of sustainable products¹ 2024, % of respondents in Brazil

Would you accept paying more for a product if it were demonstrably sustainable?

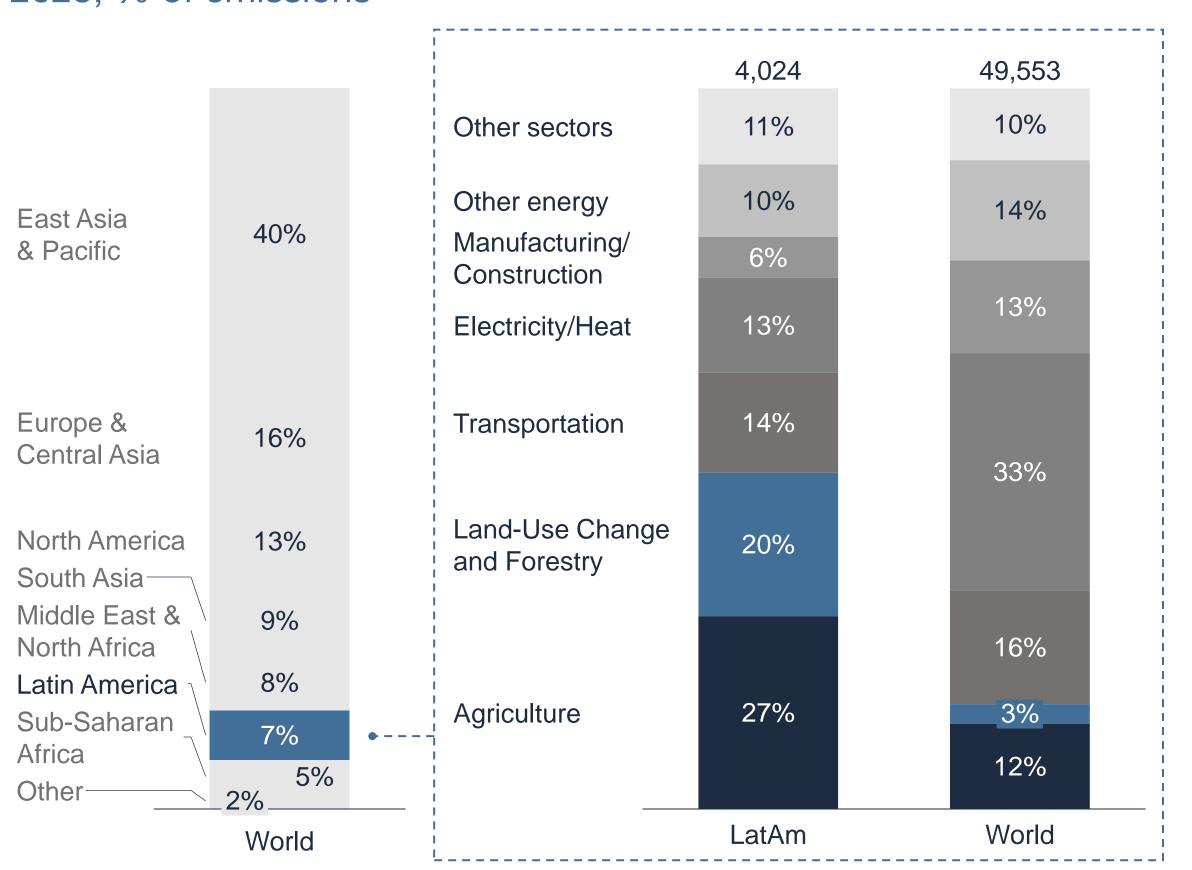






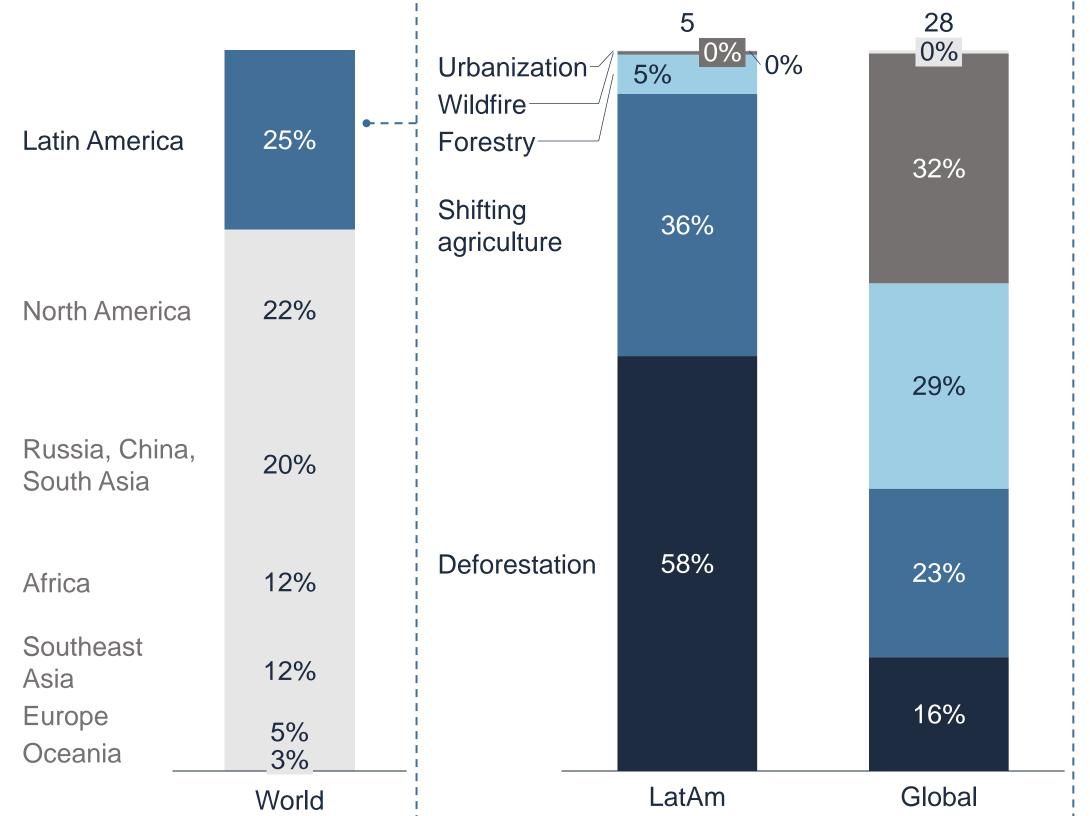
LatAm accounts for only 7% of all emissions, but suffers disproportionately from deforestation and agriculture

GHG* emissions by region and sector¹ 2023, % of emissions



Breakdown of forest loss causes^{2,**}





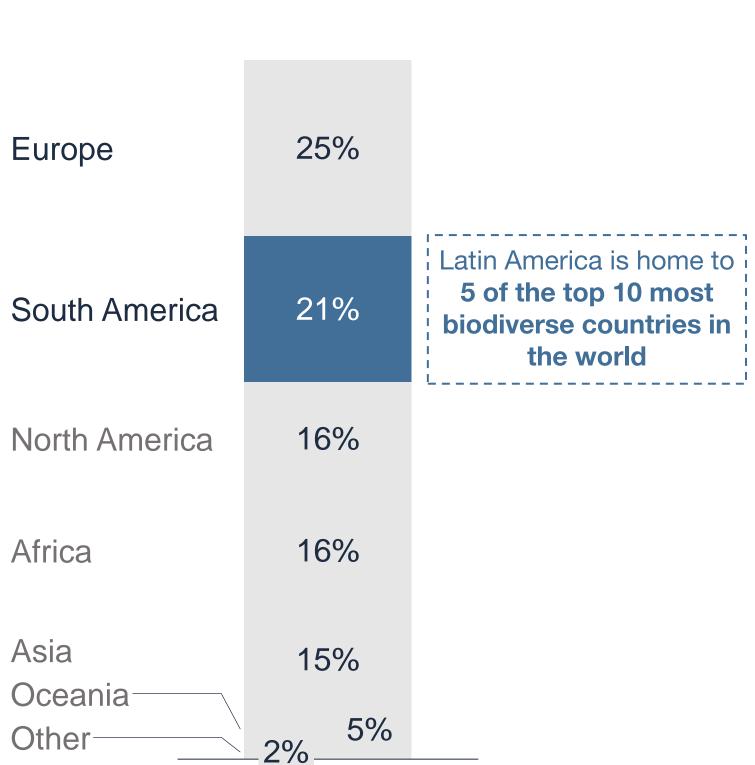
Notes: (*) Greenhouse gases; (**) Deforestation: Large-scale deforestation linked to commercial agricultural expansion; Shifting agriculture: Deforestation due to small- and medium-scale agriculture; Forestry: Temporary loss from plantation and natural forest harvesting Sources: (1) Climate Watch; (2) Global Forest Watch

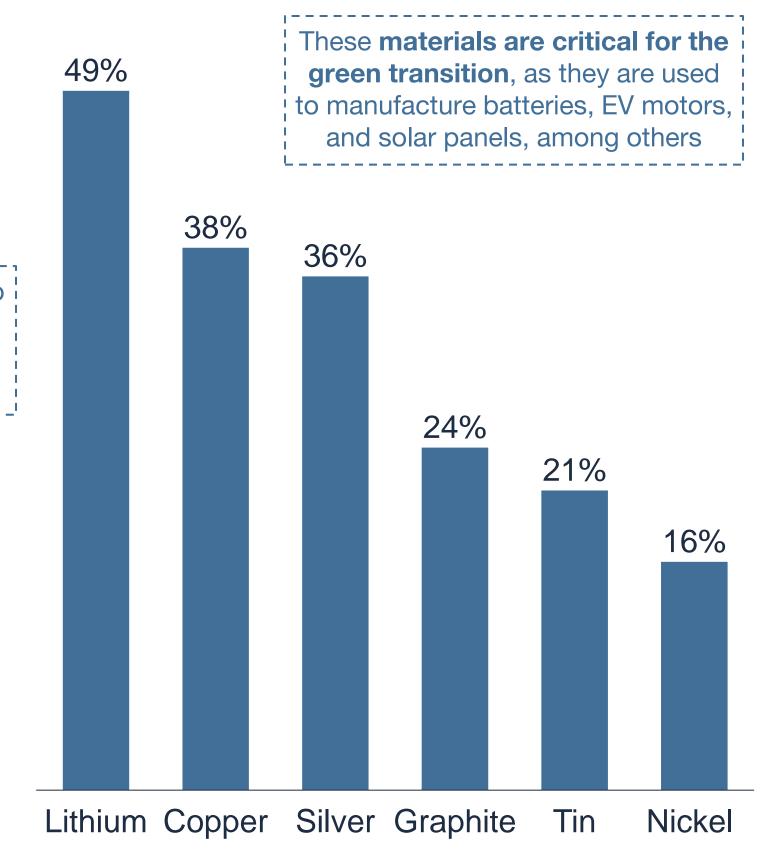


Latin America can play a critical role in solving the climate crisis, given its large share of key natural resources

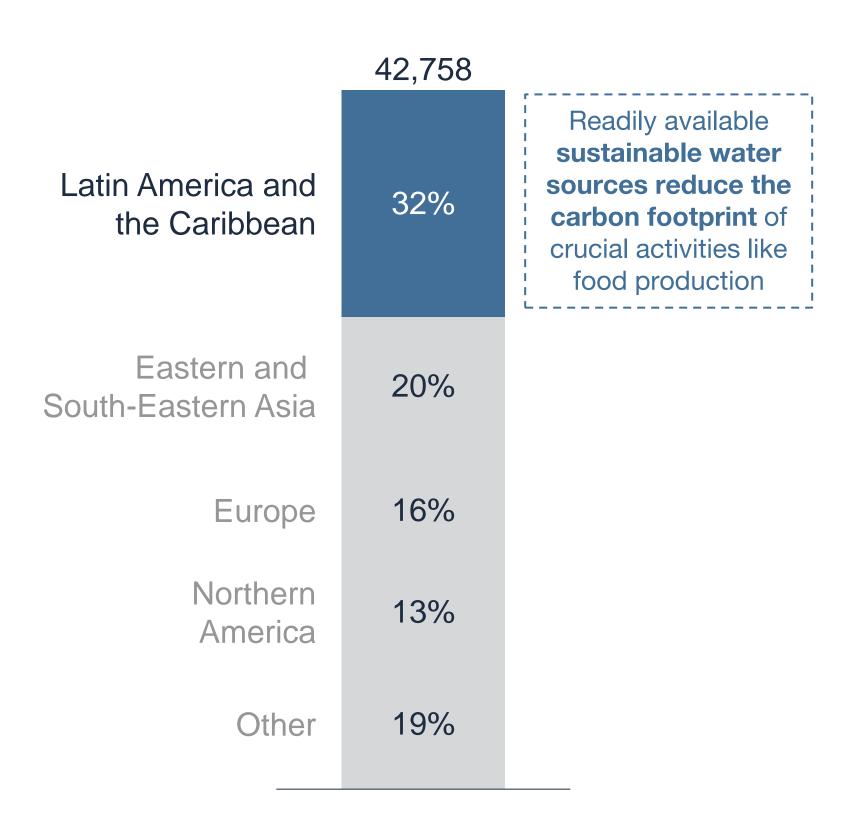
Share of global forest area¹ 2020, %

LatAm share of mineral reserves^{2,3,4} 2023, % of total reserves





Total renewable water resources⁵ 2021, Billions of m³/year





The Paris Agreement has set common goals, but achieving its targets requires commitments that remain unmet

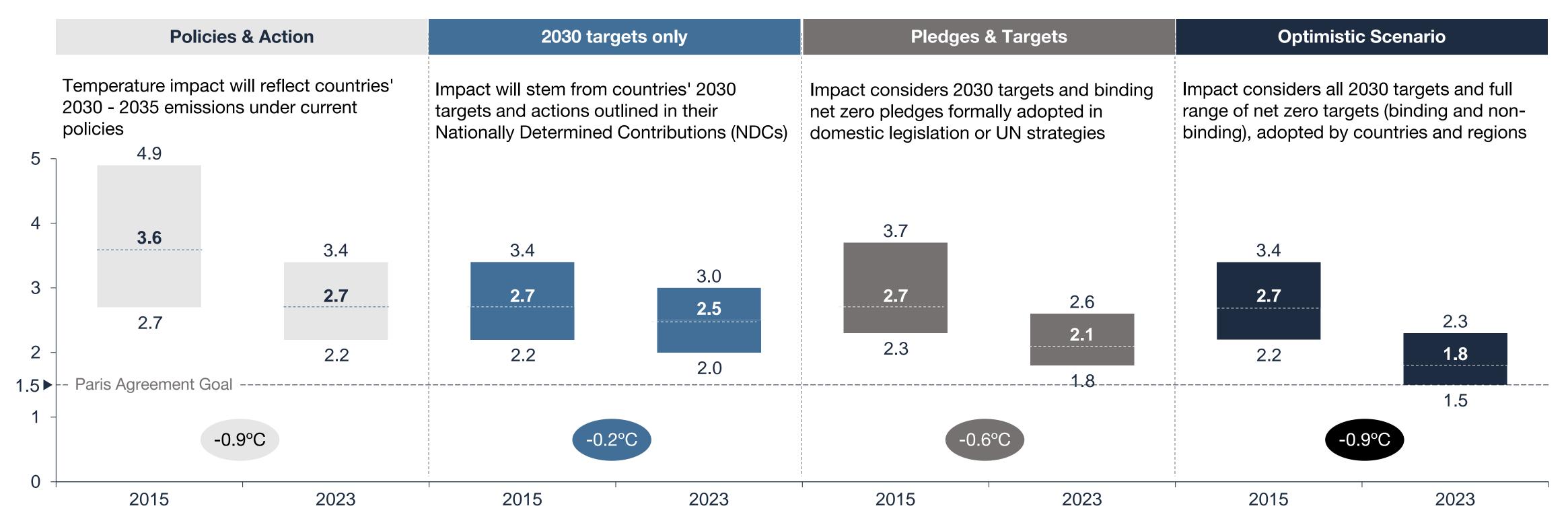
The Paris Agreement is a treaty adopted in 2015 at the UN Climate Change Conference (COP21) in Paris - its primary goal is to limit global warming until 2100 below a 2°C increase, preferably to 1.5°C, comparable to pre-industrial levels

Expected temperature increase ranges for each implementation scenario¹

Incremental °C in 2100, initial 2015 vs. revised 2023 estimates

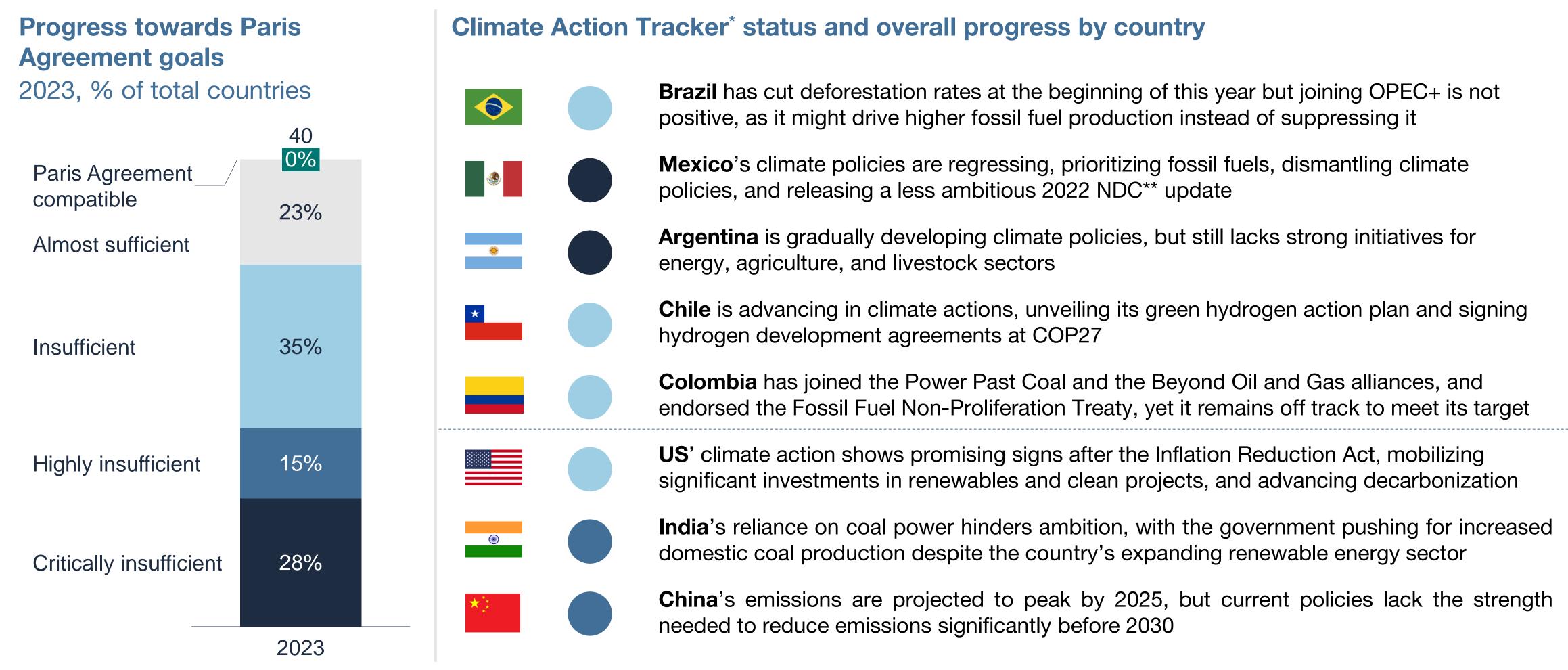


Difference between 2015 and 2023 estimates





In LatAm, Mexico and Argentina are critically behind, while other countries are on global average (still insufficient)



Note: (*) The Climate Action Tracker n independent project that tracks government climate action under the Paris Agreement. It covers all the biggest emitters and a representative sample of smaller emitters covering about 85% of global emissions and approximately 70% of global population; (**) NDC: Nationally Determined Contributions

ATLANTICO



Energy Supply



Agriculture & Land Use



Transportation



Offsetting

"The good news is that the climate crisis offers us the opportunity to transform our world for the better"

- Al Gore



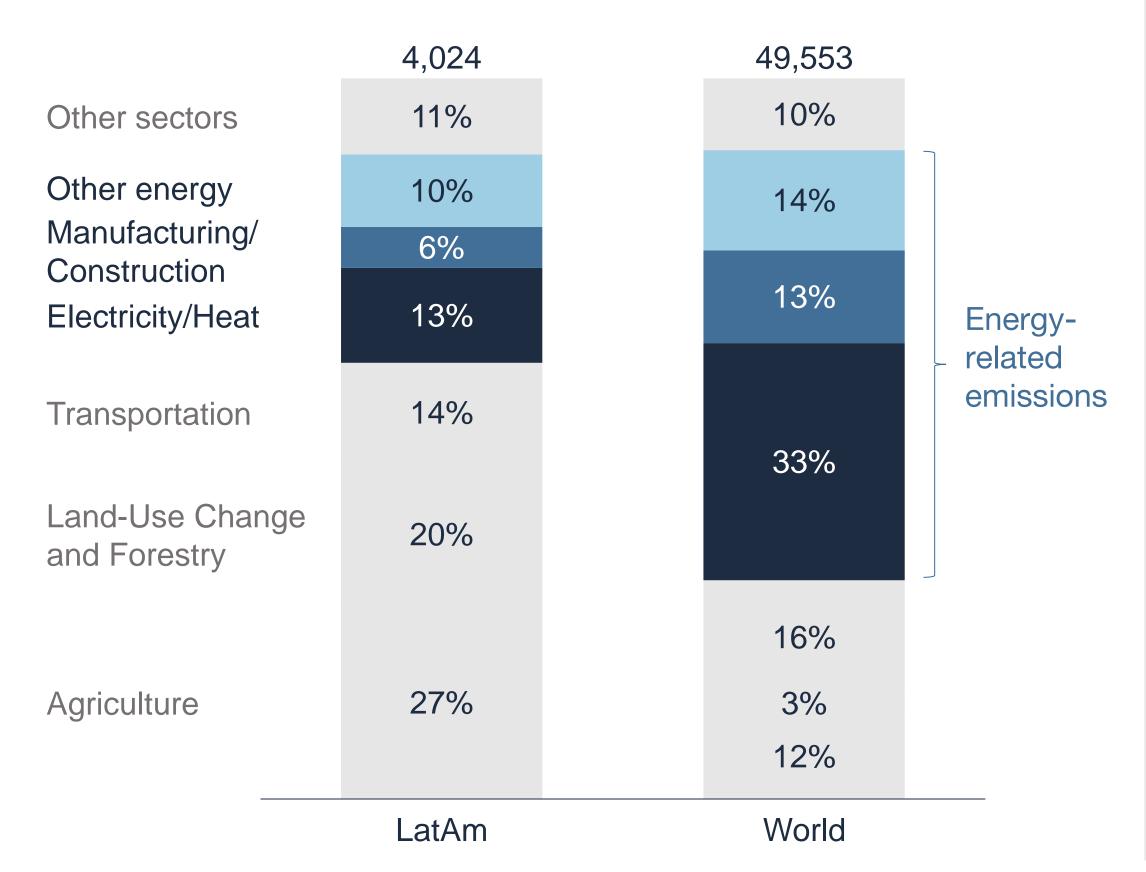




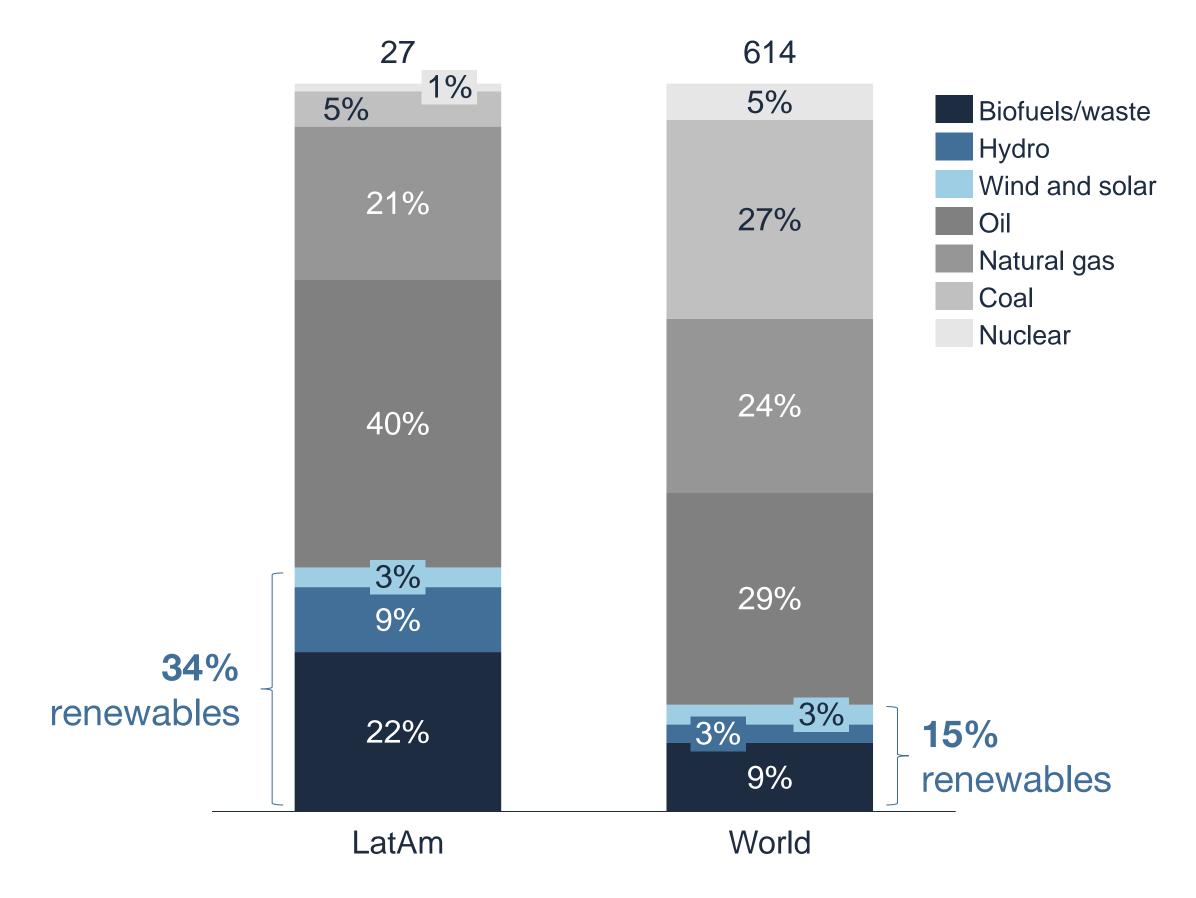


Latin America's energy mix is cleaner than the world average, contributing much less to emmissions in the region

GHG* emissions by region and sector¹ 2021, %



Energy supply by source in Latin America² 2021, millions of TJ, % of total energy supply

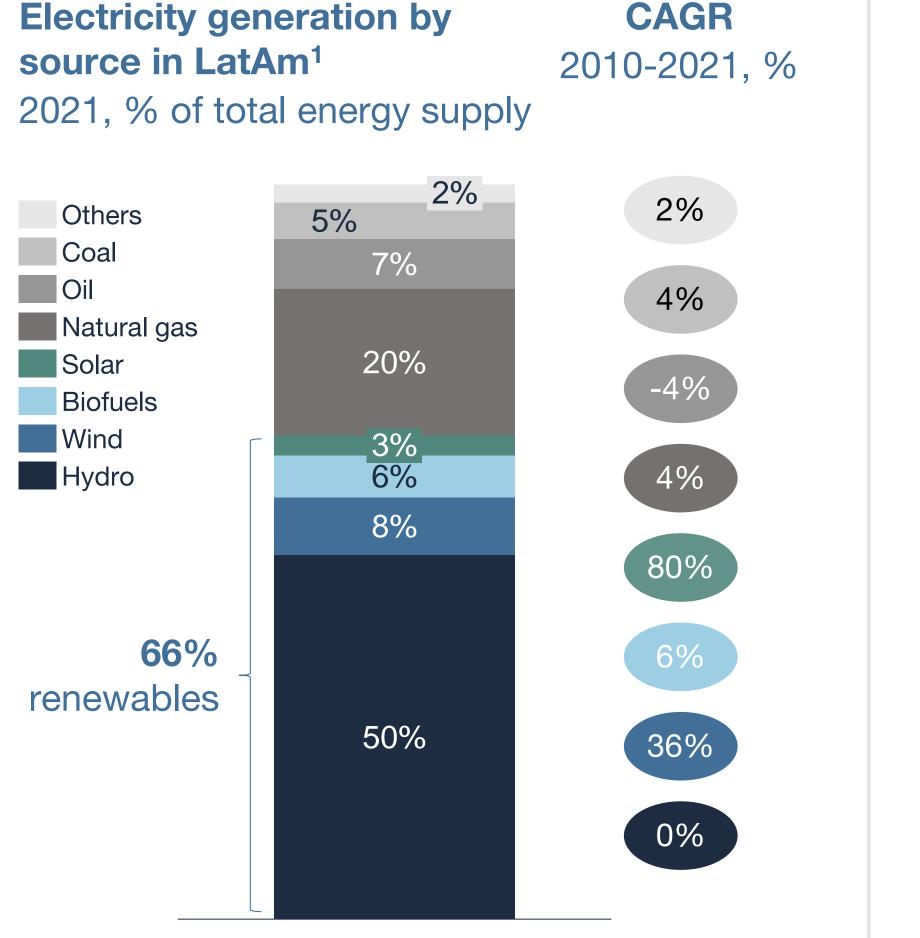


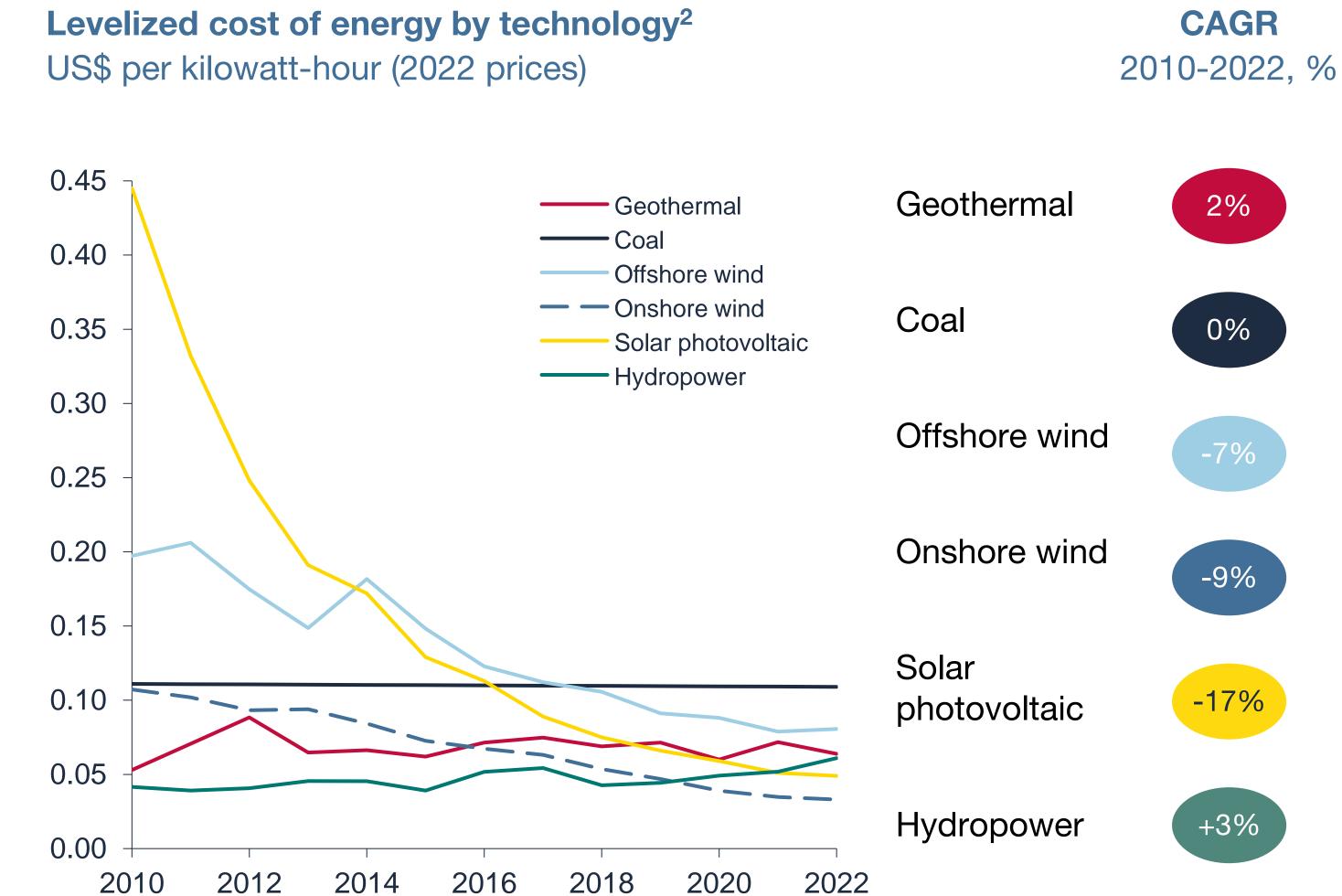
Note: (*) Greenhouse gases

Sources: (1) Climate Watch; (2) International Energy Agency (IEA)



Hydro has led LatAm's clean electricity generation, despite stalled growth; falling costs are driving Solar and Wind up



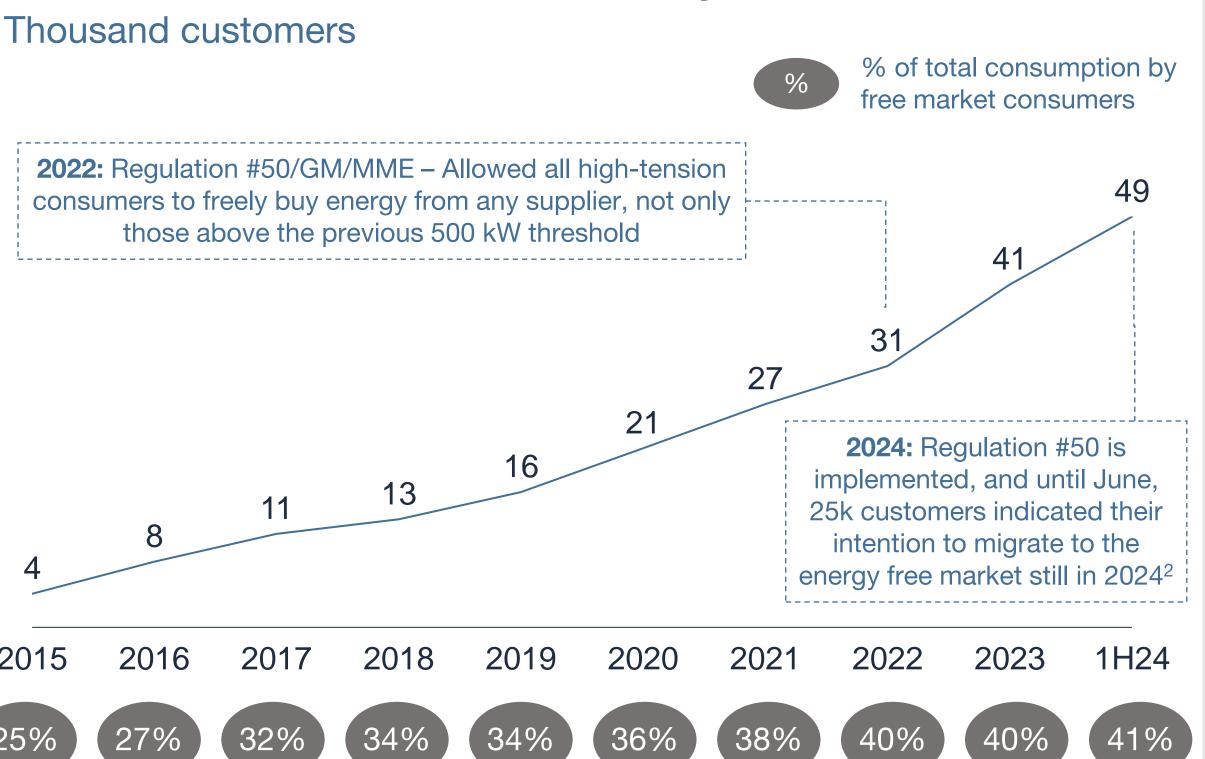




In Brazil, regulation is pushing for decentralized electricity consumption and generation, powered by Solar

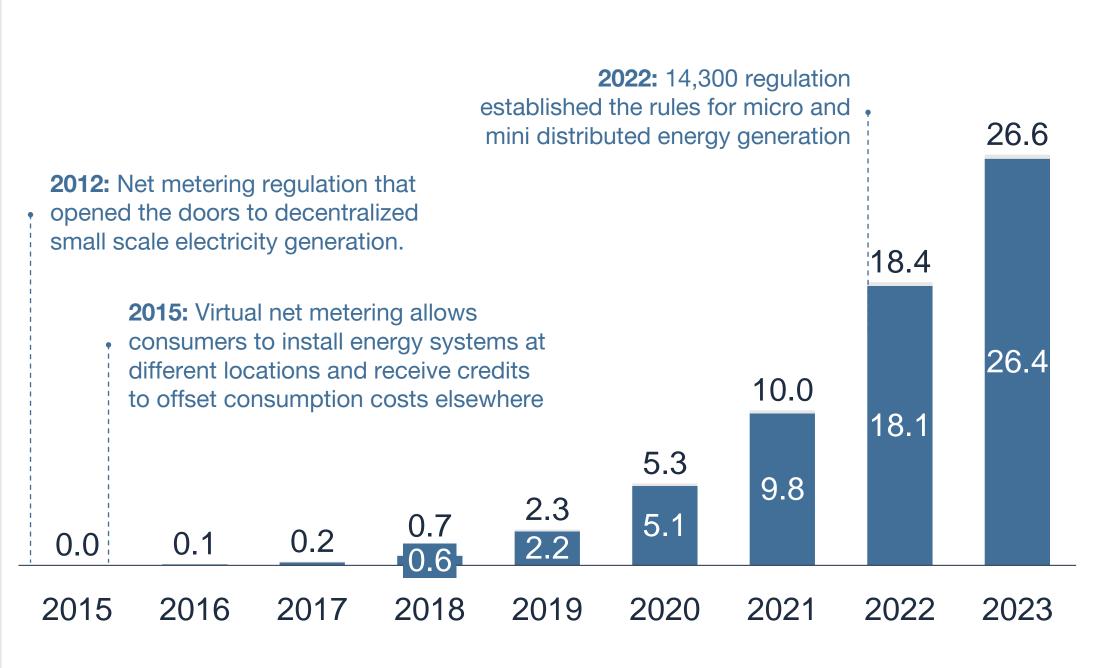
Brazil's free energy market lets large consumers choose their electricity suppliers and negotiate terms directly under ANEEL's rules (national electricity regulator)

Evolution of consumers in the electricity free market - Brazil¹



Brazil's decentralized energy generation lets consumers produce their own power and feed excess into the grid under ANEEL's rules

Decentralized generation installed capacity - Brazil²
GW

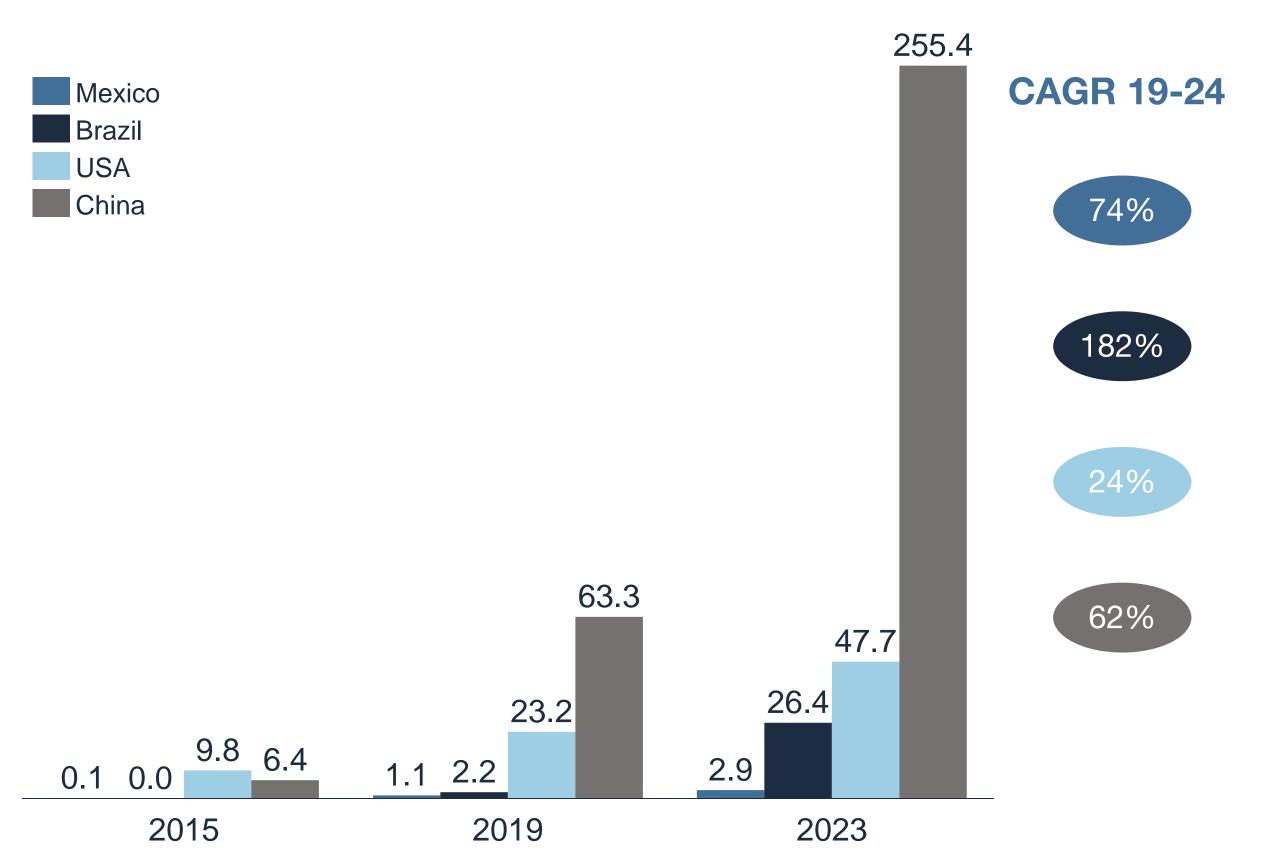




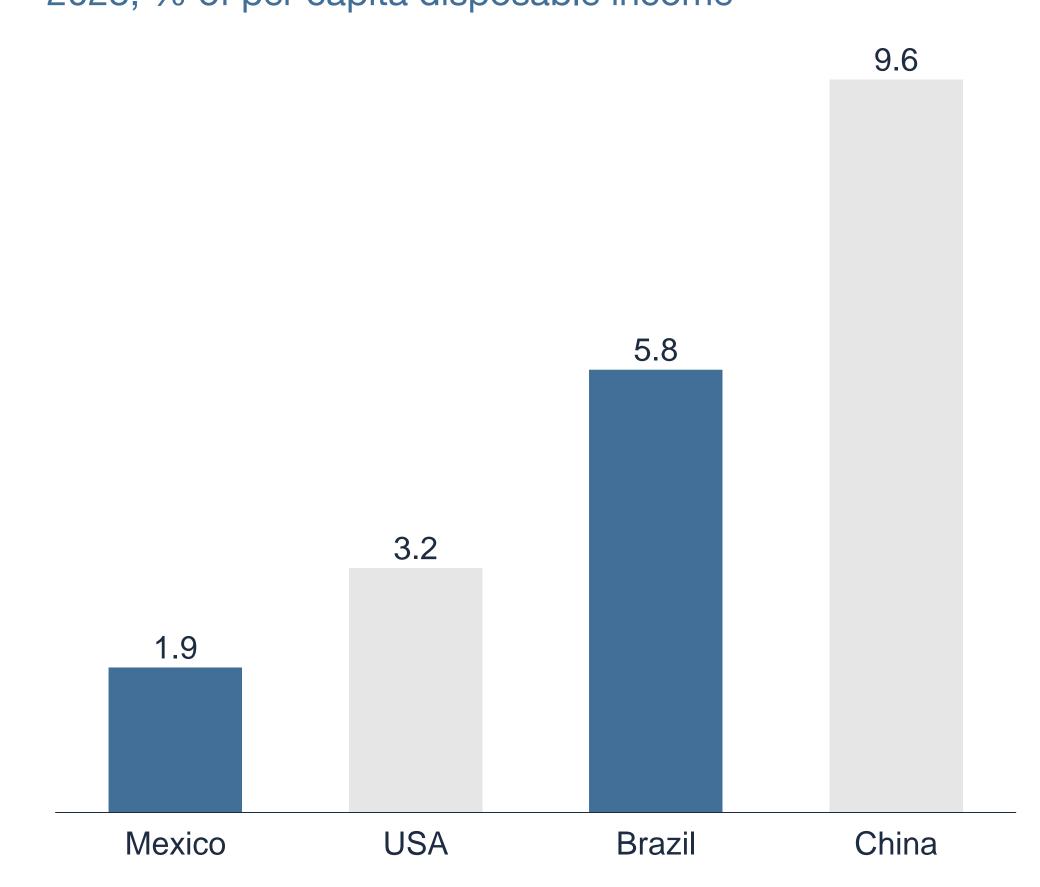
Brazil's accelerated growth in distributed generation capacity follows an economic need to lower user costs

Distributed photo voltaic systems¹

Generation Capacity, GW



Electricity spend* as % of disposable income² 2023, % of per capita disposable income

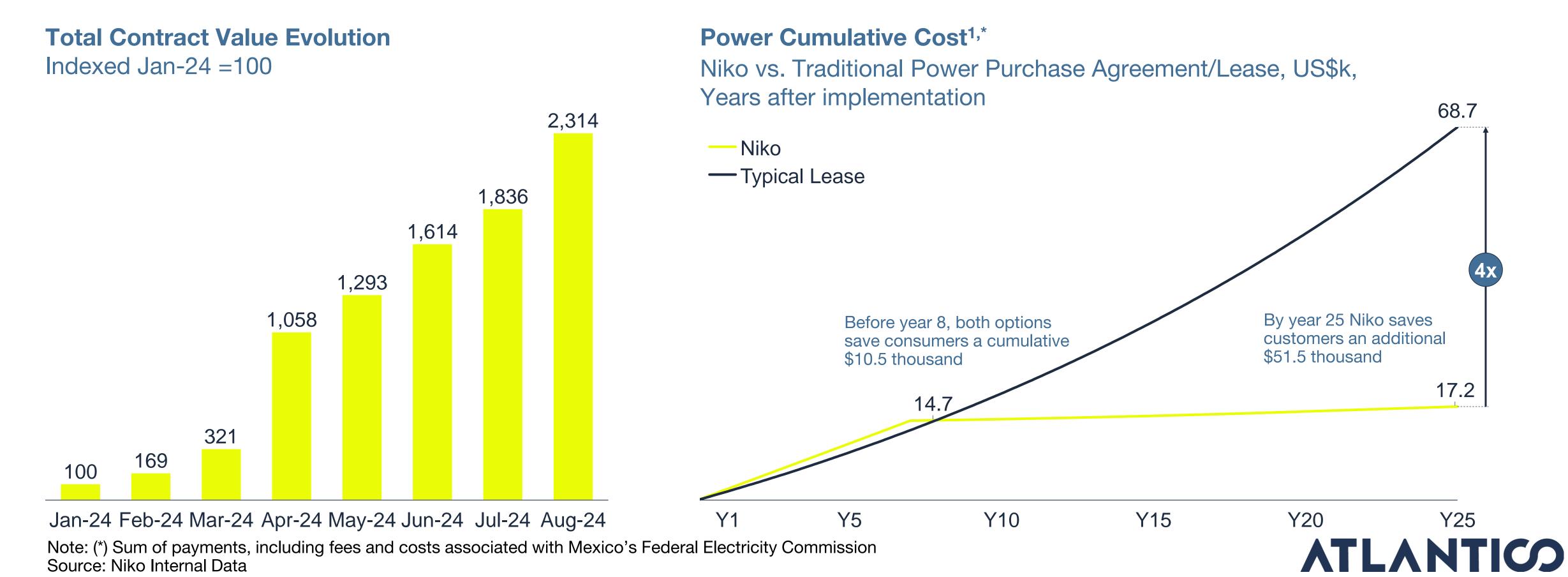




Niko has accelerated growth in Mexico by facilitating access to solar energy through more affordable financing



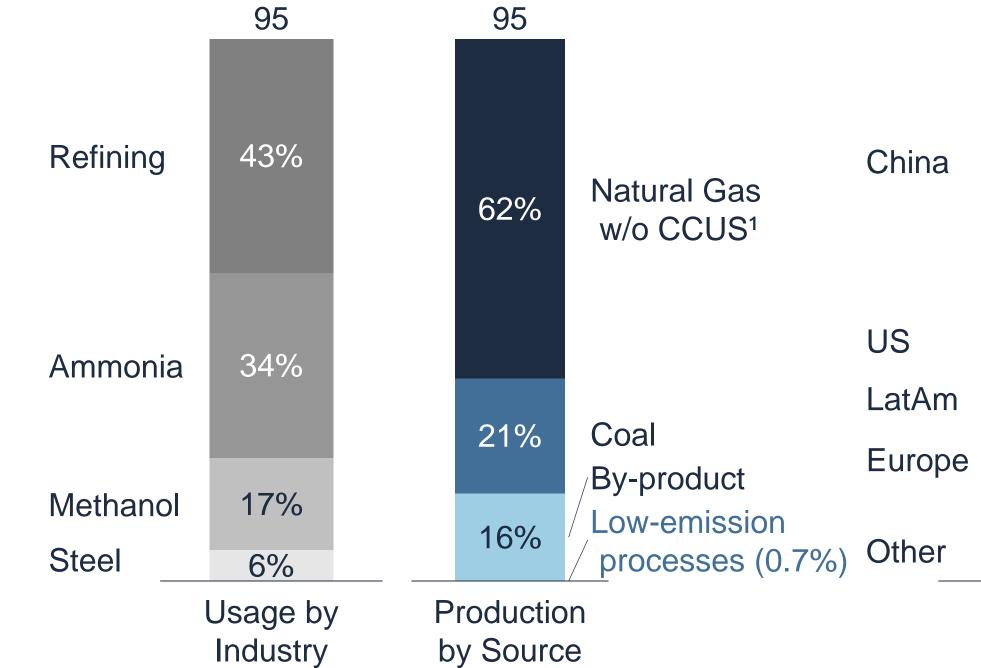
Niko provides solar electricity installation, storage solutions, and clean energy services to homeowners and small businesses in Mexico with financing alternatives that are more cost effective than traditional financing



Looking ahead: Green hydrogen is key to decarbonizing heavy industries; LatAm is key to scale its global supply

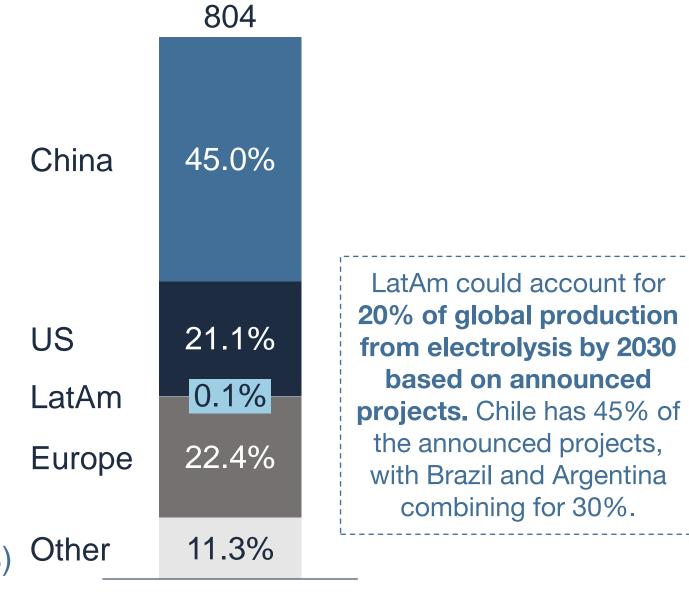
Green hydrogen outperforms other green alternatives by enabling the decarbonization of heavy industries, effectively meeting the high heat and energy density demands

Hydrogen production breakdown 2022, Mt



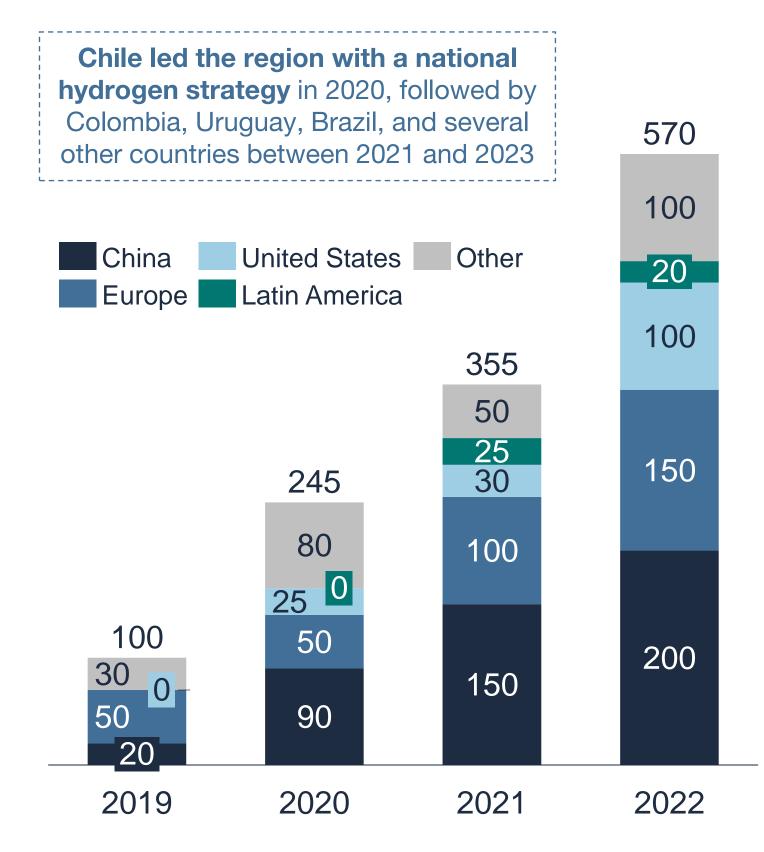
Despite being a global leader in renewable energy, LatAm holds only a minimal share of electrolyser capacity, the primary method for green hydrogen production

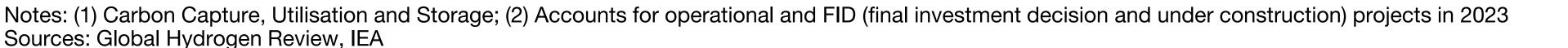
Hydrogen electrolysis capacity by region 2023e, MW



Investment in electrolyser installations by region

2022, US\$M



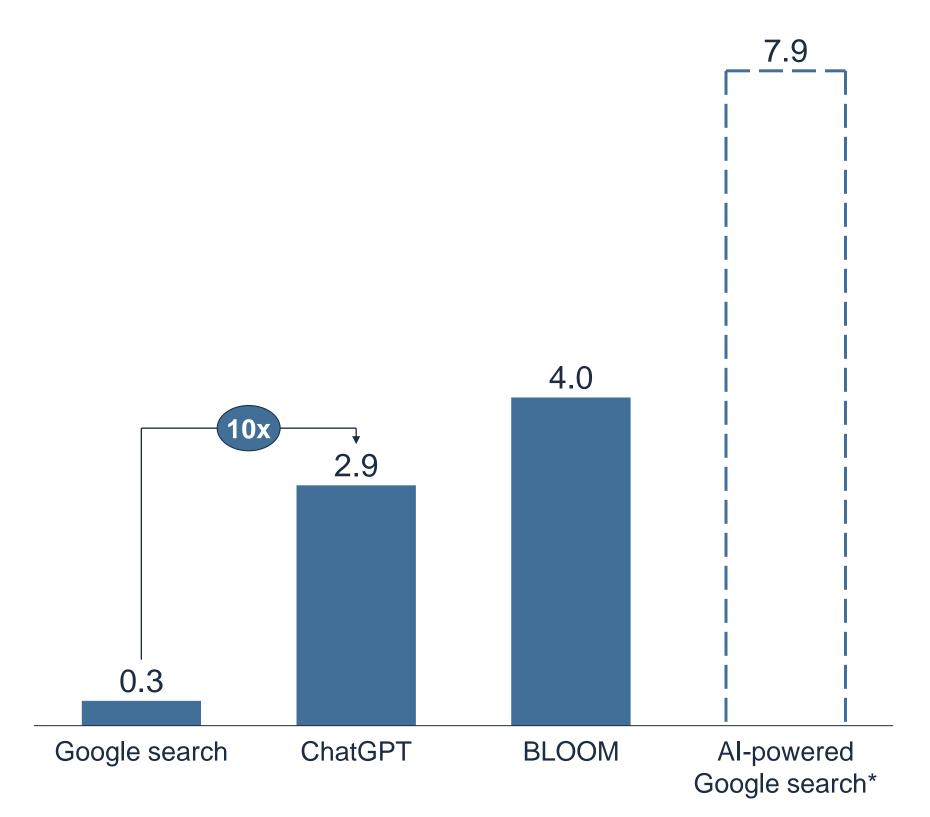




Looking ahead: The continued rise of Al is set to sharply increase energy demand, driven by data centers growth

Energy consumption from AI tools is significantly greater than previous alternative¹

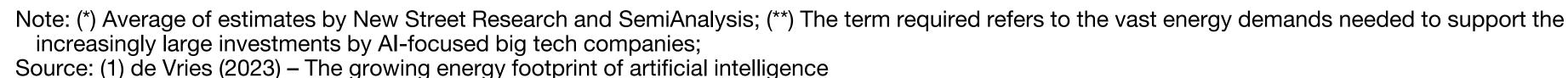
2023, Wh per request



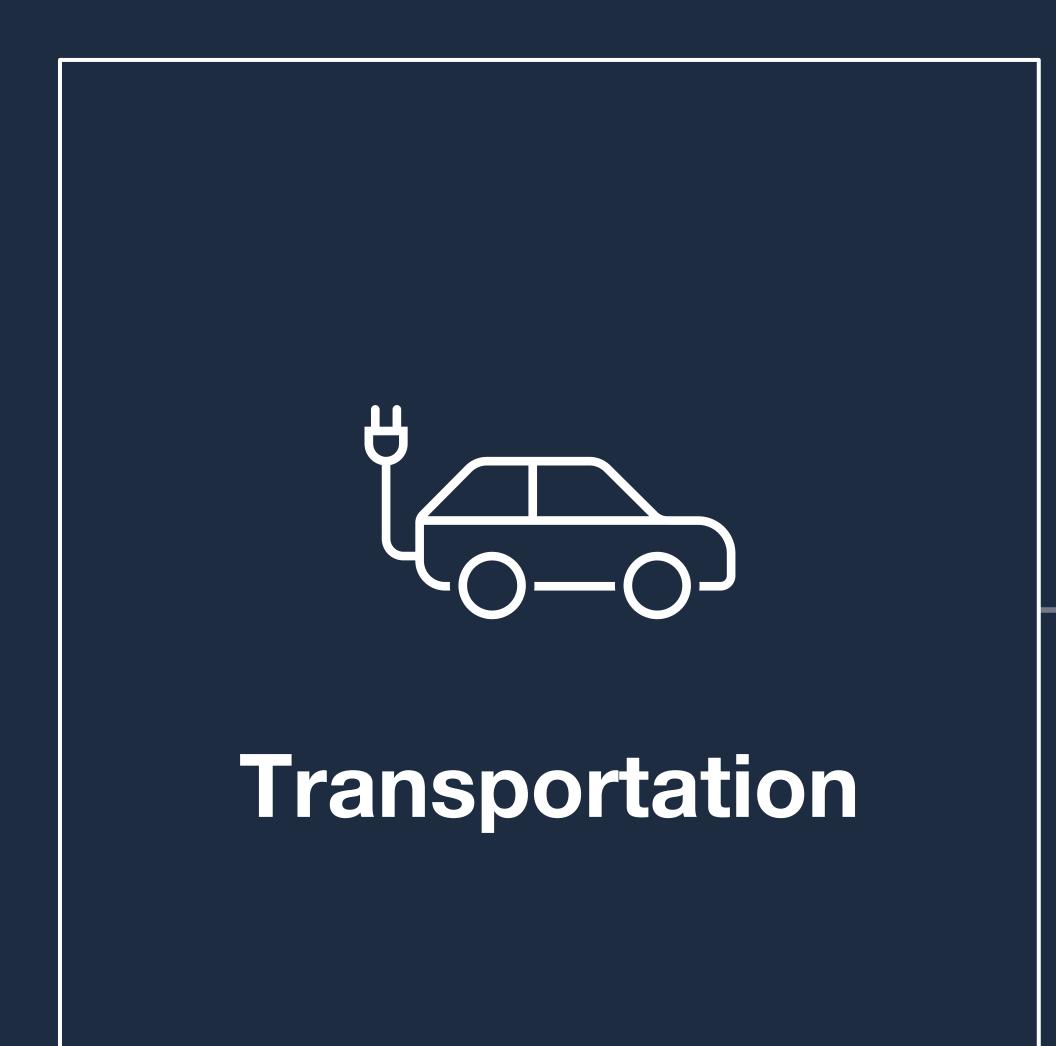
"I've done the calculation on the amount of energy required [to fuel the growing developments in AI], and we [...] do not have enough power to do this"

- Eric Schmidt, former Google CEO





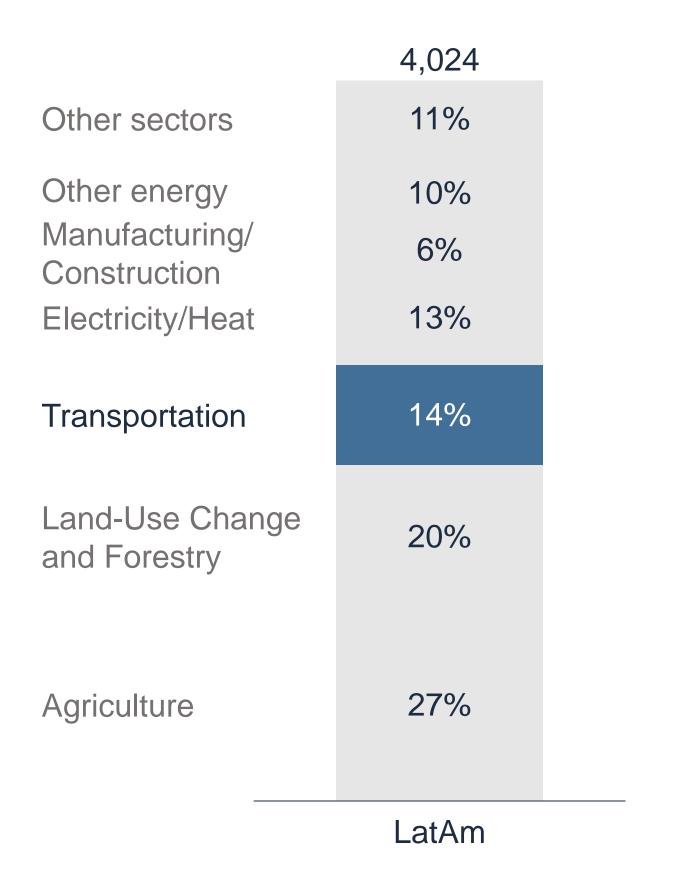


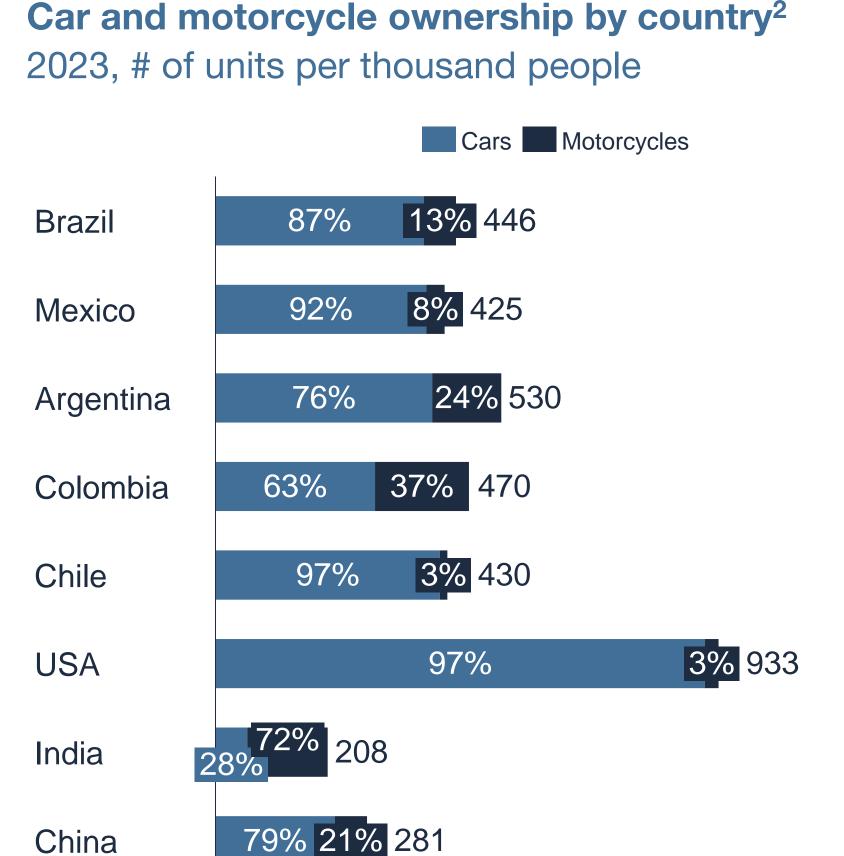


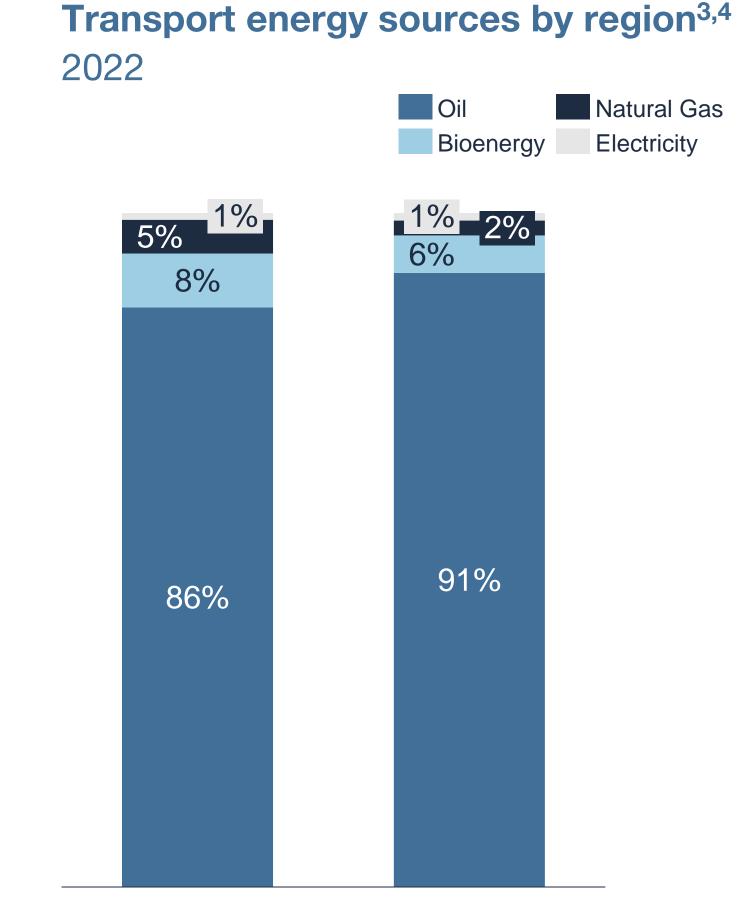


Transport emissions are relevant in Latin America, driven by high vehicle penetration and heavy oil dependence

GHG emissions by region and sector¹ %, 2021





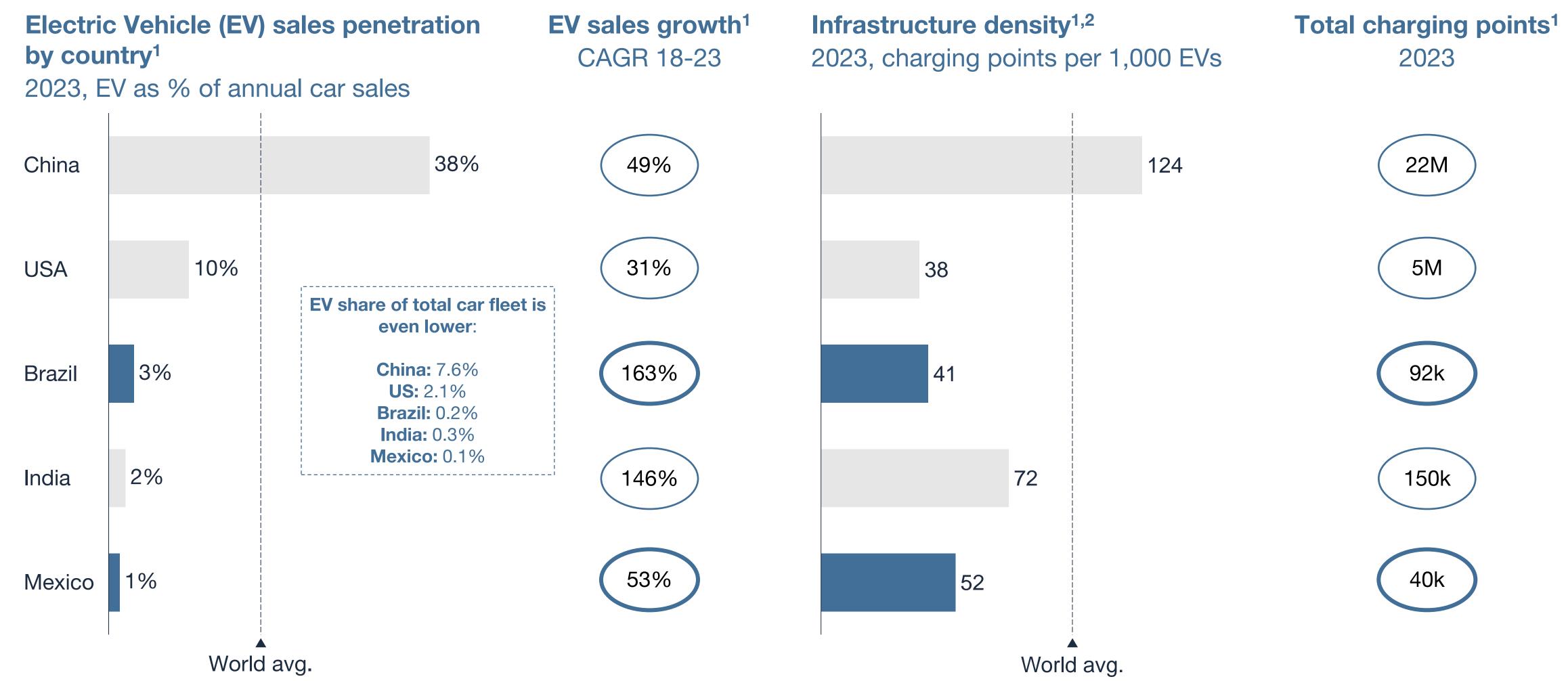


LatAm

Global



LatAm fleet electrification is still nascent, but accelerating; charging infrastructure will have to follow





In Brazil, BYD launched and quickly captured the lead of the electric car market through cost competitiveness

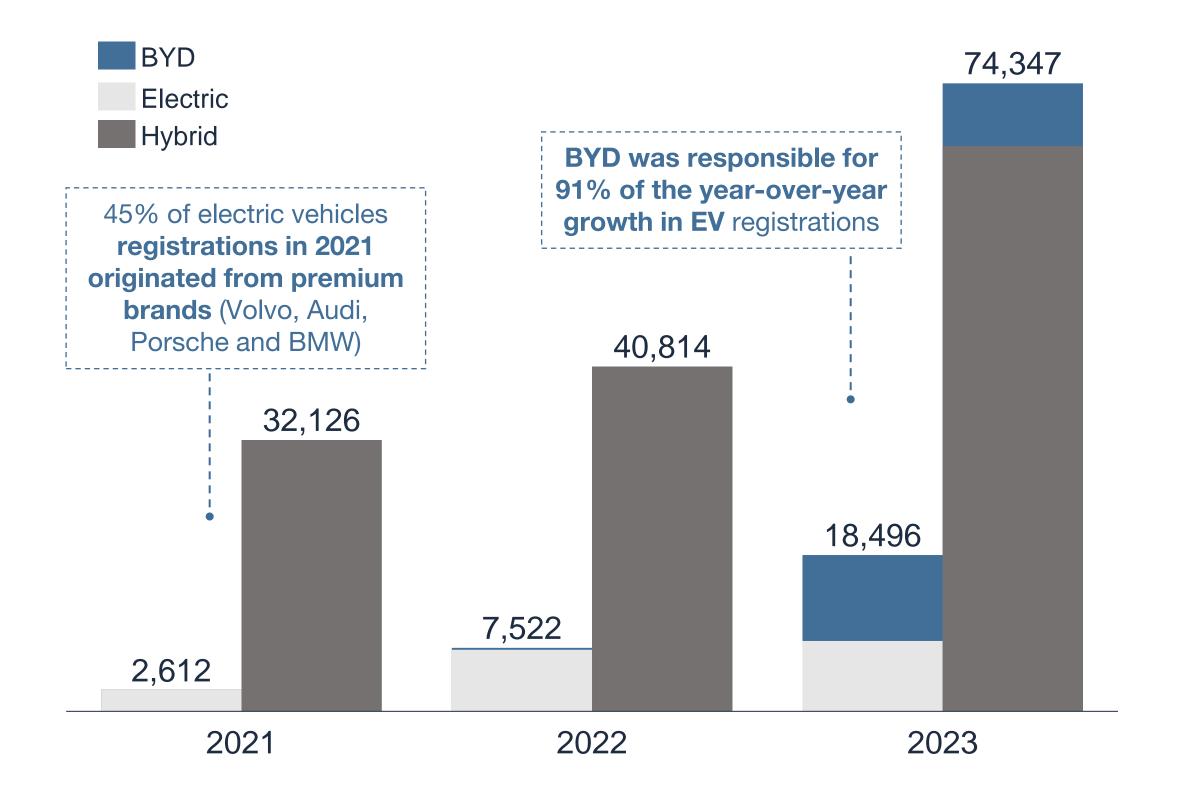
Total Annual Costs

Total Annual Costs

+10k cars for Uber drivers with up to \$3k credit

for purchasing, maintenance, and financing

Electric vehicle registrations in Brazil^{1,*} Vehicles sold



BYD is not only cheaper vs. previous leading electric car models... Volvo EX30 Nissan Leaf **BYD Dolphin** \$42k \$55k \$29k ...but also offers lower TCO** vs. ICE*** through strategic partnerships **Provides a 60% reduction in costs Provides a 45% reduction in TCO** 99 for drivers renting vehicles for drivers and Uber Black status **Driver Partnership Cost Comparison** Uber Black Comparison: 1y usage; 100k km (Fueling, Insurance, Taxes, Maintenance) (ICE x EV) **BYD Dolphin** Nissan Kicks TCO: \$1.2k/mo TCO: \$0.65k/mo \$5.1k Monthly subsidy \$12k

Notes: (*) A hybrid vehicle is powered by both an internal combustion engine (ICE) and an electric motor, with separate batteries for each. An electric vehicle uses only a battery and an electric motor to run.) (**) Total Cost of Ownership; (***) Internal Combustion Engine motorcycles Sources: (1) Fenabrave; Companies' releases



Exemption from charger

installation costs

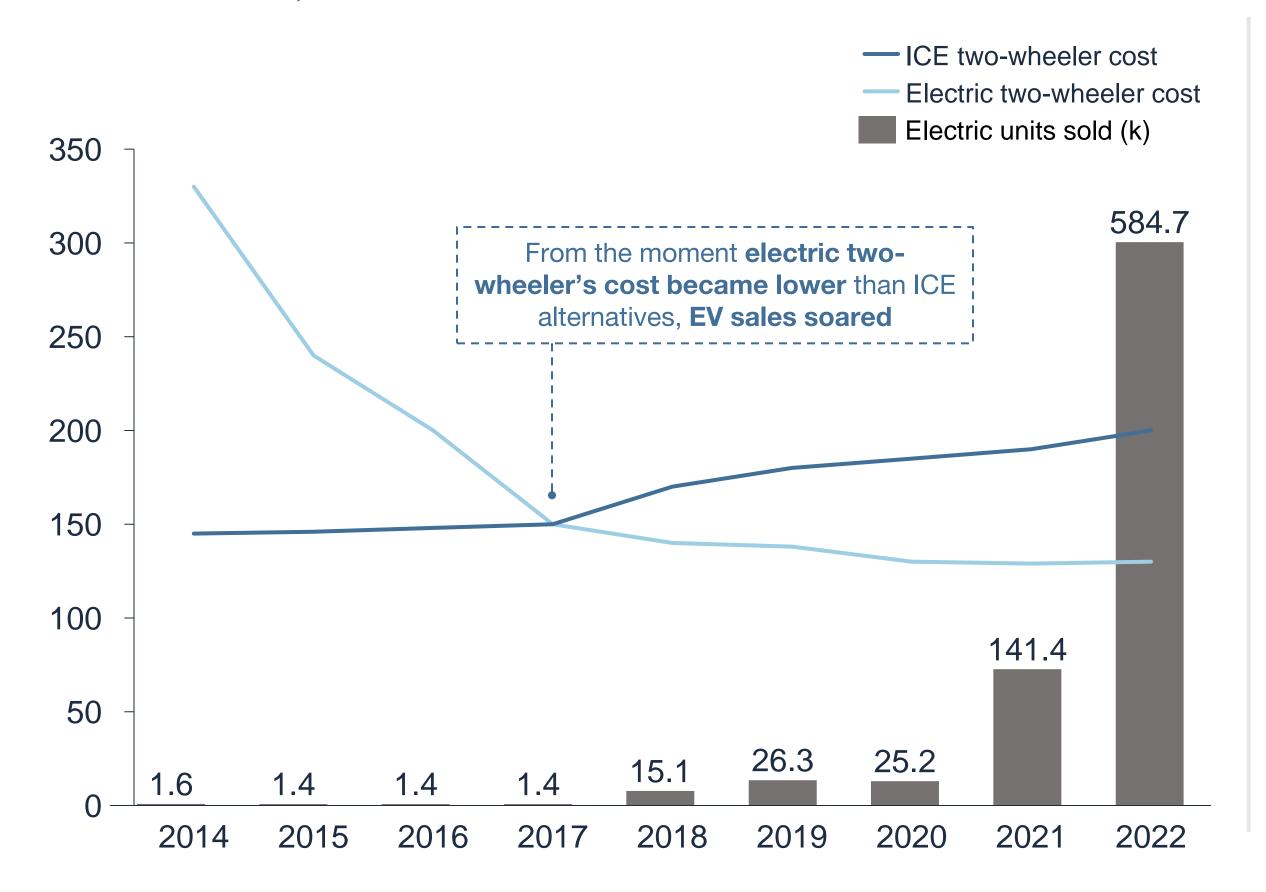
+drivers get discount for purchasing

and financing BYD cars

India's EV motorcycle sales were driven by cost parity; Brazil's shift suggests it's nearing a similar inflection

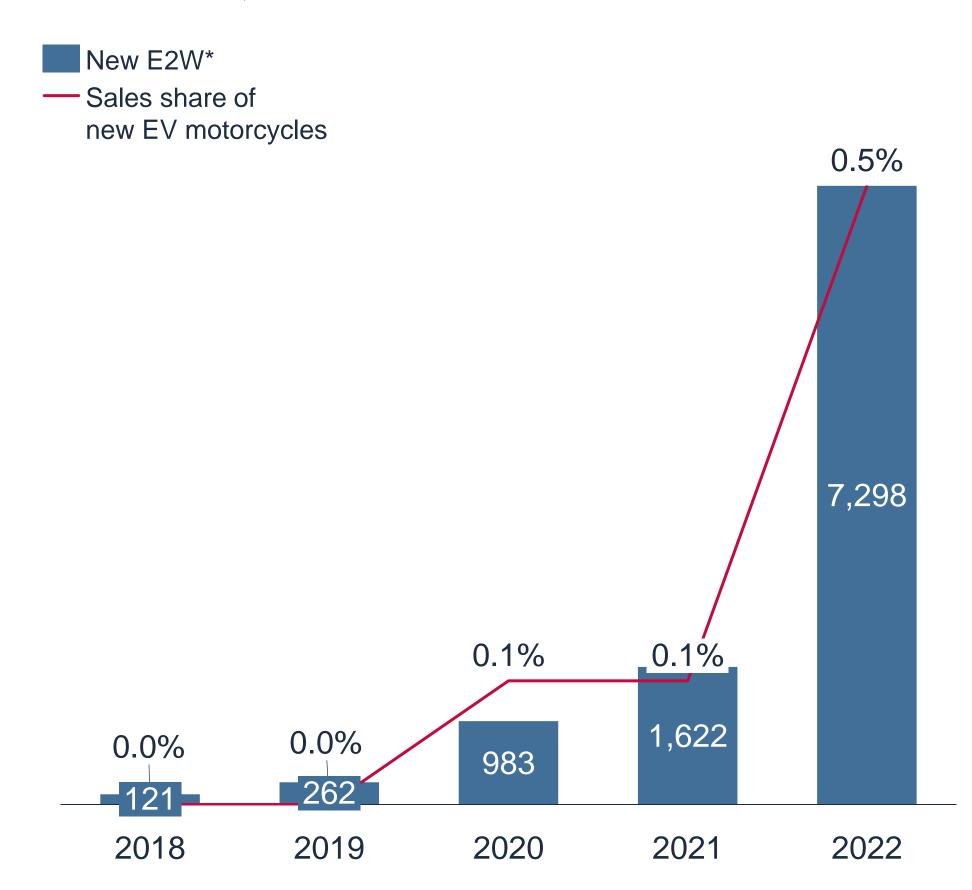
India's total cost of ownership and EV sales evolution¹

INR thousands, Thousand two-wheeler units



EV motorcycle adoption in Brazil²

of vehicles, % of total sales



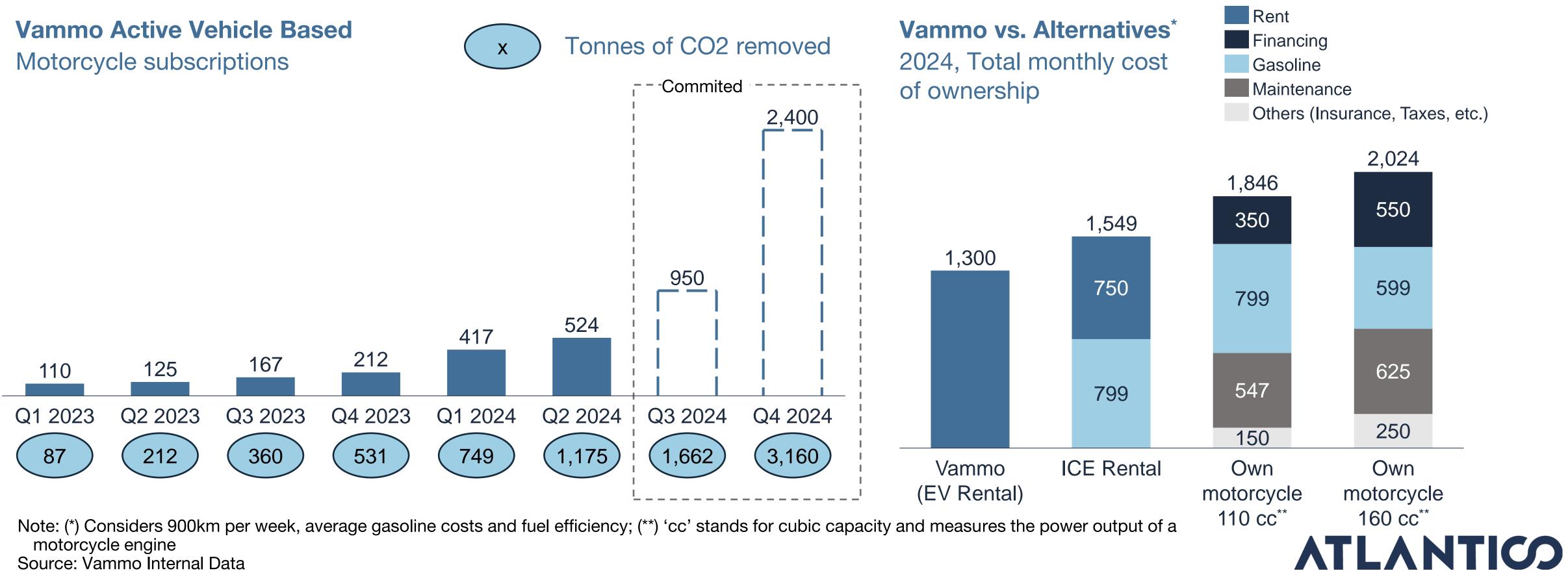




Vammo offers full-service motorcycle rentals for a cheaper total cost than leading market alternatives in Brazil

Vaumo

Vammo offers a complete motorcycle subscription package that includes the vehicle, unlimited access to Vammo's network of battery swap stations, and in-house preventive maintenance



motorcycle engine

Source: Vammo Internal Data

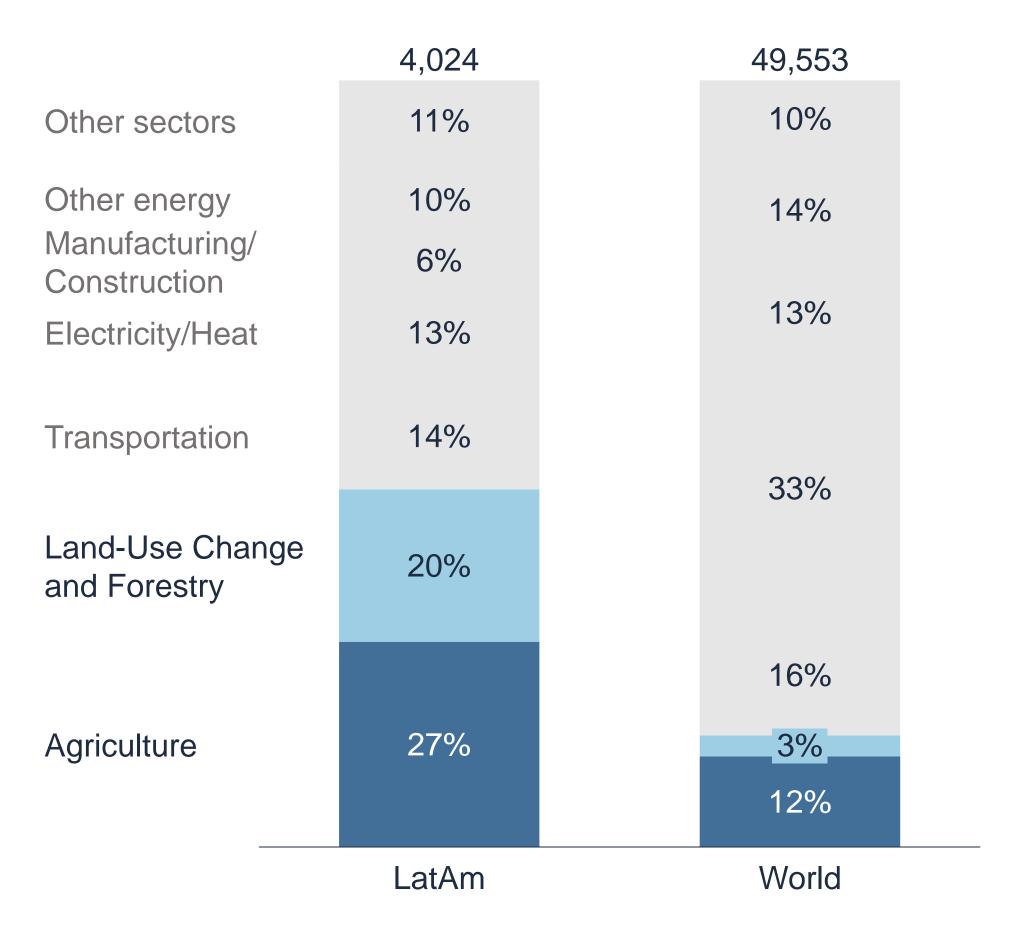


Agriculture & Land Use

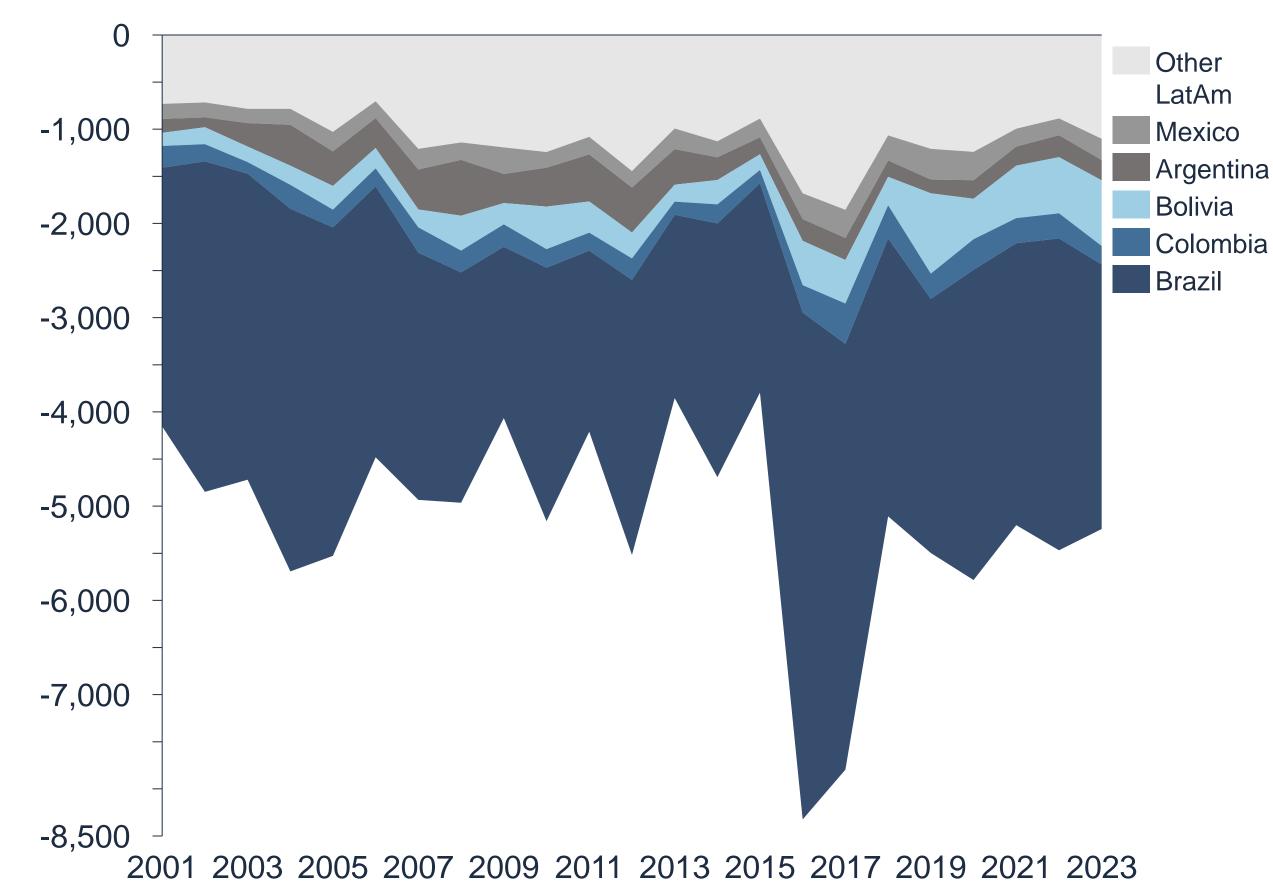


Land use accounts for 45% of LatAm's emissions, a large portion coming from deforestation to free up land

GHG emissions by region and sector¹ %, 2021



Deforestation in Latin America² Billions of hectares





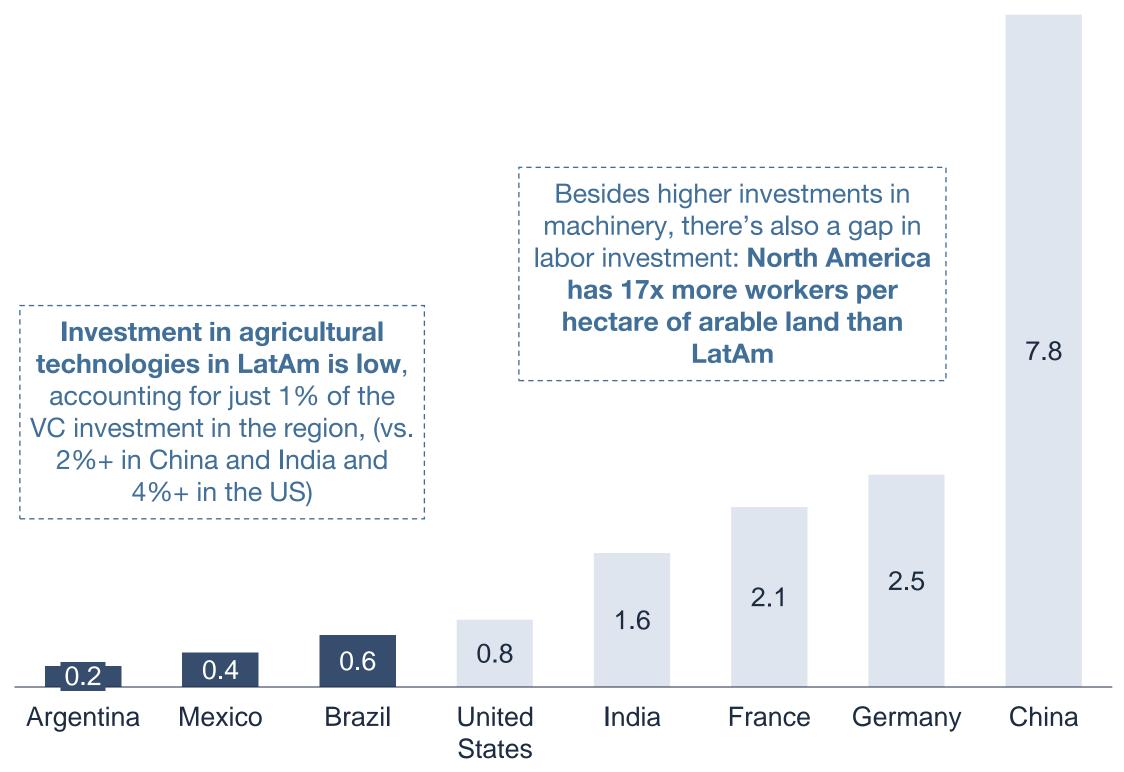
Latin America still lags in agricultural productivity, despite the region's push to close the gap over recent decades

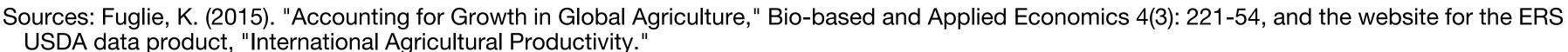
Agricultural total factor productivity (TFP) index

115 — Latin America & Caribbean — Europe Asia-Pacific — North America 110 105 100 95 90 According to ESR-USDA, the 85 current pace of TFP growth is insufficient to meet the future food demand of a 80 growing global population 75 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2021

Machinery usage in agriculture per country

Ratio of farm machinery horsepower per 1,000 hectares of quality adjusted agricultural area, 2021



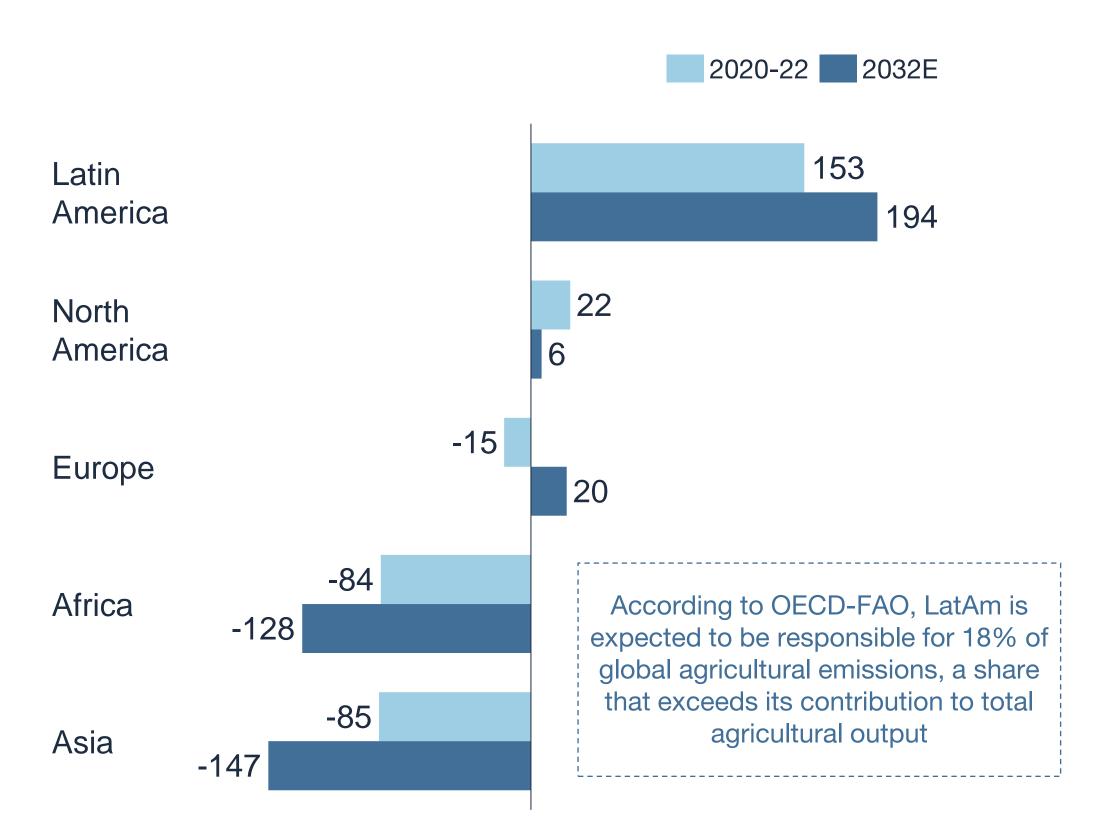


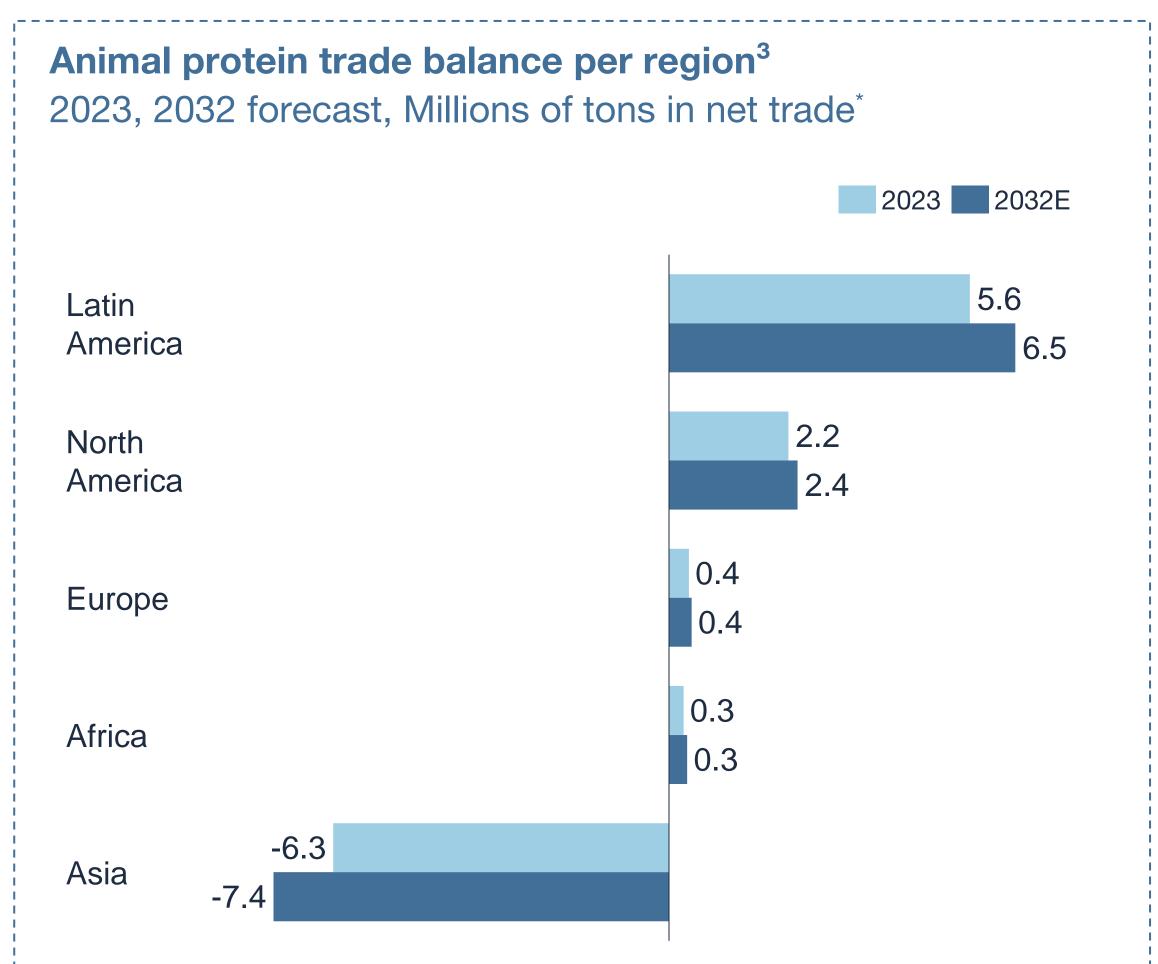


Latin America's global leadership in food supply should continue to put pressure on land use as demand expands

Agricultural trade balance per region^{1,2}

2020-2022; 2032E, US\$B in net trade*











Carbon credits emerged to facilitate project financing and carbon offsetting; Demand is rising, but challenges exist

Carbon credit cycle¹

Emission case example



CO2 Sequestration or Carbon Avoidance



Foresters implement best forestry management practices to generate credits by reducing or removing carbon emissions from the atmosphere



Carbon Credit



Carbon Offset Certifications or **Carbon Credits are issued based** on the amount of GHG emissions reduced or avoided

The money is used to fund

certified projects that conserve

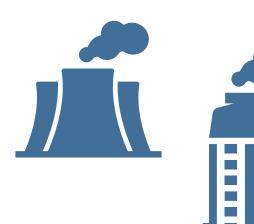
and restore forests, generate clean

energy, or increase energy efficiency,

among other possibilities



Industrial GHG Emitters

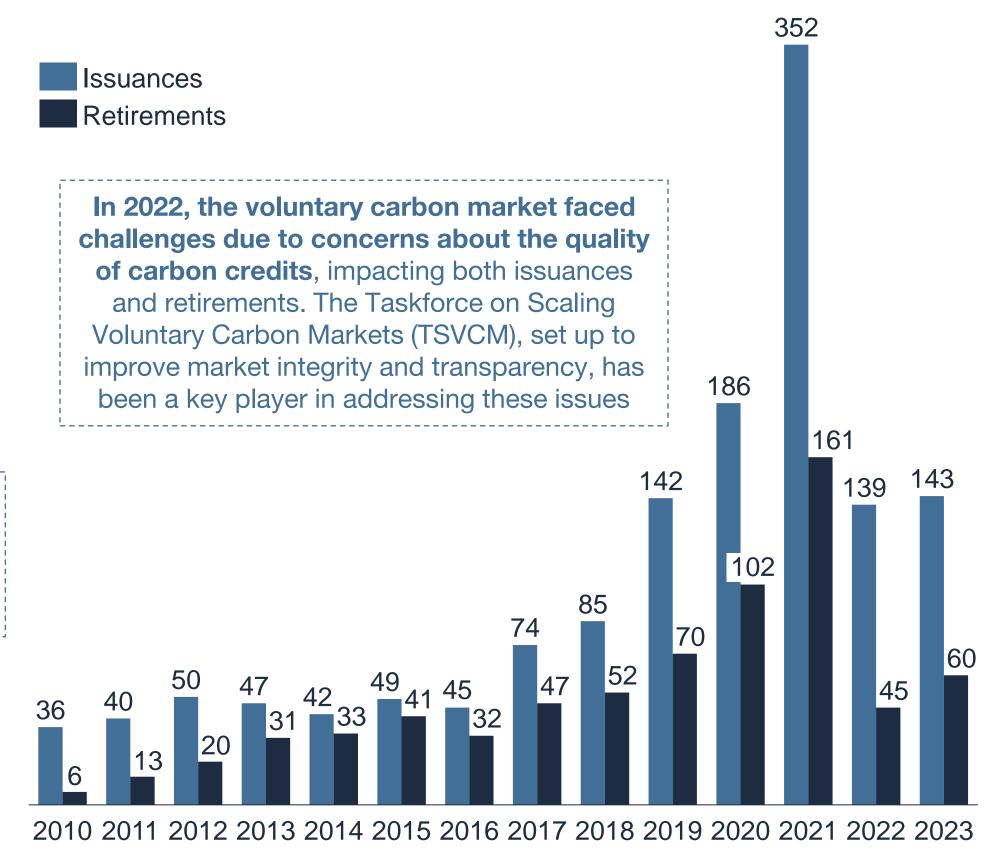


GHG emitters with special permits buy credits to meet regulatory requirements. Emitters receive these credits and retire them in verified governing bodies



Voluntary carbon market growth²

Millions of metric tons of CO² equivalent



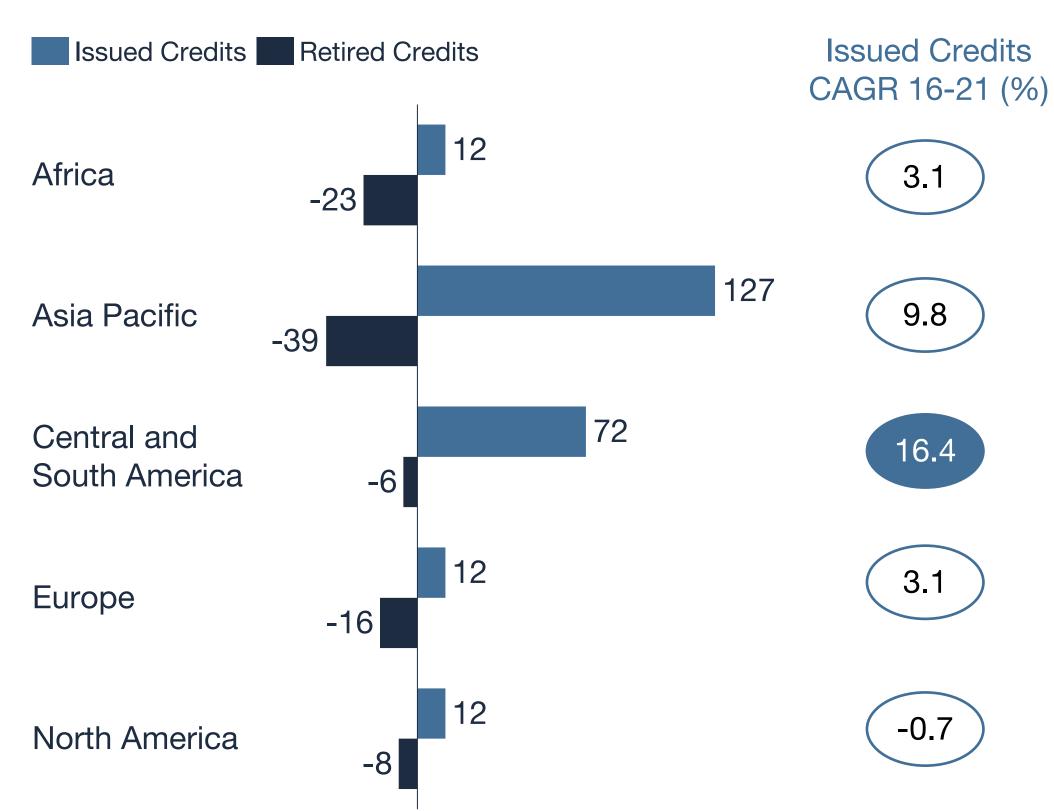




Latin America ranks second in carbon credit issuance; nonetheless, its projects rely on less permanent solutions

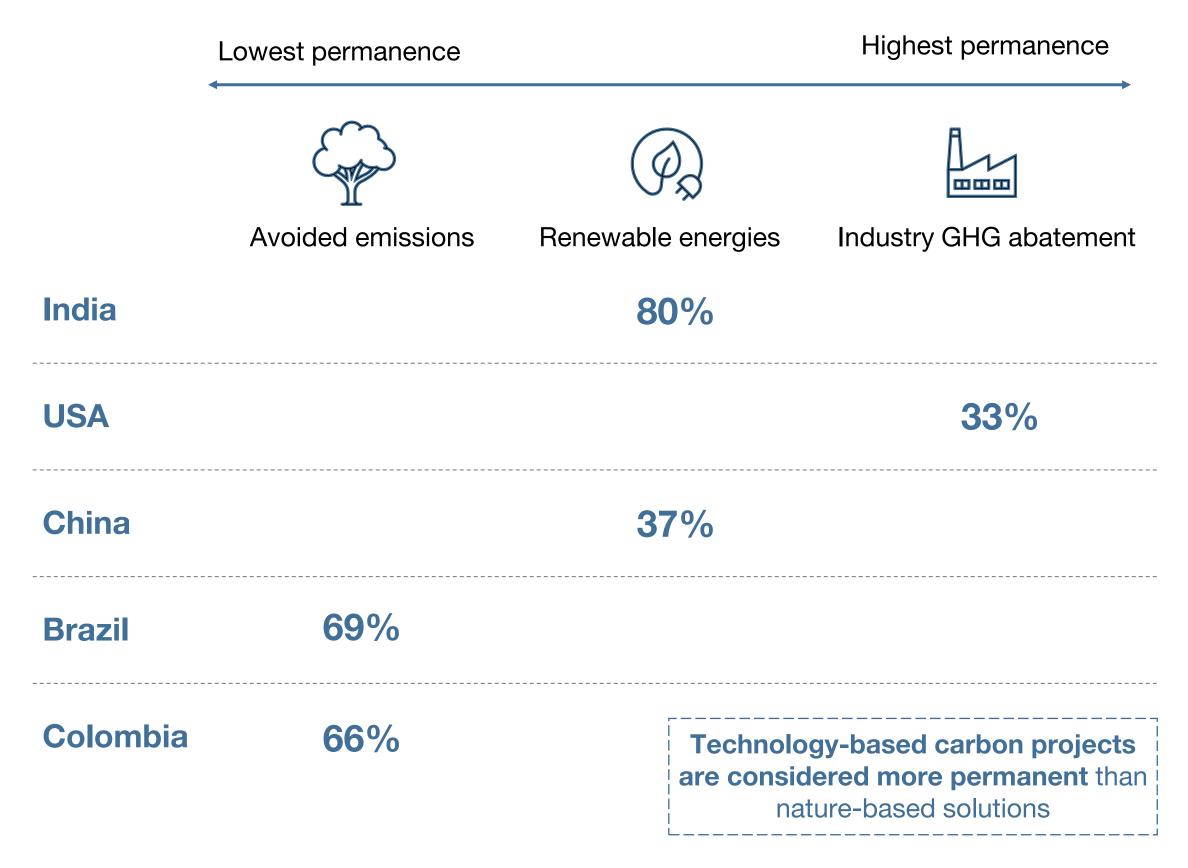
Discrete credits* split by region¹

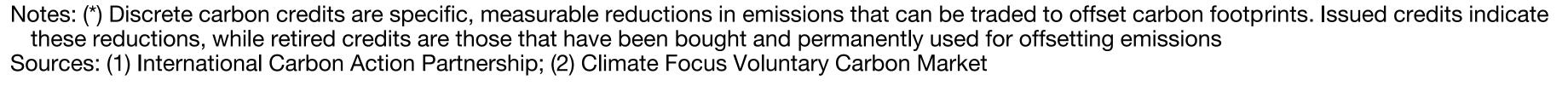
2021, Millions of tons of CO² equivalent



Non-retired volumes by activity type²

Share of largest activity

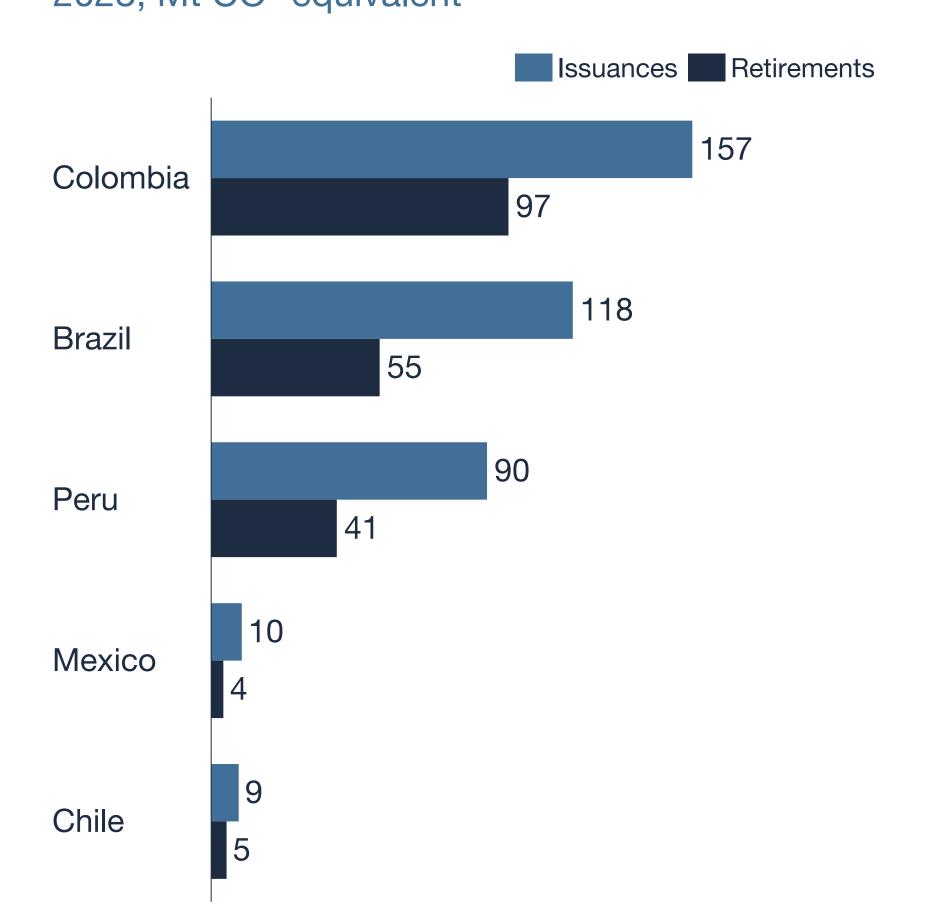


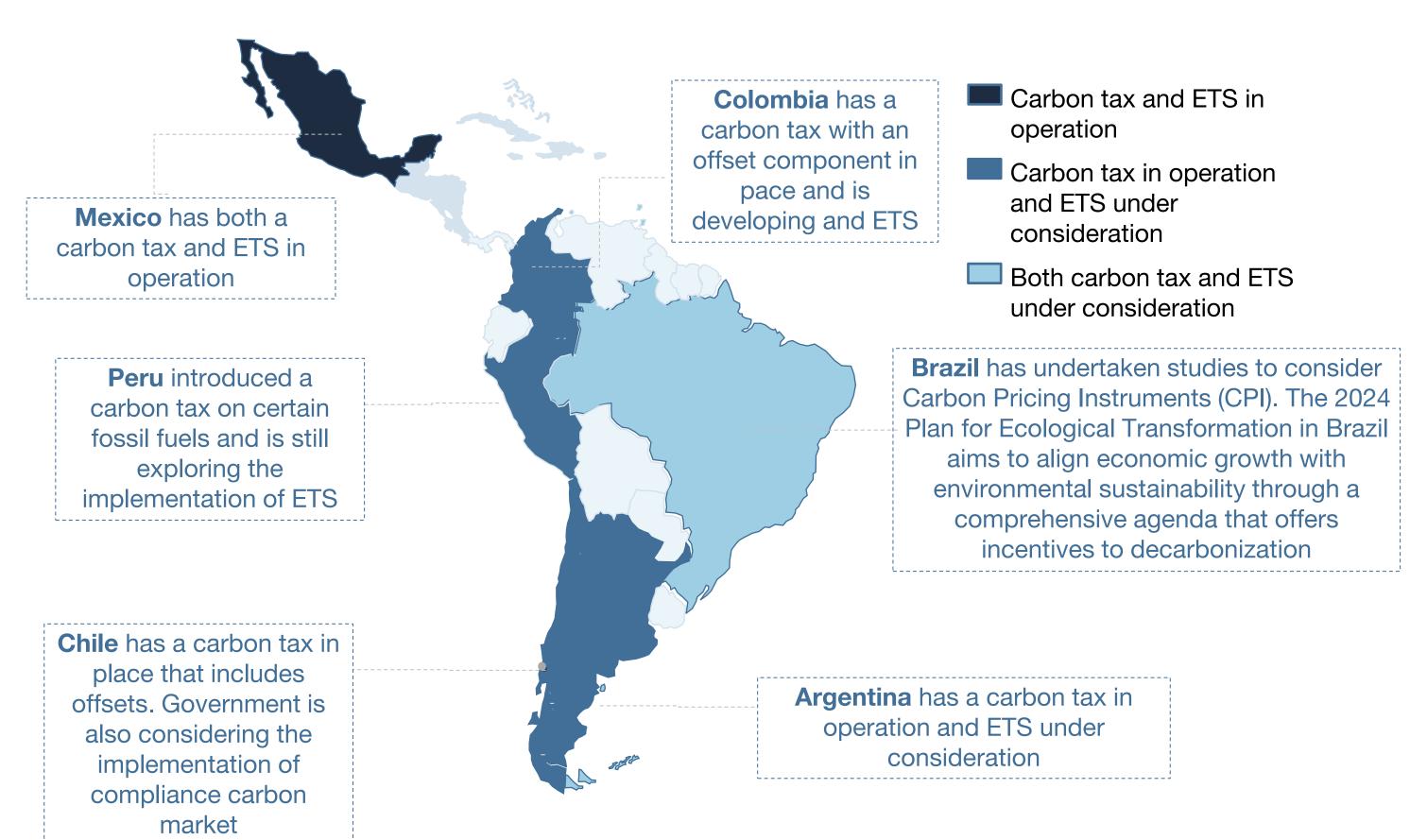




Colombia leads the region in issuance and retirements, while Brazil ranks second despite limited regulatory actions

Retirements and issuances of credits in LatAm 2023, Mt CO² equivalent



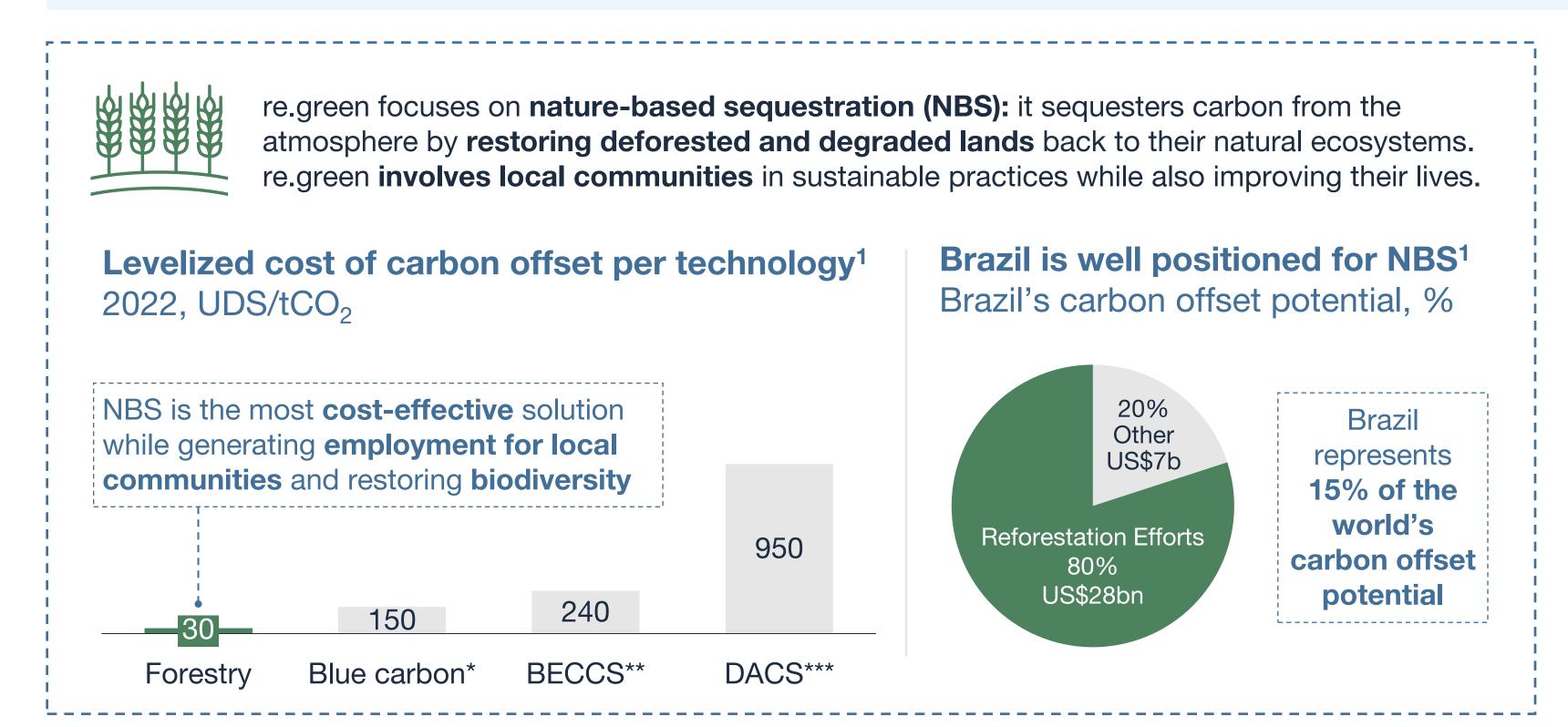




Re.green generates carbon offset by leveraging Brazil's strategic position for large-scale forest restoration

re.green

Founded by some of **Brazil's leading scientists**, re.green is an **ecological restoration platform leveraging proprietary technology** such as cloud-based geospatial optimization algorithms and multiple restoration models to sequester carbon and enhance biodiversity



re.green analyzed 1200+ properties and purchased 26k ha of land

Properties evaluated by restoration potential, carbon return & contract performance

Total Land Mapped and AnalyzedProperties: 1,292 Area: 2,609k ha

Negotiation & Due Diligence

Properties: **71** Area: **166k ha**

Land Purchased

Properties: 5
Area: 26k ha

Over **45**% of the total area is **restorable**

Notes: (*) Carbon captured and stored by coastal and marine ecosystems; (**) Bioenergy with Carbon Capture and Storage (BECCS) is a technology that combines bioenergy production with carbon capture; (***) Direct Air Carbon Capture and Storage (DACS) is a technology that captures CO2 directly from the atmosphere and stores it underground or in other long-term storage solutions.

Source: re.green internal data





@STF_oficial intima Elon Musk e X a indicarem representante legal em até 24 horas, sob pena de suspensão de atividades no Brasil 🛝

Translate post

noticias.stf.jus.br

STF intima Elon Musk e X a indicarem representante legal en Intimação assinada pelo ministro Alexandre de Moraes foi feita por meio do perfil oficial do STF na plataforma. ...

Ozempic becomes hit in Brazil, generates R\$3.7bn in sales

Novo Nordisk wants to extend medicine patent in the country

Tecnologia

Economia / Tecnologia

Brasil é o terceiro país que mais consome redes sociais

Uso constante tem impactos econômicos e psicológicos, além de gerar riscos, dizem especialistas

Influenciadora é indiciada por divulgar "jogo do tigrinho"

A mulher chegou a movimentar aproximadamente R\$10,4 milhões e, se condenada, pode pegar até 40



Lookout: New Consumer Trends





Global Government Affairs 🧼 🔀





@GlobalAffairs

Last night, Alexandre de Moraes threatened our legal representative in Brazil with arrest if we do not comply with his censorship orders. He did so in a secret order, which we share here to expose his actions.



Elon Musk 🔮 🛛 @elonmusk · Aug 17

Due to demands by "Justice" @Alexandre in Brazil that would require us to break (in secret) Brazilian, Argentinian, American and international law, X has no choice but to close our local operations in Brazil.

phones than in other countries

say they wake up in the middle of the night and check their phones."

More teens in Mexico feel 'addicted' to

But in all countries, "one thing we've found in common is the number of parents and teens who

He is an utter disgrace to justice.

Brasileiros perdem R\$ 23,9 bilhões em 'bets' e vício atrapalha até no emprego

por Redação Tribuna do Norte

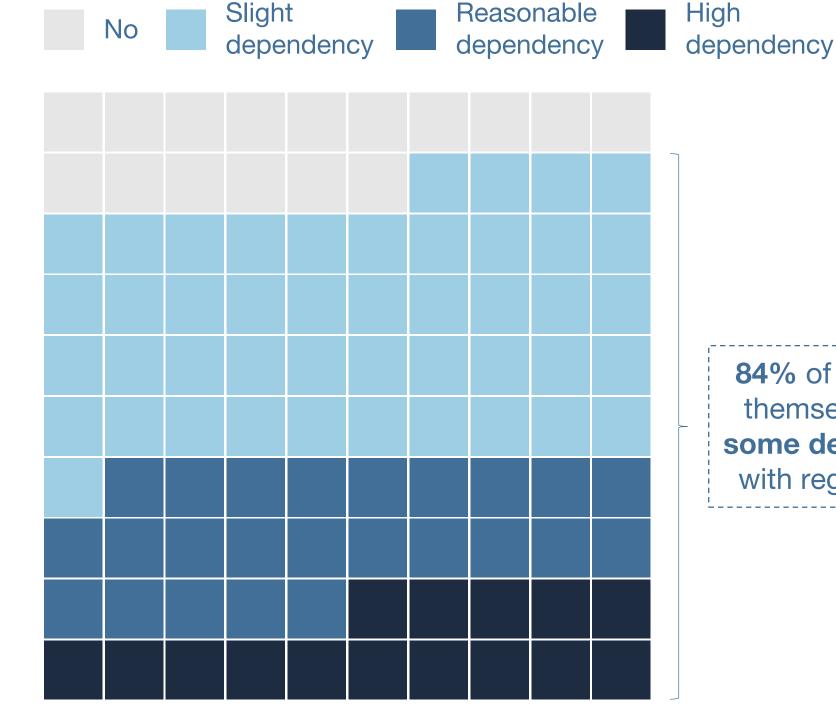
7 de setembro de 2024 | 📝 8 de setembro de 2024

Most of the population perceives negative impacts from excessive cell-phone use and dependency

Perception about dependency on cell-phones¹

2024, % of respondents in Brazil

Do you consider yourself to have any level of dependency with regards to your phone?

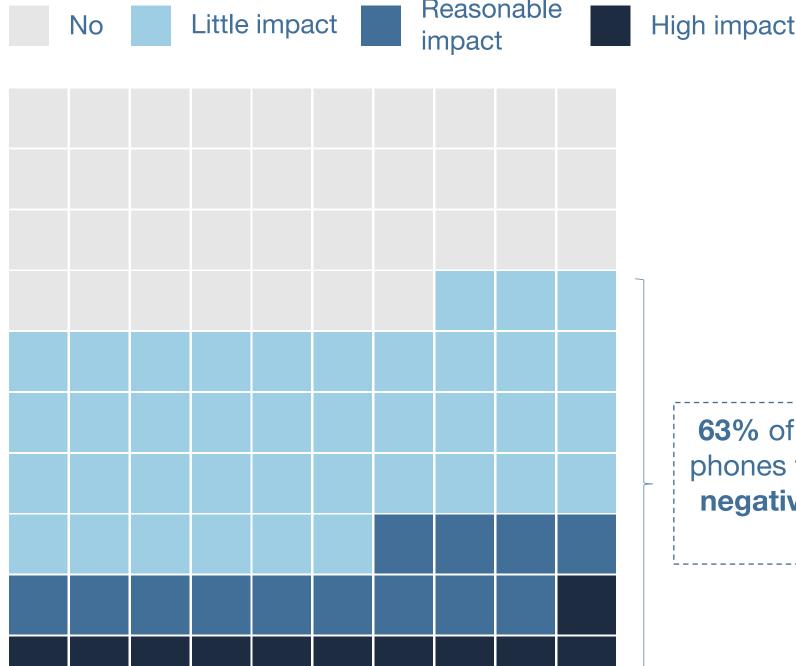


84% of responders consider themselves to have at least some degree of dependency with regards to their phones

Perception about cell-phones and mental health¹

2024, % of respondents in Brazil

Do you believe the use of cell phones negatively impacts your mental health?



63% of responders consider phones to have at least some negative impact on mental health





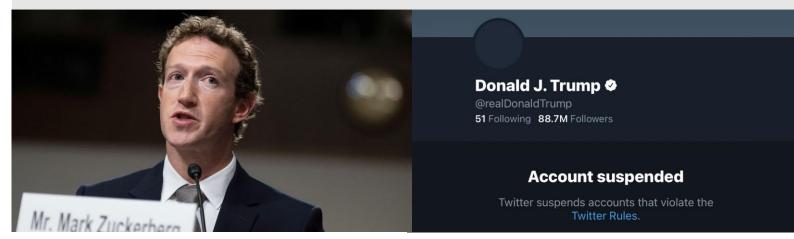
Big Techs face increasing government pressure worldwide, leading to tighter regulation of media platforms and content

Big Techs face growing U.S. scrutiny and regulatory threats¹

TikTok faces the **risk of a U.S. ban** as data privacy and security concerns grow amid U.S.-China tensions



Freedom of speech is another divisive issue, especially during election periods



Zuckerberg claims Meta was "pressured" to censor Covid content by Biden's admin.

Trump was "permanently" banned from Twitter in 2021 for incitement of violence

LatAm faces similar tensions: Brazilian Supreme Court versus X³

1. Warnings = 2023-2024

Since the Jan/2023 coup acts in Brazil, Alexandre de Moraes, justice of Brazil's Supreme Court, has investigated and ordered X to ban users – mostly from Brazil's right-wing - spreading misinformation and inciting attacks on democratic institutions



2. Resistance 2024

day, August 30, 2024
day's Paper

Che New Hork Cime.

U.S. - World - Business - Arts - Lifestyle - Opinion - Audio - Games - Cookin

razil Blocks X After
lusk Ignores Court

Brazil Blocks X After
Musk Ignores Court
Orders
The platform will go dark in the nation of 200 million, the result of an escalating fight between Elon
Musk and a judge over what can be said online.

Elon Musk refused to comply with the Brazilian Supreme Court's orders to remove content from the platform, further escalating tensions. Additionally, on August 19th, he closed X's operations in Brazil after Moraes threatened to arrest their legal representatives

On Aug 30th, X was officially taken offline in Brazil. In addition, the judge ordered the freezing of Starlink's* accounts in the country, despite its lack of direct involvement in X's operation

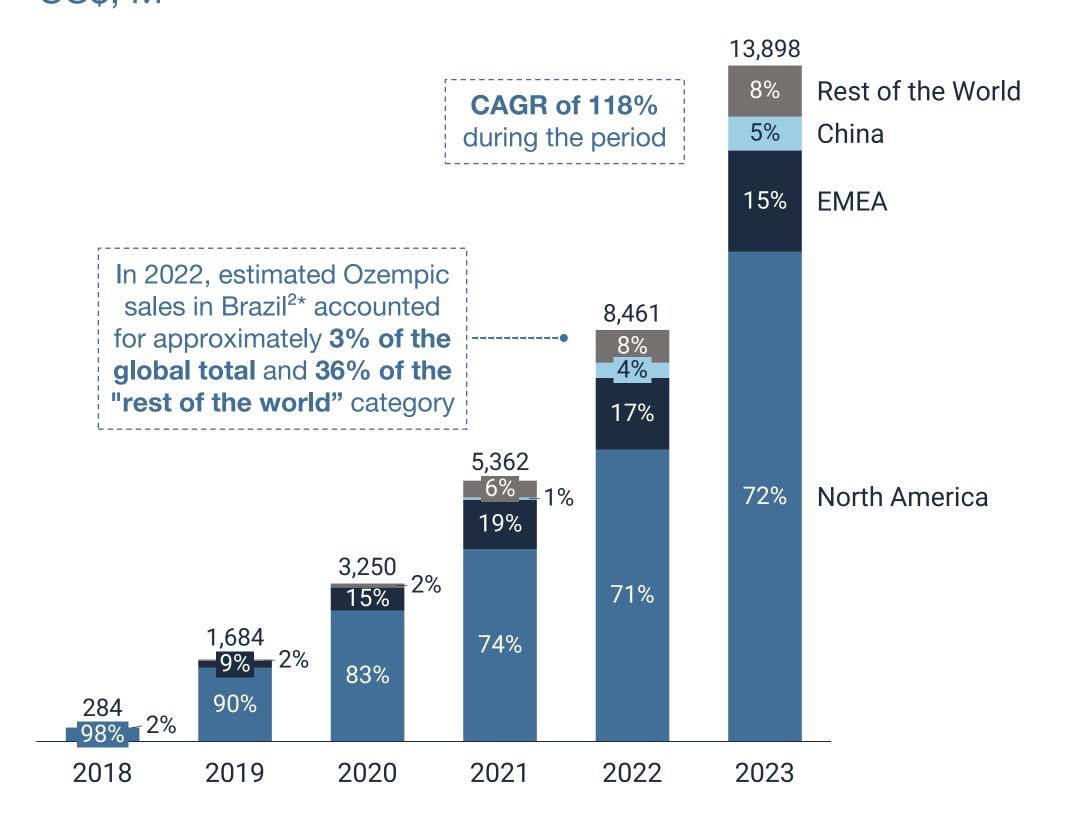
"He [Moraes] is a criminal playing dress-up as a judge."
- Elon Musk on X

3. Sanctions

The platfor nation of 26 an escalatin Musk and a said online.

Ozempic sales have soared globally, with Brazil starting to follow the lead; still, most Brazilians don't approve usage

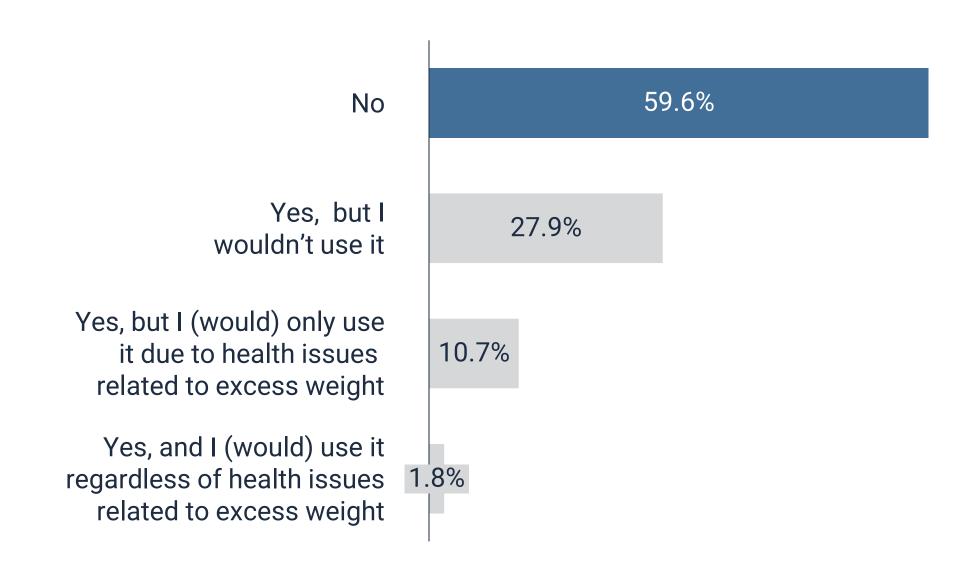
Ozempic's global sales have skyrocketed through expansion into new markets, including Brazil¹
US\$, M



Most Brazilians still don't see Ozempic as a solution for weight loss³

2024, % of respondents

Do you believe that medications like Ozempic are a good option for weight loss?



Notes: (*) Estimate based on an interview with Novo Nordisk CEO Lars Jørgensen, maintaining the company's proportions of total Ozempic sales to total global sales; Sources: (1) Novo Nordisk's Financial Reports; (2) Valor Econômico; (3) Atlantico and AtlasIntel Survey 2024 (n=1,619)





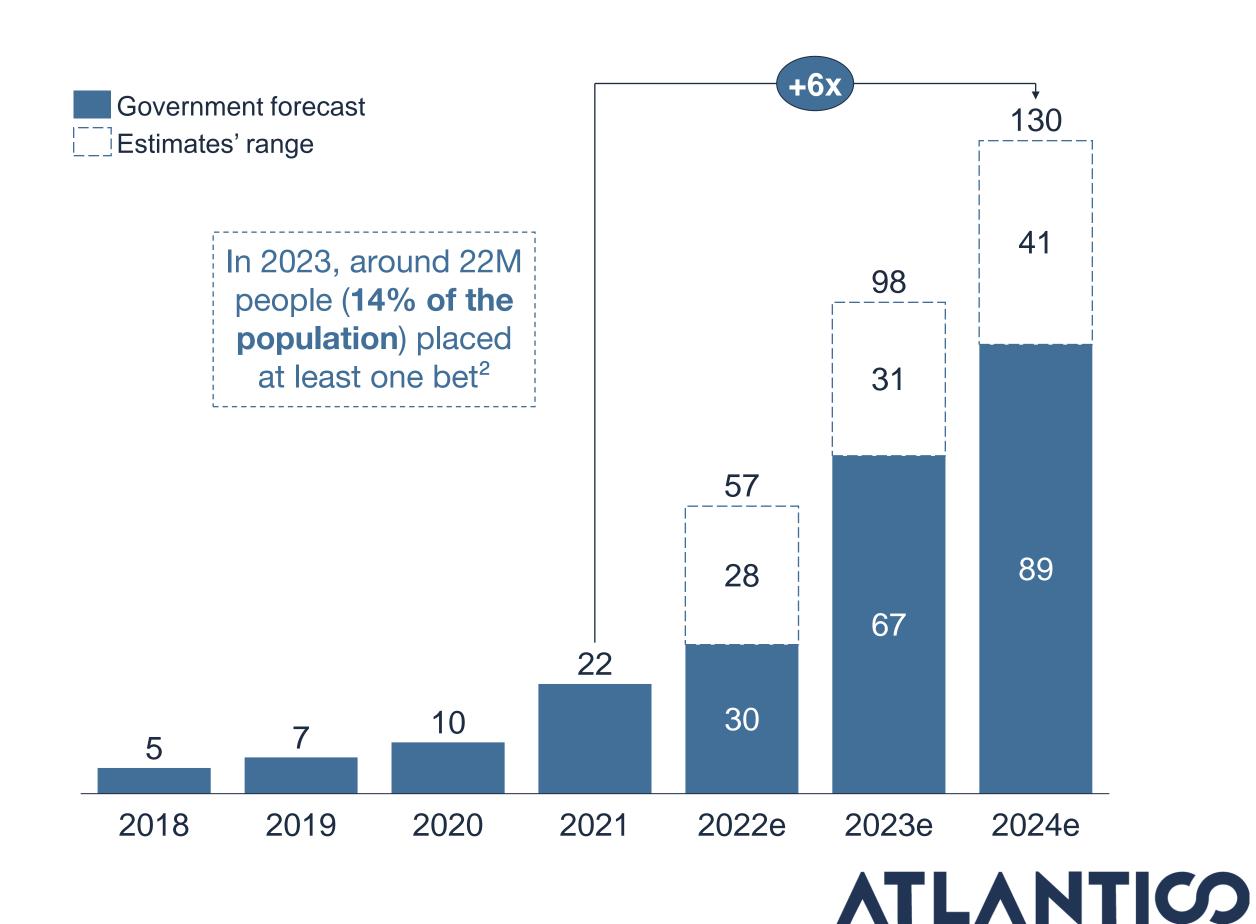
Brazil has surged to become one of the world's largest sports betting markets after years of regulatory 'limbo'

Regulation evolution in Brazil¹



Sports betting turnover* evolution¹

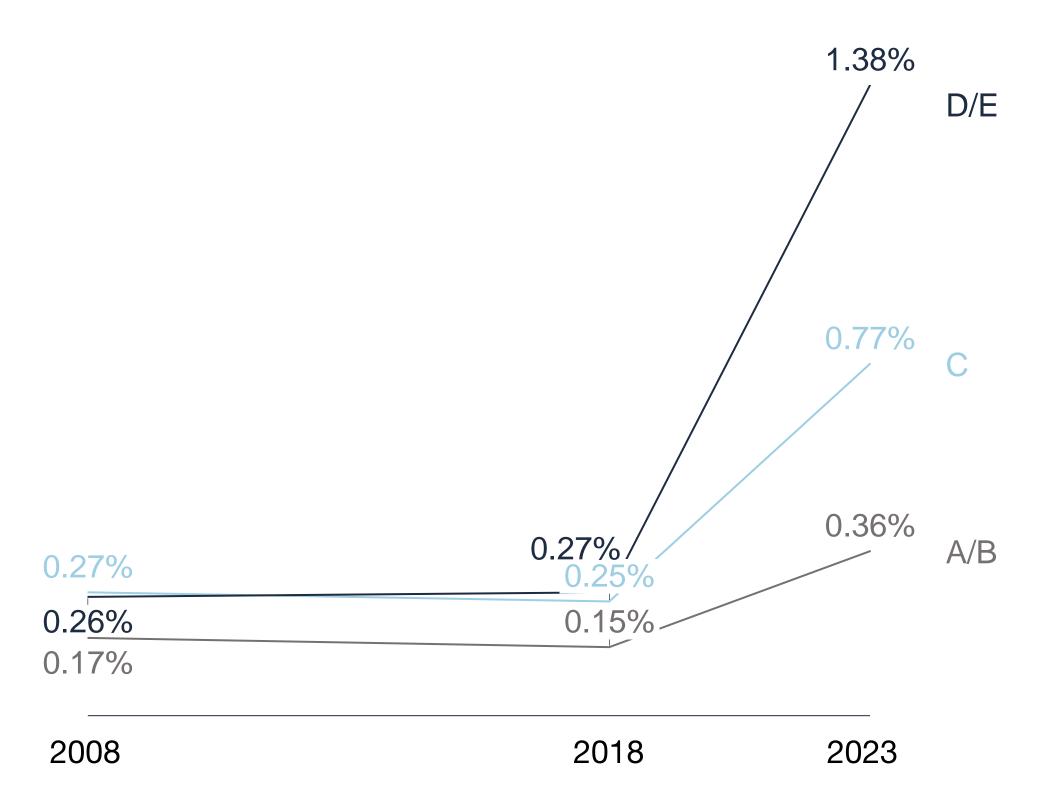
R\$B in total value of bets placed



The most economically vulnerable population classes are hit the hardest by the negative impacts of sports betting

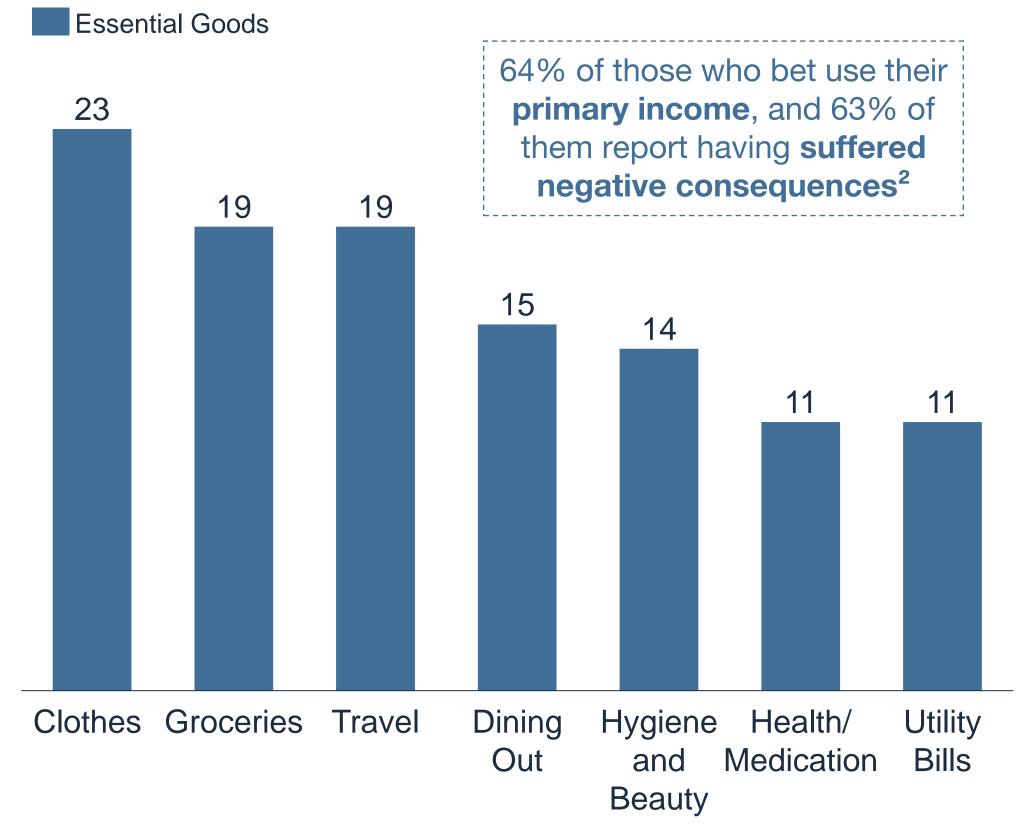
Bets are increasingly taking a larger share of household budgets¹

% of penetration in families' budget by income class



Spending is shifting not only from discretionary items but also from essential goods²

2024, % of mentions of categories skipped to spend on betting*





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