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The credibility of bail-in

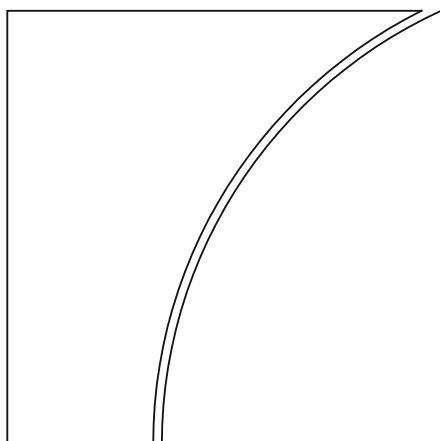
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The Credibility of Bail-In*

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Abstract

The resolution framework for global systemically important banks has been over a decade in the making. The failure of Credit Suisse (CS) in March 2023 was its first major test. Authorities had a resolution plan in place but chose a different path amid financial stability concerns. They facilitated a takeover of CS by UBS, backed by public guarantees. Additional Tier 1 (AT1) bonds were written down in full; bail-in creditors, who would bear losses next under resolution, were left whole. We study how this episode reshaped bail-in credibility across Europe. Using bond-level data from 94 banks in 22 countries, we trace the repricing of AT1, bail-in, and senior debt over the subsequent year. AT1 spreads moved in line with jurisdiction-specific regulatory signals, while bail-in spreads and credit default swap subordination premia narrowed across the board, consistent with markets assigning a lower probability to bail-in. Lower-rated banks saw larger spread declines, and investor responsiveness to firm-specific disclosures fell, pointing to reduced market discipline. This evidence suggests the CS episode weakened bail-in credibility.

Keywords: Bank resolution, capital regulations, bail-in credibility, Credit Suisse.

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1 Introduction

More than a decade of regulatory reform set out to ensure that when banks fail, private creditors, not taxpayers, would bear the losses. A resolution framework has been built to deliver on this promise. A promise, however, is credible only if those who made it are able and willing to keep it. In March 2023, a failing global bank put that credibility to the test.

Credit Suisse (CS), one of the thirty global systemically important banks (G-SIBs), was failing. The resolution framework prescribes a loss-absorption sequence: equity and AT1 bonds first, then bail-in bonds through formal resolution. For CS, such a plan was in place, and later official accounts confirmed it was ready for implementation ([FINMA, 2023](#); [Swiss Federal Council, 2024](#)). Market pricing of CS debt was consistent with that expectation. However, Swiss authorities, concerned about financial stability risks, chose a different approach. They facilitated an acquisition of CS by UBS, backed by public guarantees. AT1 bonds were written down in full, but bail-in bonds were left untouched. The decision reverberated beyond Switzerland. EU and UK authorities issued guidance clarifying AT1 treatment in their jurisdictions.¹ In the space of a weekend, bank debt investors received new signals about how authorities would handle the failure of a global bank.

We study how this episode reshaped bail-in credibility. Using roughly 700,000 daily bond-level observations from 94 European banks across 22 countries, we examine how investors repriced AT1, bail-in, and senior debt in the year following the event. The episode provides a sharp identification setting: a large and unexpected shock to beliefs about regulatory behavior, combined with cross-jurisdictional variation in policy responses.

The probability that bail-in debt bears losses has two components. The first is necessity: the bank must deteriorate to the point where the bail-in layer becomes relevant. The second is credibility: authorities must be able and willing to impose losses once that point is reached. Credibility is a conditional probability. It measures what authorities will do

¹Regulators in Canada, Hong Kong, and Singapore followed with similar statements.

when the situation demands action, not how likely the situation is to arise. Yield spreads on bail-in debt price this probability, so they too reflect both components. The hierarchical structure of bank capital allows us to tell them apart. We identify changes in credibility using the relative movement of bail-in and AT1 spreads within a sequential framework. Senior spreads remain unchanged, ruling out a shift in overall default risk and isolating changes in the expected distribution of losses across creditor classes.

Two results emerge. First, AT1 spreads moved in line with jurisdiction-specific regulatory signals. In Switzerland, where authorities wrote down AT1 in full, AT1 spreads rose by roughly 11 percent. In the Eurozone and the United Kingdom, they fell roughly 5 percent below pre-CS levels, consistent with the hierarchy clarifications issued by EU and UK authorities. Second, bail-in spreads tightened in all jurisdictions, and by proportionally more than AT1 spreads. In the Eurozone, for instance, bail-in spreads declined by roughly 13 percent against a 5 percent AT1 decline. In Switzerland, AT1 widened while bail-in spreads tightened, directly implying that the conditional probability of bail-in fell. If the shock were confined to AT1, bail-in spreads would not tighten relative to AT1 across jurisdictions.

Senior spreads showed no meaningful movement anywhere, confirming that markets reassessed how losses are distributed in crisis, not whether banks would fail. But a decline in the perceived probability of bail-in can reflect reduced necessity or reduced credibility. Which interpretation fits the CS episode? The necessity interpretation requires that markets read the CS-UBS merger as evidence that private acquisition offers a viable alternative to bail-in for failing G-SIBs. But the merger was facilitated with a CHF 9 billion federal loss guarantee, and the purchase price moved mechanically with its size ([Parliamentary Investigation Committee, 2024](#)). A merger that depends on public guarantees provides limited evidence that private solutions can substitute for bail-in.

The cross-section of repricing reinforces this reading. If the decline reflected greater private acquisition capacity, smaller banks, which are easier to acquire, should benefit most.

Instead, the differential spread tightening tracks credit ratings, not bank size: lower-rated banks saw disproportionately larger declines, consistent with implicit public support rising with proximity to distress. Credit default swap (CDS) markets corroborate the shift: the subordination premium narrowed across jurisdictions, suggesting the distinction between subordinate and senior debt matters less after the CS event.

The implications extend beyond pricing. If creditors expect public support, their incentive to monitor bank-specific risk weakens. Consistent with this, bond yield responses to earnings announcements declined for bail-in and senior bonds by roughly a third and a half respectively. For AT1, no common shift emerged, consistent with the heterogeneous repricing across jurisdictions. Where credibility declined uniformly, so did investor attention.

These findings highlight a structural tension in the resolution framework. Bail-in is most important precisely when incentives to avoid it are strongest. The first large-scale test of the framework led markets to revise downward the likelihood that bail-in will be enforced, compressing funding cost differentials and weakening market discipline.

Structure. The remainder of the paper proceeds as follows. Section 2 reviews related literature. Section 3 describes the post-crisis loss-absorption regime, the CS episode, and the regulatory signals it generated across jurisdictions. Section 4 develops the conceptual framework. Section 5 describes the data and empirical strategy. Section 6 presents the results. Section 7 concludes.

2 Related literature and contributions

Bail-in credibility strengthened gradually in the decade following the Global Financial Crisis. [Berndt et al. \(2025\)](#) show that implied bailout probabilities for U.S. G-SIBs declined, while [Schäfer et al. \(2016\)](#) find that realized bail-in events in Europe strengthened credibility more effectively than legislation alone. Studies of European bond markets con-

firm rising bail-in risk premia as the framework matured (Cutura, 2021; Lewrick et al., 2019; Cerasi and Galfrascoli, 2023). But this evidence was built on legislative milestones and smaller domestic failures. The architecture designed specifically for G-SIBs remained untested until March 2023. We provide the first evidence on how markets responded when that test arrived, and show that credibility gains proved fragile.

Existing work on bail-in risk pricing typically treats loss-absorbing capital as a single layer, interpreting spreads as reflecting the expected incidence of losses. But post-crisis regulation introduced a hierarchical capital structure in which different instruments absorb losses sequentially. Observed spreads therefore reflect both the likelihood that losses reach a given layer and the probability that authorities enforce the corresponding loss allocation. We develop a framework that makes this separation explicit, decomposing bail-in credibility into distinct stages of the hierarchy and using the relative movement of spreads across tiers to identify which stage shifted.

The literature on implicit guarantees provides a complementary perspective. Implicit guarantees lower funding costs for banks that enjoy them (Gandhi and Lustig, 2015; Gandhi et al., 2020; Acharya et al., 2016), and the value of such guarantees is isomorphic to a put option on bank assets, increasing with proximity to distress (Merton, 1977). Existing evidence links these effects primarily to systemic importance, without connecting them to shifts in the credibility of specific resolution tools. Our cross-sectional results show that following the CS episode, the differential repricing tracks credit ratings, not bank size, consistent with the Merton put operating through credibility rather than too-big-to-fail.

Subordinated debt spreads respond to bank risk when creditors expect to bear losses (Flannery and Sorescu, 1996; Sironi, 2003), and this sensitivity weakened during periods of public support and strengthened as loss imposition became more credible (Hett and Schmidt, 2017; Lewrick et al., 2019). But as Blankespoor et al. (2020) emphasize, effective monitoring requires active processing of firm-specific information, and investors engage only when expected payoffs justify the cost (Grossman and Stiglitz, 1980). If monitoring

is an active choice, then a more direct test is whether investors process new information, not just whether spreads reflect risk. We provide this test, using bond yield responses to earnings announcements to measure investor attention directly.

Taken together, the literature documents a strengthening of bail-in credibility in the decade following the Global Financial Crisis, the role of implicit guarantees in shaping funding costs, and the link between expected loss absorption and market discipline. However, it provides limited evidence on how markets update beliefs when a global systemically important bank is resolved outside the prescribed framework, how such updates propagate across the capital structure, and how they affect both pricing and investor behavior.

3 Institutional setting

3.1 The post-GFC loss-absorption regime

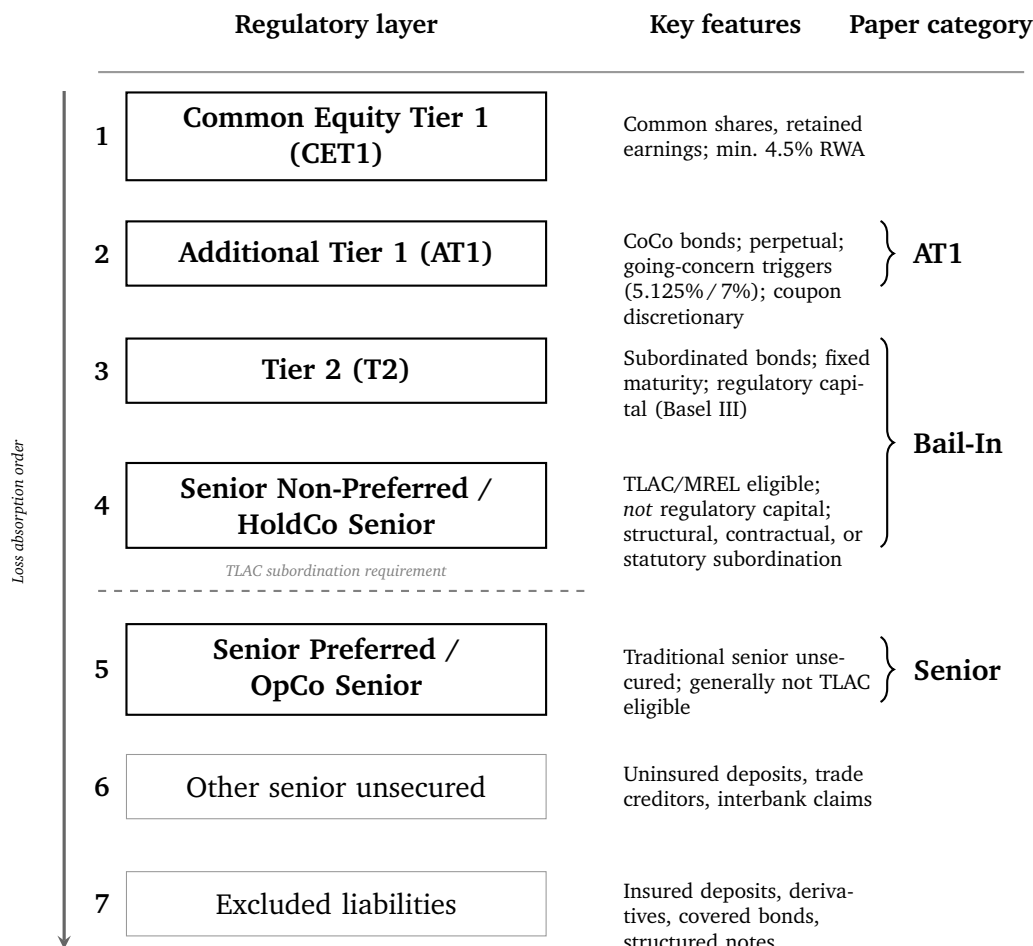
The Global Financial Crisis (GFC) exposed severe deficiencies in banks' ability to absorb losses privately. Taxpayer-funded rescues followed. In response, Basel III introduced a hierarchy of loss-absorbing capital designed to ensure that private investors, not the public, bear losses when banks fail.

Basel III requires banks to hold at least 8 percent of risk-weighted assets as total regulatory capital. Of this, at least 4.5 percent must be Common Equity Tier 1 (CET1), the highest-quality and most loss-absorbing form. G-SIBs face additional CET1 buffer requirements reflecting their systemic importance.²

Three classes of debt absorb losses after CET1, forming a waterfall structure that is the focus of our empirical analysis. Figure 1 describes this hierarchy. The first is Additional Tier 1 (AT1) bonds: perpetual contingent convertible (CoCo) instruments designed to recapitalize banks while they are still a going concern. Losses on AT1 bonds take the form

²G-SIBs are also subject to Total Loss-Absorbing Capacity (TLAC) requirements, typically set between 16–20 percent of risk-weighted assets. Instruments that count toward regulatory capital may also count toward TLAC. Banks that need additional coverage may issue senior unsecured bonds to fill the gap.

Figure 1: Loss-absorption waterfall: regulatory layers and empirical classification.



The figure shows the creditor hierarchy from first loss (CET1) to excluded liabilities. Brackets on the right indicate the three empirical categories used in this paper. The dashed line marks the TLAC subordination boundary. Layers 3–4 correspond to “Bail-In”, combining Tier 2 and bail-in-eligible senior instruments; Tier 2 absorbs losses before bail-in-eligible senior within this group. Tier 2 is both Basel III regulatory capital and TLAC/MREL eligible; layer 4 instruments count toward TLAC/MREL only. Subordination of layers 3–4 relative to layer 5 is achieved via structural (holdco/opco), contractual, or statutory mechanisms depending on jurisdiction. “Senior” refers exclusively to layer 5 debt. Layers 6–7 are not analysed.

of conversion into equity or complete write-down, depending on the contractual terms. Two triggers can activate these losses. The first is mechanical: AT1 bonds convert or are written down if the bank’s CET1 ratio breaches a predefined threshold, typically set at 5.125 or 7 percent.³ The second is discretionary: regulators can impose losses on AT1 if they determine that the bank is approaching non-viability.

³AT1 bonds with a 5.125 percent threshold are commonly referred to as low-trigger instruments; those with a 7 percent threshold as high-trigger.

Next in the loss-absorption sequence is a layer designed to absorb losses in resolution. For simple banking structures, this layer consists of Tier 2 bonds: fixed-maturity subordinated instruments that bear losses at regulatory discretion through write-down or conversion, after AT1 capital is depleted. Unlike AT1, T2 bonds lack mechanical triggers.

For large banking groups, the resolution layer is broader. These groups typically operate through a holding company (*holdco*) that owns one or more bank subsidiaries or operating companies (*opco*). A senior bond issued by the holdco is contractually senior at the holdco level, but its holders lack a direct claim on subsidiary assets. Servicing depends on dividends and intra-group flows that are available only after each subsidiary has met its own external liabilities. In resolution, regulators channel losses upward to the holdco first. These bonds are therefore structurally subordinated to senior bonds issued at the opco level, despite carrying the same contractual seniority label. For banks without a holdco structure, contractual subordination clauses achieve the same economic effect ([Lewrick et al., 2019](#)).

T2 bonds and subordinated senior bonds all absorb losses in resolution before operating-company senior debt is touched. Subordination is achieved through structural (holdco/opco), contractual, or statutory mechanisms, depending on the jurisdiction. Together, these instruments form the core of banks' loss-absorbing liabilities under TLAC and equivalent national frameworks ([FSB, 2015](#)).

The term senior bonds, as used throughout this paper, refers to unsecured senior preferred or operating-company senior debt that ranks above the bail-in layer in the creditor hierarchy (Layer 5 in Figure 1). These instruments bear losses only after all subordinated loss-absorbing capital is exhausted and do not count toward TLAC or MREL requirements.

Our empirical analysis thus works with three categories: AT1 bonds, bail-in bonds, and senior bonds. The conceptual framework in Section 4 maps each to a distinct stage of the loss-absorption hierarchy.

3.2 Credit Suisse as a test of the regime

The failure of CS marked a pivotal test for the post-crisis resolution regime. As a G-SIB with CHF 531 billion in total assets, its failure represented, according to the Financial Stability Board (FSB), “the first real test at a larger scale of the international resolution framework” established after the GFC (FSB, 2023). The FSB also described this as “the most significant failure since 2008.” Over a decade of detailed resolution planning, loss-absorbing capital requirements, and cross-border coordination mechanisms were brought to bear on this single, highly visible event.

CS’s distress had implications well beyond Switzerland. The bank operated prominently in global wealth management, investment banking, and cross-border financial markets. Investors closely watched the regulatory response, interpreting it as a signal of how authorities would handle future crises involving similarly complex institutions.

The crisis itself unfolded following prolonged deterioration rather than as a sudden disruption. Persistent governance issues, a series of scandals, and credit-rating downgrades plagued the bank for several years. In October 2022, CS faced severe liquidity stress with daily deposit outflows reportedly between CHF 12 and 15 billion, yet it remained adequately capitalized and maintained substantial liquidity buffers (FSB, 2023). The situation worsened significantly in March 2023, triggered by heightened market sensitivity due to turmoil in the US banking sector. A decisive moment occurred on March 15 when Ammar Al Khudairy, the chairman of Saudi National Bank, CS’s largest shareholder, publicly ruled out further capital injections. Despite an immediate CHF 50 billion liquidity backstop from the Swiss National Bank (SNB), deposit outflows accelerated sharply. By Sunday, March 19, the Swiss Financial Market Supervisory Authority (FINMA) formally determined that CS had reached the point of non-viability on liquidity grounds (FSB, 2023).

At this juncture, Swiss authorities did not activate resolution mechanisms. Under resolution, losses would typically have been imposed on shareholders, AT1 holders, and hold-

ers of bail-in bonds. Instead, the authorities facilitated a going-concern acquisition of CS by UBS, supported by extensive public interventions and emergency legislation (FINMA, 2023; Swiss Federal Council, 2024). As part of this package, CS's AT1 bonds amounting to roughly CHF 16 billion in nominal value were written down completely. The Swiss government provided UBS with a CHF 9 billion second-loss guarantee on a portfolio of CS assets, covering losses beyond the initial CHF 5 billion to be absorbed by UBS itself. Additionally, the SNB extended up to CHF 250 billion in liquidity assistance, of which CHF 100 billion was backed by a federal default guarantee (FINMA, 2023; Swiss Federal Council, 2024). These measures created public-sector exposure that persisted until the guarantees were terminated in August 2023 (Swiss Federal Council, 2024; Parliamentary Investigation Committee, 2024).

3.3 Market expectations versus regulatory action

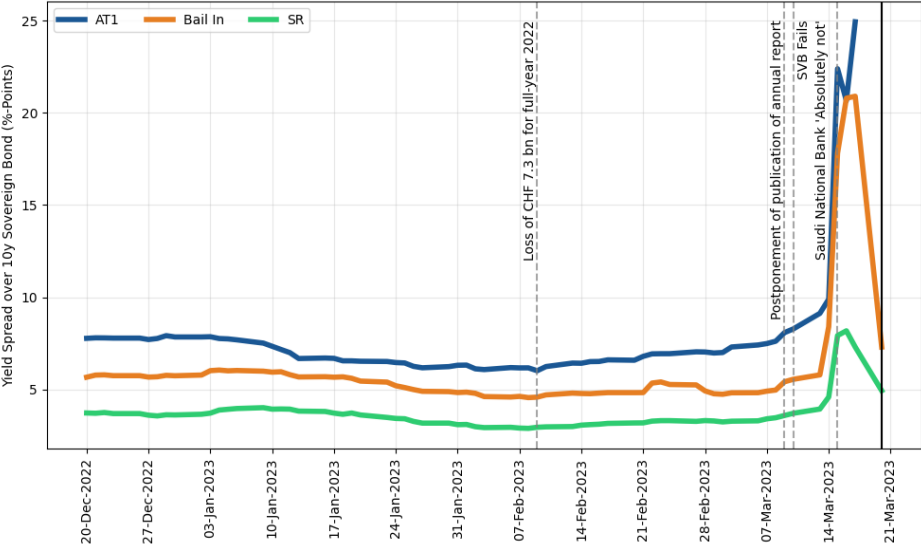
A resolution plan for CS existed. Later official accounts described that resolution path as ready for implementation. FINMA had prepared a restructuring under the previously defined single-point-of-entry strategy, intensifying that preparation from autumn 2022 in close coordination with domestic and foreign authorities. The plan provided for the complete write-down of equity and AT1 instruments and the conversion of bail-in bonds into new share capital, imposing losses on all three classes (FINMA, 2023, pp. 71–72). A cross-border exercise in November 2022 tested valuation, funding, and bail-in execution, and FINMA described the results as “clear evidence” that these processes were “fit for purpose” (FINMA, 2023, p. 73). By the crisis weekend, the restructuring ruling was ready for signature and foreign authorities saw no obstacles to implementation (FINMA, 2023, pp. 74–75). The Federal Council subsequently confirmed that “the restructuring option was ready for implementation” (Swiss Federal Council, 2024, p. 138).

Swiss authorities nonetheless chose the merger path. The Federal Council judged the loss of confidence so severe that it was “highly questionable” whether bail-in would restore

market confidence by Monday morning (Swiss Federal Council, 2024, p. 46). Bail-in alone would not have resolved the liquidity problem; extraordinary state-backed liquidity would have been needed under any crisis path (Swiss Federal Council, 2024, p. 46). FINMA noted that a first-time G-SIB bail-in was “untested on this scale” and carried greater risk than the merger (FINMA, 2023, p. 21). These considerations led the authorities to conclude that the UBS takeover was most likely to stabilize markets quickly while limiting costs to taxpayers (Swiss Federal Council, 2024, p. 47).

The decision contradicted what markets had been pricing. Interviews conducted by the FSB in July 2023 found that large global investors had expected CS to be placed in resolution, with shareholders and TLAC bondholders bearing losses according to the hierarchy of claims (FSB, 2023). These investors attributed CS’s problems to long-standing internal issues rather than broader market turmoil. Similarly, private market participants and foreign authorities reported to the Expert Group on Banking Stability that they considered contagion risks less severe than Swiss authorities had assessed (Expert Group, 2023).

Figure 2: Credit Suisse Bond Yield-Spreads Pre-Merger



This figure displays the weighted average yield spreads (over the 10-year sovereign yield) of Credit Suisse’s outstanding AT1, bail-in, and senior unsecured bonds in the months preceding the UBS merger, announced on March 19, 2023. For the bail-in and senior series, we restrict to issues with at most four years of remaining maturity to keep duration broadly comparable in this yield-spread plot. Along with the merger, regulators announced a complete write-down of all Credit Suisse AT1 instruments, while bail-in bonds remained untouched. Trading resumed on Monday, March 20, 2023.

Figure 2 corroborates these expectations. In the days leading to the merger weekend, CS's AT1 and bail-in spreads surged to around 25 and 21 percentage points respectively, while senior spreads rose only to about 8. The widening concentrated in subordinated instruments is consistent with investors pricing losses across the capital structure.

The merger announcement reversed the pattern. Bail-in spreads fell sharply from around 21 to 7–8 percentage points; senior spreads eased from 8 to 5. The reversal suggests the pre-announcement spike reflected expected bail-in losses, which were removed once a merger without bail-in was announced.

3.4 Regulatory signals beyond Switzerland

The write-down of CS's AT1 instruments prompted immediate reactions from other jurisdictions. In Switzerland, AT1 was written down in full while equity holders still received a positive value from the merger. Authorities in the EU, UK, and other major jurisdictions moved to clarify that in their frameworks, any discretionary write-down of AT1 at the point of non-viability would respect the creditor hierarchy, with equity bearing losses first.⁴ The signals about AT1 therefore differed across jurisdictions.

The signals about bail-in are less clear-cut. The Swiss decision not to use a prepared resolution plan, despite its operational readiness, provided the first observation of how the post-GFC framework performs when a G-SIB fails. Whether the EU and UK hierarchy clarifications also carried implications for bail-in expectations is ambiguous. The statements addressed AT1 directly and said nothing about bail-in. But AT1 ranks junior to bail-in bonds. If markets read the clarifications as signaling willingness to shield AT1 holders under stress, the inference for bail-in bonds is immediate: instruments that are senior to AT1 would be at least as protected. Alternatively, markets may have read the clarifications as

⁴Joint statement by the SRB, EBA, and ECB Banking Supervision, 20 March 2023 ([Single Resolution Board et al., 2023](#)); Bank of England statement on UK creditor hierarchy, 20 March 2023 ([Bank of England, 2023](#)); OSFI, Canada, 20 March 2023 ([Office of the Superintendent of Financial Institutions, 2023](#)); MAS, Singapore, 22 March 2023 ([Monetary Authority of Singapore, 2023](#)); HKMA, Hong Kong, 22 March 2023 ([Hong Kong Monetary Authority, 2023](#)).

simply reinforcing the creditor hierarchy, with no implication for bail-in. Our data cannot separate these two readings of the AT1 clarifications. But as the framework in Section 4 shows, identifying changes in bail-in probability does not require resolving this ambiguity: the empirical test accounts for AT1 repricing directly.

The relevance of the Swiss decision extends beyond Switzerland because the framework it tested is international. TLAC requirements, resolution planning, and cross-border crisis management groups were designed as a global architecture, and no G-SIB had failed under it before March 2023. The pressures that led Swiss authorities to choose the merger — loss of confidence, systemic risk concerns, untested procedures at scale — are not specific to Switzerland. Any jurisdiction confronting a failing G-SIB would face similar forces. Markets may therefore have read the episode as informative about the framework itself, not about Swiss preferences alone. Whether they did is an empirical question. The institutional conditions are well suited to test it: the policy actions were unexpected, occurred in a concentrated window, and differed across jurisdictions.

3.5 The economic nature of the CS merger

The merger between UBS and CS was a publicly underwritten acquisition. The official record is clear on what the transaction required.

The merger depended on a federal loss-protection guarantee. FINMA states that the overall package included a federal guarantee of up to CHF 9 billion on difficult-to-value CS assets “in order to make the merger possible” (FINMA, 2023, p. 40). The Parliamentary Investigation Committee (PUK) reports a direct link between the federal guarantee and the purchase price: as the federal guarantee increased from CHF 5 billion to CHF 9 billion, UBS raised its offer from CHF 1 billion to CHF 3 billion, and agreement was reached on that basis (Parliamentary Investigation Committee, 2024, p. 444). The Federal Council stated that “without these commitments, the takeover of Credit Suisse by UBS [...] would not have been possible” (Federal Department of Finance, 2023). The transaction also required

emergency legislation removing the need for shareholder approval at either bank ([Swiss Federal Council, 2024](#)).

Alongside the guarantee, the SNB extended up to CHF 250 billion in liquidity assistance, of which CHF 100 billion was backed by a federal default guarantee ([FINMA, 2023](#), p. 39). Comparable liquidity support, however, would have been needed under restructuring or resolution as well ([FINMA, 2023](#); [Expert Group, 2023](#); [Swiss Federal Council, 2024](#)). What distinguished the merger path was the loss-protection guarantee, which was specific to this transaction and protected bail-in creditors from bearing losses.

From a creditor's perspective, the implication is direct. A transaction in which the purchase price was determined by the size of a federal guarantee, and which could not have proceeded without it, is one in which public support was the operative mechanism protecting bail-in creditors. In the framework of Section 4, this places the transaction in the slot "public support", not "private stabilization".

This characterization does not imply that Swiss authorities acted improperly. Official reports cite concerns about market stability, cross-border contagion, and the legal risks of restructuring a G-SIB during acute financial stress ([Swiss Federal Council, 2024](#), p. 47). Our interest is narrower: for the purpose of understanding how creditors price bail-in risk, the relevant fact is that bail-in creditors were kept whole through public intervention.

Nor was the CS episode the first time a distressed European bank was acquired. In 2017, the Single Resolution Board resolved Banco Popular by writing down AT1 and Tier 2 instruments and selling the resolved entity to Santander for €1. Acquisition and bail-in are not mutually exclusive. What distinguished the CS merger was that bail-in creditors were protected in full. As documented in Section 3.3, markets were pricing bail-in losses into CS bonds up to the merger weekend, and bail-in spreads reversed sharply once a merger without bail-in was announced.

4 Conceptual framework

In this section we develop a framework for interpreting bank debt spreads around the Credit Suisse event. We model the handling of a bank crisis as a sequential tree. The framework provides structure for two questions: what can the joint movement of spreads across a layered capital stack tell us about changes in bail-in probability, and what further evidence is needed to interpret those changes as shifts in bail-in credibility?

The three creditor classes are defined in Section 3.1: AT1 bonds, bail-in bonds, and senior bonds. We reserve the term “bail-in” for the action of imposing losses on bail-in bondholders, distinct from the instrument class itself. We use “public support” broadly to denote any intervention that prevents losses from falling on private creditors. This includes direct fiscal support and arranged transactions, such as mergers with loss protection, that shield creditors in economic substance.

Whether bail-in debt ultimately bears losses depends on three ingredients. First, *necessity*: the bank must deteriorate to the point where the bail-in layer becomes relevant. Second, *feasibility*: bail-in must be executable legally and operationally. Third, *willingness*: authorities must choose to impose bail-in rather than provide support. Feasibility and willingness together define what we call *bail-in credibility*: the conditional probability that bail-in is imposed once the bail-in layer has become relevant. Credibility is not the raw probability of bail-in loss. It is the probability that authorities impose bail-in, given that the choice between bail-in and public support has been reached.

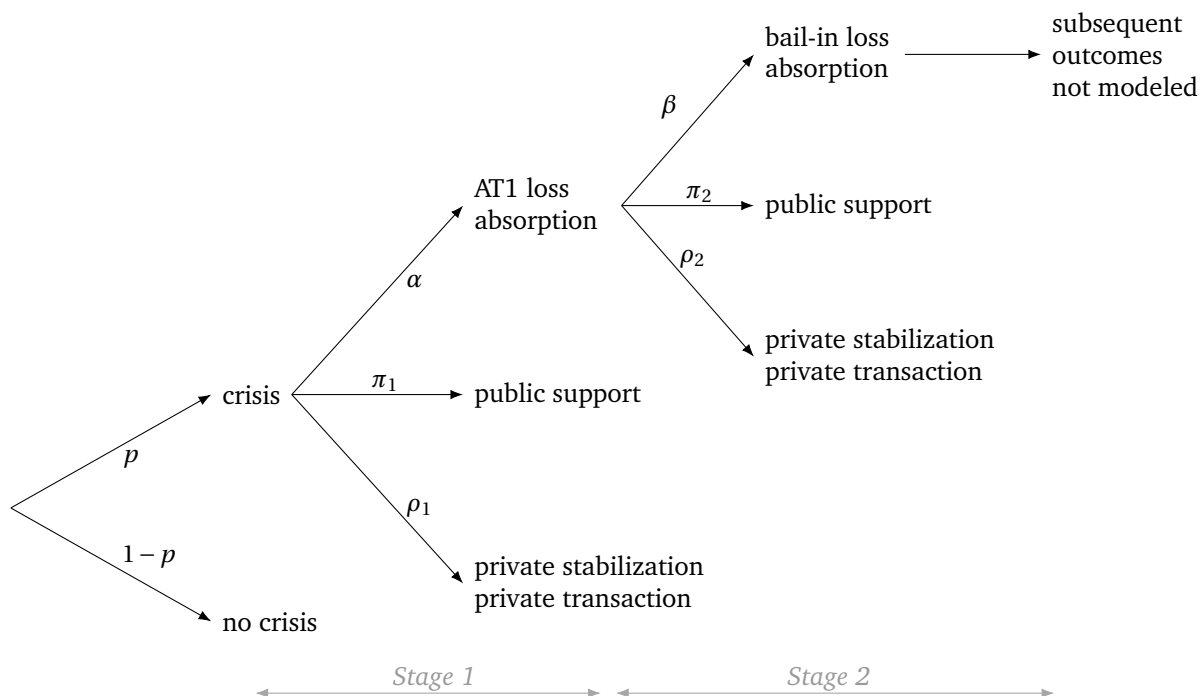
4.1 Crisis tree and probability parameters

Let p denote the probability that a bank enters a *loss-absorption-relevant crisis*: a state in which the loss-absorption hierarchy becomes relevant. This definition is broader than “resolution” in the regulatory sense. It includes going-concern situations where AT1 triggers may activate before any formal resolution determination. States in which the bank

remains far from distress fall under $1 - p$.

Figure 3 depicts the crisis tree. Conditional on crisis, outcomes unfold sequentially. At each stage, three paths are possible: private loss absorption, public support, and private stabilization.

Figure 3: Crisis tree with staged loss absorption, public support, and private stabilization.



Stage 1: AT1 at risk. Conditional on a loss-absorption-relevant crisis, three mutually exclusive outcomes can occur.

With probability α , AT1 instruments absorb losses through write-down or conversion. With probability π_1 , authorities provide public support that protects AT1 holders. With probability ρ_1 , the bank stabilizes through internal measures or a private transaction without official creditor protection. These exhaust the possibilities: $\alpha + \pi_1 + \rho_1 = 1$.

Stage 2: bail-in debt at risk. Recovery after AT1 writedown is not guaranteed. If distress continues, bail-in debt is next in line. Conditional on entering Stage 2, three outcomes again arise. With probability β , authorities proceed with bail-in and bail-in debt absorbs losses. With probability π_2 , authorities provide public support that protects bail-in

creditors. With probability ρ_2 , the bank stabilizes privately. Bail-in creditors avoid losses without public intervention. Again, $\beta + \pi_2 + \rho_2 = 1$.

A state-backed merger with guarantees, extraordinary liquidity facilities, or other forms of official backstop belongs economically with π , not with ρ . Private stabilization captures cases in which the problem is resolved without official creditor protection. We provide some institutional context about this distinction in Section 3 when interpreting the Credit Suisse merger.

Senior debt enters our analysis as a reference tier. We do not model outcomes beyond bail-in loss absorption.

Probability of bail-in loss. Conditional on a loss-absorption-relevant crisis, bail-in debt absorbs losses only if two conditions hold: (i) AT1 absorbs losses first, and (ii) authorities proceed with bail-in at Stage 2. The conditional probability is, therefore,

$$\Pr(\text{BI loss} \mid \text{crisis}) = \alpha \beta. \tag{1}$$

The sequential structure has an asymmetry worth noting. Public support at Stage 1 protects both AT1 holders and bail-in creditors: if authorities intervene before AT1 is touched, the crisis never reaches Stage 2. Public support at Stage 2 protects only bail-in creditors. A bail-in bondholder therefore benefits from public support at either stage. An AT1 holder benefits only from public support at Stage 1.

Bail-in credibility within the tree. At Stage 2, the bail-in layer becomes relevant when the outcome is not private stabilization. This occurs with probability $1 - \rho_2 = \beta + \pi_2$. Bail-in credibility is the probability that authorities impose bail-in rather than provide support, conditional on the bail-in layer being relevant:

$$C \equiv \frac{\beta}{\beta + \pi_2}. \tag{2}$$

Rearranging,

$$\beta = (1 - \rho_2) C. \quad (3)$$

This decomposition⁵ separates β into two components. The term $1 - \rho_2$ captures necessity at Stage 2: the probability that the crisis cannot be resolved privately, a necessary condition for bail-in losses to materialize. The term C captures credibility at Stage 2: the probability that authorities choose bail-in when they face that choice. A decline in β can reflect higher ρ_2 (private stabilization becomes more likely, reducing necessity), lower C (bail-in credibility declines), or both. Observing a change in β does not by itself reveal which component moved.

4.2 From spread movements to changes in β

We observe yield spreads on AT1 and bail-in bonds before and after the Credit Suisse event. This subsection shows how their joint movement identifies changes in β .

Pricing. Under the standard expected-loss approximation, spreads are proportional to the probability of loss:

$$S^{AT1} \propto p \alpha, \quad (4)$$

$$S^{BI} \propto p \alpha \beta, \quad (5)$$

where p is the probability of a loss-absorption-relevant crisis. These expressions suppress loss-given-default, which we treat as approximately constant across the event window for each tier.

Identification of $\Delta\beta$. Taking log changes:

$$\Delta \log S^{AT1} = \Delta \log p + \Delta \log \alpha, \quad (6)$$

$$\Delta \log S^{BI} = \Delta \log p + \Delta \log \alpha + \Delta \log \beta. \quad (7)$$

⁵One could decompose α analogously as $\alpha = (1 - \rho_1) \cdot C_1$. We omit this for clarity and because our interest lies in bail-in credibility, which operates at Stage 2.

Subtracting (6) from (7) and using the approximation $\Delta \log x \approx \% \Delta x$:

$$\% \Delta \beta \approx \% \Delta S^{BI} - \% \Delta S^{AT1}. \quad (8)$$

The proportional difference in spread movements between bail-in and AT1 bonds identifies the proportional change in β , the Stage 2 loss-imposition probability.

Because the subtraction cancels both Δp and $\Delta \alpha$, this identification requires no assumption about whether the probability of crisis or the probability of AT1 loss absorption changed.

Interpreting the joint pattern. The direction of $\Delta \beta$ depends on the configuration of spread movements across the two tiers as shown in equation (8). In some cases, the sign follows immediately from the direction of repricing. In others, magnitudes matter.

When AT1 and bail-in spreads move in opposite directions, inference is unambiguous. Suppose AT1 spreads widen while bail-in spreads tighten ($\% \Delta S^{AT1} > 0$, $\% \Delta S^{BI} < 0$). AT1 widening implies that losses at Stage 1 became more likely, which by the sequential structure of the tree pushes bail-in spreads upward. For bail-in spreads to tighten despite this, β must have fallen. The reverse pattern ($\% \Delta S^{AT1} < 0$, $\% \Delta S^{BI} > 0$) implies β rose.

When both spreads move in the same direction, the sign of $\% \Delta \beta$ depends on magnitudes. Suppose both tighten ($\% \Delta S^{AT1} < 0$, $\% \Delta S^{BI} < 0$). The bail-in spread decline could arise entirely from less expected loss at Stage 1, with β unchanged. From equation (8), $|\% \Delta S^{BI}| > |\% \Delta S^{AT1}|$ implies β also fell.

From changes in β to bail-in credibility. From equation (3),

$$\% \Delta \beta \approx \% \Delta (1 - \rho_2) + \% \Delta C. \quad (9)$$

A decline in β could reflect an increase in private stabilization ($\% \Delta \rho_2 > 0$, reducing necessity), a decline in bail-in credibility ($\% \Delta C < 0$), or both. Spread movements alone cannot

distinguish between the two. Section 3 provides institutional evidence that the Credit Suisse episode was a shock to beliefs about how authorities would handle future crises, not to private stabilization capacity. Section 6 presents cross-sectional tests that discriminate between the two channels.

5 Empirical analysis

5.1 Data and setup

Our sample spans March 20, 2022 to March 20, 2024, centered on the CS–UBS merger announcement. The symmetric 365-day window before and after the event allows for comparison of steady-state pricing conditions while capturing the full adjustment path. We partition the post-period into three windows: short (0–30 days), medium (31–180 days), and long (181–365 days). The short window isolates immediate market reaction. The medium window captures information processing and gradual adjustment. The long window identifies whether repricing persists or mean-reverts.

We restrict the sample to European banks. Three considerations motivate this choice. First, regulatory homogeneity under the EU’s Bank Recovery and Resolution Directive (BRRD) provides a common baseline for resolution expectations. Switzerland operates under a comparable framework, facilitating cross-border comparison. Second, European banks constitute the core of global AT1 and bail-in debt markets, offering the deepest liquidity and most continuous pricing. Third, the CS event’s transmission operated through European supervisory and resolution frameworks; EU and UK authorities issued clarifying statements within hours of the Swiss announcement, creating natural variation in regulatory signaling.

The sample includes only fixed-rate bonds. Floating-rate notes embed mechanical spread volatility from reference rate resets, typically tied to the three- or six-month Euro Interbank Offered Rate (Euribor), causing their spreads to move with monetary policy ex-

pectations and term premium shifts unrelated to the CS event (Guedes and Pinto, 2023). Including them would introduce measurement error into our dependent variable.

We also exclude observations from the final 365 days before maturity. Bonds approaching redemption trade less frequently, reducing liquidity and distorting spread estimates (Gilchrist and Zakrajšek, 2012; Eom et al., 2004). A regulatory rationale reinforces this choice: under TLAC rules, bonds with less than one year to maturity lose eligibility as loss-absorbing instruments (Lewrick et al., 2019). Their spreads therefore reflect a different regulatory status than the one we aim to measure.

We exclude all CS bonds. Its AT1 instruments were written down to zero and ceased to exist. Remaining bonds were assumed by UBS, so their post-event spreads reflect issuer substitution from a failing bank to a stronger acquirer rather than reassessment of loss-absorption expectations.

We obtain daily yield-to-maturity data from London Stock Exchange Group (LSEG) Workspace (formerly Refinitiv). For each bond, we compute yield spreads over the 10-year sovereign benchmark corresponding to the bond's principal currency. Sovereign spreads absorb macro factors common across instruments, including policy rate changes.

We use cash-bond yield spreads as our primary outcome because they are the market price of credit risk at each creditor layer—and therefore the marginal funding cost banks face in that tier. A large literature establishes that secondary-market pricing of bank debt is risk-sensitive and informative about expected creditor losses (e.g., Flannery and Sorescu, 1996; Billett et al., 1998). In the European resolution setting, cash-bond spreads price bail-in risk across creditor ranks (Lewrick et al., 2019; Lindstrom and Osborne, 2020). For AT1 instruments specifically, yields are the natural measure because no liquid, standardized single-name CDS contract exists on AT1 claims; the CoCo literature accordingly uses yield levels and CoCo-subordinated yield spreads to study conversion and write-down risk (Fiordelisi et al., 2020). For bail-in and senior layers, where single-name CDS contracts trade, we complement the cash-bond analysis with CDS spreads as a robustness check.

Cash-bond spreads can contain nondefault components tied to liquidity and trading frictions (Longstaff et al., 2005; Chen et al., 2007), and CDS prices can lead cash spreads in price discovery (Blanco et al., 2005). The CDS-based tests help separate credit risk repricing from these confounds.

Table 1 reports the sample composition. The final dataset contains 2,036 bonds from 94 banks across 22 countries, distributed across AT1, bail-in-eligible, and senior tiers. Table A.2 in the appendix presents pre-CS event descriptive statistics that would be useful in putting our results on spread changes in perspective.

Table 1: Summary Statistics: Banks and Bonds

	N	N (Switzerland)	N (Eurozone)	N (UK)	N (Others)
Total Banks	94	7	57	20	10
– Banking Groups	84	6	53	15	10
Total Bonds	2,036	267	1,203	492	74
– AT1 Bonds	214	28	124	47	15
– Bail-In Bonds	721	62	427	207	25
– Senior Bonds	1,101	177	652	238	34

The dataset includes bonds from European banks, defined as those in the Eurozone, United Kingdom, Switzerland and Others (European Union, non-Eurozone). The sample is restricted to fixed-coupon bonds not maturing within the next year. Spreads are calculated as bond yield minus sovereign 10-year bond yield.

5.2 Empirical strategy

The conceptual framework requires estimates of spread changes for each capital tier around the CS event. The proportional difference between bail-in and AT1 spread movements identifies changes in β , the Stage 2 loss-imposition probability. Our regression design recovers these tier-specific spread changes while isolating the CS event from contemporaneous shocks.

We estimate:

$$S_{i,t} = \mu_i + \sum_w \lambda_w Post_{w,t} + \sum_{k \neq SR} \sum_w \gamma_{k,w} \mathbf{1}[\text{Tier}_i = k] \cdot Post_{w,t} + \boldsymbol{\delta}' \mathbf{X}_t + \varepsilon_{i,t} \quad (10)$$

where i indexes bonds by International Securities Identification Number (ISIN), t indexes trading days, $k \in \{\text{AT1, BI}\}$ denotes capital tier, and $w \in \{\text{short, medium, long}\}$ indexes the three post-event windows defined in Section 5.1. The dependent variable $S_{i,t}$ is the yield spread of bond i over the 10-year sovereign benchmark of its principal currency. μ_i denotes bond fixed effects. \mathbf{X}_t is a vector of time-varying macro controls. Standard errors are clustered at the bank level.

The coefficients λ_w measure the average spread change for senior bonds in window w relative to the pre-event period. The interaction terms $\gamma_{k,w}$ measure how AT1 and bail-in repricing differs from senior repricing in each window. The total repricing of tier k in window w is $\lambda_w + \gamma_{k,w}$; for senior bonds, it is λ_w . We recover these total effects using marginal effects evaluated at means, which map directly to the ΔS^k objects in (8).

Bond fixed effects absorb all time-invariant characteristics of each instrument: issuer identity, coupon, currency, governing law, trigger level, loss-absorption mechanism, maturity, and initial credit rating. Identification is within-bond: the same instrument’s spread before the event is compared to its spread after. Cross-sectional differences in bond design or issuer quality cannot confound the estimates.

The macro controls \mathbf{X}_t consist of the VIX index and the iTraxx Europe Financials Senior 5-year CDS spread. Both capture aggregate risk repricing unrelated to the CS event. This matters because the event window overlaps with significant stress in US regional banks—the liquidation of Silvergate Bank (March 8), the failures of Silicon Valley Bank (March 10) and Signature Bank (March 12) and the ongoing distress at First Republic. These episodes moved risky asset prices broadly. Without controlling for aggregate conditions, estimated spread changes would conflate CS-specific repricing with generalized flight from bank risk. The VIX absorbs equity-market volatility common across sectors. The iTraxx Financials Senior CDS index absorbs repricing of senior bank credit risk driven by system-wide concerns, which is precisely the component we wish to net out from subordinated spread movements.

A natural alternative would replace the macro controls with date fixed effects. We

do not adopt this specification as our baseline for a specific reason. Date fixed effects absorb all common time variation, including the post-event indicators. The regression would then identify only *relative* repricing across tiers—how much more AT1 widened than senior, for instance—but not the *level* of repricing for any tier. The framework’s inference requires signed magnitudes for each tier: whether AT1 spreads widened or tightened, and by how much bail-in spreads moved in percentage terms relative to AT1. The macro-control specification preserves these tier-level estimates while removing the dominant source of confounding variation. We verify robustness to date fixed effects where the relevant test is the tier differential $\gamma_{k,w}$ rather than the total effect.

Clustering at the bank level accounts for the correlation structure in the data. Bonds issued by the same bank share common fundamentals and resolution expectations. A repricing shock to one bank’s AT1 is not independent of the repricing of its bail-in or senior bonds, nor of bonds from the same banking group issued under different legal entities. Bank-level clustering allows for arbitrary within-bank correlation across instruments and over time.

6 Results

6.1 Full-sample repricing

We begin by estimating equation (10) on the full sample, pooling all jurisdictions. This yields the average spread change for each capital tier in each post-event window, controlling for bond fixed effects and aggregate market conditions. Table 2 reports these estimated spread changes by capital tier across the three post-event windows. All estimates are total effects from equation (10), evaluated at means.

AT1 spreads widened by 107 basis points (bp) in the short run, an increase of roughly 21 percent relative to a pre-CS mean of 502 bp (Table A.2). The effect attenuated to 53 bp in the medium window and turned modestly negative in the long run (−15 bp). Bail-in

spreads followed a different trajectory. The short-run increase was small (7 bp, significant at the 5 percent level) and statistically indistinguishable from zero in the medium window. In the long run, bail-in spreads tightened by 31 bp, a decline of roughly 13 percent relative to their pre-CS mean of 247 bp. Senior spreads showed no economically meaningful movement in any window.

Table 2: Full-Sample Post-CS Spread Changes

	Short term (1)	Medium term (2)	Long term (3)
AT1	1.067*** (0.139)	0.530*** (0.116)	-0.154** (0.075)
Bail-In	0.073** (0.032)	-0.047 (0.034)	-0.309*** (0.053)
Senior	0.049 (0.040)	0.099** (0.048)	0.018 (0.051)
Fixed Effects	This regression uses bond fixed effects.		
Observations	The number of observations is 695,714.		
Controls	VIX, iTraxx		
Within R-squared	0.192		

Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

This table reports estimated spread changes for each capital tier and post-event window, computed as marginal effects at the mean values of the control variables (VIX, iTraxx Fin Senior).

The temporal dynamics differ across tiers in a way that informs interpretation. AT1 spreads show a large initial reaction that decays, consistent with short-run contagion and uncertainty gradually giving way to a more measured reassessment. Bail-in spreads show the opposite profile: a negligible short-run response followed by progressive tightening. This divergence suggests that the forces driving AT1 and bail-in repricing are distinct. We return to this point after examining the geographic decomposition, which sharpens the interpretation considerably.

6.2 Geographic heterogeneity

To examine cross-jurisdictional variation, we augment equation (10) by interacting capital tier with region:

$$S_{i,t} = \mu_i + \sum_k \sum_r \sum_w \gamma_{k,r,w} \mathbf{1}[\text{Tier}_i = k] \cdot \mathbf{1}[\text{Region}_i = r] \cdot \text{Post}_{w,t} + \boldsymbol{\delta}'\mathbf{X}_t + \varepsilon_{i,t} \quad (11)$$

where $r \in \{\text{Eurozone}, \text{Switzerland}, \text{United Kingdom}, \text{Others}\}$. The coefficients $\gamma_{k,r,w}$ measure the spread change for tier k in region r during window w , again recovered as marginal effects evaluated at means.

The full-sample estimates aggregate over jurisdictions whose regulators sent distinct signals. Section 3 documented that Swiss authorities wrote down AT1 in full, while EU and UK authorities clarified that any discretionary write-down of AT1 at the point of non-viability would respect the creditor hierarchy. These signals differed in content, and the geographic decomposition allows the data to reflect that. Table A.3 and Figure 4 decompose the repricing by jurisdiction.

AT1 repricing. Swiss AT1 spreads widened substantially across all three windows: 171 bp in the short run, 126 bp in the medium run, and 44 bp in the long run, all significant at the 1 percent level. On a pre-CS mean of 416 bp, the long-run effect represents a persistent increase of roughly 11 percent.

Eurozone and UK AT1 spreads followed a qualitatively different path. Both widened sharply in the short run (89 bp and 124 bp respectively), consistent with initial contagion and uncertainty. But by the long-run window, both had tightened below pre-CS levels: -26 bp in the Eurozone and -24 bp in the United Kingdom, both significant at the 5 percent level. Relative to pre-CS means of 521 bp and 515 bp, these represent declines of roughly 5 percent.

The contrast is stark. Short-run AT1 widening was common across all jurisdictions. But only in Switzerland, where authorities wrote down AT1 in full, did the widening persist.

In the Eurozone and the United Kingdom, where authorities clarified the conditions under which AT1 would bear losses under the discretionary trigger, long-run AT1 spreads fell below pre-event levels. We discuss what this divergence reflects — differences in revealed willingness, legal frameworks, or both — in Section 6.3.

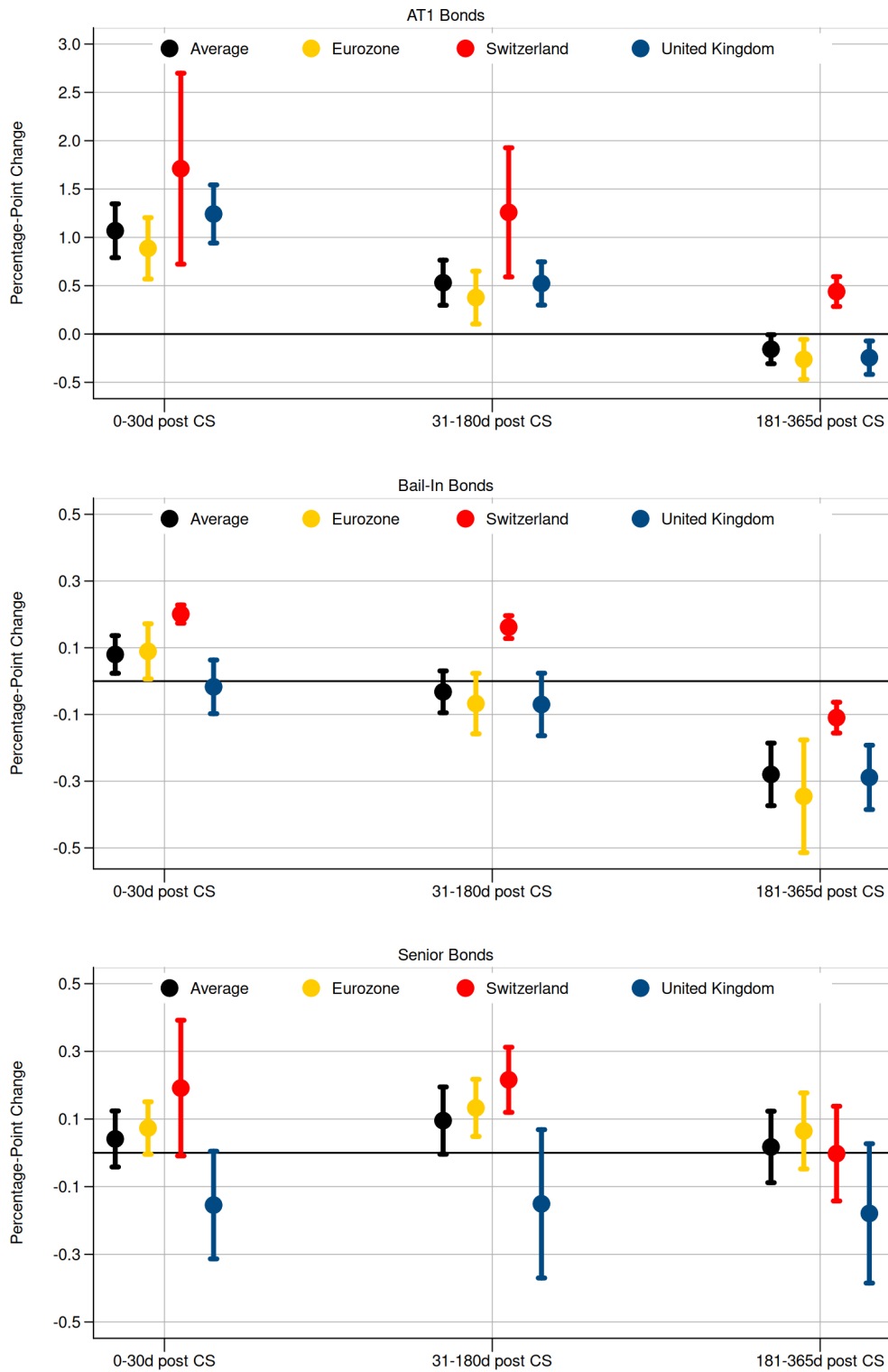
Bail-in repricing. In Switzerland, bail-in spreads widened in the short and medium windows (20 bp and 17 bp, both significant at the 1 percent level) before tightening modestly in the long run (–11 bp). This time path — initial widening followed by tightening — is distinct from other jurisdictions.

In the Eurozone, bail-in spreads showed a small initial increase (9 bp), followed by tightening that deepened in the long run (–34 bp, significant at the 1 percent level). In the United Kingdom, bail-in spreads were negative from the first window and reached –31 bp in the long run. In both jurisdictions, the deepening of bail-in tightening over time mirrors the pattern in the full sample.

Senior spreads. Senior bond spreads show no statistically significant or economically meaningful movement in any jurisdiction or window. This is economically expected. Senior creditors bear losses only after all loss-absorbing capacity above them is fully exhausted. Pre-CS, the probability of that outcome was already very low. Senior spreads averaged 137 bp, compared with 502 bp for AT1 and 247 bp for bail-in (Table A.2). The CS event shifted beliefs about how the first two stages of the loss-absorption hierarchy are managed. Changes in α and β have at most a second-order effect on senior expected losses because they perturb a probability that was near zero to begin with.

The non-response also provides a useful diagnostic. If the estimated repricing reflected a revision in the perceived probability of bank insolvency, all unsecured tiers would move, roughly in proportion to their loss-given-default. The concentration of repricing in AT1 and bail-in, with senior flat, confirms that markets were reassessing how losses are distributed in crisis, not whether European banks would fail.

Figure 4: Post-CS Spread Changes by Tier and Region



Estimated spread changes by capital tier, region, and post-event window. Vertical bars indicate 95% confidence intervals. Bond fixed effects and macro controls (VIX, iTraxx Fin Senior) are included.

6.3 Interpreting the repricing

The short and medium windows capture adjustment dynamics: the immediate market reaction, liquidity disruption, and gradual information processing. These dynamics conflate the signal about regulatory behavior with transitory forces that dissipate over time. The long-run estimates (181–365 days post-event) are better suited for inference about durable shifts in market beliefs. By this window, crisis-related liquidity effects had normalized and investors had time to assess whether the signals from March 2023 reflected lasting policy shifts or crisis-specific expedients. We focus on the long-run estimates throughout this subsection.

Senior non-response and Δp . Senior spreads showed no meaningful movement in any jurisdiction. If markets had revised the probability of bank crises, all unsecured tiers would move. The concentration of repricing in AT1 and bail-in, with senior flat, indicates that markets reassessed how losses are distributed in crisis, not whether crises would occur. This supports $\Delta p \approx 0$. This implies, from equation (6), that AT1 spread movements can be read as changes in α .

AT1 repricing and $\Delta\alpha$. As $\Delta p \approx 0$, AT1 spread changes identify $\Delta\alpha$. Swiss AT1 widened by 44 bp in the long run (roughly 11 percent of the pre-CS mean): α rose. Eurozone and UK AT1 tightened by 26 bp and 24 bp respectively (roughly 5 percent): α fell. The divergence tracks the regulatory signals documented in Section 3.4. European law requires equity to be written down before AT1 is triggered at the point of non-viability; Swiss law imposes no such requirement. The AT1 repricing might simply reflect the revelation that, at the point of non-viability, AT1 can be junior to equity in Switzerland but not in other jurisdictions.

The bail-in probability, β , fell in every jurisdiction. In Switzerland, AT1 widened while bail-in tightened. From equation (8), it follows immediately that β fell. A rise in α alone would push bail-in spreads upward, because more crises reach Stage 2. For bail-in spreads

to tighten despite higher α , β must have declined by enough to reduce the product $\alpha\beta$.

The Swiss time path reinforces this. In the short and medium windows, bail-in spreads widened (20 bp and 17 bp), consistent with the pass-through from sharply higher α . By the long run, the decline in β dominated, pulling bail-in spreads below their pre-CS level.

In the Eurozone and the United Kingdom, both AT1 and bail-in tightened. Here the sign of $\Delta\beta$ depends on magnitudes. Eurozone bail-in tightened by roughly 13 percent (–34 bp on 268 bp); AT1 tightened by roughly 5 percent (–26 bp on 521 bp). In the United Kingdom: bail-in tightened by 14 percent (–31 bp on 225 bp), AT1 by 5 percent (–24 bp on 515 bp). In both cases, bail-in tightened proportionally more than AT1. From equation (8), β fell.

The pattern across jurisdictions is uniform. α diverged, tracking the distinct regulatory signals each jurisdiction sent. β fell everywhere. Whether AT1 loss absorption became more or less likely, markets revised downward the probability that authorities would proceed with bail-in.

From $\Delta\beta$ to bail-in credibility. The framework decomposes $\beta = (1 - \rho_2) \cdot C$. A decline in β could reflect an increase in private stabilization (higher ρ_2 , reducing necessity) or a decline in bail-in credibility (lower C). The institutional evidence presented in Section 3.5 bears directly on this question.

The CS merger required a federal loss-protection guarantee to proceed. The purchase price moved mechanically with the guarantee amount. No private acquirer absorbed a failing G-SIB's bail-in layer without state backing. For creditor pricing, the merger maps to public support, not to private stabilization. The new information from the episode was not that distressed banks can be acquired. Banco Popular had already demonstrated that acquisition and bail-in are compatible. The new information was that a G-SIB can be acquired with bail-in creditors kept whole, through public intervention.

If the CS merger represents public support rather than private stabilization, the decline in β does not reflect a world in which private solutions became more available. It reflects a

world in which markets observed that authorities, when faced with the first G-SIB failure under the post-GFC framework, chose public support over bail-in. That is a decline in credibility. The cross-sectional tests in Section 6.5 provide further evidence on this reading.

The two components of credibility. Credibility has two components: feasibility and willingness. Market prices cannot distinguish between them. The decline may reflect revealed unwillingness of authorities to impose bail-in. But it may equally reflect feasibility constraints that the crisis exposed. A resolution plan had been prepared and declared operational. Yet the crisis may have *revealed* that operational readiness and feasibility under acute stress at G-SIB scale are not the same thing — a concern one might call “*too big to bail-in.*” The involved authorities argued that the emergency merger entailed fewer execution risks and was preferred for that reason (FINMA, 2023; Expert Group, 2023). If feasibility rather than willingness drove the decision, the policy implication is constructive: these obstacles can be identified and addressed before the next crisis.

Robustness with bond and date fixed effects. So far, our baseline has used macro controls rather than date fixed effects to preserve tier-level estimates. Table A.4 verifies that the cross-tier patterns survive when date fixed effects replace the macro controls. In this specification, all common time variation is absorbed, so the estimates are differentials relative to senior bonds. The baseline results (columns 1–3) confirm that AT1 repriced significantly more than senior in the short run and that bail-in tightened significantly more than senior in the long run. The geographic decomposition (columns 4–6) preserves the key patterns. Swiss AT1 differentials remain large and positive across all windows. Eurozone and UK AT1 differentials turn negative in the long run. Bail-in differentials are negative and significant in the long run across all jurisdictions. The conclusions drawn from the macro-control specification do not depend on the choice of time controls.

Robustness against pre-event stress contamination. One concern with the baseline estimates is that the pre-CS period includes the final days of acute banking stress. If spreads were temporarily elevated in the days before the merger announcement, the long-

run tightening could partly reflect normalization from a stressed reference point rather than a genuine repricing. We address this by re-estimating the baseline and geographic specifications after dropping the 15 and 30 trading days immediately preceding the event. Table A.6 reports the long-run estimates. The results are stable. Bail-in coefficients change by less than one bp across all specifications. The geographic pattern is similarly unchanged: Swiss AT1 widening persists, Eurozone and UK tightening in both AT1 and bail-in remains, and senior spreads remain flat everywhere. The long-run estimates are not sensitive to the inclusion of the pre-event stress period.

6.4 Bail-in credibility and the CDS subordination premium

The yield-based results could in principle reflect bond-specific liquidity effects rather than belief revisions. CDS markets offer a check. CDS contracts are standardized, trade on common documentation, and are less susceptible to the idiosyncratic liquidity frictions that affect individual bonds. If the narrowing of the gap between subordinate and senior instruments appears in CDS as well, the finding is unlikely to be a bond-market artifact.

Our CDS dataset, obtained from IHS Markit, contains daily observations at the contract level. Each contract represents a unique combination of bank, tier, and currency. Spreads are averaged across restructuring clause types within each contract. Following [Berndt et al. \(2025\)](#), we focus on contracts with a five-year maturity, which are the most liquid. We classify CDS tiers following the same economic logic as in the bond analysis. For banks with holding-company structures, operating-company senior CDS is classified as senior, while both holding-company senior and holding-company subordinated CDS are classified as subordinate. For banks without this separation, senior CDS is classified as senior and subordinated CDS as subordinate. This classification captures the same structural subordination that governs loss allocation in resolution. The dataset covers 334 contracts across 55 banks. Table 3 reports the distribution of contracts across regions and tiers, and Table A.5 reports pre-CS summary statistics.

Table 3: Summary Statistics: CDS Contracts

	N	N (Switzerland)	N (Eurozone)	N (UK)	N (Others)
Banks with CDS	55	2	34	11	8
Total CDS Contracts	334	20	179	99	36
– Senior	154	7	87	37	23
– Subordinate	180	13	92	62	13

The dataset includes CDS contracts from European banks, defined as those in the Eurozone, United Kingdom, Switzerland and Others (European Union, non-Eurozone).

No AT1-specific CDS contracts exist, so the decomposition of bail-in repricing into $\Delta\alpha$ and $\Delta\beta$ from the bond analysis cannot be replicated here. The relevant test is narrower: whether the gap between subordinate and senior CDS spreads changed after the CS event. We call this gap the *subordination premium*. A decline indicates that markets reduced the additional compensation they demanded for bearing losses in resolution relative to senior creditors. A decline in the subordination premium is consistent with a decline in β .

The regression specification parallels the bond analysis but uses contract and date fixed effects. Date fixed effects absorb all common time variation, providing tighter controls than the parsimonious macro variables in the yield regressions. The cost is that tier-level spread changes are no longer identified. But with only two tiers, tier-level changes are not the object of interest. The subordination premium is a differential, and date fixed effects are well suited to estimate it. We recover the total premium change for each region by combining the base subordinate-senior differential with region-specific interactions, using linear combinations with appropriate standard errors.

Table 4 reports the results. In the full sample, the subordination premium is unchanged in the short and medium windows but declines by 8.1 bp in the long run. The geographic decomposition reveals a pattern consistent with the yield findings. In Switzerland, the premium widened sharply in the short run by 35 bp, then declined in the long run by 5.5 bp. Relative to a pre-CS subordination premium of roughly 48 bp (the difference between subordinate and senior means in Table A.5), this long-run decline represents a narrowing of about 12 percent. In the Eurozone and the United Kingdom, the long-run declines were

larger: 11.1 and 7.3 bp, or roughly 11 and 16 percent of their respective pre-CS premia. Neither jurisdiction showed meaningful short-run movement.

Table 4: Subordination Premium Changes by Region

	Short term	Medium term	Long term
Regression 1: Baseline			
All Regions	0.031 (0.034)	-0.018 (0.033)	-0.081** (0.033)
Regression 2: Geographic Heterogeneity			
Others	0.082 (0.069)	0.146 (0.109)	-0.030 (0.113)
Switzerland	0.350*** (0.095)	0.027 (0.023)	-0.055*** (0.013)
UK	-0.017 (0.044)	-0.033 (0.036)	-0.073** (0.033)
Eurozone	0.013 (0.036)	-0.027 (0.053)	-0.111* (0.059)
Fixed Effects:	Contract and date fixed effects for both regressions.		
Observations:	N = 149,681 for both regressions.		
Within R-squared:	Regression 1: 0.004; Regression 2: 0.039		

Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The post-CS time windows for this regression are defined as follows: Short: 0-30 days; Medium: 31-180 days; Long: 181-365 days post-CS. The coefficients for Regression 2 are derived from linear combinations of the triple interaction terms, isolating regional subordination premium changes across short-, medium-, and long-term windows, net of contract and date fixed effects. Coefficients and standard errors are reported in terms of percentage-points.

The long-run subordination premium declined in every jurisdiction. Subordinate CDS spreads moved closer to senior spreads, indicating that markets reduced the additional compensation for bail-in risk. This convergence, estimated with date fixed effects in a market with minimal bond-specific liquidity frictions, corroborates the yield-based finding that β fell across the European banking sector.

6.5 Who benefits from declining credibility?

A regime-wide decline in bail-in credibility does not affect all banks equally. Banks in weaker health are closer to the states where public support becomes relevant, so their

creditors gain more when the perceived probability of such support rises. The cross-section of post-CS repricing should reflect this, and it does.

We test this by interacting pre-CS bank health with the post-event repricing. The analysis uses Eurozone and UK banks, where the baseline identified a common direction: both AT1 and bail-in spreads tightened in the long run. Switzerland is excluded because Swiss AT1 moved in the opposite direction, and the Swiss sample is dominated by a single large bank with insufficient cross-sectional variation. We measure bank health using pre-CS credit ratings, which aggregate multiple dimensions of vulnerability into a single measure that investors observe and act on. Banks rated at or below BBB+ or equivalent across rating agencies are classified as low-rated (Table A.1). We estimate, separately for AT1 and bail-in bonds:

$$S_{i,t} = \mu_i + \phi_t + \sum_w \theta_w \text{LowRating}_i \cdot \text{Post}_{w,t} + \varepsilon_{i,t} \quad (12)$$

where μ_i and ϕ_t denote bond and date fixed effects respectively. LowRating_i equals one if the issuing bank's pre-CS rating falls at or below BBB+ or equivalent. The coefficients θ_w measure whether lower-rated banks repriced differently from higher-rated banks in each post-event window. Date fixed effects absorb all common time variation. Bond fixed effects absorb the LowRating main effect. Identification comes from the interaction of pre-existing bank health with the post-event indicators.

Table 5 reports the results. In the long run, spreads of lower-rated banks tightened by an additional 53 bp for AT1 and 52 bp for bail-in, relative to higher-rated banks. Both estimates are economically large. The bail-in coefficient represents roughly a fifth of the average pre-CS bail-in spread in these jurisdictions.

Table 6 adds CET1 ratios and bank size to the interaction. The rating coefficients remain similar in magnitude and significance. CET1 and size interactions are largely insignificant.

The insignificance of size bears on the interpretation of $\Delta\beta$ developed in Section 6.3. If β fell because private acquisition became more likely ($\Delta\rho_2 > 0$), acquirability should predict the cross-section: smaller banks are easier to acquire, so their creditors should

Table 5: Heterogeneity in Rating Categories

	(1) AT1 Bonds	(2) Bail-In Bonds
Low Rating × Short	-0.139 (0.249)	0.314** (0.129)
Low Rating × Medium	-0.199 (0.165)	-0.139 (0.107)
Low Rating × Long	-0.528*** (0.146)	-0.518*** (0.170)
Constant	5.229*** (0.020)	2.435*** (0.012)
Bond FE	Yes	Yes
Date FE	Yes	Yes
Within R-squared	0.0183	0.0374
Observations	64988	203073

Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

benefit more. Size does not predict the repricing. What predicts it is the credit rating, which captures proximity to distress. This pattern is consistent with a decline in bail-in credibility ($\Delta C < 0$) rather than an increase in private stabilization. The value of an implicit public backstop increases with proximity to the states where it would be exercised. The market is pricing the likelihood that a bank enters those states, not its attractiveness as an acquisition target.

The short-run estimates provide a further contrast. For bail-in, the short-run interaction is positive: lower-rated banks initially widened by 31 bp more than higher-rated banks. During the acute stress period, markets differentiated more across bank health. By the long run, the sign reverses and lower-rated banks tighten more. The spread gap between weak and strong banks narrowed. This compression is the pricing counterpart of reduced market discipline. Before the CS event, the market charged a penalty for weaker fundamentals. After, that penalty shrank. We examine the behavioral side of this reduced discipline in the next subsection.

Table 6: Heterogeneity in Eurozone and UK Repricing

	(1) AT1 Bonds	(2) Bail-In Bonds
Low Rating × Short	0.019 (0.272)	0.267** (0.121)
Low Rating × Medium	-0.141 (0.124)	-0.218 (0.135)
Low Rating × Long	-0.413*** (0.107)	-0.492** (0.192)
CET1 × Short	-0.033 (0.037)	0.004 (0.026)
CET1 × Medium	-0.045* (0.026)	0.028 (0.028)
CET1 × Long	-0.026 (0.017)	0.037 (0.035)
Total assets × Short	0.177 (0.139)	0.010 (0.059)
Total assets × Medium	0.105 (0.079)	-0.039 (0.051)
Total assets × Long	0.178** (0.073)	0.089 (0.068)
Constant	3.144*** (1.072)	1.573 (0.971)
Bond FE	Yes	Yes
Date FE	Yes	Yes
Within R-squared	0.0367	0.0491
Observations	63156	195591

Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

6.6 Does declining credibility reduce investor discipline?

Spread compression between weak and strong banks is the pricing side of reduced market discipline. The behavioral side is whether investors pay less attention to issuer-specific news. If bail-in credibility declined, bondholders who expect public support rather than private loss absorption have less reason to scrutinize quarterly disclosures. Earnings disappointments and capital shortfalls carry smaller consequences for creditors who believe they will be made whole. We test this by measuring how sharply bond yields respond to earnings announcements before and after the CS event.

For each bond i on trading day t , we define the excess yield as:

$$\tilde{Y}_{i,t} = Y_{i,t} - Y_{i,t}^{\text{index}} \quad (13)$$

where $Y_{i,t}$ is the yield of bond i and $Y_{i,t}^{\text{index}}$ is the yield of a matched benchmark index constructed from bonds of the same tier and currency. This differencing removes common yield movements within each tier-currency cell, isolating the bond-specific component. Around each earnings announcement, we compute the absolute change in excess yield over a one-day window. Taking absolute values captures the intensity of the response regardless of its direction.

Our sample covers 1,035 earnings announcements by European banks from 2018 to 2024, obtained from LSEG Workspace. Table 7 reports the distribution across regions. Table A.7 reports average absolute excess yield responses by tier and region in the year before the event. AT1 bonds show the largest pre-CS responses (5.3 bp on average), consistent with their greater sensitivity to issuer-specific risk, followed by bail-in (4 bp) and senior (2.6 bp).

Table 7: Summary Statistics: Event Study

	N	N (Switzerland)	N (Eurozone)	N (UK)	Others
Total Events	1,035	77	665	145	148
– Pre-CS	762	57	497	101	107
– Post-CS	273	20	168	44	41

The dataset includes events from European banks, defined as those in the Eurozone, United Kingdom, Switzerland and Others (European Union, non-Eurozone).

We estimate:

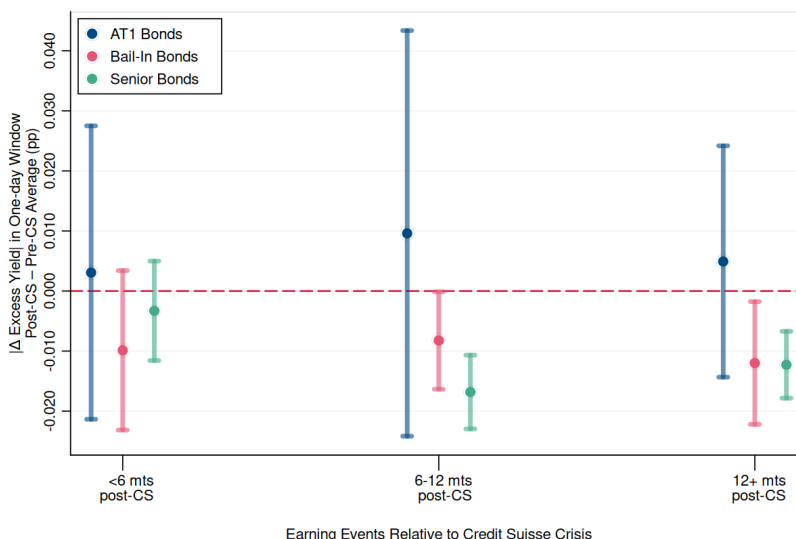
$$|\Delta \tilde{Y}_{i,e}| = \mu_i + \sum_k \sum_w \eta_{k,w} \mathbf{1}[\text{Tier}_i = k] \cdot \text{Post}_{w,e} + \varepsilon_{i,e} \quad (14)$$

where e indexes earnings announcements, k indexes capital tiers, and w indexes post-event windows (less than 6 months, 6–12 months, and 12 or more months after the CS

event). Bond fixed effects μ_i absorb all time-invariant bond and issuer characteristics. The excess yield construction already removes common tier-currency movements, so the dependent variable captures bond-specific responses by design. The coefficients $\eta_{k,w}$ measure how the absolute yield response of tier k in post-event window w differs from its three-year pre-CS average. Standard errors are clustered at the bank level.

Figure 5 reports the results. For AT1 bonds, the post-CS response does not differ from the pre-CS average in any window. This is consistent with the baseline finding that AT1 repricing moved in opposite directions across jurisdictions. The full-sample average reflects offsetting effects rather than a common shift.

Figure 5: Post-CS Change in Response to Earnings Announcements vs. Pre-CS Average



The figure plots the difference between the absolute responses to earnings announcements for AT1, Bail-In, and Senior bonds in different post-CS periods compared to the average response in the three-year pre-CS window. The estimates come from regressions where the dependent variable is the absolute change in excess yield, $|\Delta \text{ Excess Yield}|$, measured as the difference between the excess yield on the day of the earnings announcement ($t+0$) and the day before ($t-1$). The specification includes interactions between bond type indicators and period dummies reflecting time intervals before and after the CS event. Excess yield is defined as the bond's yield minus the yield of a matching index, where the index is constructed as the weighted average yield of bonds within the same bond type (AT1, Bail-In, or Senior) and currency. This structure mirrors the Bloomberg Global Contingent Capital Bond Index but separates AT1 and bail-in instruments. Regressions include bond fixed effects, and standard errors are clustered at the bank level.

For bail-in and senior bonds, the pattern is different. Both show a decline in the magnitude of the earnings response that deepens over time. In the long run (12 or more months post-CS), the average absolute excess yield response falls by roughly 1.2 bp for both tiers.

Relative to pre-CS means of 4 bp for bail-in and 2.6 bp for senior (Table A.7), these represent declines of nearly one-third and nearly one-half respectively. Investors in these tiers became substantially less responsive to issuer-specific news.

The asymmetry between AT1 and bail-in mirrors the pricing results. β declined uniformly across jurisdictions. The behavioral consequence is correspondingly uniform: bail-in bondholders respond less to issuer-specific news. AT1 repricing moved in opposite directions depending on the regulatory signal. The behavioral consequence is correspondingly heterogeneous: AT1 investors in some jurisdictions became more attentive while others became less so, producing no shift on average.⁶

7 Conclusion

Bail-in credibility was built gradually through regulatory reform and smaller-scale enforcement. The demise of Credit Suisse and its aftermath reversed part of that progress. Markets revised their expectations of loss allocation. Bail-in spreads tightened relative to AT1, CDS subordination premia narrowed, and weaker banks experienced larger funding cost reductions. At the same time, investor attention to issuer-specific information declined, indicating weaker market discipline. These results point to a shift in expected losses away from private creditors and toward implicit public support. Credit Suisse is gone, but the beliefs shaped by its crisis treatment remain.

⁶Senior spreads showed no measurable movement in the baseline analysis, yet senior monitoring declined. The two findings are consistent. Senior expected losses were near zero before the CS event, so a further reduction does not register in yield levels. But if the loss-absorption buffer above senior is perceived as more likely to be backstopped, the probability that adverse news reaches senior creditors falls. The monitoring incentive responds to this probability even when the yield level does not.

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Appendices

A Definition Issuer Ratings

For our analysis, we obtain rating data for banks (issuers) from the three major rating agencies: Moody’s, Standard & Poor’s, and Fitch. Each agency uses a 22-point scale to assign ratings to firms. We convert these alphabetical ratings into numerical values and then average across the available ratings for each issuer. When not all three agency ratings are available, we take the mean of the available ratings. Finally, we group the resulting numerical ratings into two broad rating categories, as shown in Table A.1.

Table A.1: Credit Ratings Mapping with Aggregated Grades

Moody’s Rating	S&P Rating	Fitch Rating	Numerical Value	Rating Grade	
Aaa	AAA	AAA	22	High Rating	
Aa1	AA+	AA+	21		
Aa2	AA	AA	20		
Aa3	AA-	AA-	19		
A1	A+	A+	18		
A2	A	A	17		
A3	A-	A-	16		
Baa1	BBB+	BBB+	15		Low Rating
Baa2	BBB	BBB	14		
Baa3	BBB-	BBB-	13		
Ba1	BB+	BB+	12		
Ba2	BB	BB	11		
Ba3	BB-	BB-	10		
B1	B+	B+	9		
B2	B	B	8		
B3	B-	B-	7		
Caa1	CCC+	CCC+	6		
Caa2	CCC	CCC	5		
Caa3	CCC-	CCC-	4		
Ca	CC	CC	3		
C	C	C	2		
D	D	D	1		

B Additional Tables

Table A.2: Bond Yield Spreads: Pre-CS Averages

	Full Sample	Switzerland	Eurozone	UK	Others
AT1 Bonds	5.02 (1.34)	4.16 (1.32)	5.21 (1.34)	5.15 (1.26)	4.51 (0.92)
Bail-In Bonds	2.47 (1.45)	1.89 (0.57)	2.68 (1.66)	2.25 (1.03)	2.20 (1.52)
Senior Bonds	1.37 (0.87)	0.97 (0.55)	1.41 (0.92)	1.58 (0.77)	1.04 (0.74)

The table shows the means and standard deviations (in parentheses) of bond yield spreads for different capital tiers across various regions in a 1-year horizon before March 19th 2023.

Table A.3: Geographic Heterogeneity: Post-CS Spread Changes

	Short term (1)	Medium term (2)	Long term (3)
AT1×Eurozone	0.891*** (0.155)	0.381*** (0.134)	-0.256** (0.101)
AT1×Others	0.872*** (0.271)	0.589*** (0.133)	-0.028 (0.061)
AT1×Switzerland	1.712*** (0.504)	1.261*** (0.341)	0.443*** (0.079)
AT1×United Kingdom	1.243*** (0.153)	0.526*** (0.114)	-0.241** (0.088)
Bail-In×Eurozone	0.089** (0.041)	-0.063 (0.045)	-0.343*** (0.084)
Bail-In×Others	0.416 (0.294)	0.077 (0.059)	-0.168** (0.059)
Bail-In×Switzerland	0.202*** (0.014)	0.165*** (0.018)	-0.106*** (0.024)
Bail-In×United Kingdom	-0.053 (0.034)	-0.096** (0.047)	-0.312*** (0.051)
Senior×Eurozone	0.074* (0.040)	0.135*** (0.043)	0.068 (0.058)
Senior×Others	0.126 (0.142)	0.231 (0.151)	0.044 (0.169)
Senior×Switzerland	0.192* (0.102)	0.219*** (0.049)	0.001 (0.072)
Senior×United Kingdom	-0.137 (0.082)	-0.127 (0.114)	-0.162 (0.106)
Bond FE	Yes	Yes	Yes
Date FE	No	No	No
Controls	VIX, iTraxx	VIX, iTraxx	VIX, iTraxx
Within R-squared	0.204	0.204	0.204
N Observations	695,714	695,714	695,714

Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. This table reports absolute repricing for each combination of bond type, region and time window, computed at the mean values of the control variables (VIX, iTraxx Fin Senior).

Table A.4: Relative Repricing with Geographic Heterogeneity

	Regression 1: Baseline			Regression 2: Geographic Heterogeneity		
	Short term (1)	Medium term (2)	Long term (3)	Short term (4)	Medium term (5)	Long term (6)
AT1	1.018*** (0.146)	0.434*** (0.132)	-0.173* (0.107)			
Bail-In	0.035 (0.049)	-0.132** (0.057)	-0.309*** (0.076)			
Senior	-	-	-			
AT1×Eurozone				0.811*** (0.181)	0.245 (0.169)	-0.328** (0.150)
AT1×Others				0.790*** (0.271)	0.448*** (0.136)	-0.100 (0.083)
AT1×Switzerland				1.636*** (0.505)	1.121*** (0.340)	0.366*** (0.102)
AT1×United Kingdom				1.178*** (0.159)	0.399*** (0.128)	-0.302*** (0.111)
Bail-In×Eurozone				0.022 (0.068)	-0.193*** (0.070)	-0.403*** (0.108)
Bail-In×Others				0.361 (0.294)	-0.035 (0.072)	-0.207** (0.081)
Bail-In×Switzerland				0.142*** (0.041)	0.045 (0.046)	-0.155** (0.061)
Bail-In×United Kingdom				-0.079 (0.055)	-0.191*** (0.063)	-0.340*** (0.076)
Senior×Eurozone				-	-	-
Senior×Others				0.037 (0.148)	0.080 (0.157)	-0.036 (0.179)
Senior×Switzerland				0.129 (0.120)	0.092 (0.068)	-0.064 (0.092)
Senior×United Kingdom				-0.207** (0.089)	-0.265** (0.119)	-0.225 (0.120)
Fixed Effects	Bond and date fixed effect for both regressions.					
Observations	The number of observations is 709,002 for both regressions.					
Within R-squared	Baseline Regression: 0.0513			Geographic Heterogeneity Regression: 0.0673		

Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
This table reports relative repricing for each combination of bond type and region versus Eurozone Senior bonds, estimated with bond and date fixed effects.

Table A.5: CDS Spreads: Pre-CS Averages

	Full Sample	Switzerland	Eurozone	UK	Others
Senior	0.872 (0.755)	0.731 (0.162)	0.975 (0.936)	0.737 (0.240)	0.675 (0.323)
Subordinate	1.601 (1.296)	1.207 (0.350)	1.957 (1.657)	1.181 (0.447)	1.316 (0.404)

The table shows the means and standard deviations (in parentheses) of CDS spreads for different capital tiers across various regions in a 1-year horizon before March 19th 2023. Means and standard deviations are reported in terms of percentage-points.

Table A.6: Repricing Estimates After Excluding Pre-CS Stress Period (Long-Term Effects)

	Baseline		Geographic Heterogeneity	
	(i) Excl. $E - 15$	(ii) Excl. $E - 30$	(iii) Excl. $E - 15$	(iv) Excl. $E - 30$
AT1	-0.149*	-0.156**		
	(0.077)	(0.076)		
Bail-In	-0.304***	-0.300***		
	(0.053)	(0.055)		
Senior	0.019	0.035		
	(0.052)	(0.053)		
AT1×Eurozone			-0.252**	-0.258**
			(0.105)	(0.104)
AT1×Others			-0.026	-0.032
			(0.056)	(0.051)
AT1×Switzerland			0.454***	0.453***
			(0.076)	(0.079)
AT1×United Kingdom			-0.244***	-0.258***
			(0.087)	(0.085)
Bail-In×Eurozone			-0.346***	-0.343***
			(0.088)	(0.091)
Bail-In×Others			-0.159**	-0.144**
			(0.058)	(0.060)
Bail-In×Switzerland			-0.101***	-0.093***
			(0.023)	(0.023)
Bail-In×United Kingdom			-0.290***	-0.290***
			(0.050)	(0.052)
Senior×Eurozone			0.073	0.091
			(0.058)	(0.059)
Senior×Others			0.049	0.065
			(0.174)	(0.178)
Senior×Switzerland			0.005	0.016
			(0.068)	(0.067)
Senior×United Kingdom			-0.183*	-0.172
			(0.107)	(0.108)
Bond FE	Yes	Yes	Yes	Yes
Date FE	No	No	No	No
Controls	VIX, iTraxx	VIX, iTraxx	VIX, iTraxx	VIX, iTraxx
Observations	685,586	671,848	685,586	671,848
Within R-squared	0.192	0.196	0.205	0.209

Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Coefficients are margins that estimate spread changes at the long-term (181-365 days post event) window.

Table A.7: Event Study Absolute Excess Yields: Pre-CS Averages

	Full Sample	Switzerland	Eurozone	UK	Others
AT1 Bonds	0.053 (0.098)	0.052 (0.077)	0.052 (0.080)	0.055 (0.153)	0.050 (0.059)
Bail-In Bonds	0.040 (0.085)	0.036 (0.048)	0.044 (0.104)	0.033 (0.044)	0.032 (0.072)
Senior Bonds	0.026 (0.041)	0.018 (0.016)	0.026 (0.042)	0.037 (0.054)	0.024 (0.036)

The table shows the means and standard deviations (in parentheses) of absolute values of excess yields in a one-day window around earnings events for different capital tiers across various regions in a 1-year horizon before March 19th 2023.