A recent issue in corporate finance is the use of corporate green bonds which are financial instruments whose proceeds are committed to finance environmental and climate projects such as renewable energy. Compared to conventional bonds, the issuance of green bonds was essentially inexistent before 2013 and extensively increased since then. One interesting question is to investigate why companies issue green bonds instead of conventional ones although their constraining nature; that is the proceeds from the green bonds are committed to green projects which may limit companies’ investment opportunities. Two main factors may motivate the issuance of green bonds (Flammer, 2021; MacAskill et al., 2021). The first one is the signaling argument under which green bonds issuance may be used as a credible signal of the company’s green commitment (i.e., its commitment toward the environment). Second, companies may issue green bonds to have cheaper access to financing thanks to the potential green premium afford to green bonds issuers’, this argument is referred to as the cost of capital argument. The objective of the first essay is i) to analyze the evolution of green bonds issuance since 2013 until 2021, ii) to put forward the rationales behind green bonds issuance although their constraining nature and iii) to analyze the characteristics of companies issuing green bonds. For this purpose, we will collect data from the Bloomberg dataset and explore the factors explaining corporate green bonds issuance and their implications.

The second essay could be devoted to climate risk and companies’ capital structure (i.e., the leverage ratio). Several theories explain the determinants of companies’ capital structure. The prevailing one is the trade-off theory of capital structure (Gropp and Heider, 2011), under which the optimal leverage ratio results from the trade-off between the benefits and the costs of debt issuance. Under a Modigliani and Miller (1958) context, companies’ capital structure and climate risk should be independent. However, in the presence of market frictions, climate risk is likely to shape the tradeoff between the benefits and the costs of the debt, leading to a change in the optimal leverage ratio. Actually, an increase in climate risk exposure would lead to higher companies costs of financial distress. If the companies follow the trade-off based on the trade-off theory, companies highly exposed to climate risk are expected to high a lower leverage ratio. We also investigate how the Paris COP 21 climate agreement of December 2015 has affected such a relationship and how companies adjust their capital structure towards the optimal leverage.

The third essay may focus on the relationship between climate risk and the cost of capital (equity and debt). Even if there is a debate to know if the risk related to climate change is systematic and really evaluated by the financial markets, recent studies seem to agree on the presence of a risk premium on the stock and bond markets. In the most recent and in-depth study, Bolton and Kacperczyk (2021) clearly show that the carbon premium in the US equity market is linked to the level of emissions (and their evolution). The last two studies (Monasterolo and de Angelis, 2020; Bolton and Kacperczyk, 2021) seem to agree on an asymmetrical reaction of financial markets to climate risk: they take into account the positive situation of low-carbon companies but do not penalize not enough brown companies. The presence of climate risk also has a significant effect on bond prices (Huyn and Xia, 2021). Companies' exposure to climate risk is becoming a significant factor in explaining their cost of capital.

References:


