REPRESENTATIVE VARIABLES IN A MULTIPLE REGRESSION MODEL*

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Abstract

There are presented econometric models developed for analysis of banking exclusion of the economic crisis. Access to public goods and services is a condition „sine qua non" for open and efficient society. Availability of banking and payment of the entire population without discrimination in our opinion should be the primary objective of public service policy.

Key words: economic crisis, econometric model, excluding banking, financial inclusion index.

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The Econometric Model of Bank Availability

The multiple linear regression form of bank availability can be characterized by the following variables: Rural population, Urban population, Number of unemployed and Wages:

DISPONIBILITATE=16.78965+0.0000176*POPRURAL+0.000678*POPURBAN-3.45987* NR_ŞOMERI+0.035675*SALARIULNET.

There were implemented in Eviews initial data and estimate regression model parameters by least squares method[1]. We obtained a series of results below.

Results of linear regression to estimate model parameters

Table 1

Regression model coefficients	Coefficient	Standard deviation	Test t	Probability
Coefficient constant term	16.78965	31.2678	0.278909	0.0233
Rural population coefficient	0.0000176	0.000277	0.375432	0.0355
Urban population coefficient	0.000678	0.002359	32.763245	0.0000
Unemployment coefficient	-5.777888	1.211667	-2.876777	0.0013
Wages coefficient	0.035675	0.0132454	2.074356	0.0275

Coefficient of net salary (net salary) is positive and significant, resulting largely banking availability (endogenous variable). The average net salary at the county level is higher, for example, the bank is higher availability.

* With references at the availability of banking services and payments.

NR_ŞOMERI coefficient (number of unemployed) is negative and significant. Where the number of unemployed is high, the availability of bank decreases.[2]

POPURBAN coefficient (urban population) is positive and significant. How as urban population is higher, the availability is higher.

POPRURAL coefficient (rural population) is positive, but less significant because the value 0.0000125.

Report of determination (R^2) indicates the percentage by which we explain the influence of significant factors. It is used in evaluating the quality of the model. It can take only values in the range [0,1]. The values are closer to 1, the model is better. In this case $R^2 = 0.974437$ and so we can say that the regression model is good. Approximately 97.4437% of availability of banking is explained by multiple linear regression model chosen.

Because Fisher's exact test = 98.765 has a probability of 0.00000, we can accept that in general multiple linear regression model is good. The model is statistically valid.

That availability, that issue excluding bank is negatively affected by unemployment utmost, and obviously it can be reduced by reducing unemployment.

The problem of financial exclusion is a key factor for any public policy governmental or corporate. The main item of interest is the public policy influence potential of its implementation as **financial exclusion** is a resource sustainability collectively.

Financial inclusion of certain categories of persons disadvantaged should in our opinion permanent concern of banks, governments of each country not only faced with the problem of financial exclusion banks are directly involved and interested in customers and thus increase profitability.

Access to banking services is considered as a fundamental need in most developed countries

Constrain public access to access banking products and services for their needs known by the term "**bank exclusion**" is a complex concept.

Lack of access to banking services or reducing them negatively affect quality of life in the society in which people live and do business. **Bank exclusion** is a concept closely related to the concept of "**social exclusion**". People who are socially excluded are more vulnerable economically and socially. In terms of social exclusion can happen to anyone. People who belong to groups that enjoy many privileges, are at high risk of social exclusion occur.[3]

Social exclusion is closely linked to financial exclusion. The connection was analyzed in five country reports: Austria, Germany, UK, Ireland and France containing specific studies to analyze the phenomenon.[4]

In Austria and Germany, many studies have referred to research the link between banking exclusion, poverty and social exclusion. Other studies investigating the type of people involved in this type of exclusion. In this category were included those who had an accident and became unable to work. Poverty is one of the factors of social exclusion.

In view of the French[5], bank exclusion is closely linked to social exclusion as causes and consequences, although difficulties in access is ALWAYS refer to social exclusion. Financial exclusion has negative consequences ("social" is defined as a normal part of life: employment, relationships with family, friends). The goal of financial inclusion is to have appropriate products and services people or those without which people can not survive, because they can be easily taxed.

In the UK, the links between financial exclusion and social exclusion are complex. Exclusion contributes to social exclusion (example: denial of access to credit may be increasingly difficult access to consumer goods and services market). Level of financial exclusion vary from 1% in countries such as Denmark, Belgium, Luxembourg and Sweden to 15% in Italy, 17% in Portugal and 24% in Greece.

Financial exclusion in some European Union countries, absolute data

Tabel 2

EU	**16**	**37**	**30**	**6**
Belgium	4	33	13	1
Denmark	9	14	15	1
Germany	6	42	21	2
Greece	76	72	41	24
Italy	26	52	50	15
Spain	41	43	25	5
France	3	13	39	1
Ireland	39	41	21	8
United Kingdom	14	27	22	5
Luxembourg	6	17	28	-
Island	1	20	28	-
Portugal	19	69	62	17
Finland	17	40	34	2
Sweden	16	28	7	1
Austria	17	33	11	2

Source of data: Eurobarometer 60.2

In Italy, the biannual research panel 'household income and welfare "(Household Income and Wealth) that collects data from current accounts or other financial assets (deposits), life insurance. In Spain, the EFF (Household Finance Research) collects data on bank accounts (including payment transactions utility providers) or other savings, pension schemes or joint life insurance.[6]

Among the indicators used to measure we refer to banking exclusion: **financial inclusion index**, IFI, defined by ***utilization grade*** (sum of the volumes of loans and deposits, relative to GDP), ***Accessibility*** (number of current accounts per 1,000 inhabitants) , ***Availability*** (number of bank branches weighted by 2/3, added to the number of ATMs (ATMs) weighted by 1/3.

Conclusion

The proposed model can be completed by including a larger number of variables defining representative model.

The model has been tested and can be used to make predictions on future developments in the number of branches and ATMs, and bank accounts, loans and other financial products.

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Notes

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