

## **Creditworthiness under Imperfect Information: How did Bondholders Assess the Brazilian Risk in 1886-1915?**

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Why do creditors lend money the way they do? Has the way bondholders assess country risk changed over time? This paper addresses these questions by regressing the risk premium applied to Brazilian bonds (the Brazilian risk) on macroeconomic fundamental for the period between 1886 and 1914. This case study is relevant as Brazil was a large borrowing country, even though her government failed to produce readily available and credible data on fiscal and trade accounts. The paper concludes that investors were exposed to severe imperfect information, which made them act differently from what one would assume from the literature on sovereign debt.

The paper introduces two key innovations. Firstly, a new methodology is applied to calculate the Brazilian risk, which is defined as the difference between: (i) the weighted average of the yield to maturity applied to all floating bonds of that country and (ii) the yield to maturity applied to the British consol. To date, similar pieces of work have only calculated (i) as the coupon yield applied to a single representative bond, which the paper shows to be quite misleading. Moreover, the independent variables are constructed from data contemporary bondholders had access to, most of which were published in *The Statesmen's Manual*. In contrast, similar exercises in the literature assess country risk by regressing it on modern reconstructed series rather than primary sources. The independent variables are: fiscal positions, trade results, sovereign debt stock, exchange rate and commodity prices.

The variables for fiscal positions and trade results are not statistically significant. This is explained by the fact that the data contemporaries had access to on Brazilian fiscal and trade balances was unreliable. In contrast, the variables readily available at the time – exchange rate, coffee prices and stock of sovereign debt – are significant. These results show that bondholders were exposed to severe imperfect information, which made them price Brazilian bonds based on just some of (but not all) the variables the literature considers determinant for creditworthiness.