



Global Innovation Lab
for Climate Finance

Brazil Resilience through Climate Credit and Insurance for SMEs (BRACCE)

stone



October 2026

About the Lab

The Global Innovation Lab for Climate Finance, hosted by the Climate Policy Initiative, identifies, develops, and launches sustainable finance vehicles that can drive billions of dollars into a low-carbon economy. The Lab is an independent, neutral third party that stress-tests vehicles (design & capital structure, impact framework, implementation plans) to support their development into market-ready solutions.

This Blueprint document summarizes the analytical results from the rigorous incubation program. The Lab aims to inform the market about the structures and concepts designed to enable innovation to cross-pollinate, implementation to scale, and partnerships to form.

The authors of this blueprint are Phillipe Käfer and Gabriel Mathias. Publication date: October 2026.

Stone and Zurich (proponents) proposed the concept, which is currently under development. The authors would like to acknowledge Carolina da Costa, Giovanna Zambrini, Carolina Sena, Manuela Mauler, André Stancati (Stone), and Gustavo Furtado, Alexandre Mandaji, Nathalia Abreu, Daniella Cosso (Zurich) for their cooperation and engagement with the Lab program.

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More information at www.climatefinancelab.org.

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SECRETARIAT

 CLIMATE
POLICY
INITIATIVE

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What is BRACCE?

Flood insurance protects SMEs while mobilizing private credit

BRACCE is deploying debt financing to climate-vulnerable SMEs, with flood insurance as a benefit to strengthen borrowers' resilience.

Target Fund Size	USD 100M USD 355M revolving	The Demonstration Phase will raise USD 20M USD 71M revolving
Geography	Brazil	Urban SMEs in flood-exposed cities, via Stone's client base.
SMEs Financed	~45,200	The Demonstration Phase will support 9,045 SMEs
Jobs Supported	~361,800	The Demonstration Phase will support 72,360
Target Fund IRR	14–17%	17% Senior · 14% Mezzanine · 14% Junior (base case)

Flood insurance protects SMEs while mobilizing private capital

Climate-vulnerable urban SMEs in Brazil face limited access to affordable credit and insufficient protection against flood and heavy-rainfall losses.

BRACCE enables SMEs to access credit with built-in insurance protection through a bundled loan product structured through a Brazilian receivables investment fund (FIDC).

The vehicle deploys capital to SMEs, uses part of the credit spread to pay insurance premiums, and protects the portfolio against business interruption and repayment stress caused by flood and heavy-rainfall events.

BRACCE is led by Stone, which provides SME reach, credit data, and first-loss support, together with Zurich as the insurance partner.

The project is projected to support approximately 9,045 SMEs in the USD 20 million Demonstration Phase, scaling to approximately 45,225 SMEs at USD 100 million.

- **Innovative:** Integrates SME credit, flood and heavy-rainfall risk assessment and insurance in one product to unlock capital.
- **Actionable:** Builds on Stone's existing SME client base, payment terminal network and credit portfolio.
- **Financially Sustainable:** Insurance reduces expected losses and investor risk, helping lower the vehicle's cost of capital. Base-case tranche **IRRs of 17% (Senior), 14% (Mezzanine) and 14% (Junior)** evidence the return profile offered to commercial capital.
- **Catalytic:** Offers a scalable model for financing flood and heavy-rainfall resilience among Brazilian SMEs and helps address the SME financing gap.

The Lab Secretariat recommends endorsing the instrument, as it meets the Lab's criteria.

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A multidisciplinary leadership team driving a strategic partnership



A leading Brazilian fintech providing payment services, listed on NASDAQ, serving over 4.6 million clients, providing integrated payment and commerce solutions



A leading global multi-line insurer founded over 150 years ago, serving more than 82 million customers in more than 200 countries and territories



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Climate-related disasters are becoming more frequent and costly across Brazil

Climate-related disasters in Brazil have **risen 460% since the 1990s**¹, with floods and heavy rainfall among the most frequent hazards.

This risk is expected to intensify: the World Bank estimates that **flood damage losses could increase by more than 50%**² as extreme rainfall becomes more frequent in Brazil's cities.

The **April–May 2024 floods in Rio Grande do Sul demonstrate the potential scale of these impacts.**

Brazil's costliest disaster on record caused **USD 17.8 billion in damages**, equivalent to 0.76% of national GDP³. The floods affected 478 of the state's 497 municipalities and displaced more than 420,000 people⁴.

Despite this growing exposure, **adaptation finance remains limited**, accounting for only ~7% of Brazil's climate finance flows and less than BRL 100 million in 2024⁵.

¹ [Mongabay \(2026\)](#)

² [World Bank \(2026\)](#)

³ [Atlas Digital de Desastres no Brasil \(2026\)](#)

⁴ [Center for Disaster Philanthropy \(2024\)](#)

⁵ [CPI \(2025a\)](#); [CPI \(2025b\)](#)



Photo: João Souza/Depositphotos

Climate exposure leaves SMEs with limited access to credit and financial protection



Man cleans up shop after 2024 flood in Porto Alegre. Photo: Rafa Neddemeyer/Agência Brasil

The impacts on SMEs extend beyond major disasters. Floods and heavy rainfall can cause prolonged revenue interruptions, inventory losses, and sudden financing needs.

With SMEs in emerging economies typically holding **less than one month of cash reserves**¹, even relatively short disruptions can quickly create financial pressure.

Their ability to absorb and recover from climate shocks therefore depends heavily on access to external finance and financial protection, both of which remain constrained:

- 1. Limited access to affordable credit:** SMEs in climate-exposed areas can face reduced access to affordable finance as lenders factor heightened climate risk into credit decisions, further constraining liquidity when it is needed most.
- 2. Insufficient financial protection:** Limited insurance against floods and heavy rainfall leaves SMEs to absorb losses directly, further weakening their financial position and ability to recover.

¹ UNEP FI, 2026 (V20-SIF)

USD 483 billion SME finance gap in Brazil

Brazilian SMEs face a structural financing gap that constrains investment in climate adaptation and resilience, despite growing demand from enterprises and investors, creating a need for mechanisms that can de-risk investments.

Each **USD 1** invested in climate adaptation can generate **USD 2-15¹** in economic benefits.

SMEs are also central to Brazil's economy: 95% of businesses, 63% of employment, and 47% of value added.²

Brazil is targeting USD 20 billion¹ in adaptation investments over the next five years.

¹ Instituto Talanoa (2025)

² McKinsey (2024)



Brazilian Municipal Market in São Paulo. Photo: Wikimedia Commons.

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BRACCE embeds insurance into SME credit to address capital and resilience gaps in flood-prone regions

Every SME loan is bundled with flood and heavy-rain insurance, delivered as one product. Bundling gives insurance a distribution channel it currently lacks and gives credit built-in protection against climate shocks.

1 Fund Capitalization

Investors commit capital to the FIDC, structured across Senior, Mezzanine and Junior tranches, with Stone holding the Junior first-loss position.

2 Credit + Insurance Deployment

FIDC capital funds SME credit via Stone, paired with Zurich's flood and heavy-rainfall insurance.

3 Repayment to the Fund

Receivables already assigned to the Fund repay the loan via Stone, through a prior assignment / escrow structure.

4 Revolving Structure & Premium

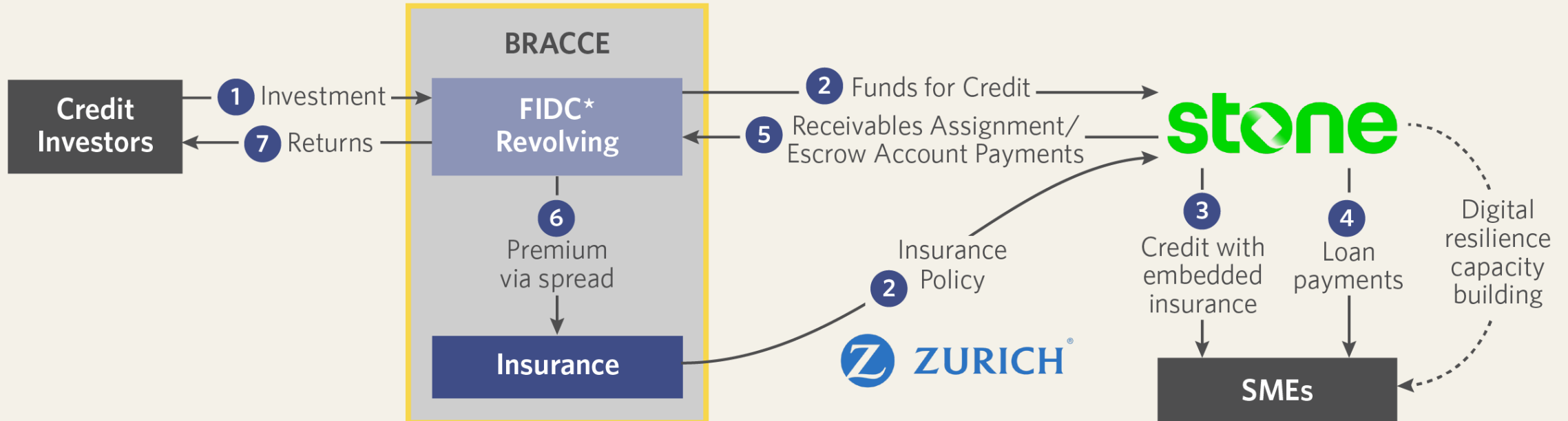
Capital revolves each cycle, redeployed into new loans aligned with the underlying asset tenor. Premiums are funded from profits in excess, not charged separately.

5 Investor Returns

Demonstration Phase: principal and returns at the Fund's term, by tranche order. Scaled-Up and Commercial Phases: periodic distributions.

BRACCE uses a conventional investment vehicle to channel capital toward climate impact

Embedded flood and heavy-rain business interruption insurance absorbs the loss before it reaches the SME's cash flow.



*What is a FIDC? [Explanation here](#)

Insurance is provided by Zurich, converted by Stone into installment amortization for the SME

Zurich insures the SMEs and, upon a covered loss event, pays Stone directly. Stone then uses the proceeds to amortize the SME's loan installments due after the event during the business interruption period, providing cash-flow relief for up to three months per event.

The premium is embedded in the mechanism and paid from the fund's cash profits. As a result, SMEs do not pay a separate, visible insurance fee.



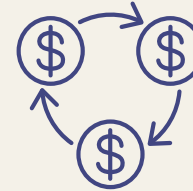
Insurer

Zurich pays Stone directly under the terms of the policy.



Policyholder, proposer

Stone amortizes the installments falling due over the period of interruption.



Insured

SME Client: Amortization is capped at up to three months' payments per event.

Trigger design pairs a parametric primary route with an indemnity backstop

Currently, most insurance claims in Brazil are handled through indemnity-based processes rather than parametric triggers. In this case, Zurich is designing a new approach by proposing a primary parametric route to enable faster payouts and a shorter path to loan installment amortization. The indemnity route remains available when the insured can demonstrate verified losses not captured by the parametric index.

Primary route parametric trigger

- **Trigger mechanism:** Payment is automated based on the reading of an observed index, requiring no loss adjustment.
- **Speed to settlement:** Minimizes the timeframe between the event and payout, accelerating the timeline to installment forgiveness.

If the
parametric
index fails to
trigger a
payout for a
covered
event.



Subsidiary route indemnity recourse

- **Fallback coverage:** Activates if the parametric index fails to trigger despite verified losses.
- **Loss verification:** Requires the insured to provide evidence of adverse impact.
- **Indemnity backstop:** Reverts to standard indemnity terms provided in the policy.

¹ [NatureFinance \(2026\)](#) shows a comparable basis-risk miss with an expected USD 45M parametric payout that never triggered.

* [What is Parametric and indemnity insurance? Explanation here](#)

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First vehicle in Brazil to underwrite flood risk inside an SME loan

Structural innovation

Insurance protects the SME and is funded by a percentage of the fund's profits, so every borrower is automatically covered without requiring a separate application.

Market innovation

First hybrid parametric-indemnity credit-insurance model for urban SMEs in Brazil¹.

Resilience innovation

Financial resilience: flood-credit insurance for SMEs.

Physical resilience: early-warning alerts and adaptation funding to prevent losses.

Risk-transfer innovation

Flood-related default risk starts on the insurer's balance sheet and migrates to reinsurance and Brazil's ILS market as the structure matures.

¹ UNEP FI, 2026 (V20-SIF) prescribes this architecture as best practice.

Breaking down flood and credit barriers with structured solutions for SMEs

BARRIERS

SOLUTIONS

High cost and limited affordability of credit and insurance

- The premiums are covered by the fund structure rather than being paid by the SMEs
- Integrates insurance into financing, reducing uncertainty for adverse events
- Uses a blended FIDC to allocate risk efficiently until the insurance mechanism is proven

Flood and heavy-rainfall risk is not properly integrated into SME finance

- Combines Stone, Zurich and AdaptaBrasil data (Brazil's public platform for mapping and analyzing climate risks and vulnerabilities across the country) in underwriting
- Turns flood and heavy-rainfall risk into shared, underwritten risk, collecting the data to understand the relationship between adverse events, defaults, and adaptation needs

Limited insurance adoption and weak post-disaster response

- Embeds insurance at the fund level, with less reliance on voluntary adoption
- Includes complementary resilience capacity building, delivered via Stone's platform, to improve resilience, insurance adoption, and business continuity
- As the instrument evolves, it facilitates liquidity post-event while adding pre-event adaptation measures to shift the focus from response to prevention

BRACCE builds on proven credit-insurance models, adapted for urban SMEs in Brazil

Unique positioning: BRACCE recombines three proven components: (a) insurance at SME level; (b) lending co-deployed with risk transfer; and (c) an insurance-to-financing link, applying them for the first time to urban commercial SME credit at scale in Brazil¹.

Instrument	Category	Overview	BRACCE Differentiation
Emata SPV	Embedded agri-lending	USD 20M SPV bundling weather insurance directly into smallholder crop loans.	• Same: Insurance with credit • Diff: Urban commercial SMEs at scale
VisionFund / ClimaCash+	MFI-bundled parametric	Satellite-triggered drought/heat parametric cover auto-embedded in MFI loans.	• Same: Parametric insurance with credit • Diff: Urban commercial SMEs at scale, Stone is a commercial fintech, not an MFI
Mercy Corps Ventures / Fortune Credit	Embedded MSME pilot	Blockchain pilot embedding rainfall cover in Kenyan MSME loans, cutting repayments on trigger.	• Same: Protects the borrower and lender simultaneously • Diff: Commercial SME scale even during the Demonstration Phase
TACATDP (CRDB / GCF)	Blended lending + guarantee	USD 200M facility pairing adaptation loans with guarantees and weather-index cover.	• Same: Shares the lending and risk-transfer design • Diff: Credit insurance rather than a guarantee focused on investors
Seguro Prestamista (LatAm)	Embedded credit protection	Non-climate add-on covering death, disability or job loss on loans.	• Same: Insurance with credit • Diff: Climate related-coverage

¹ UNEP FI, 2026 (V20-SIF) identifies bundled credit insurance and digital delivery channels as the most effective routes for MSMEs.

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Senior, Mezzanine, and Junior share risk across a 3-year revolving pipeline

BRACCE raises capital through three tranches of FIDC funding for SME working-capital loans, each bundled with Zurich flood/heavy-rainfall business-interruption cover funded by the fund's share of profits.

Investment term and revolving periods:

- The Demonstration Phase has a confirmed 3-year term (other phases to be defined)
- Pipeline revolving every 12 months.
- Zurich covers insurance at Demonstration. Reinsurance/ILS can be added as the risk covered increases

How returns are generated:

- Senior is repaid first from loan repayments.
- Mezzanine (the impact tranche) carries higher subordination and risk absorption than Senior and is priced below the full market rate but close to it.
- Junior/first-loss (Stone) absorbs losses first through Stone's anchor commitment as the originator.

Pipeline & Target Market

4.7M

Stone base of clients

5.4%

of Credit Clients are in very high-vulnerability areas

1.07%

Brazil's insurance penetration (premium to GDP)

Stone's distribution channel expands insurance access for underserved SMEs

Embedding climate coverage into Stone's existing urban credit relationship converts a segment that structurally self-selects out of standalone insurance into one covered as standard.

1.2%

Brazil's insurance penetration

Structurally low, measured as premiums to GDP¹

26.7%

SME business insurance coverage

Purchase behavior remains reactive, not preventive²

93%

Climate catastrophe protection gap

The widest gap in the market, per SUSEP³

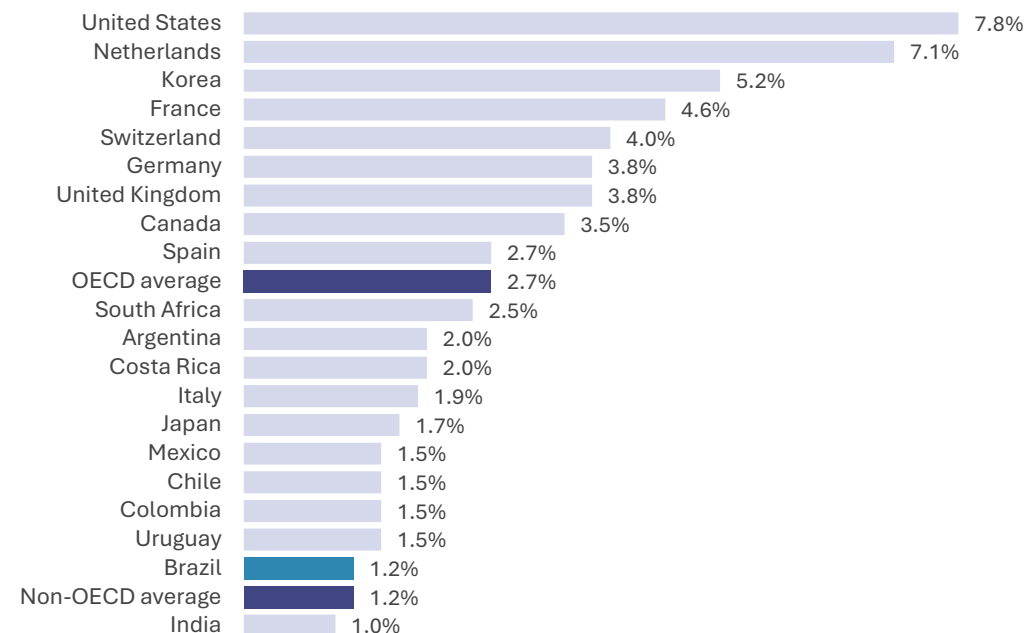
¹ [AXCO \(2026\)](#)

² [REP \(2026\)](#)

³ [SINDSEGSP \(2025\)](#)

⁴ [OECD \(2025\)](#)

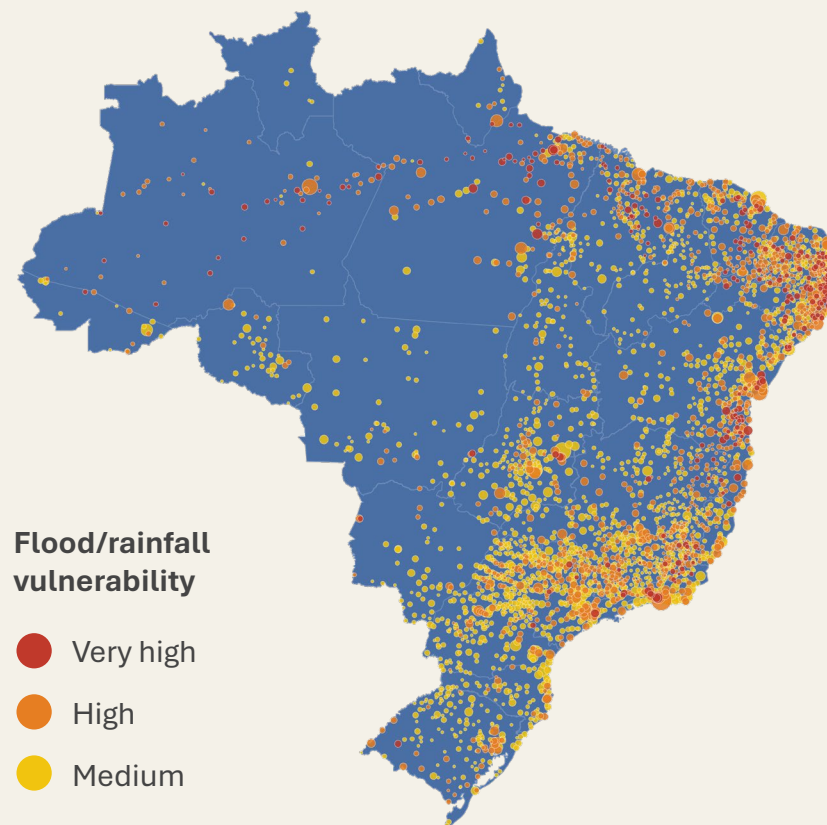
Brazil ranks 50th out of 67 jurisdictions for non-life insurance penetration⁴



Flood and heavy-rainfall exposure in Stone's portfolio reveals a growth opportunity

Stone's credit client base in vulnerable regions

Stone has 4.7M clients nationwide. Of its active credit book, 71% is in medium-to-very-high flood vulnerability areas, including 5.4% in the very-high tier—a priority segment for BRACCE's pipeline.



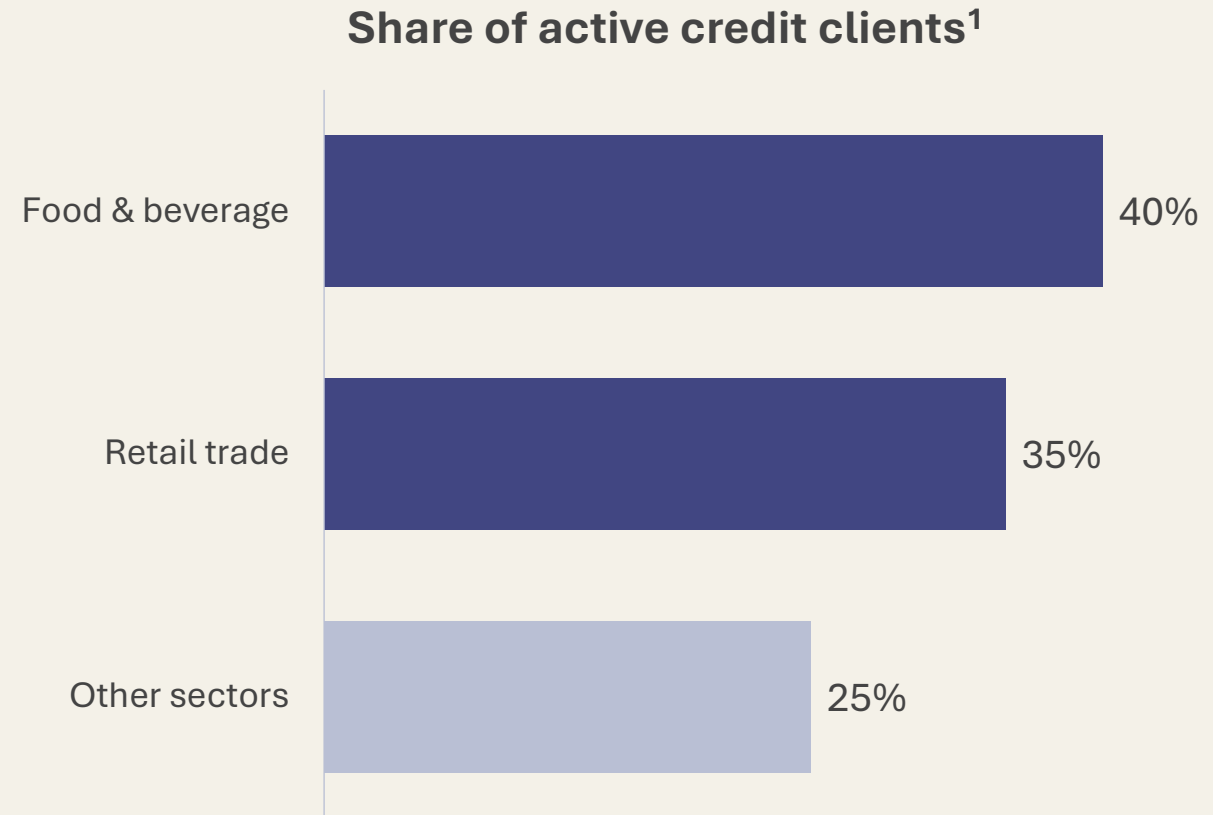
Selection Criteria

- Zurich underwriting principles
- Credit performance
- AdaptaBrasil platform for climate exposure
- E&S SOP / DFI exclusion screening

Sources: Adapta Brasil Geohydrological Exposure x Credit Clients (Stone proprietary data).

75% of active credit clients are in two consumer-facing sectors, making the portfolio insurable at scale

- **Food & Beverage and Retail Trade share a similar risk profile:** fixed premises, daily cash flow, local customers, so flood loss is priced once, not borrower by borrower.
- That lets the insurer standardize cover and BRACCE scale without re-underwriting each loan.
- The remaining 25% is automotive (7.8%), personal services (4.7%) and healthcare (2.4%), plus a tail of 23 segments, none above 1.6%.



¹ Source: Stone's Proprietary Data on Sectors

Risk is managed through capital stack subordination, credit-insurance design, and strong governance

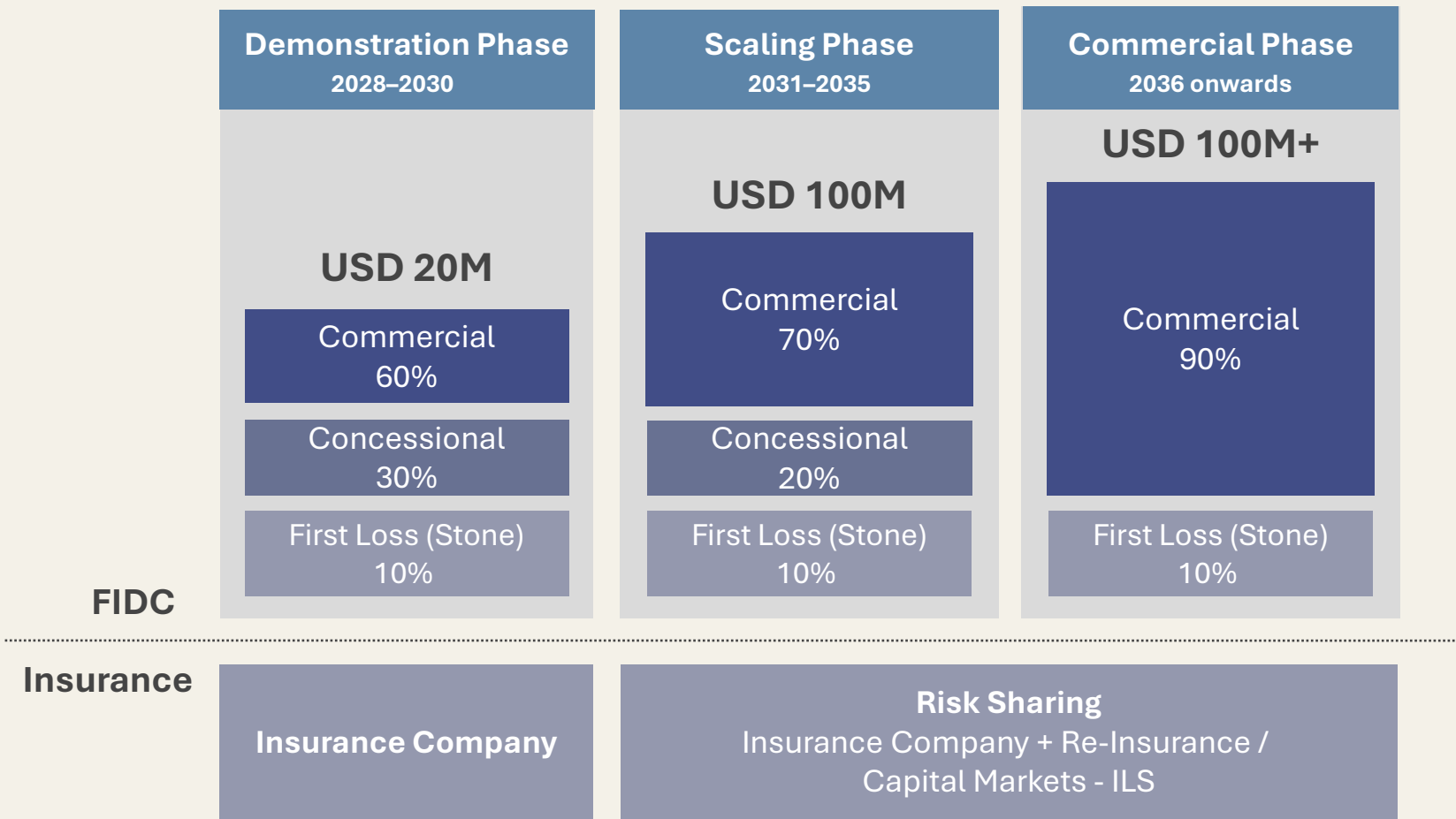
Eleven structuring risks were assessed; the five main risks are described below, all with effective mitigation measures¹.

Structuring risk	What it means	Inherent / Residual	Key mitigant
Insurance–credit coverage gap	Payouts may not fully match the loan loss they are meant to cover.	Major / Moderate	Stone and Zurich review losses regularly and adjust coverage rules to minimize basis risk and preserve alignment. Transparency on what exactly is covered.
Credit repayment	Borrowers default after a climate shock or in the normal course.	Major / Moderate	Eligibility, collections and governance; reserves, ~40% subordination (inclusive of Stone first-loss).
Physical	Flood severity exceeds the frequencies priced into the cover.	Major / Moderate	Conservative coverage design; reinsurance and ILS backstop at scale.
Early Redemption	Investors cannot redeem their investment early during the 3-year Demonstration Phase.	Moderate / Minor	As the vehicle scales in size and duration, it may be possible to create subclasses that allow for early redemption.
New Insurance Execution	Operational complexity of launching the new product can delay capital raising and deployment.	Moderate / Minor	Insurance partner (Zurich); a strong law firm to be hired to assess whether a new insurance product registration is needed; strong governance and project management.

¹ For more details, see the Annex. Structuring Risk Matrix available upon request.

Concessional capital phases to zero

Across all phases, Stone retains the first-loss position, ensuring alignment of interests and strong underwriting discipline.



Pathway to Phaseout of Concessional Capital

- 1 In the Demonstration Phase, subordination (40%) supports the use of insurance as a tool to improve portfolio resilience and risk-adjusted returns.
- 2 Larger fund size with growing participation from commercial investors, conditioned on falling loss ratios, not on elapsed time alone.
- 3 Fully commercial structure, with insurance reducing portfolio risk and improving access to market-rate capital.
- * Flood- and heavy-rainfall-related default risk will initially be covered by the insurer, with future risk sharing through reinsurance and/or ILS as the structure scales.

* [What is ILS? Explanation here](#)

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Revolving SME credit portfolio generates stable returns across scenarios

USD 71 million revolves through urban SME credit over a 3-year investment period, with insurance and financing from the fund's profit.

Capital stack — base case IRR

Tranche	Size	Base IRR
Senior	60%	17%
Mezzanine	30%	14%
First loss (stone)	10%	14%

Capital mobilization

Quasi-commercial mezzanine rate leaves a spread sufficient to cover:

- Insurance premium
- Loss absorption under Severe Stress
- Impact capital generation in Base and Upside scenarios

Modeling assumptions

- 9,045 loans / one SME per loan over a 3-year investment
- 3.9% average yield/m | 5.7% default rate | 40% recovery rate
- Conservative operational and expense profile

USD 71M

Total Credit deployed to urban SMEs

USD 20M-32M

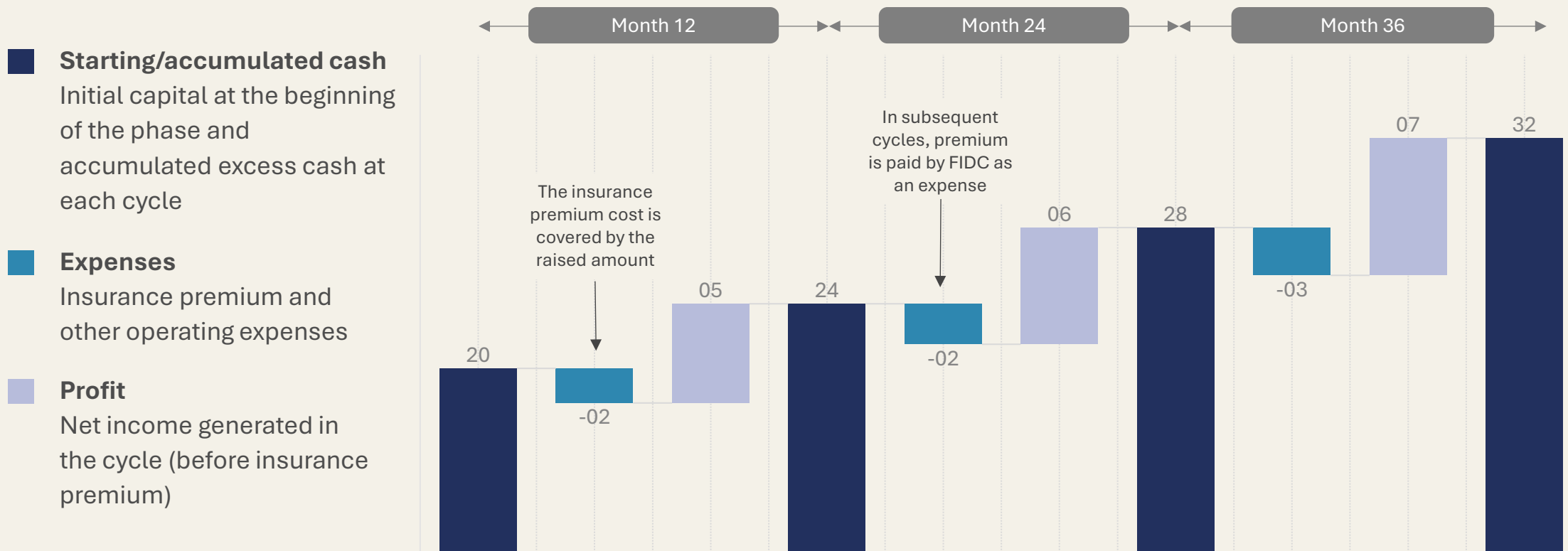
Liquidity reserve growth over 36 months

USD 31M

Net income to investors over the fund’s life

Structured 12-month reinvestment cycles build liquidity reserves from USD 20M to USD 32M¹ over 36 months

Baseline portfolio profits offset recurring insurance premiums and operating expenses, thereby compounding fund capital across six demonstration phases.

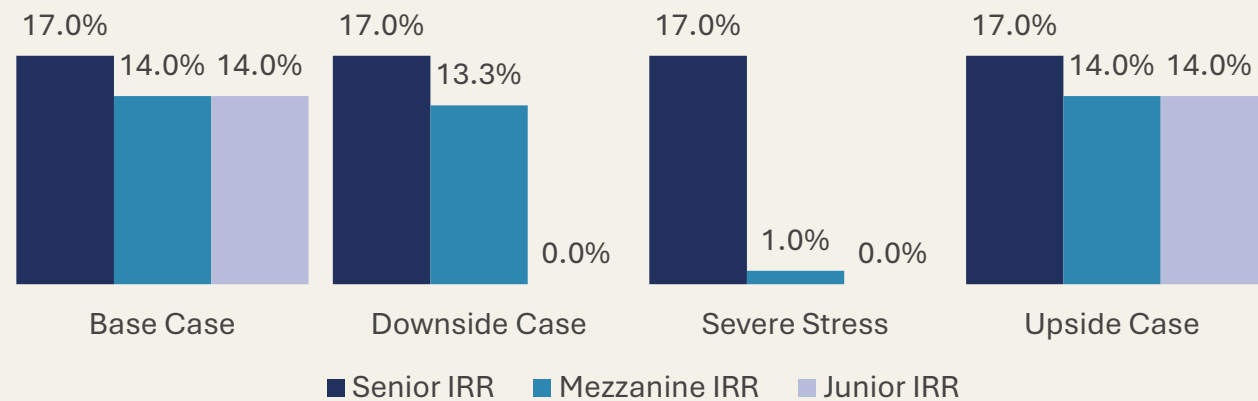


¹~USD 3.9M to 7.3M (USD 1 = BRL 5.17). Exchange rate as of 2 September 2026 via www.oanda.com.

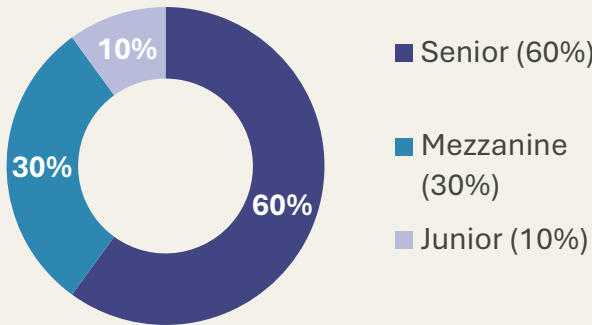
Stone's first-loss capital protects Mezzanine and Senior investors

Stone absorbs the first losses in adverse scenarios, reaching Mezzanine only under Severe Stress. Senior capital is always protected. Base and Upside cases can generate profit available for impact allocation.

IRR by scenario



Capital stack composition



Cash Paid (USD)	Base Case	Downside Case	Severe Stress	Upside Case
Senior	19.2M	19.2M	19.8M	18.2M
Mezzanine	8.9M	8.7M	6.2M	8.9M
Junior	3.0M	0	0	3.0M
Excess End-of-Period Cash	1.4M	0	0	3.9M

¹ **Baseline Model Assumptions:** BRL 20M portfolio size, 59.0% gross yield, 3-year fund term, 12-month turnover period, 5.7% base default rate, 40.0% base recovery rate.
Capital stack: 60% Senior, 30% Mezzanine, 10% Junior (Stone first-loss). Fee structure: 0.4% insurance premium, 2.0% management fee, 1.0% operating expenses.

Mezzanine capital accepts a ~5pp concession to unlock attractive senior pricing

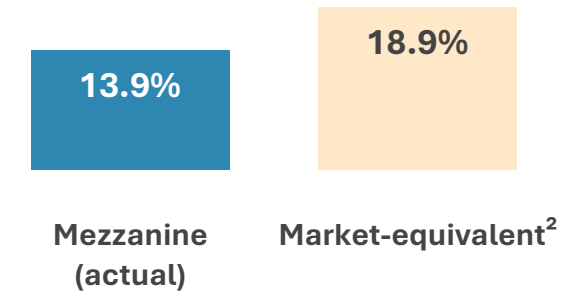
First-loss capital retained by the originator is standard commercial practice, not concessionality. The real concession sits in the Mezzanine tranche, priced below its market-clearing rate for equivalent risk.

Capital stack: pricing by tranche



- Senior — DI + 3% ($\approx$ 16.9% fixed-rate equivalent¹)**
Benefits from structural subordination and Mezzanine's below-market pricing
- Mezzanine — DI flat ($\approx$ 13.9% fixed-rate equivalent¹)**
Accepts $\approx$ 5.0pp below for comparable risk²
- Junior / first-loss — DI flat, retained by the originator (Stone)**
Standard commercial risk retention, own portfolio

Mezzanine pricing gap



$\sim$ 5.0pp is redeployed into

- Funding the insurance premium
- Absorbing losses in Severe Stress
- Capital spread for further impact measures

¹ Fixed-rate equivalents calculated by applying the contracted spread to the DI (CDI) reference rate of 13.90% p.a. as of 09/09/2026 (Banco Central do Brasil). Underlying instruments are DI-indexed; equivalents will move with DI over the investment period.

² Market-equivalent Mezzanine rate benchmarked against typical Brazilian FIDC mezzanine quota pricing (CDI + 4% to CDI + 6%).

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BRACCE strengthens SME climate resilience by protecting liquidity, preserving jobs and access to finance

BRACCE pairs climate-risk-adjusted credit with flood and heavy-rain insurance, helping urban SMEs stay financially viable amid climate shocks. Claims and performance data build the evidence base that strengthens investor and insurer confidence over time.



PROTECTS LIQUIDITY

Insurance backs loan repayment after eligible climate events

SUPPORTS RECOVERY & JOBS

Less repayment pressure, faster recovery, jobs preserved

IMPROVES ACCESS TO FINANCE

Stronger credit profile can unlock future capital

PER USD 1M INVESTED, BRACCE IS EXPECTED TO

452

SMEs financed
and insured

3,616

Jobs
supported

E&S SAFEGUARDS

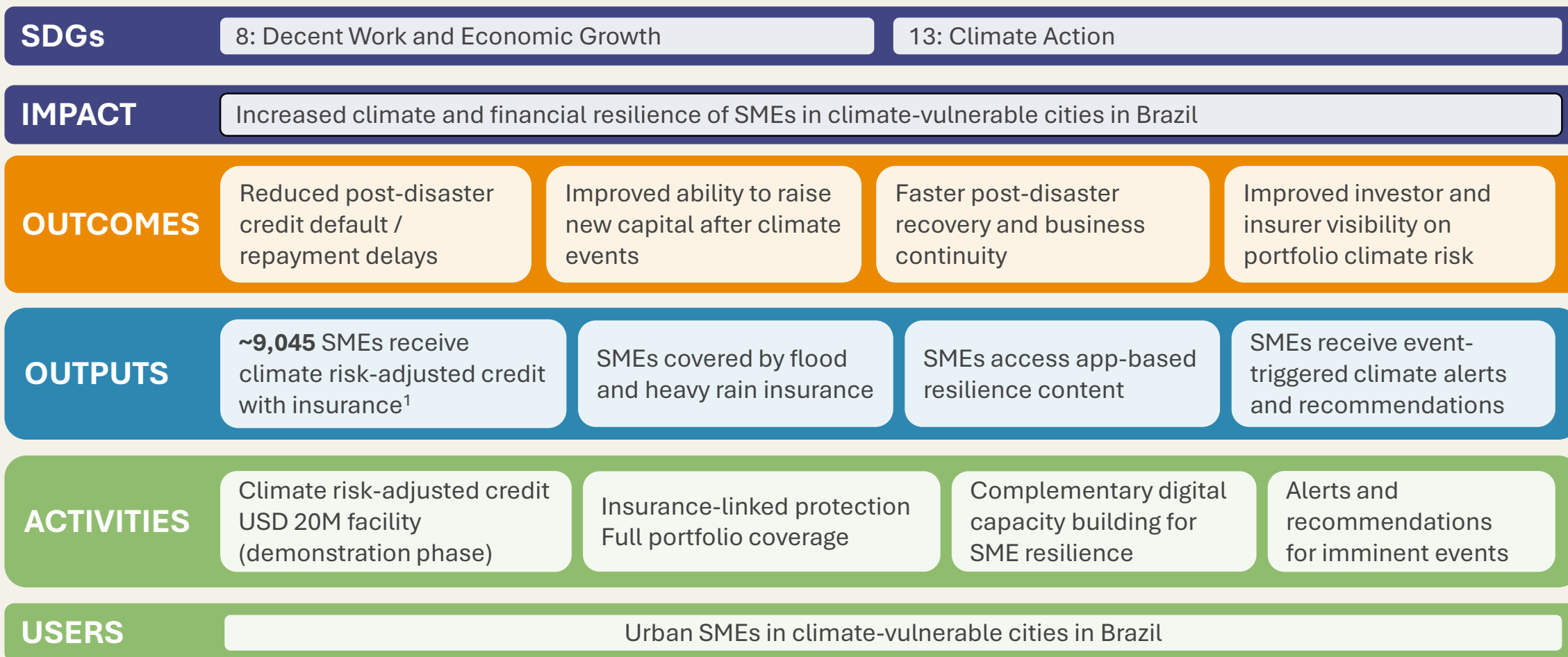
Underwriting, screening, and monitoring **mitigants** to address physical climate, labor, OHS, maladaptation, and inclusion risks

COMPLEMENTARY FEATURES

- **Digital capacity building for SME resilience**
In development
- **Pre-event alerts with rapid-response recommendations**
Under discussion with investors
- **Adaptation fund for physical resilience**
Under discussion with investors

Demonstration Phase: ~9,045 SMEs / ~72,360 jobs
Scaled-Up Phase: ~45,225 SMEs / ~361,800 jobs

Insured credit helps SMEs recover faster from climate shocks



¹ Beneficiaries with enhanced climate resilience (IFC indicator).

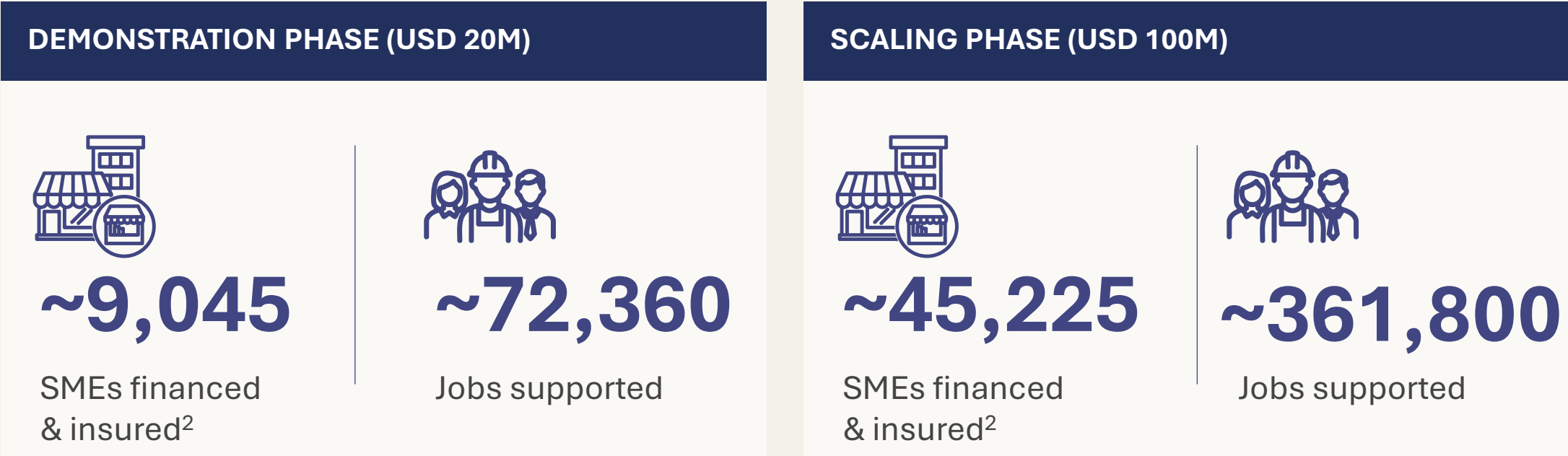
E&S risk is managed throughout the loan cycle through strong underwriting, screening and monitoring, and capacity building

The main E&S risks assessed, alongside their respective mitigants.

E&S risk	What it means	Inherent / Residual	Key mitigant
Physical climate hazards	Flood and heavy rainfall damage borrowers' assets and drive defaults.	Major / Moderate	Insurance cover, geospatial risk mapping to assess adaptation needs and early-warning alerts with practical recommendations.
Maladaptation	Rebuilt assets recreate exposure in the same flood-prone locations.	Moderate / Minor	The insurance is ultimately related to partial credit amortization. Physically needed adaptation measures will be assessed and addressed with the adaptation fund for municipal infrastructure.
Labor rights and working conditions	Borrower SMEs breach labor standards in their own operations.	Major / Moderate	Labor monitoring through the loan cycle, backed by covenants in documentation, as part of the lending process at Stone.
Occupational health and safety	Unsafe workplaces at borrower level, worsened in the aftermath of floods.	Moderate / Minor	OHS screening at origination and periodic monitoring thereafter. Resilience capacity-building strategy to cover content related to this risk.
Discrimination of marginalized groups	Credit and insurance access is reduced to vulnerable SME owners.	Moderate / Minor	Inclusive underwriting criteria and exclusion lists applied at origination. Resilience capacity-building strategy to cover content related to this risk.

¹ E&S Risk Matrix is available upon request.

Expanding Resilience to 45,255 SMEs



Climate resilience outcomes to be tracked



Number and value of payouts following flood / heavy-rainfall events³



SMEs and loan value protected from default (up to three installments, by days of interruption)



Average recovery time post-event

¹ **Assumptions:** USD/BRL 5.15; Average ticket USD 7,860; 8 formal jobs per SME (Stone database).
² **Methodology:** SMEs reached = fund size ÷ (average ticket ÷ FX); Jobs supported = SMEs × Average of employees per SME
³ CEMADEN data x Stone/Zurich pipeline

In the short term, BRACCE will add a dedicated Resilience & Adaptation track to help SMEs better prepare for climate risks

Comunidade Impulso Stone: Stone's free, gamified learning platform, open to all entrepreneurs, not just Stone clients or borrowers.



Existing learning tracks cover financial management, formalization, sales and digital tools, customer loyalty, and business growth.



Resilience and Adaptation (new track under development)

Dedicated content focused on flood and heavy-rain preparedness will be delivered through the same platform before, during, and after climate events.

Content under consideration:

- Benefits of insurance
- Accessing insurance coverage
- Tips on adaptation measures for businesses in vulnerable regions
- Safety and labor protection measures during and after events
- Tips on business continuity in the aftermath of events

Extending resilience: from financial coverage to a physical layer being structured with investors

Two complementary layers reduce SME climate risk: cash-flow protection after a loss and new measures to reduce the loss itself.

Alerts and rapid-response recommendations

Alerts issued ahead of a flood or heavy rainfall event, with specific actions the merchant can take in the hours beforehand.

Delivered through Stone's existing customer relationship channel, with the recommended actions tied to the same list of eligible measures (e.g., raise stock off the floor, remove equipment, install the barrier, switch off exposed panels)

Being shaped with investors:

- Source of the alert (Civil Defense)
- The realistically achievable lead time
- How the alert interacts with the Stone app

Concessional Adaptation Fund:

A defined share of BRACCE profits, exceeding all costs and investor rights, would fund an infrastructure project in a municipality identified and verified after the three-year Demonstration Phase as sufficiently vulnerable to benefit from adaptation investment.

Being shaped with investors:

- Feasibility and the share of excess profits to be allocated
- Governance structure for the Adaptation Fund, which may include BRACCE, Stone, and Zurich as investors
- Implementation partner

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A phased approach to scaling the BRACCE model

	2027		2028		2029		2030		2031		...	2036		2037+	
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2		H1	H2	H1	H2
Finalize legal documentation, FIDC structure, and insurance approval.															
Raise and deploy capital to SME credit and insurance; monitor performance															
Raise capital at scale and onboard additional commercial investors															
Onboard a reinsurer or investors for ILS															
Fully commercial structure															

 **Structuring**

 **Demonstration Phase**
40% subordination (30% quasi-commercial + 10% first-loss) lets insurance de-risk the portfolio and prove risk-adjusted returns at scale.

 **Scale-up Phase**
Commercial participation grows as default ratios fall, reducing reliance on quasi-commercial capital.

 **Commercial Phase**

BRACCE is raising USD 20M to launch its demonstration phase, unlocking a path to USD 100M+ at scale

What this enables: proof of concept for the credit-insurance model, building the track record to raise the USD 100M scaling phase and phase out concessional capital (30%→0%).

Other partner opportunities: funding for the resilience capacity-building strategy; reinsurance/ILS partners for risk transfer; data partnership; concessional anchor investor for scaling.

Senior debt (commercial)

USD 12 million (60%)



Mezzanine debt (impact)

USD 5 million (30%)



Junior debt (secured by Stone*)

USD 2 million (10%)



*Conditional on raising the mezzanine and senior capital

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Legal and regulatory sources

- Brazil. Law No. 9,613, of 3 March 1998 (anti-money laundering).
- Brazil. Law No. 14,430, of 3 August 2022 (securitization framework).
- Brazil. CVM Resolution No. 50, of 31 August 2021 (AML/KYC).

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Legal and regulatory sources (cont.)

- Brazil. CVM Resolution No. 160, of 13 July 2022 (public offerings).
- Brazil. CVM Resolution No. 175, of 23 December 2022, Annex II (investment fund regulation — FIDC).
- Brazil. CNSP Resolution No. 453 (insurance-linked securities).

Documents and tools developed during incubation

- Financial Model, Financial Structuring Risk Matrix, E&S Risk Matrix, Investment Strategy, Impact Thesis

Datasets

- Stone proprietary data on clients' sectors
- Stone proprietary data on clients' locations
- Stone proprietary data on loans, ticket size, default rate, recovery rate, revolving period
- Stone proprietary data on jobs supported by SME
- Adapta Brasil

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Brazilian FIDC: main elements

A Brazilian fixed-income fund backed by credit rights — receivables such as invoices, contracts, promissory notes, CCBs and card receivables, converted into securities. Created by the National Monetary Council (CMN) in November 2001 as an alternative to traditional bank lending, it opened capital-markets access to companies and enhanced returns to investors.



Legal framework: Law No. 14,430/2022 (securitization framework) | CVM Resolution No. 175/2022 (fund's regulation) - Annex II (specific for FIDC) | CVM Resolution No. 160/2022 (public offering) | Law No. 9,613/1998 and CVM Resolution No. 50/2021 (AML/KYC)

Parametric and indemnity-based insurance

Parametric insurance

Payout is triggered automatically when an objective index (e.g. a heavy-rainfall reading) crosses a pre-agreed threshold, without a demonstration of loss

Strength

Faster. Payout can reach the insured quickly.

Limitation

Basis risk. The index can miss a real loss.¹

Indemnity insurance

Payout is based on the insurer's verified assessment of actual loss, requiring documentation and evidence from the insured (claim filing).

Strength

Accurate. The payout is tied to a demonstrated loss.

Limitation

Slower. Requires loss verification before payout is released.

Why BRACCE uses both: a parametric primary route provides faster payouts and a shorter path to loan installment amortization. The indemnity route remains available as a backstop, where the insured can demonstrate a verified loss that the parametric index did not capture.

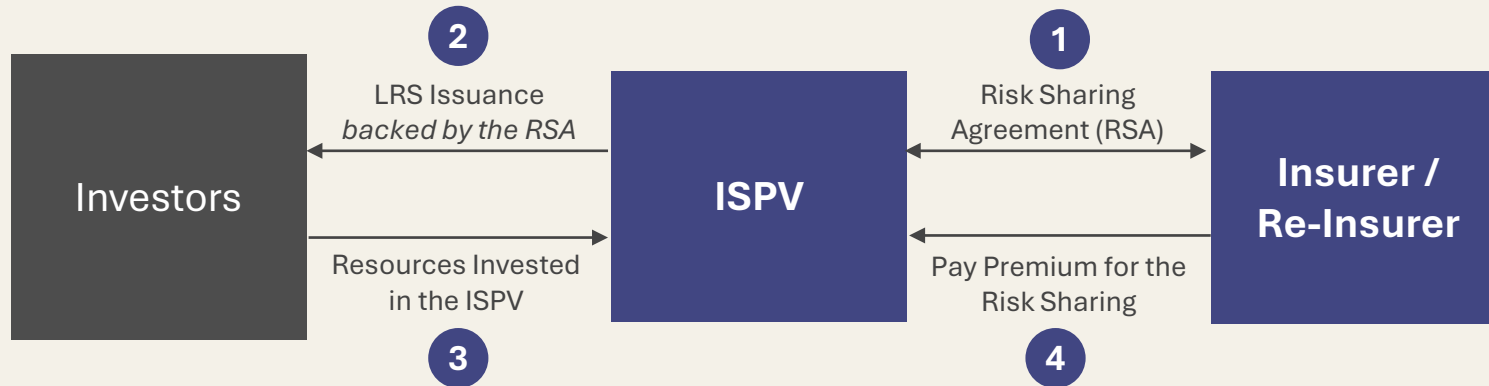
¹ NatureFinance (2026) shows a comparable basis-risk miss with an expected USD 45M parametric payout that never triggered.

Structuring Risk Matrix (additional risks)

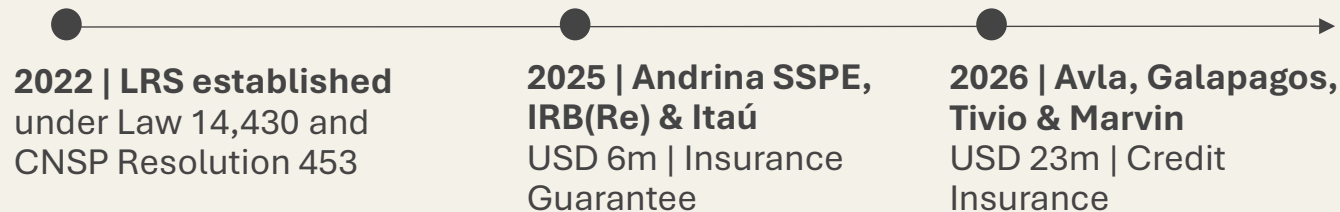
Structuring risk	What it means	Inherent / Residual	Key mitigant
Contractual	Misalignment across loan, insurance and waterfall docs may create disputes or leakage.	Moderate / Minor	Clear documentation and strong legal partners; alignment with waterfall and reserve mechanics.
Market	Low SME take-up if pricing, complexity or insurance awareness are not well understood.	Moderate / Minor	Simple communication, client capacity building and competitive pricing for the segment.
Concessional Capital / Competition	Concessional capital may distort competition if too strong or poorly targeted.	Moderate / Minor	Clear concessionality rules; capital phases from 30% to 20% to 0% as commercial share grows.
Regulatory	Insurance, premium flows and claims allocation need alignment across credit, insurance and fund rules.	Moderate / Minor	Early legal structuring and compliance alignment; dedicated implementation budget.
Data / Reputational	Data may be insufficiently granular; concentration or claims experience may hurt credibility.	Moderate / Minor	Data governance, concentration limits and KPI monitoring.
Currency / FX	FX mismatch if funding is hard currency while cashflows are BRL.	Minor / Minor	FIDC structured and funded in BRL; hedging only needed if hard-currency investors enter.

Insurance-Linked Securities

Flood risk capacity can be sourced from insurer and reinsurer balance sheets, and ultimately from capital markets investors through ILS, depending on risk appetite and market conditions.



LRS Trajectory



Brazil's ILS: *Letra de Risco de Seguro (LRS)* How it works?

- 1 Risk Transfer.** An insurer transfers a defined risk portfolio to an Insurance Special Purpose Vehicle (ISPV) through a Risk Sharing Agreement (RSA), sharing exposure and increasing underwriting capacity.
- 2 LRS Issuance.** The ISPV issues LRS notes to investors, raising capital to support the risks assumed under the RSA.
- 3 Collateralization.** The issuance proceeds are held in a segregated account dedicated exclusively to covering obligations under the RSA.
- 4 Investor Returns.** If covered loss events do not occur, investors receive their principal plus premiums. If losses occur, part or all of the collateral may be used to compensate the insurer.

Important disclaimer and regulatory notice

The information in this presentation is provided solely for informational and discussion purposes in connection with BRACCE, a proposed 2026 Lab vehicle led by Stone and Zurich in Brazil. It does not constitute investment, legal, tax, regulatory, insurance or financial advice, nor a recommendation, offer or solicitation to buy, sell, subscribe for or otherwise deal in any security, fund quota, insurance product or financial instrument.

BRACCE is expected to be structured under Brazilian law and regulation, including through a Brazilian Fundo de Investimento em Direitos Creditórios — FIDC, subject to applicable CVM rules, including CVM Resolution No. 175 and, where applicable, CVM Resolution No. 160. The insurance component is expected to be structured under Brazilian insurance law and regulation, subject to applicable CNSP and SUSEP rules, and provided by an insurer authorized to operate in Brazil.

Any fund structure, quota issuance, investor eligibility, credit rights assignment, subordination mechanism, first-loss tranche, insurance coverage, premium, exclusions, claims process or risk transfer feature will be subject to the final transaction documents and applicable regulatory approvals or requirements.

Any estimates, projections, portfolio data, climate risk assumptions, expected loss reduction, premium assumptions, investor return expectations or impact estimates are preliminary, indicative and subject to change. No representation or warranty is made as to their accuracy, completeness or future validity.

Prospective investors and other stakeholders should conduct their own independent analysis and consult their legal, financial, tax, regulatory and insurance advisors before making any decision. Investment in FIDC quotas involves risks, including credit, liquidity, market, regulatory, operational and climate-related risks, and may result in loss of capital. FIDC quotas are not bank deposits and are not guaranteed by the FGC, Stone, Zurich, CPI, the Lab or any other party, except as expressly provided in the final transaction documents.

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