

PhD in Urban and Regional Development

Research Title: Spatial distribution of retailers

Funded by	Centro Interdipartimentale Future Urban Legacy Lab Politecnico di Torino
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Supervisor	Giulio Zotteri
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Contact	Giulio.zotteri@polito.it
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Context of the research activity	<p>The empirical analysis of the distribution of activities in a city is based on various streams of literature on economic theory.</p> <p>The distribution of activities is the outcome of centrifugal economic forces that pull economic activities apart (e.g., competition on substitute products), and centripetal forces that tend to agglomerate economic activities for mainly three different reasons:</p> <ul style="list-style-type: none">- Complementary products (e.g., a store selling shoes and a store selling garments)- Presence of a common external resource (e.g., a source of traffic)- And endogenous forces that tend to bring companies together (like in platforms such as Airbnb), among other reasons, to reduce search costs incurred by the consumer. <p>To properly understand the contribution of these forces, researchers have investigated the spatial distribution of activities such as retail stores, companies, innovative activities etc.</p> <p>Various descriptions of space (discrete ex ante, continuous, ex-post clusters) have been proposed with various pros and cons. In this stream of research various “perspectives” on space can be deployed to investigate various aspects of a multifaceted reality.</p>
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	<p>The PhD candidate will start his/her research on the database of retail locations within Turin provided by the city of Turin. However, the candidate will have to complement the initial dataset with additional and potentially relevant information that he/she might find relevant, such as data on both pedestrian traffic and vehicular traffic.</p> <p>Also, the candidate might consider to extend the analyses to other cities/other phenomena.</p>
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Objectives	<p>This research program is subject to changes as the research in the above area unfolds. However, we can draw a picture of the potential activities and outcomes.</p> <p>The candidate will start from the analysis of literature and current researches in the research group lead by prof. Luigi Buzzacchi and Giulio Zotteri and the current availability of data.</p> <p>The candidate will then analyse impact on the spatial distribution of retailers of assets like traffic generators such as hospitals, public amenities, population.</p> <p>In this first step, the candidate will try to describe the space in various ways (discretized ex ante, continuous space, ex post partitions of space) to capture the pros and cons of various approaches to space.</p> <p>Then the candidate will try to collect additional data on sources of traffic and actual traffic (both pedestrian and vehicular) or other explanatory variables such as cost of real estate (both commercial and residential) or presence of Airbnb activities, to investigate their relationship with the presence of retail stores.</p> <p>Finally, the candidate will try to apply this body of knowledge to other cities/phenomena.</p> <p>Along the journey, the candidate will interact and hopefully cooperate with other PhD candidates funded by the Future Urban Legacy Laboratory that will investigate the same issues with the perspective of other disciplines, to gain a broader and hopefully deeper understanding of the phenomena they investigate.</p>
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**Skills and competencies
for the development of
the activity**

The following set of skills are required:

- Ability to perform statistical analysis (both descriptive and inferential)
 - Ability to perform statistical analysis of spatial data
 - Ability to manage and collect large data sets
- Knowledge on economic phenomena and dynamics of urban and regional development (economics of agglomeration, competitive and complementary retailers etc...)
 - Knowledge on retail dynamics
- Knowledge on consumer behaviour and behavioural economics