The Corporate-Sovereign Nexus

How do sovereign and domestic corporate credit risk interact with each other? For financial firms, most notably banks, a fundamental characterization of the channels at play has been established through the “doom loop” [1]. There is also empirical evidence that credit risk spillovers take place between the sovereign and the domestic non-financial sectors [4]. The sobering message from this literature is that a rise in sovereign risk generates negative externalities on the ability of corporations to service their debt obligations, and hence on their creditworthiness. This paper shows that, in the face of a tail event episode, this prediction is not supported by the data. In fact, the contrary holds. We find that the sensitivity of CDS spreads referencing non-financial corporations to those on the corresponding governments, which we term the “corporate-sovereign nexus,” increased in the period following the first Italian lockdown (February 24, 2020) only in the core of the EU; namely, in countries with strong fiscal capacity. For this group of countries – Belgium, Finland, France, Germany, and the Netherlands – the pandemic had an economically large and statistically significant positive impact on the nexus. By contrast, in peripheral EU countries (e.g., Greece, Italy, Portugal, and Spain) the effect of the pandemic on the nexus was, albeit positive, small and not statistically significant. We offer an explanation of this result through a disaster-risk asset pricing model with bailout guarantees.

Two Competing Hypotheses

Hypothesis 0: In the aftermath of the COVID-19 pandemic, fiscal space is not a determinant of the corporate-sovereign nexus. Alternatively, the literature offers two possible explanations for the link between corporate and government credit risk, which relate to the threat of higher taxes and the broad amplification of a negative shock, as opposed to the pricing of bailouts.

Hypothesis A1: According to the “sovereign risk channel,” the effect of COVID-19 outbreak on the nexus should be stronger in the EU core.

Hypothesis A2: According to the “bailout channel,” the effect of the COVID-19 outbreak on the nexus should be stronger in the EU core of the EU; namely, in countries with fiscally sound governments, thereby increasing their resiliency.

Econometric Model

In our empirical design, we measure the nexus with the slope coefficient in cross-sectional weekly regressions of the form

\[ \Delta \log(CDS_{corporate,j})_{jt} = \alpha_0 + \alpha_1 \times E + \beta_1 \times \Delta \log(CDS_{sovereign,j})_{jt} + \beta_2 \times \Delta \log(\text{CBOE VIX})_{jt} + E + \tau_{jt}. \]

Corporate default intensity results from two factors, capturing consumption growth and one innovation in credit risk, plus a disaster of stochastic magnitude.

\[ \Delta \lambda_{j,t+1} = \begin{cases} \gamma_0 + \phi_1 \sigma_{R,t+1} + \phi_2 \sigma_{G,t+1} + \gamma_1 \lambda_{j,t+1} + \gamma_2 \lambda_{j,t} \quad & \text{No Disaster} \\ \Delta \lambda_{j,t+1} = \min(\lambda_{j,t+1}, 1) \quad & \text{Disaster} \end{cases} \]

Fiscal Policy Function: stronger guarantees \( \Rightarrow \) lower \( \lambda_{j,t+1} \)

Government default intensity increases by the portion of the shock absorbed

\[ \Delta \lambda_{j,t+1} = \begin{cases} \gamma_0 + \phi_1 \sigma_{R,t+1} + \phi_2 \sigma_{G,t+1} + \max(\lambda_{j,t+1}, 0) \quad & \text{No Disaster} \\ \Delta \lambda_{j,t+1} = \min(\lambda_{j,t+1}, 1) \quad & \text{Disaster} \end{cases} \]

Recently, [2] has argued that in a low interest rate environment, high public debt may not imply large fiscal costs. However, our analysis uncovers a positive effect originating from sovereign fiscal space, as spending capacity buffers directly spill over to corporate credit risk following disaster-induced repricing. Ultimately, this effect lowers corporate credit spreads – and hence the cost of capital – for companies in fiscally sound countries, thereby increasing their resiliency.

References