Do innovative companies pay less dividends? A cross-sectoral analysis of the relationship between patent applications and dividend payout ratios on EURONEXT markets

Sintesi della tesi di Laurea Specialistica di Franz Jakob Rupprecht — Anno Accademico 2021-22

This project deals with determinants of dividends. Among theoretical explanations of dividends such as the dividend irrelevance theorem or signaling theory, a more recent approach is life cycle theory. Its advocates claim that early-stage firms have more growth opportunities than mature ones, which is why they invest free cash flows into innovation and growth rather than dividends. With increasing firm maturity, growth opportunities decline, and firms adapt their dividend policy accordingly. Based on this rationale – using the number of patents filed and the number of patents granted as proxies for growth opportunities – patenting intensity is expected to be negatively associated with the likelihood of paying a dividend and the dividend payout ratio.To perform statistical hypothesis tests, a sample of Euronext-listed firms from FY2015 through FY2019 is constructed. The sample is selected based on its economic stability over a negative interest rate period and comprises non-financial, non-majority owned firms listed on the seven Euronext exchanges in Amsterdam, Brussels, Dublin, Lisbon, Milan, Oslo, and Paris. Several linear and binomial logistic regressions are carried out to analyze the relationship between patenting intensity and dividend policy, addressing in particular the decision to pay a dividend and the dividend payout ratio. All of these models control for firm age, size, profitability, and sector. The analyses demonstrate that the number of patents filed and the number of patents granted are, in fact, positively related with the likelihood of paying a dividend as well as the dividend payout ratio. Innovative firms pay more dividends. In the context of life cycle theory, one must conclude that patenting intensity is an imperfect measure of growth opportunities. As an alternative, the observed patterns can be explained by the signaling theory of dividends. The data could suggest that innovative firms distribute dividends to make a positive, innovation-fueled economic outlook credible. Patenting-intensive sectors are not necessarily dividend-intensive ones, but the data shows that the top-innovators per sector tend to pay dividends. This pattern, however, is reverse for the dividend payout ratio, which is why further research is required to substantiate whether firms with high patenting intensity – compared to their peers or a cross-sectoral sample – use dividends as signals and whether equity capital markets perceive them as such.