

Intra-industry competition informs stock markets investment decisions

There is a large and growing body of research on peer effects in social sciences. For instance, the economics literature on education has dealt extensively with peer effects in the classroom. One of the hypotheses in this literature is that students who are exposed to unusually low achieving cohorts tend to score lower themselves. While it is hard for empiricists to prove that such peer effects exist in the classroom, peer effects in education seem crucial to determine which policies maximize the productivity of a country's education spending.

Increasingly, researchers in finance are evaluating the potential existence and consequences of peer effects in corporate decision-making.

Increasingly, researchers in finance are evaluating the potential existence and consequences of peer effects in corporate decision-making. The reasons for this trend are many and not necessarily policy oriented. The two most important reasons that I can think of are the ones that drove me into working in this area.

First, corporate managers and entrepreneurs agree that intra-industry peer effects and competitive pressures are usually quite important to assess whether an investment project is worth pursuing or not.

Second, standard practices in financial institutions on how to estimate a firm's loading on systematic risk (or *beta*) rely on the assumption that firms operating in the same industry have similar risk exposures. A firm's *beta* measures the extent to which its stock return co-varies with the business cycle: it captures how risky it is for an investor to hold a firm's stock relative to investing in the *market portfolio* (i.e., a portfolio including the stocks of the largest firms in the economy).

Practitioners compute a firm's *beta* using stock return data, and yet when this data is unavailable they use the average *beta* of a firm's peers in its same industry to obtain a proxy of this firm's loading on systematic risk.

Despite the common practices in the financial sector, in Academia we are lagging behind: we have not explored enough how intra-industry interactions among peers affect a firm's investment decisions, and its return on the stock market. To address this challenge, I constructed a [model](#) to study firms' strategic interactions in the final goods product market. The model yields testable implications which I verify empirically.

The investment strategy of one firm and also its return in the stock market are mechanically related to the investment strategy of its peers.

I consider firms producing final goods that are perfect substitutes for consumers, such that an increase in market share of one firm implies a reduction in market share for its closest competitor. In this setting, I show that the investment strategy of one firm and also its return in the stock market are mechanically related to the investment strategy of its peers. I then extrapolate this insight to more competitive and less competitive industries, and find that both investment and stock return industry dynamics depend on the degree of product market competition of the industry.

Quite intuitively, in more competitive industries, firms' investments and stock returns co-move positively: firms are more similar technology-wise, and they have more similar strategies in the product market. Conversely, in less competitive industries with leaders and followers, the model shows that we may get negative co-movement in investment strategies and stock returns over time. In the last section of the paper, I show that the insights of the

model are consistent with what we observe in the data: stocks of more competitive industries co-move more positively over time.

The findings in my [paper](#) provide a relevant insight for practical purposes. In particular, the common practice in the financial sector of using the average beta of a firm's peers to infer its own exposure to systematic risk makes the most sense when firms are operating in a fairly competitive industry – and not necessarily when such firm operates in an oligopoly or less competitive environment.

My paper explores a specific type of intra-industry peer effects due to the interaction of firms in their product market. There is a lot more to explore: firms interact in multiple ways that go beyond product markets. More theoretical and empirical research is needed to aid practitioners in understanding peer effects in corporate decision-making. The challenge is on.

Maria Cecilia Bustamante is an Assistant Professor doing research on the interphase between industrial organization and financial economics. M. Cecilia is currently affiliated with the Robert H. Smith School of Business at the University of Maryland, and previously worked in LSE's Department of Finance. She holds a PhD in Finance from the Swiss Finance Institute and was a Visiting Scholar at the University of California at Berkeley during her graduate studies. Prior to her academic career, she also worked as a consultant in forensic finance in international arbitration procedures.



- Copyright © 2015 London School of Economics