
International Faculty Profile

Catherine Thomas Assistant Professor of Finance and Economics

KARTIK DHARMADHIKARI MBA '08

Catherine Thomas joined the Columbia Business School faculty in 2006. She teaches Managerial Economics as part of the MBA core curriculum. Prior to completing her PhD at Harvard, she worked at McKinsey & Company and the McKinsey Global Institute. Her research interests are in the areas of industrial organization and international trade. Her current work investigates decision making within multinational enterprises and the resulting impact on the location of production and on product range availability in local markets.

Tell us about your experience so far teaching at Columbia Business School.

I believe that the most useful and entertaining classes are ones where there are lively discussions. In several ways, I think that the MBA classroom environment is such that, once you have the fundamental theories down, it becomes more interesting for the students to apply that knowledge to their previous business experience or research questions that might be of interest. Ultimately, that makes for a more engaging classroom experience. I also work on ways to incorporate my research experience into the microeconomics course work.

What is the nature of your research to date?

My research is mostly about decision making within multinational firms. It's a pretty broad area that covers all sorts of aspects of a manager's role with these firms. In general, my research seeks to answer such questions as How does a firm organize production? Where are the optimal locations for plants? When should a firm integrate with foreign subsidiaries or contract with locally owned

plants? Should a firm keep production in-house or outsource certain elements? How does a firm interact with its customers? Is a firm best-off selling standardized products across different markets or customizing them to the tastes of those particular locations? Finally, how do institutional differences affect a firm's strategy in those local markets?

In the case of firm interactions with customers, I have been involved with an interesting study involving laundry detergents in Western Europe. I started with the assumption that if there are economies of scale in production, firms would be motivated to standardize their product-range portfolio and sell the same product in every country. However, if those countries differ significantly in consumer tastes and preferences, then it may be profit maximizing for the firm to tailor their product range to those particular markets.

We determined that laundry detergents were appropriate for this sort of research because production processes are very centralized. We believed that a continuum existed from entirely country-specific products on one extreme and standardized products on the other. I looked at where different firms lie on that continuum and how they make decisions of where to sit on it. Ultimately, our research found that the two dominant producers, P&G and Unilever, actually offer too many product varieties: in other words, they're too close to the country-specific product range end of the continuum. Talking to these firms, it seems clear that they wound up in their current predicament because decisions are being made in each country by brand managers who are responsible for each detergent brand only in that particular country.

The final puzzle, then, is to figure out whether this situation is optimal nonetheless. For example, if we assume that decision making is centralized, perhaps the firm in question could reduce the total number of products; however, the act of gathering such sensitive information centrally could perhaps be too cumbersome. Therefore, given this constraint, we concluded that decentralizing these decisions to the country brand level is the best way to go.

I'm also wrapping up two projects: one on the extent of concentration in the global market for cement and the other on the global hotel industry, in which we treated the question of franchising as equivalent to outsourcing production.

How do you identify topics for research?

I was very fortunate in that the training I received at Harvard equipped me with a great set of tools both from the economics department and its business school; I say fortunate because I happened to be there at a time when two fields of economic research were coming together: the

empirical methods that have recently been developed in industrial organization, applied econometrics and, specifically, microeconometrics. I also had excellent training in trade theory and international economics, which traditionally has been a much more theoretical field. It's been hard to find neat empirical tests for theoretical models in trade theory. However, great economists are starting to work at the intersection of these two fields and adapt theory models to introduce realism in some areas to generate empirically testable predictions and marry that with the empirical methods from industrial organization, and there's been a really exciting burst of work at this intersection. The fun part of my research is to think creatively about exactly how to design empirical tests to prove or disprove these theories.

What will be your next project?

The next thing I am planning to dedicate my time towards is the investigation of the agglomeration [concentration] of industrial activities and customer demand. I am starting with the question Why is it that all the exports of a particular item come from one place, for example, luxury clothes in northern Italy? My intention is to investigate potential location-specific advantages in the production of a given item. At this point, I would like to explore further the idea that there may be something else about search costs on the part of the consumer—perhaps it is easier to search when you know there is a large number of producers to choose from in that given cluster (again, luxury-clothes producers in Italy or crystal manufacturing in the Czech Republic).

From a practical standpoint, my intuition is to develop a two-stage model as follows: Given the spread of industrial production activity worldwide, (1) as a consumer, which country do I chose to look in? (2) aggregate over all consumers and (3) create a hypothetical demand curve for each location. The goal then would be to determine where a potential producer would want to enter this industry. To answer that question, I would have to look at trade flows data and try to identify these patterns of agglomeration. I am very much looking forward to this because I would be able to leverage my background in demand estimation and customer preferences and apply it to models of trade to determine how firms decide where to export.

You gave a presentation to a group of Chinese students this summer. How did that come about?

It's part of a broader initiative at Columbia to establish links with mainland China. The Center for Chinese Education hosted a group of students from two top Chinese universities in mid-August.

They wanted to get a good cross-section of life at Columbia and draw on a wide range of academic fields. As China plays an increasingly important role in the global economy, Chinese multinationals, as it were—such as Lenovo or CNOOC—have drawn greater scrutiny. Therefore, in keeping with my background, I spoke about how Chinese firms interact in global markets and how foreign-based multinationals operate in China. I wrote an HBS business case on white goods, so I used the research I've done on Haier to illustrate the expansion of Chinese manufacturers into diverse global markets.

What has been your most memorable moment from your first full year at Columbia Business School?

I joined the Chazen Study Tour to Japan in March of this year. The Chazen Institute approached me about it, as my research focuses on multinational firms. It really was an unrivaled way to see something of cultural and business life in Japan. The student organizers had arranged visits to several fascinating companies—a production plant at Toyota was a highlight—and also provided plenty of time for us to feel like we had a wider tourist experience. It was an interesting time to visit Japan, as many firms were able to tell us how they had weathered the economic downturn and adopted strategies to confront the challenge of global competition in the context of traditional Japanese business practices.