On the Accuracy of the SARD Approach Across Country Borders

Abstract

This thesis investigates the overall performance of the 'Sum of Absolute Ranked Differences' approach (SARD approach) for identification of peer groups used for EV/EBIT valuations in a broad global setting. In theory, comparable firms should be selected through similarities in profitability, risk and growth. Following the assumption that perfect substitutes should sell for the same price, the SARD approach is a selection method that, in principle, allows for an infinite number of selection variables approximating the fundamental characteristics of a given target firm. So far, the performance of SARD has only been assessed on data consisting of US firms. This allows further examination on the accuracy when the method is applied across country borders or within smaller global markets.

SARD-models are implemented and tested on a large sample consisting of firms from 27 OECD countries throughout a period ranging from 2000 to 2019. Furthermore, country-specific accuracy dependent on the choice of the potential peer pool is investigated. Evidence suggests the SARD approach is superior to industry classification when identifying the natural peers of firms. In addition to this, the industry level-up SARD approach is developed combining industry classification and SARD proxies to locate peer groups. The level-up mechanism allows selection in markets with a limited number of observations within an industry. This approach increases the precision of SARD estimates even further.

Results indicate SARD is highly affected by cross-country differences. High variation in the level of estimation errors exists across countries. Furthermore, the choice of the selection peer pool seems to be critical. Some country firms incur the lowest estimation errors when SARD is performed within the home country only, whereas other firms seem indifferent in regard to the choice of peer pool. The use of industry-based SARD-models generally decreases the preference for home country selection. Thus, it is suggested industry classification works as a 'safeguard' for cross-country variation for larger firms in broad global samples. Key considerations such as the size and industry characteristics of firms as well as country-specific factors should be evaluated prior to a SARD selection performed in a broad global setting. If market incompleteness and country complexities are not addressed when developing SARD selection methods, sub-optimal choices might arise for particular country firms. For instance, the best suited SARD setup for French firms is not necessarily the preferred setup for German firms. In conclusion, the SARD approach should preferable rely on other factors than economic fundamentals alone when applied globally. This is not fully in line with the fundamental school of thought underlying the SARD approach.