

Kavroudakis, Dimitris; Ballas, Dimitris; Monastiriotis, Vassilis

Conference Paper

Exploring the geography of closing businesses in the crisis-stricken Athens city centre

53rd Congress of the European Regional Science Association: "Regional Integration: Europe, the Mediterranean and the World Economy", 27-31 August 2013, Palermo, Italy

Provided in Cooperation with:

European Regional Science Association (ERSA)

Suggested Citation: Kavroudakis, Dimitris; Ballas, Dimitris; Monastiriotis, Vassilis (2013) : Exploring the geography of closing businesses in the crisis-stricken Athens city centre, 53rd Congress of the European Regional Science Association: "Regional Integration: Europe, the Mediterranean and the World Economy", 27-31 August 2013, Palermo, Italy, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at:

<https://hdl.handle.net/10419/124108>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Title: Exploring the geography of closing businesses in the crisis-stricken Athens city centre

Authors: Kavroudakis, D, Ballas, D, Monastiriotis, V

Abstract: The economic crisis in Greece has affected almost all sectors of the economy and the great majority of households. Its effects in trade and commerce activities are visible by the obvious transformation of down-town Athens city centre. This transformation includes a great number of closing business and/or relocation of others. The work presented in this paper is part of a wider project aiming to shed some light on the underlying mechanisms which affect business location, business closure and opening in the main commercial centre of Athens, at a time that it is under huge economic strain. As a starting point in this project, this paper makes use of a unique geographically coded database, collated through primary research and containing information on the specific location and type of retailer closures in crisis-stricken downtown Athens between 2011-2013, to provide an exploratory analysis of the emerging spatial and temporal patterns of business closure across the city centre. This, predominantly descriptive, analysis allows us to identify and discuss a number of patterns and hypotheses concerning the dynamics and determinants of retail closures during the economic crisis, revisiting relevant theories drawn from the wider literature on urban and location economics. In particular, we seek to analyse questions such as: what can we learn from the observed geography/patterns of closures about the underlying market functioning (or non-functioning?) What kind of shops survive in the crisis? Does agglomeration (still) matter? What are the locational (and co-location) characteristics that affect business survival and death? What kind of shops survive (in terms of types of activity, types of ownership, size of business, consumer catchment areas etc)? To what extent do closures of particular types of shops (e.g. a clothes retail shop) and businesses (e.g. a bank branch) increase the chances of closures of other types of shops (e.g. cafes, restaurants)? Does geographical location and type (e.g., corner shop versus middle-of-the-road shop, high-street shop versus neighbourhood shop etc.) matter and how? These kinds of questions are explored in this paper using appropriate data geovisualisation and statistical methods and in this way forming a background for the subsequent confirmatory analysis and hypothesis testing to be conducted in future work on the project.

Keywords: economic crisis, Greece, Athens, recession

Introduction

Over the past four years Greece has been experiencing a severe economic crisis and a series of austerity measures involving massive cuts to public spending, services and welfare payments. There have been a number of studies of the impacts of these developments and it has long been argued that social and spatial inequalities have been intensifying (e.g. see Hadjimichalis, 2011; Monastiriotis, 2011; Matsaganis and Leventi, 2011). This paper presents on-going research aimed at building on this type of work by examining the emerging temporal and spatial trends and patterns of business closure at the micro-scale in Athens. This on-going research is part of a wider project aiming to shed new light on the underlying mechanisms which affect business location, business closure and opening in the main commercial centre of Athens, at a time that it is under huge economic strain. In this context, this research also aims to make a contribution to knowledge in the wider field of business location analysis.

Using a unique geographically coded database, collated through primary research and containing information on the specific location and type of retailer closures in crisis-stricken downtown Athens between 2011-2013, the research presented here aims to explore the business closure location patterns in relation to geographical characteristics (e.g. businesses located in the corner of the street) as well as the type of business. It can be reasonably expected that rent for business sites may have shown a relevant decrease especially in shopping areas which have been mostly affected by the crisis. However, areas with traditional market roads in central Athens have not been affected in the same way as suburban market roads in the urban periphery of metropolitan Athens. It can be argued that it streets with high demand in central locations are less likely to experience business closure compared to more peripheral locations. On the other hand, due to the increasingly heavy burden of rent in relation to the business profit margins, some business owners decide to relocate to lower cost locations nearby, which reduces the rent costs, but with possible impacts on the demand and the general clientele of the business. These impacts may be largely dependent on geographical location, proximity to other types of businesses, the land-use mix in the area etc.

The research project discussed in this paper is aimed at exploring all these issues with both descriptive analysis based on Geographical Information Systems (GIS) techniques as well as suitable statistical analysis. In particular, the research aims to identify and discuss a number of patterns and hypotheses concerning the dynamics and determinants of retail closures during the economic crisis, revisiting relevant theories drawn from the wider literature on urban and location economics. The remainder of this brief paper gives more detail on the database that was collated through primary research and also provides some preliminary maps and statistics. It also outlines the next steps that will be taken to analyse this database to address the issues discussed above.

Database description

In order to understand the effects of the economic crisis on the commercial activity in Athens, a survey has been conducted by the National Confederation of Greek Trade (ESEE-INEMY, 2013) which collected primary data for the subsequent analyses of the geographies of the open and closed shops in various areas. This report produced some useful results in relation to the types of businesses and areas that are most affected from the crisis (for more details see ESEE-INEMY, 2012).

The survey was conducted with the use of a novel Android application which can be installed in any portable tablet or mobile phone and uses the GPS of the device along with a form to record some characteristics of the open/closed business and its location coordinates. Point Logger 2.0 is a novel application which uses the location information to produce a portable SQLite database (SQLite 2013) for analysis. This approach increases the number of records per day and standardizes the names and text variables of the database by using drop-down menus with pre-selected forms and values about the type, category and sector of the business. This business database “Geo-Base” includes data from a number of periodical surveys conducted in December 2011, Spring 2012, Fall 2012 and Spring 2013. The data used in this paper have been recorded in the Spring of 2013 and consist of 1,917 records (see Table 1) in 44 roads, including 1,617 open and 300 closed businesses.. The database currently has 15 variables for each recorded business as shown in Table 2.

Figure 1 shows the geographical distribution of all businesses in the database.

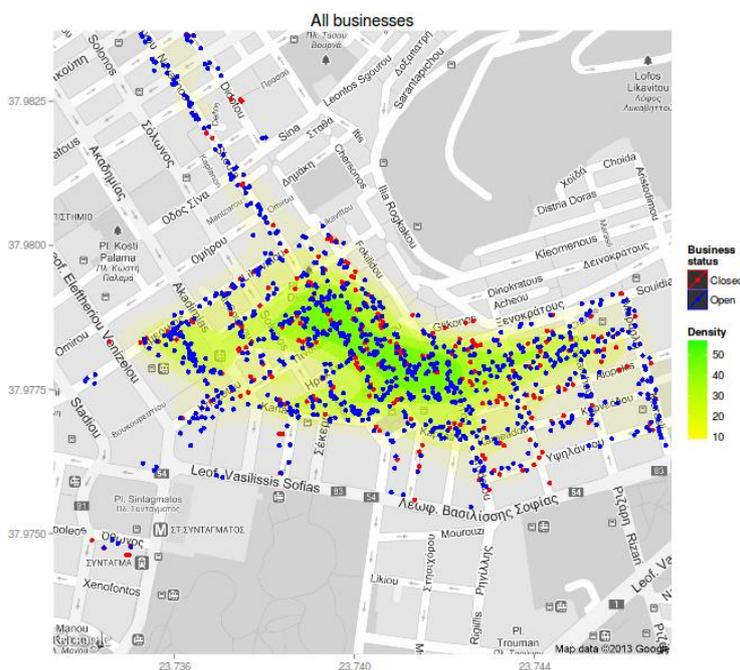


Figure 1: All recorded businesses in Athens city centre

Total	Closed	Open	% closed
1917	300	1617	18.55 %

Table 1: Aggregate number of open and closed business in Athens city centre

	Variable name	Type	Information
1	Id	Integer (uniquely auto-generated)	Unique identifier of each record
2	Poli	String (drop-down selection)	Name of the town
3	Dromos	String (drop-down selection)	Name of the street
4	Arithmos	String (open text area)	Street number of the business
5	Status	Boolean (drop-down selection)	Status of the business (open/closed)
6	Name	String (open text area)	Optional name of a business
7	Tomeas	String (drop-down selection)	1st level of business type categorization
8	Category	String (drop-down selection)	2nd level of business type categorization
9	Type	String (drop-down selection)	3rd level of business type categorization
10	Typecode	String (drop-down auto-selection)	Code of business type
11	Lat	Decimal number (auto-generated from GPS)	Latitude of the recorded point
12	Lon	Decimal number (auto-generated from GPS)	Longitude of the recorded point
13	Accuracy	Integer number (auto-generated from GPS)	Accuracy of the GPS geo-coding activity in meters
14	Katagrafeas	String (drop-down selection)	Name of the survey employ
15	Time	String time-stamp (auto-generated from GPS)	The date/time of geo-coding this record

Table 2: Database variable description

Exploring closures by business type and geographical location

Table 3 provides some more preliminary information extracted from the database on the distribution of businesses across different categories in the centre of Athens, whereas Table 4 and Figure 2 summarise the data by geographical location type.

As can be seen as would be expected the overwhelming majority of businesses in the city centre of Athens belong to the *Retail* category. Of those 1,458 businesses, 42 were closed and vacant at the time that the survey was conducted. The second largest category of businesses is that of *Accommodation and Catering* with 75 businesses, of which 4 were closed at the time of the survey.

	Sector	Total	closed	open	perclosed	peropen	openrep	Closedrep
1	Retail	1458	42	1416	2.88	97.12	87.68	15.6
2	Missing	225	223	2	99.11	0.89	0.12	82.6
3	Accommodation and Catering	75	4	71	5.33	94.67	4.4	1.5
4	Manufacturing	42	0	42	0	100	2.6	0
5	Other Services	39	0	39	0	100	2.41	0
6	Financial and Insurance	29	1	28	3.45	96.55	1.73	0.4
7	Arts and Entertainment	7	0	7	0	100	0.43	0
8	Administrative and Support Activities	4	0	4	0	100	0.25	0
9	Professional Scientific and Technical Activities	4	0	4	0	100	0.25	0
10	Construction	1	0	1	0	100	0.06	0
11	Health Services and Social Work	1	0	1	0	100	0.06	0

Table 3: Percentages of closed and open businesses by sector

The above brief description of the datasets gives a flavour of the potential for analysis that can be conducted to explore the geographical factors that may be affecting the vulnerability or resilience of businesses as well as the inter-dependencies between different types of businesses. For instance, it can be argued that the numbers and locations of *Accommodation and Catering* businesses may be related to varying extents to all other categories. For example, it may make sense for a fast food outlet to be located near large office blocks, to attract employees during their lunch-breaks etc. There are several possibilities to be explored here. Similarly, it would be interesting to explore the extent to which the commonly held perception that shops located in the corner of shopping streets are more attractive and therefore less likely to be affected by the economic crisis, compared to businesses located in the centre of the street.

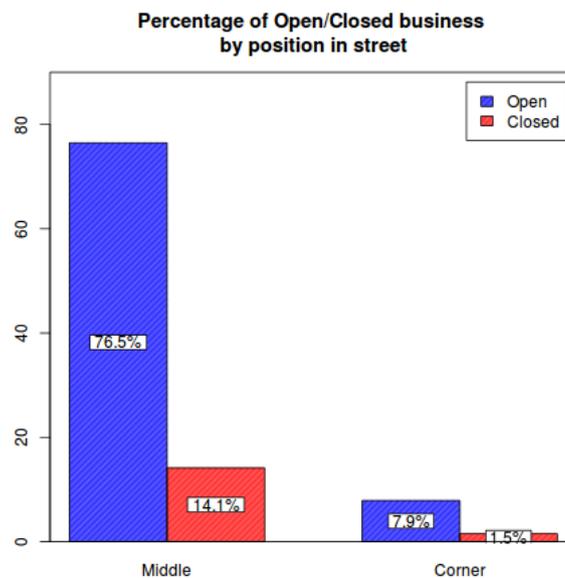


Figure 2: Percentages of corner shops by status of business

	middle	corner
Open	1466	151
Closed	271	29
Total	1737	180
% closed	15.6 %	16.11 %

Table 4: Number of corner spots by status of business

Concluding comments and next steps

The above discussion aimed at giving a flavour of in progress that is aimed at exploring the geography of closing businesses in the city centre of Athens. This research aims to utilise a recently completed database which was described above, put together with the use of an Android smart phone application which utilised GPS and GIS technologies to conduct field surveys. The maps and cross-tabulations shown give an indication of the types of analysis that may be possible. It should be noted that similar databases are currently under development for other localities in Athens as well as for other Greek cities. The database is also being further enhanced by linking it to transport databases so that accessibility of business location can also be analysed (e.g. it would be interesting to explore the impact of proximity to Athens Metro underground stations, bus stops etc.). It will also be interesting to compare the patterns between the city centre and the suburbs as well as in relation to the social geography of the city. The next step in the research project presented in this paper will be to apply suitable geographical analysis and statistical methods on these data to address questions such as:

- What can we learn from the observed geography/patterns of closures about the underlying market functioning (or non-functioning?)
- What kind of shops survive in the crisis?
- Does agglomeration (still) matter?
- What are the locational (and co-location) characteristics that affect business survival and death?
- What kind of shops survive (in terms of types of activity, types of ownership, size of business, consumer catchment areas etc)?
- To what extent do closures of particular types of shops (e.g. a clothes retail shop) and businesses (e.g. a bank branch) increase the chances of closures of other types of shops (e.g. cafes, restaurants)?
- Does geographical location and type (e.g., corner shop versus middle-of-the-road shop, high-street shop versus neighbourhood shop etc.) matter and how?

Acknowledgements

The data collection and the Point Logger software of this work have been a product of a research project commissioned by the Institute of Trade and Services of the National Confederation of Greek Trade. The project is entitled “Geographical analysis of closing business in crisis” and is funded by the European Social Fund. For more information regarding that project please visit www.esee.gr

References

- Hadjimichalis C (2011) Uneven geographical development and socio-spatial justice and solidarity: European regions after the 2009 financial crisis *European Urban and Regional Studies* 18(3): 254-274.
- Matsaganis, M, Leventi, C (2011), The distributional impact of the crisis in Greece, in Monastiriotis V (ed.), *The Greek crisis in focus: Austerity, Recession and paths to Recovery*, Hellenic Observatory Papers on Greece and Southeast Europe GreeSE, Special Issue. Hellenic Observatory, London, UK, available on-line from: <http://eprints.lse.ac.uk/38380>
- Monastiriotis, V. (2011), Making geographical sense of the Greek austerity measures: compositional effects and long-run implications, *Cambridge Journal of Regions, Economy and Society*, 4 (3), pp. 323-337.
- SQLite, 2013. SQLite Home Page. Available at: <http://www.sqlite.org/>.
- ESEE-INEMY, 2012. Greek Commerce Annual Report 2012, Available at: http://www.pcci.gr/evepimages/ESEE_AnRep2012_00_Kef_F20479.pdf [Accessed March 28, 2013].
- ESEE-INEMY, 2013. INEMY. Available at: <http://esee.gr/%CE%99%CE%9D%CE%95%CE%9C%CE%A5.aspx> [Accessed June 28, 2013].