WHICH SOCIAL CLASSES ARE MORE EXCLUDED FROM FINANCIAL SERVICES IN ITALY?

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ABSTRACT

Previous researches have found that large numbers of households lack basic financial products. Specifically, the financial exclusion phenomenon has been the subject of increasing interest. The literature shows there are many families that do not have a current bank, a building society account, a home contents insurance, savings or access to consumer credit facilities. The aim of this study is to outline the financial exclusion of Italian households, highlighting which social classes are more excluded from social and financial services. Data published by the Bank of Italy concerning a survey on Italian household income and wealth in 2008 is utilized. The study uses a multi-disciplinary approach and analyzed using a multivariate statistical analysis. A multiple correspondence analysis is used to define the determinants of the financial exclusion. Next cluster analysis is used to categorize groups of individuals characterized by similar financial, economic and social analyzed variables.

JEL: E21, G20, G21, C80

KEYWORDS: Financial exclusion, Italian families characteristics, Multivariate Statistical Analysis.

INTRODUCTION

The debate surrounding the social classes that are more excluded from financial services has been the subject of increasing attention (Lee, 2002). Financial exclusion is currently the subject of widespread debate and interest, as those who lack access to even basic financial services are also often excluded in other areas, thus re-enforcing wider social exclusion (FSA, 2000). Financial exclusion has been identified as a multidimensional construct and as a result providing a simplistic definition is somewhat problematic. However financial exclusion can be defined as a situation where a proportion of potential consumers do not have access to, and consequently do not use, mainstream financial services in an appropriate form (Panigyrakis, Theodoridis and Veloutsou, 2002; Claessens, 2005).
The provision of banking and financial services, which are considered socially necessary to customer segments that qualify as marginal, is defined in the "social banking" literature (Anderloni, 2003).

The financial exclusion of individuals is discussed in North America and Europe, particularly in United Kingdom, France, Sweden, Belgium and Germany. Numerous efforts have been made, including through appropriate legislative measures, to spread financial services to traditionally excluded individuals (Kempson, Atkinson and Pilley, 2004; IFF, 2000; Pesaresi and Pilley, 2003).

The aim of this research is to analyze financial, economic and social characteristics of Italian households to identify social classes that could have difficulty accessing financial services. The research uses a multi-disciplinary approach and is developed through the collection and elaboration of data published by the Bank of Italy on the income and wealth of Italian households in 2008.

The data is analyzed through a multivariate statistical analysis. Firstly a multiple correspondence analysis (MCA) is used to define determinants of financial exclusion. Secondly cluster analysis is used to identify some groups of individuals characterized by similar aspects. The remainder of the paper is organized as

follows. Section 2 discusses the relevant literature on financial exclusion, section 3 describes the data and the applied methodology, section 4 analyzes the results, while section 5 concludes the paper.

LITERATURE REVIEW

Inaccessibility to financial services is a phenomenon that has different intensity. In developing countries financial exclusion involves almost the entire population, while in industrialized countries it involves a reduced percentage of subjects. Peachey and Roe (2004, p. 4) argued that "the percentage rate of access in poorer developing economies is about equal to the percentage rate of exclusion in richer advanced industrial economies".

Analysis of the financial exclusion phenomenon has been the subject of numerous empirical studies. Honohan (2005) provides a critical analysis of available datasets regarding access to financial services by poor individuals. Devlin (2005) provides a detailed understanding of financial exclusion in the United Kingdom employing a statistic model to test the influences on financial exclusion of a range of different variables. These variables are generally considered beneficial in helping to meet basic consumer needs of money management, protection against unforeseen events, and income and wealth smoothing. Corr (2006) identifies relevant indicators of financial exclusion, summarizes the available data from secondary sources, and presents an overview of the main available financial products to low income consumers in Ireland.

Financial exclusion involves many aspects. Access exclusion is a restriction of access to financial services which may be due to such factors as branch closures or unfavourable risk assessments. Condition exclusion occurs when individuals are excluded from financial services due to conditions attached to the product offering. Price exclusion occurs when certain individuals cannot afford financial offerings. Marketing exclusion refers to overlooking of certain groups by the marketing activities of financial services firms.

It should also be noted that there is a subtle but important difference between financial exclusion and the broader concept of non-use of financial services. Non-use may be due to the various types of exclusion noted above, but it may also be due to voluntary non-use, lack of resources, or lack of need for a particular type of product. In the first case it has been termed self-exclusion (Kempson and Whyley, 1999) and happens when certain individuals choose not use a financial service, despite a need, perhaps due to past refusal, negative word of mouth, confusion, or lack of trust. In the second case the people may have an inherent need to save for the future to provide for themselves and their family but may not have the necessary income to do so. Such a situation does not represent a lack of need or desire to save themselves, but it could characterize an exclusion from resources.

It is perhaps no surprise that the literature has identified some economic, socio-cultural, and demographic trends which may foster financial exclusion. These include the group of individuals left behind in the recent era of economic growth, increasingly referred to as ''the underclass''. In addition, the resultant income growth has been distributed unevenly and there is low income mobility amongst the lowest income groups. There were also significant demographic changes including more single parents and older people living alone, as well as a rise in homelessness, all of which may have further fuelled financial exclusion. More specifically, factors which have been found to impact the level of ownership of various financial services products include: income, employment status, region, race ethnicity, and marital status (Harrison, 1994; Hogarth and O'Donnell, 1999).

Particularly, the profile of the financially excluded people, based on the numerous empirical studies conducted mainly in UK (FSA, 2000) and America (Caskey, 2002), is characterized by some socio-economic aspects that affect non-access to financial services. These aspects can be distinguished for

individuals and for families. In fact, we can observe for individuals: low levels of income or high vulnerability levels normally associated with situations of unemployment or employment instability, serious health problems, advanced age, poor education and/or training, status of immigrant and women. While we can observe for families: low income levels, presence of vulnerable individuals, children and elderly, single-parent structure (especially female), geographic residence marginal or depressed areas, social assistance, and not owning the main house.

Thus, there are different factors influencing the level of financial exclusion in various financial services markets in international contexts. In the following sections we identify which social classes are more excluded from financial services in Italy. The financial exclusion phenomenon is quite relevant in Italy, where new types of poverty are developing from the credit access exclusion of some families.

DATA AND METHODOLOGY

The study uses a dataset involving a survey on the income and wealth of Italian households in 2008 published by the Bank of Italy (Bank of Italy, 2010). The data are collected through a questionnaire that is divided into six sections relating to structural population indicators, job activity, payment instruments and savings forms, real estates and debts, consumptions, and assurances.

The sample is composed by 7,977 heads of household, 19,907 individuals of which 13,266 are income earners. Particularly, 4,934 are head of household men while 3,043 are head of household women; 7,687 people have Italian citizenship, while the remainders (290 people) are immigrants. The geographic residence distribution area is equally divided. In the North West (24%), North East (22%), Centre (21%) and South (22%). The remaining 11% of the sample lives in the Islands.

The variables used in the empirical analysis concern: gender, age, nationality, health, education, job activity, geographic living area, house property, possession of bonds, shares, mutual funds, debts for the house purchase, or debts towards family and friends, loan request, possession of a current account, overdraft possibility and income.

The methodology applied is a MCA which provides evidence if some Italian households have difficulty obtaining access to financial services. The technique also shows how Italian households are linked to the financial exclusion phenomenon. So, the additional value of this research to financial studies consists in identifying the characteristics of people which are considered included or excluded from the financial point of view. It is possible to explain the determinants of the financial exclusion by this application. The MCA is an extension of correspondence analysis (CA) (Bolasco, 2004) which involves the analysis of relationships of categorical dependent variables. As such, it can also be seen as a generalization of principal component analysis (PCA) when the variables to be analyzed are categorical instead of quantitative (De Leeuw, 2007).

Technically MCA is obtained by using a standard CA on an indicator matrix (i.e., a matrix whose entries are *0* or *1*). The percentages of explained variance need to be corrected and the CA interpretation of inter point distances needs to be adapted. MCA is used to analyze a set of observations described by a set of nominal variables. Each nominal variable includes several levels, and each of these levels is coded as a binary variable. For example gender (female vs. male) is one nominal variable with two levels. The pattern for a male respondent will be *0, 1* and *1, 0* for a female. The complete data table is composed of binary columns with only one column taking the value "*1*" per nominal variable.

MCA can also accommodate quantitative variables by recoding them as "bins". For example, a score with a range of *-5* to *+5* could be recoded as a nominal variable with three levels: less than *0*, equal to *0*, or

more than *0*. With this schema, a value of *3* will be expressed by the pattern *0,0,1*. The coding schema of MCA implies that each row has the same total, which for CA implies that each row has the same mass.

Using MCA it is possible to apply a Cluster Analysis. It deals with the classification of objects into different groups, or more precisely, the partitioning of a data set into subsets (clusters), so that data in each subset (ideally) share some common trait. The goal of this application is to obtain groups of unities characterized by their internal homogeneity and external heterogeneity in relation to specific considered characteristics. Cluster analysis comprises a range of methods for classifying multivariate data into subgroups. By organizing multivariate data into such subgroups, clustering can help to reveal the characteristics of any structure or patterns present (Brian, E., Landau, S. and Leese, M., 2001).

The applied clustering strategy in our study is a mixed strategy which creates a non hierarchical aggregation of partitions using the method of mobile centers and determining so only one partition, with a very high number of provisory clusters. Secondly a hierarchical strategy is applied. Applying this type of methodology it is possible to limit the effects of the primary choices or bonds that both hierarchical and non hierarchical strategies impose to the result of an automatic classification. In this way it observes an increase of the ratio inertia-inter / total-inertia (Bolasco, 2004).

EMPIRICAL RESULTS

MCA puts in evidence two factors that explain 16.2% of the inertia. Evaluating these values we can observe that there is a fable percentage of explained inertia. However, in the study of social phenomena the presence of low value of inertia is validated. In Figure 1 we can note the contribution of the individual modalities of the variables as regards the two factors.

The first factor that we define is “Socio-Economic-Cultural Dimension.” The modalities that contribute to its construction are linked in the principal way to education, health, income, job activity and financial condition. In effect, education can be considered a relevant variable by which it is possible to explain the others variables. Particularly, on the positive side of the first factor there are people with low education, elderly, pensioners, with a bad health, and without current accounts.

In the middle area of the two factors, there are people with normal characteristics and with a higher education. It is possible to highlight a third group, in which a good condition as regards the relationship financial opportunities is evident. In effect, they are some simply or independent employers, with secondary school, that have requested a loan to purchase a house, in middle age and with good health; so they can access credit.

At the end of this first factor, in the negative side, opposite to the first situation, there is the group of the upper middle class. They are professional men or managers, with high income and high levels of education; they have easy access to credit, and live in the North East of Italy.

The second factor is defined “Wealth Dimension” because it deals with people without a house property that rent or have the free use of a house, principally they are not of Italian nationality, they are young people, unemployed or, at the most, they are simply workers, with very low income and with debts towards family or friends. They do not have bounds, shares, mutual funds or any bank and post office current accounts. They are the lefts out.

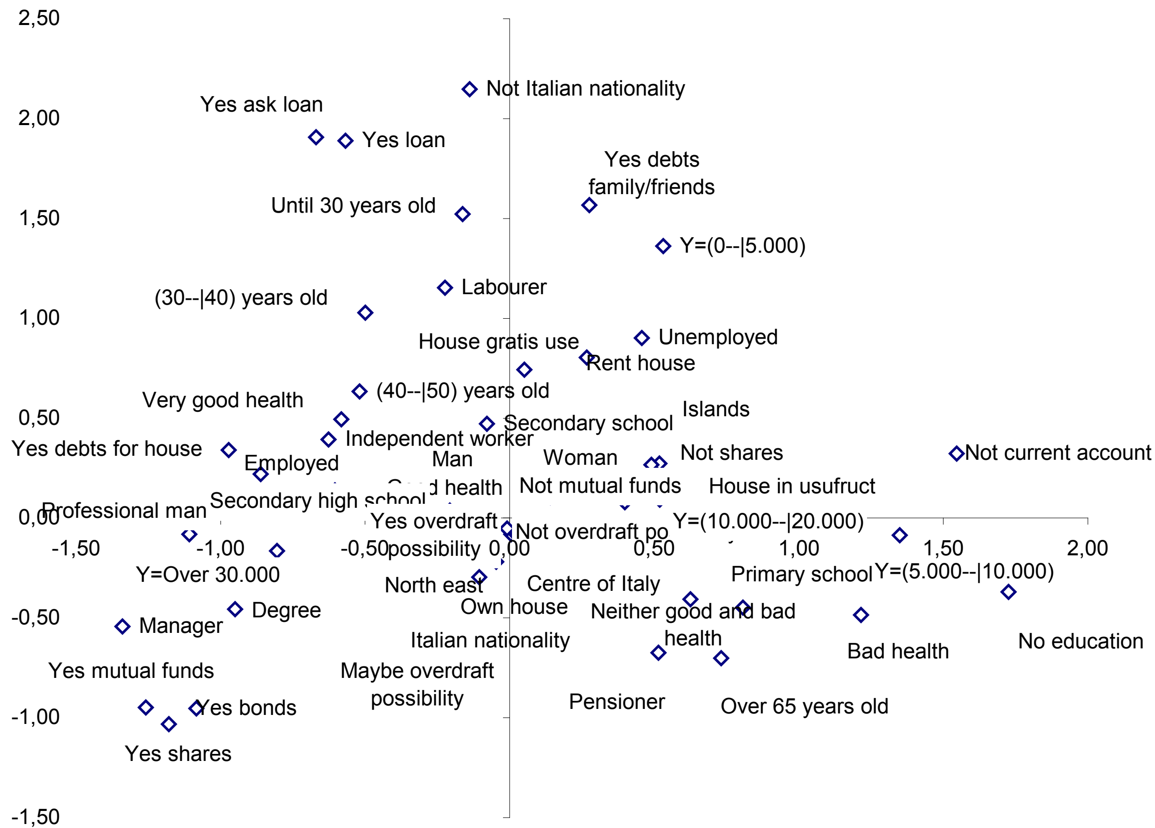
At the end of this exposition, it is possible to note the principal determinants of financial exclusion and to realize these factors are important to a positive improvement of the society. In this way the government can observe where social politics for an improvement of the welfare can be applied.

By the results of MCA and applying the Cluster Analysis (Brian, E., Landau, S. and Leese, M., 2001), it has been possible to identify four different groups of individuals that have particular characteristics as regards the variables analyzed. In this case, the gain of inertia (or variance) inter on the total variance obtained increased from 0.56% to 0.62%. The following group features are:

Cluster 1: *Pensioners – Self excluded*

Among the pensioners included in the total sample analyzed (7,977), 90% falls in this first cluster, from which we can deduce an exclusivity. The group identified represents 31.7% of the sample of households surveyed including 2,530 individuals. They are considered self excluded because they do not show the necessity to have a current account, or to ask for a personal loan or a loan to purchase a house, and they do not have financial investments, as shares, bonds or mutual funds. 42% of these pensioners lives in the North West of Italy, 62.5% is over 65 and about 60% have only completed primary school.

Figure 1: The Italian families characteristics



The figure shows the projection of the modalities of the variables considered on the factorial plane of the MCA.

Cluster 2: *Immigrants – unbanked*

This cluster is composed by 94.5% of non-Italian citizens, rather young with 85% are between 15 and 40 years old. Only 45.9% of them have a secondary school degree, it deals with labourers (82%) or individuals that work in an independent form status (64%). Only 37.3% of them have a current account, and do not have the possibility to invest in financial instruments or to have an overdraft possibility.

Cluster 3: *Females – poor*

This group is connected with women because the entire sample interviewed (57%) fells into this cluster. Specifically, they are not in a good financial condition, in fact 89.5% do not have a current account or investments in shares, bonds and mutual funds. They have an income that ranges between zero and 10,000 Euro, and they do not are in good health (50%) as well.

Cluster 4: *Males – Included and affluent*

This cluster is composed primarily by men that present a good financial condition. 78.3% of all men interviewed are included in this cluster. Specifically, 71.4% of all respondents with an income of over 30,000 Euro belongs to this group of households. 83.6% of them owns mutual funds, 75% bonds, and about 81% has investments in shares. They work as managers (85.6%) or professionals (67%) and have a high educational qualification such as a university degree in 61% of the cases.

CONCLUSIONS

The study highlights that in Italy some people could have a lot of difficulty accessing the financial system. By the application of the MCA methodology we can observe two specific situations in correspondence of the two factors of MCA. On the first axe, we note an "active" position; it deals with people who have the possibility to decide about the financial services or not. On the contrary, on the second axis, we can put in evidence a "passive" position, i.e. the condition of the people that cannot act freely, and are forced to undergo the decisions of other individuals and/or Institutions. They are dependent people.

The clustering allowed observing four different groups of individuals with particular characteristics. The people with low income, in retirement, less educational qualification, a part of an ethnic minority or with migrant background are more financially excluded than others. Female are more excluded from financial services than male.

This study puts in evidence that financial exclusion is largely influenced by the social exclusion. It would be interesting to identify financial instruments that may allow these classes to overcome financial exclusion and to analyze the microfinance market.

REFERENCES

Anderloni, L. (eds.) (2003), *Il Social Banking in Italia. Un fenomeno da esplorare*, Giuffrè Editore, Milan.

Bank of Italy (2010), *The Survey on Household Income and Wealth in 2008*, Supplements to the Statistical Bulletin, 8, February.

Bolasco, S. (2004), *Analisi Multidimensionale dei Dati. Metodi, strategie e criteri d'interpretazione*, Carocci, Rome.

Brian, E., Landau, S.and Leese, M. (2001), *Cluster Analysis*, An Arnold Publication Series.

Caskey, J. P. (2002), *Bringing Unbanked Households Into the Banking System*, Capital Xchange, January.

Claessens, S. (2005), Access to Financial Services: A Review of the Issues and Public Policy Objectives, *World Bank Policy Research Working Paper*, 3589, p. 1-38, May.

Corr, C. (2006), *Financial Exclusion in Ireland: An exploratory study and policy review*, Combat Poverty Agency, Dublin.

Devlin, J. F. (2005), A Detailed Study of Financial Exclusion in the UK, *Journal of Consumer Policy*, 28, p. 75-108.

De Leeuw, J. (2007), *Correspondence Analysis of Archeological Abundance Matrices*, UCLA Statistic Electronic Pubblications.

FSA (2000), *In or Out? Financial Exclusion: a Literature and Research Review*, Consumer Research, Financial Services Authority, 3, p. 5-100, July.

Harrison, T. S. (1994), Mapping customer segments for personal financial services, *International Journal of Bank Marketing*, 12(8), p. 17–25.

Hogarth, J. M. and O'Donnell, K. H. (1999), *Banking relationships of lower-income families and the governmental trend towards electronic payment*, Federal Reserve Bulletin, 85(7), p. 459–473.

Honohan, P. (2005), Measuring Microfinance Access: Building on Existing Cross-Country Data, *World Bank Policy Research Working Paper*, 3606, p. 1-32, May.

Kempson, E., Atkinson, A. and Pilley, O. (2004), *Policy level response to financial exclusion in developed economies: lessons for developing countries,* The Personal Finance Research Centre, University of Bristol, September.

Kempson, E. and Whyley, C. (1999), *Understanding and combating financial exclusion. Insurance Trends*, The Association of British Insurers, 21, p. 18–22.

IFF (2000), Access *to Financial Services-Strategies Towards Equitable Provision,* German National Report – Hamburg: Institut Fur Finanzdienstleistungen e.V..

Lee, J. (2002), The poor in the financial markets: Changes in the use of financial products, institutions and services from 1995 to 1998, *Journal of Consumer Policy*, 25, p. 203–231.

Panigyrakis, G. G., Theodoridis, P. K. and Veloutsou, C. A. (2002), All customers are not treated equally: Financial exclusion in isolated Greek islands, *Journal of Financial Services Marketing*, 7, p. 54-66.

Peachey, S. and Roe, A. (2004), *Access to Finance. A Study for the World Savings Bank Institute*, Oxford Policy Management, October.

Pesaresi, N. and Pilley, O. (2003), *Retail Banking, Social Inclusion and Public Services*, Competition Policy Newsletter, 1, p. 14-20, Spring.

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