

# Türkiye | Tracking Financial Stress: Retail vs Corporate Dynamics

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This note presents newly developed financial stress indicators for Türkiye, constructed separately for retail and corporate segments to capture segment-specific vulnerabilities within the financial system. The indicators are designed to provide a timely and comprehensive assessment of stress dynamics by combining information from a broad set of real and financial variables. Compared to conventional single indicators, this framework allows for a more nuanced and forward-looking interpretation of overall financial stress.

Building on this framework, we also aim to assess selected variables at high frequency as early warning signals for non-performing loan (NPL) dynamics in the banking sector. This approach helps better identify the underlying drivers of these trends and supports more timely and informed policy decisions.

We construct retail and corporate financial stress indicators by using a broad set of variables spanning real activity, financial conditions, and survey-based (soft) indicators, with the full list, transformations, and lag structures summarized in Table 1. This multi-dimensional setup is intended to ensure a comprehensive assessment of financial stress by capturing both backward- and forward-looking signals. In addition, selected variables are incorporated in lagged form to better reflect their empirical relationship with credit risk dynamics, particularly non-performing loans (NPL). A common input in both models is the Garanti BBVA Financial Conditions Index (FCI), which serves as a composite measure of domestic financial tightness beyond policy rates and macro-financial environment. Latent common factors are extracted using an Expectation-Maximization Principal Component Analysis (EM-PCA) framework, allowing for the efficient treatment of missing observations and differing sample spans while preserving the underlying co-movement structure across series.

Figures 1 and 2 present the full-sample evolution of the estimated retail and corporate stress indicators alongside the three-month change in respective non-performing loan (NPL) ratios. Figures 3 and 4 focus on the most recent three-year period to highlight the short-term dynamics. In both segments, the estimated factors display a strong co-movement with NPL changes, despite NPL variables being excluded from the estimation. This provides an important out-of-sample validation, suggesting that the indicators successfully capture underlying credit risk dynamics while also embedding broader stress signals that may not yet be reflected<sup>1</sup> in NPL ratios.

To enhance interpretability, the contribution of each underlying variable to the common factor is decomposed using factor loadings. Over the full sample, the decomposition of financial stress indicators reveals distinct cyclical patterns and varying drivers across stress episodes (Figures 7 and 8). In the retail segment, periods of elevated stress—particularly around domestic financial tightening episodes—are characterized by broad-based contributions, with labor market conditions, credit

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<sup>1</sup> Banks may transfer, write off, or write down NPLs, including through sales to asset management companies, potentially leading to measurement biases in reported NPL ratios.

distress indicators, and financial conditions jointly amplifying stress. The Financial Conditions Index (FCI) plays a central and persistent role during tightening cycles, often acting as an initial trigger that propagates through credit and confidence channels. In the corporate segment, stress episodes tend to be more sharply driven by firm-level fragilities, with protested bills, bounced cheques, and firm closure dynamics contributing significantly during downturns. Restructuring activity and concordat filings also become more prominent during acute stress periods, reflecting balance sheet deterioration and liquidity constraints. Overall, the decomposition highlights that while financial conditions act as a common driver across both segments, the transmission channels differ structurally between households and firms.

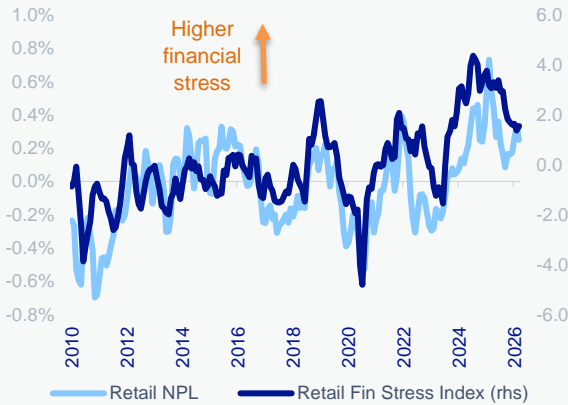
Focusing on recent dynamics (Figures 5 and 6), the evolution of financial stress indicators points to a differentiated but broadly moderating trend across segments. In the retail indicator, the recent improvement in financial stress has been driven by favorable contributions from the 3-month lagged FCI, followed by developments in the broad unemployment rate and the consumer loan–deposit spread. These factors suggest that easing financial conditions and some stabilization in labor market dynamics till the start of the conflict in the Middle East supported the decline in stress as of March, alongside partial normalization in borrowing costs. On the corporate side, the recent easing is more narrowly driven, with an improvement stemming primarily from a decline in concordat filings, while the FCI and protested bills have also provided supporting contributions.

Looking ahead, the conflict has already led to tighter financial conditions and any easing will depend on the duration and the severity of the impact of the war. Heightened global volatility, partly linked to ongoing geopolitical tensions, poses a risk of tight financial conditions for longer, which could feed back into both segments. In the retail segment, recently introduced macroprudential and regulatory measures<sup>2</sup> may help partially offset potential deterioration by containing credit risk and supporting borrower resilience, yet potentially with a lag to be seen later. Nevertheless, the overall balance of risks suggests that the moderation in financial stress prior to the conflict might provide a buffer against headwinds if local and external financial conditions stay less supportive. We will provide frequent updates to our financial stress indicators, incorporating them into our publications to ensure a timely and comprehensive assessment of asset quality.

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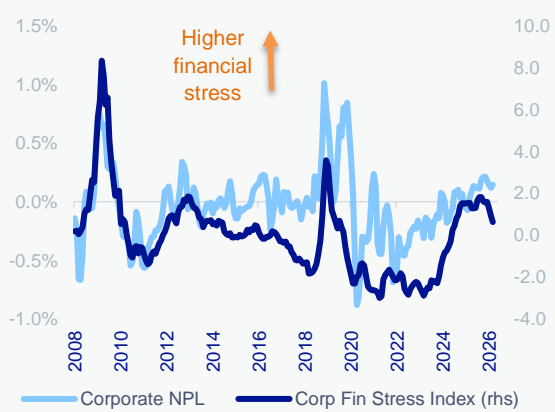
<sup>2</sup> As of Feb26, retail credit cards and GPLs that are partially or fully unpaid as of the due date may be restructured upon the request within three months of the decision date, with maturities capped at 48 months.

**Figure 1. Retail Financial Stress & NPL (factor vs 3M change)**



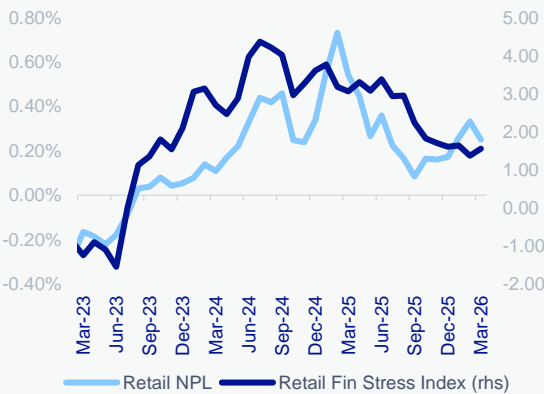
Source: Garanti BBVA Research, BRSA

**Figure 2. Corporate Financial Stress & NPL (factor vs 3M change)**



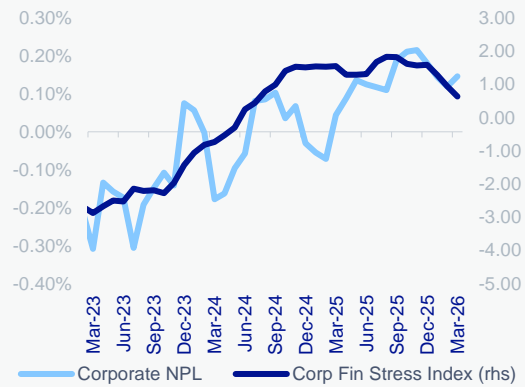
Source: Garanti BBVA Research, BRSA

**Figure 3. Retail Financial Stress & NPL (factor vs 3M change)**



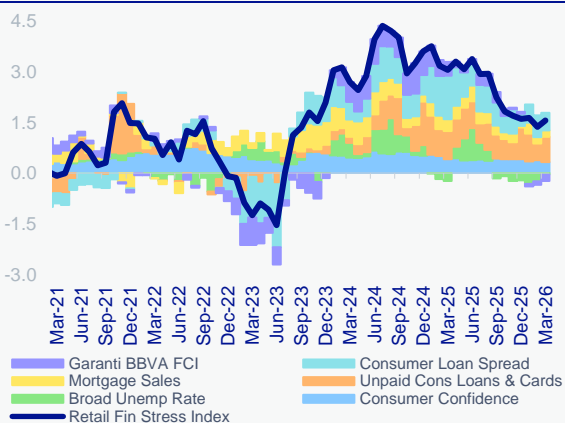
Source: Garanti BBVA Research, BRSA

**Figure 4. Corporate Financial Stress & NPL (factor vs 3M change)**



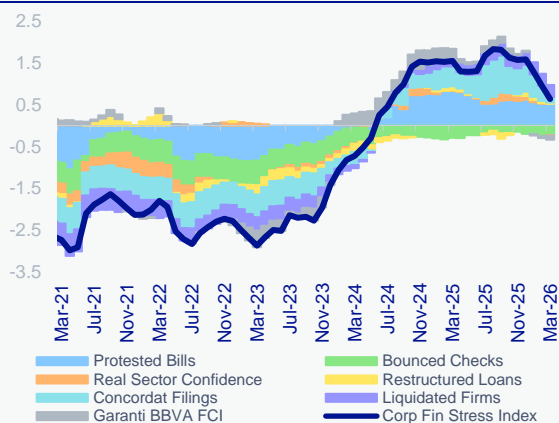
Source: Garanti BBVA Research, BRSA

**Figure 5. Retail Financial Stress Decomposition**



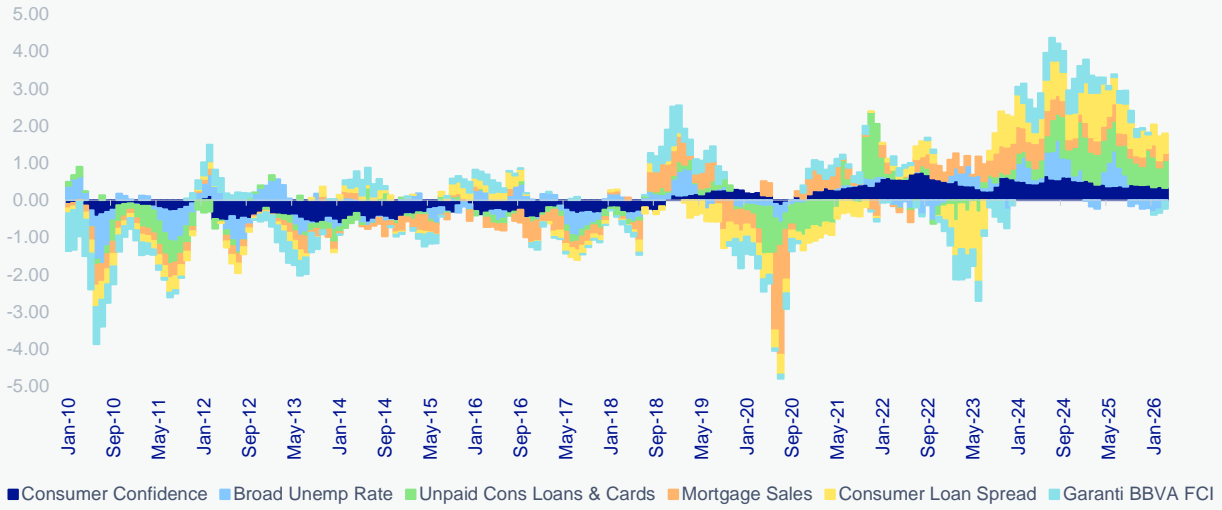
Source: Garanti BBVA Research, TURKSTAT, CBRT, TBB

**Figure 6. Corporate Financial Stress Decomposition**



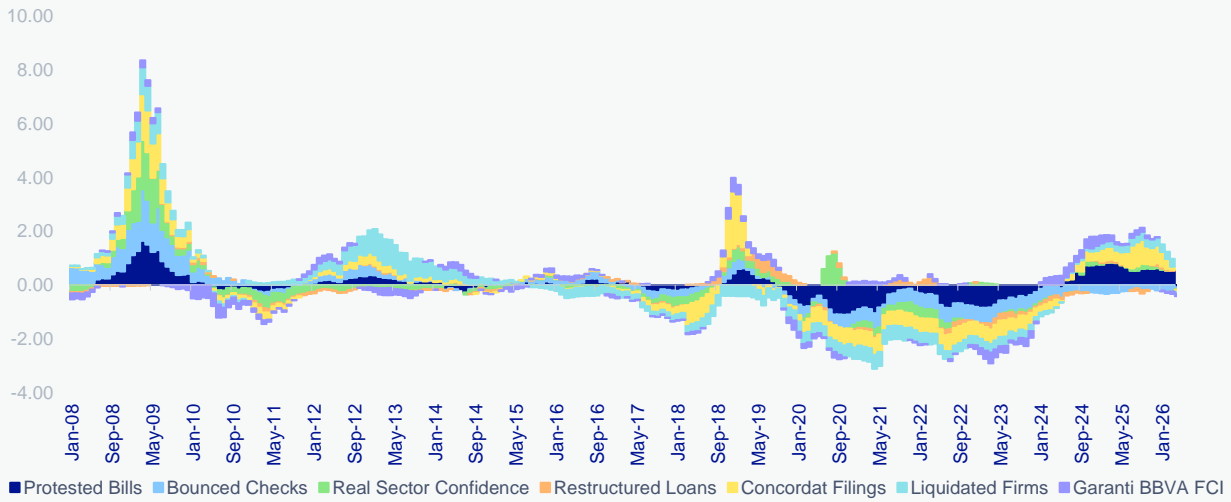
Source: Garanti BBVA Research, TURKSTAT, TBB

**Figure 7. Retail Financial Stress Decomposition**



Source: Garanti BBVA Research, TURKSTAT, CBRT, TBB

**Figure 8. Corporate Financial Stress Decomposition**



Source: Garanti BBVA Research, TURKSTAT, CBRT, TBB

**Table 1. List of Variables**

**Retail Model**

<b>Variable</b>	<b>Transformation</b>	<b>Lag (months)</b>
Consumer Confidence - General Economic Situation	level	2
Broad Unemployment Rate	3M avg, 3M diff	0
Customers with Unpaid Consumer Loans and Credit Card	level	0
Mortgaged House Sales	level	0
Consumer Loan - Deposit Interest Rate Spread	level	0
Garanti BBVA Financial Conditions Index	level	3

**Corporate Model**

<b>Variable</b>	<b>Transformation</b>	<b>Lag (months)</b>
Protested Bills	3M avg, YoY	0
Bounced Checks	% of total	0
Real Sector Confidence Index	3M avg, level	2
Restructured Loans	% of total	3
Number of Concordat Filings	3M avg, level	0
Liquidated over Newly Established Firms	3M avg, % ratio	0
Garanti BBVA Financial Conditions Index	level	3

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