Artículos / *Articles*

The importance of attitudes towards risk to explain indebtedness in southern European countries / *La importancia de las actitudes hacia el riesgo para explicar el endeudamiento en los países del sur de Europa*

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ABSTRACT

The aim of this paper is to analyse the socio-demographic determinants and individuals' attitudes towards risk to explain indebtedness in southern European countries. This analysis is done within the context of an increasing process of financialization of individual behaviour. Our work analyses this process using the Household Finance and Consumption Survey (HFCS), drawn up by the European Central Bank between 2009 and 2011. The methodological plan consists of a combination of a multiple correspondence analysis in order to identify the various household debt models and a logistic regression analysis in order to detect the explanatory variables that best explain the differences between indebtedness models. The main contribution of this paper is the identification of those variables that explain the economic differences in household debt levels. Results are showing a relevant influence of individual attitudes on indebtedness in Southern Countries in detriment of sociodemographic variables, which are not relevant explanatory factors.

Keywords: indebtedness; financialization; attitudes towards risk and investment; mortgage market; Southern Europe.

RESUMEN

El objetivo de este artículo es analizar los determinantes sociodemográficos y las actitudes de los individuos hacia el riesgo para explicar el endeudamiento en los países del sur de Europa. Este análisis se lleva a cabo en el contexto de un creciente proceso de financiarización del comportamiento individual. Con este fin se utiliza la Encuesta sobre la Situación Financiera y el Consumo de los Hogares (HFCS), elaborada por el Banco Central Europeo entre 2009 y 2011. El plan metodológico consiste en la combinación de un análisis de correspondencias múltiple, para identificar los diversos modelos de deuda de los hogares, y un análisis de regresión logística, para detectar las variables que mejor explican las diferencias entre los modelos de endeudamiento. Los resultados muestran la influencia de las actitudes individuales sobre el endeudamiento en los países del sur de Europa, en detrimento de las variables sociodemográficas.

Palabras clave: *endeudamiento; financiarización; actitudes hacia el riesgo y la inversión; mercado hipotecario; sur de Europa.*

INTRODUCTION

In recent years there has been a growing interest in the study of household indebtedness. Reduced entry barriers to loans and low interest rates in the years leading up to the crisis have been shown to have caused a sharp hike in private debt. The economic recession linked to the banking sector had a clear impact on household domestic economies, particularly in the case of peripheral EU member states, namely Greece, Spain, Ireland, Italy and Portugal, for whom the crisis brought high levels of unemployment. Although the distribution of private debt in each of these countries varies considerably, radical changes to income and the structure of the labour market have immersed large sectors of the population into situations of financial anguish.

The aim of this paper is to analyse indebtedness patterns in southern European households. Firstly, it analyses the socio-economic characteristics associated with the varying degrees and types of indebtedness of households in Spain, Italy, Portugal and Greece. Secondly, it examines the determinants underlying indebtedness in these countries; in other words, the existence or non-existence of a structurally analogue pattern of indebtedness determined by a number of factors that shape the relationship between the debtor and the creditor bank. Finally it addresses the extent to which households' growing participation in the credit market is attributable to the influence of the financialization process on the economic behaviour of both individuals and households[1], reflected in the emergence of new financial consumer models based on the figure of the investor and new values related to money and the perception of risk and confidence.

In order to address these objectives, this paper is divided into three sections. The first provides a theoretical background to our research, based on three premises: the social structure of indebtedness; the institutional determinants underlying the indebtedness of southern European households; and the process of households' financialization. The article then describes the methodological approach adopted, including a description of the source of the data employed, namely the Eurosystem Household Finance and Consumption Survey, the key variables and the results obtained from the multivariate analysis techniques selected and the binary logistic regression analysis. Finally, based on the findings obtained from the statistical analysis, the third section includes a theoretical interpretation and possible future lines of study based on the phenomenon of the financialization of daily life.

SOCIALLY STRUCTURED INDEBTEDNESS OR A PERIPHERAL MODEL?

Private household indebtedness within a specific culture and social structure has been widely addressed both in the fields of economics and economic anthropology. Yet surprisingly, little attention has been paid to the underlying institutional determinants of the economic behaviour of households and individuals from a sociological perspective. The sole exceptions to this are the contributions made by authors such as Zelizer (2011), Carruthers (2005) and more recently Lazzarato (2012).

Economic literature has amply considered the socio-demographic variables that determine the degree of household indebtedness. These variables are considered to be universal factors that act outside the institutional or cultural context. The starting point for analysing the factors that condition credit demand is Keynes' 'fundamental psychological law', according to which the population's consumer spending rises in line with the increase in their income, albeit not as much as said increase in income (Keynes, 1981: 93). Taking Keynes' consumption function as a basis, James Duesenberry developed his relative income theory, rooted in the notions that the capacity to save is the result of a conflicting desire to improve the current standard of living and to secure future wellbeing through saving (Duesenberry, 1972: 54). Two key aspects

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1 This analysis considers both units of analysis (individuals and households). The HFCS questionnaire consists of two main parts: 1) questions relating to the household as a whole, including questions on real assets and their financing, other liabilities and credit constraints, private businesses, financial assets, intergenerational transfers and gifts, and consumption and saving; 2) questions relating to individual household members, covering sociodemographic variables.

influence the choice between these two options: habit formation and the interdependence of consumer preferences.

In contrast, Friedman's permanent income hypothesis refutes Keynes' theory by claiming that when making consumption and saving decisions, consumers consider their income over a period of many years and not merely at a specific moment in time. Friedman's ideas are based on long-term considerations, as individuals make spending decisions in accordance with expected future income, adapting consumption to expectations (Friedman: 1973: 37-56). Modigliani takes these ideas a stage further, positing a life cycle hypothesis whereby people's decisions at any given time reflect a fairly conscientious effect to spread expenditure evenly over all stages of their lives, although this is subject to the limitations imposed by the resources they obtain. Their wish is to achieve a stable degree of consumption, and in this sense saving and credit represent a means of sustaining a balanced and homogenous spending trajectory at each stage of the life cycle (Modigliani, 1966).

Recent economic literature has revealed a series of other factors in order to explain consumption and indebtedness. Iacovello (2008) created a model intended to shed light on indebtedness dynamics in US households based on income inequality. This model revealed that consumption inequality increases less than income inequality, and that the sharp hike in indebtedness in the USA is attributable to the widening gap in income equality. Foster and Magdoff (2009) claim that the factor that currently drives consumption is the unequal distribution of wealth. According to these authors, the working class spends the majority or even all its income on consumption, whilst the capitalist class channels a large percentage of its income into investments. In the USA consumer spending has risen at a faster rate than income, and it is within this context of wage stagnation that the working class resorts to loans in order to maintain or improve their standard of living (Foster and Magdoff, 2009: 41-51).

In this sense, socio-demographic variables such as rent or age contribute to explaining household indebtedness regardless of the institutional and cultural context. However, debt is a highly complex social phenomenon conditioned by cultur-al and institutional factors that hinder the simpler study of its socio-demographic determinants. The following section addresses these issues, with particular reference to the specific case of peripheral Southern Europe.

CONTEXTUAL DETERMINANTS OF INDEBTEDNESS

Debt and indebtedness are relative, non-absolute concepts. Indebtedness refers to debtors' capacity to comply with a monetary undertaking acquired over a particular period of time. It compromises debtors' present and future income, as the loan conditions are determined by estimates regarding their future solvency; in other words, their projected capacity to repay the monetary loan and its corresponding interest. Yet it also refers to the regulatory and cultural system governing the moral obligation to repay the loan or the various reasons that drive individuals into debt (Graeber, 2012).

Debt, seen as a contract or social agreement between two parties, therefore implies a complex power relationship between creditor and debtor, mediated by institutions that determine their rights and obligations (Carruthers, 2005). These institutions encompass a series of social and cultural practices, sustained either by legal regulations or moral sanctions.

Although the emphasis on culture and regulatory considerations in order to explain economic and institutional practices is not new, in recent years it has acquired greater relevance. Nevertheless, despite the growing sociological interest in considering the institutional determinants of private indebtedness, the study of indebtedness patterns from a comparative perspective has been systematically overlooked. Applying this analysis to southern European countries is of particular importance given the challenges facing economic integration in peripheral Southern Europe.

In this sense, an initial issue for consideration is the feasibility of considering southern European countries as a homogenous model in cultural and institutional terms[2]. Although academic literature

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2   We are not referring here to the regulatory models governing indebtedness relating to mortgage legislation

dismisses the notion of a homogenous welfare model for Portugal, Italy, Greece and Spain, it has identified a fourth European welfare model comprising the Mediterranean states (Ferrara, 1996). This poses the question of the degree to which families' economic behaviour could reflect similar patterns in peripheral Europe, whilst at the same time reflecting similar challenges in terms of Europe's integration and convergence processes.

This so-called fourth world of welfare is characterised by a series of common cultural and institutional features that combine elements from other European welfare models within a social context marked by a strong sense of family (Moreno, 2002; Ferrara, 2004) and a clear leaning towards a pension-based social protection system to the detriment of other aspects. This hybrid welfare model (Esping Andernsen, 2010) involves similarities between the integration strategies posited by the European Union and adopted by socio-economic agents of southern European countries, together with the impact they have had and continue to have on the economy and public finances of these countries (Bruszt and Vukov, 2017).

However, and as discussed earlier, this does not imply the existence of a homogenous welfare model among southern European countries, particularly in the light of the considerable rise in internal diversity of welfare models in peripheral Europe from the 1990s onwards (González and Luque, 2015). The 2007-2008 financial crisis and consequent adjustment processes have revealed major differences in the structural imbalances of public finance, as well as varying effects on the so-called 'adjustment policies' of social protection systems (Aristegui *et al.*, 2017).

This combined diversity and consistency that characterise Southern Europe has led to the systematic review of the term 'Mediterranean model', particularly in the wake of its increasing fragmentation. As a result, references to the diversity that characterises Mediterranean states include not only the nature of social protection systems, but

also the impact of the 2007-2008 crisis on the various countries analysed, the resulting adjustment policies and the measures adopted by the European Commission, the CEB and the IMF (the so-called 'European Troika') in order to guarantee compliance with Maastricht convergence criteria regarding public indebtedness and deficit.

On the other hand, southern European countries also share similar EU economic integration strategies aimed at deregulating the movement of capital, guaranteeing the free market and creating the necessary regulatory bodies (Bruszt and Vukov, 2017). The extent to which the impact of integration in peripheral Southern Europe has further weakened the economies of these countries, heightening the diversity of the so-called Mediterranean model, has to date received scant attention from literature on European integration, apart from a few notable exceptions such as the work by Offe (2015) Streeck and Schafer (2013) or Esping Andersen (2010).

The reasons provided above for the co-existence of common features and a high degree of heterogeneity within the Mediterranean model has led us to apply a new meaning to the concept of 'international regimes' in order to describe the set of explicit and implicit regulations, principles and rules that encompass actors' expectations in a specific aspect of social life; in this case the institutional framework for indebtedness. In this sense, this article attempts to determine the existence or non-existence of a common pattern of indebtedness for Portugal, Italy, Greece and Spain that reflects a regulatory-institutional basis favouring such practices, as well as a set of similar values regarding housing and consumption.

FINANCIALIZATION PROCESSES: A MOVE TOWARDS A COMMON PERIPHERAL MODEL OF INDEBTEDNESS IN SOUTHERN EUROPEAN COUNTRIES?

Financialization is the most commonly-used concept in the social sciences to define the increasingly significant role financial systems play in contemporary societies. It refers to a shift in the capital accumulation model from industry-based

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or civil and business regulations regarding loan contracts, but instead to the cultural models and welfare regimes that supposedly condition individual economic practices.

capitalism to an alternative, finance-based model (Ertuk *et al.,* 2008). Although this process can be considered an economic phenomenon, its origin and effects are political and social. Economic sociology studies in this field cover a wide range of aspects, yet also share a common interest in analysing changing behavioural patterns in household economies, the State, financial and non-financial institutions, their participation in financial markets and their impact on the capital accumulation model (Crouch, 2009).

In terms of individual and household economic practices, financialization refers to the rapid encroachment of the financial sector into various aspects of everyday goods and service consumption, housing, insurance and pensions. Today, financial institutions are increasingly focused on the business opportunities presented by individuals. This is the result of the considerable expansion of financial markets and the growing participation of non-bank financial intermediaries (Lapavitsas, 2009: 7-8). Financialization has revealed the emergence of new economic and financial values that are spreading to everyday economic practices, whilst at the same time disseminating new patterns of economic behaviour (Lapavitsas, 2009: 8-10).

Financialization brings with it a core concept: risk. In developed consumer societies, risk also represents market opportunities. 'As a result, the deployment of the risk society has highlighted the contrasts between those affected by risk and those that benefit from it' (Beck, 2013: 65). Martin *et al.* (2008) took this notion a stage further, arguing that the actions resulting from financialization represent a new ontology for 21st century life, whereby risk is not merely a form of calculation or of knowledge, but is also a form of being (2008: 122).

Public institutions have played a key role in promoting this type of behaviour within a process that Martin (2002) termed as 'the financialization of daily life', seen as the promotion of public policies that shift responsibility for welfare provision from the State to individuals. Consequently, the US Government's decision to free access to the mortgage market began as a means of transferring social guarantees and rights from the State to financial markets, manipulating assets and promising major earnings (Martin, 2002: 20-33).

In this sense, it is worth considering the degree to which the financialization of daily life represents a process of convergence amongst European societies in general and southern European countries in particular. Such a process would appear to indicate the emergence of a pattern of economic behaviour in keeping with an incomplete accumulation model (Ertuk *et al.,* 2007) known as finance capitalism (Jessop, 2013) in line with societies such as the USA and United Kingdom. This model is characterised by an intense relationship between households and the financial system and the predominance of values in daily life that are characteristic of this sector, as well as the emergence of a new accumulation pattern of capital earnings obtained from financial investments rather than through trade and commodity production (Arrighi, 1994; Krippner, 2005). The analysis of the possible existence of a common cultural pattern of behaviour in southern European countries is not something new in the sociological literature. Main contributions on this field have been focused on the political behaviour of the euro-Mediterranean area (see Torcal, 2010) and, as mentioned before, a common number of cultural, social and economic structures (Esping-Andersen, 2010). However coherently with the main contributions of this paper, it is not possible talking about a common pattern of values and attitudes in southern European countries, but on a heterogeneous practices common to different welfare regimes (Calzada *et al.,* 2013).

Literature on financialisation of daily life has focused primarily on the analysis of individual behaviour in the USA and the UK (Martin, 2002). There are few exceptions based on empirical grounds for cases outside the Anglo-American context (Di Feliciantonio and Aalbers, 2017). This paper aims to take the first step to fill this gap and open a new research agenda on the cultural determinants of economic action for Southern countries. For this purpose we have included in our methodological design the importance of individual attitudes towards risk and investment.

METHODOLOGICAL DESIGN

The working hypotheses

In the light of the contributions above mentioned, the first hypothesis presented in this article refers to the socio-demographic conditioning of credit behaviour. In line with the work of Foster and Magdoff (2009), Friedman (1973) and Modigliani (1966), amongst others, individual credit behaviour is conditioned by their position within a specific social structure determined by variables that include sex, age, occupation, level of education, income or marital status. We therefore hypothesize that:

Hypotheses 1. Credit behaviour in southern European households is conditioned by socio-demographic determinants that are common to countries analysed, which constitute a homogenous model of indebtedness.

Secondly, and closely linked to the previous hypothesis, our intention is to analyse the extent to which it is possible to identify a financialized indebtedness model, associated with loan contracts as a tool for investment rather than use, or with the acquisition of financial products used as guarantees for prior loan contracts; in other words, economic behaviour based on the commercialisation of risk as an indicator of financialized behaviour (Hardie, 2011).

Financialization is a process which has led to certain political, economic and social transformations (Massó and Yruela, 2017). However, in this paper we focus on the process of financialization of households and individuals, understood as a set of attitudes towards financial risk that take place in the field of everyday life. By analysing households and individuals' behaviour in terms of values and attitudes towards indebtedness and financial risk, we could explore the possibility of convergence or divergence towards a common economic culture in Southern Europe. We therefore expect that:

Hypotheses 2. Individuals' attitudes towards indebtedness in Southern Europe indicate a process of convergence towards a financialized model.

Case study presentation: indebtedness in southern European households

Our analysis focuses on the cases of Portugal, Italy, Greece and Spain. Peripheral economies have experienced a sharp hike in indebtedness for more than a decade and particularly following the creation of the euro (Lapavitsas, 2014). The largest percentage of this debt in terms of the GDP corresponds to the private sector, and specifically the case of financial and non-financial corporations.

Indebtedness patterns in southern European countries must be interpreted within the institutional context shaped by their welfare and labour market system and the industrial development and economic policy, among others. A number of variants in European capitalism can be identified in Southern Europe: the late industrialisation, the importance of agriculture and tourism, high levels of land speculation linked to urban development and the important presence of small family businesses (Calzada *et al.,* 2013; Esping-Andersen, 2010). This region is also characterised by its dual market nature, in the sense that we find both robust and technologically advanced business sectors as well as SMEs that constitute the predominant model of the business tissue.

The 2008 economic crisis has had a similar effect on countries within the area, where the impact of the recession was particularly severe resulting in loss of activity, rising unemployment and inequality, welfare cuts and social movements. Whilst Spain and Portugal registered high household debt levels —lower than the European average, the level of household indebtedness in Greece, and particularly Italy, were amongst the lowest in Europe. However, it must also be noted that in the case of Greece, these levels have experienced a steady rise and are now practically on a level with those of Spain (Figure 1).

As for mortgage contract indebtedness, the model in Portugal and Spain is clearly associated with the real estate and building sectors, resulting in a financial-property bubble stemming from private over-indebtedness (Lapavitsas, 2014). The analysis of mortgage debt and GDP reveals that Spain, Portugal and Italy have significantly high

Figure 1. Total household debt. GDP percentage.
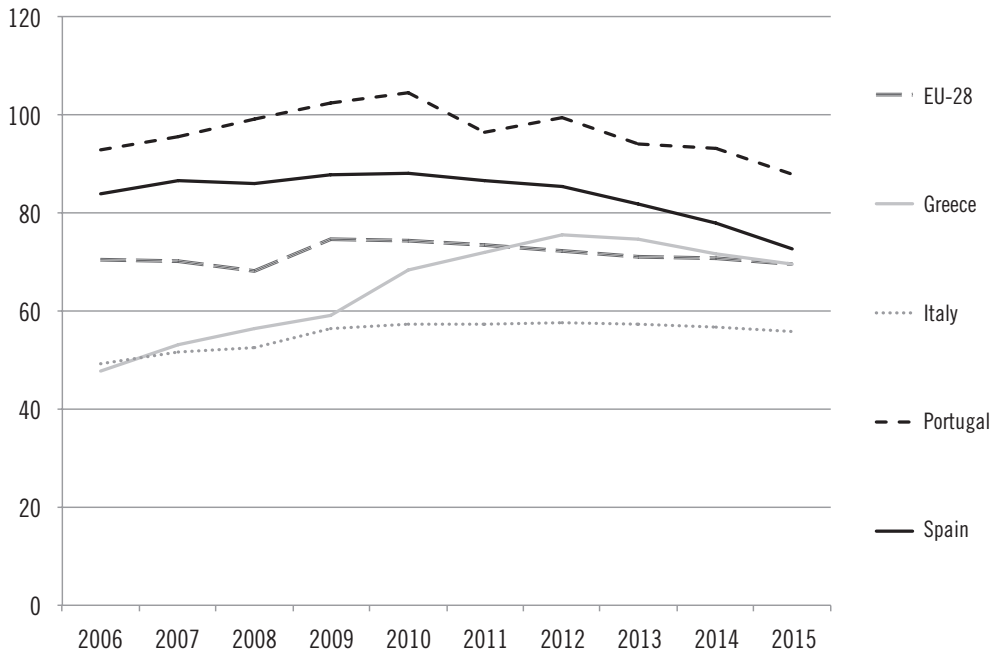
Source: Eurostat.

levels, whilst Greece ranks amongst the lowest in Europe. However, in comparison with Greece, mortgage growth rates were significantly high during the years leading up to the crisis in Spain, Italy and Portugal (Figure 2).

The database

For the purpose of this research we have used data provided by the European Central Bank and obtained from the 2010 Eurosystem Household Finance and Consumption Survey (HFCS). The main objective is to estimate the impact of socio-economic variables on demand and the accumulation of insured and uninsured debt in European households. In 2008, the European Central Bank decided to conduct a survey into the financial situation and consumption of households in 15 countries in the Euro-area. Most of the data was collected in 2010; the sole exceptions were Greece and Spain, where the fieldwork was carried out between 2008 and 2009.

The HFCS questionnaire comprises various topic-based sections designed to collect socio-demographic information, details of real assets and their financing, liability, credit limitations, financial assets, pensions, income and consumer spending. The universe was made up of all private households and their residents in the country at the time of data collection. The sample includes around 54,000 interviews, although the number varies from one country to another, not necessarily in proportion to their size.

Two statistical analyses were carried out using HFCS micro data: one of an exploratory nature using a multiple correspondence analysis; and a second dependence analysis, using the binary logistic regression technique. As shown in Table 1, 14 variables were selected, grouped into three topic-based blocks. The first includes socio-demographic characteristics that positioned individuals within a specific social structure. The second block is formed by variables that shed light on households' loan behaviour. The third and final block contains the variables related to attitudes towards investment and risk.

Figure 2. House purchase loans in %.

Source: Euro area statistics.

RESULTS

We have carried out a multiple correspondences followed by a binary logistic regression analysis to answer the proposed hypothesis and evaluate, on the one hand, the relationship between loan behaviour in southern European households and the socio-demographic determinants; and on the other, whether this loan behaviour indicates a process of convergence towards a financialised model of economic behaviour

The socio-demographic determinants of southern European indebtedness

Analysing the social structure of indebtedness requires the contextualisation of households' loan practices and attitudes towards credit in accordance with their socio-demographic characteristics in Portugal, Italy, Greece and Spain.

The results of the discrimination analysis (Table 2) show that in the first dimension, the variables relating to loan activity condense the greatest explanatory variance. In the case of the second dimension, socio-demographic variables and those related to the informal loan system and attitudes to risk display the highest degree of relevance.

These conclusions are supported by the graph depicting the discrimination mean values for the two required dimensions (Figure 3). In the MCA (Figure 3), variables concerning both units of analysis (individuals and households) are considered. It is very interesting as it seems that, in fact, there are two dimensions: one in which households variables conform dimension 1, and, a second one, in which individuals' sociodemographic variables are significantly grouped (dimension 2). The variables positioned furthest from origin (0.0) are characterised by their major contribution in defining the dimension. The graph confirms that the variables that display the best degree of discrimination in order to interrelate the various categories are Country; Mortgages or loans using HMR as collateral; HMR mortgage: loan refinancing; and HMR mortgage: purpose for the loan, as they contribute a high degree of dispersion and distance from the centroid.

In order to facilitate the factor interpretation process, all the categories of variables were

Table 1. Variables selected from the HFCS (2010).

Code		Variable
SOCIODEMOGRAFIC VARIABLES	**SA0100**	**Country:** Spain / Italy / Greece / Portugal
	PA0100	**Marital status:** single or never married / married / consensual union on a legal basis / widowed / divorced
	PA0200	**Highest level of education completed:** primary or below / lower secondary / upper secondary / tertiary
	PE0100	**Labour status:** doing regular work for pay, self-employed, working in family businesses / on sick, maternity, other leave (except holidays), planning to return to work / unemployed / student, pupil, unpaid intern / retiree or early retiree / permanently disabled / compulsory military service or equivalent social service / fulfilling domestic tasks / other not working for pay
	RA0200	**Gender:** male / female
	RA0300	**Age:** 16-25 / 26-35 / 36-50 / 51-64 / 65+
FINANCIAL VARIABLES	**HB1000**	**Mortgages or loans using Household Main Residence (HMR) as collateral:** yes / no
	HB1100	**HMR mortgage:** loan refinancing: yes / no
	HB1200	**HMR mortgage: purpose of the loan:** to purchase the HMR / to purchase another real estate asset / to refurbish or renovate the residence / to buy a vehicle or other means of transport / to finance a business or professional activity / to consolidate other consumption debts / for education purposes / to cover living expenses or other purchases
	HC0300	**Household has a credit card:** yes / no
	HC1310	**Was refused credit:** yes, turned down / yes, not given as much credit / no
	HD1800	**Investment attitudes:** take substantial financial risks expecting to earn substantial returns / take above average financial risk expecting to earn above average returns / take average financial risks expecting to earn average returns / not willing to take any financial risk
	HI0600	**Last 12 month expenses were below/above income:** expenses exceeded income / expenses about the same as income, /expenses less than income
	HI0800	**Ability to get financial assistance from friends or relatives:** yes / no

Source: authors' own based on HFCS micro data (2010).

grouped in the dimension in which they displayed high coordinates (Tables 3 and 4).

Observing the coordinates in relation to centroid for each category of variables allows us to define the characteristics that typify the dimensions:

Dimension 1: This dimension includes the Spanish and Italian cases. In terms of the socio-demographic profile, it is made up of individuals aged between 36 and 65 and over, although the majority falls within the latter age group. This ex-

plains the prevalence of married individuals, who are either self-employed or employed but also inactive, disabled or carry out domestic tasks[3]. Fur-

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[3] According to the Workforce Survey the unemployment rate for the third quarter of 2017 stood at 16.38 %. By sex, the difference between unemployment rates for men and women is almost 4 pints (14.80 % and 18.21 % respectively). The endemic problem of youth unemployment remains, registering a rate of 35.97 % (Spanish National Institute of Statistics, 2017).

Table 2. Discrimination mean values.

	Dimension 1	Dimension 2	Mean
Country	0.508	0.692	0.600
Mortgages or loans using HMR as collateral	0.814	0.186	0.500
HMR mortgage: loan refinancing	0.708	0.069	0.388
HMR mortgage: purpose of the loan	0.712	0.071	0.392
Household has a credit card	0.422	0.223	0.322
Was refused credit	0,172	0,020	0,096
Investment attitudes	0,056	0,221	0,139
Ability to get financial assistance from friends or relatives	0,005	0,355	0,180
Last 12 month expenses were below/above income	0,051	0,226	0,138
Marital status	0,062	0,195	0,129
Highest level of education completed	0,073	0,023	0,048
Labour status	0,060	0,376	0,218
Gender	0,061	0,007	0,034
Age	0,055	0,405	0,230
Total household gross income	0,260	0,271	0,265
Total assets	4,018	3,339	3,678

Source: authors' own based on HFCS micro data (2010).

thermore, all categories included in the loan variables score in this dimension with the exception of those items relating to the variable "Ability to get financial assistance from friends or relatives". The analysis of the highest scores reveals that all the loan variables differ in this factor, and therefore the universe included in this dimension tends to have loans pending repayment, has experienced cash flow limitations at some time and resorts to the use of credit cards as a means of deferring payment. As for their attitude towards investment, this group assumes a substantial level of risk in the expectation of obtaining high returns; in other words, they are willing to accept a high level of risk. In this group, age is confirmed as a decisive factor when incurring debt. This indicates that life cycle dictates a greater or lesser acceptance of indebtedness, as these loan practices tend to appear later in life.

Dimension 2. This dimension includes households in Greece and Portugal. The respondents' profile is that of a very young group (16-35) with a high level of education (tertiary). Regarding the Marital Status variable, items related to single status, cohabitation, widowhood and divorce all scored. This is an economically inactive sector, as they claim to be unemployed, on sick leave or studying. Consequently, the variables relating to loan behaviour have little weight in this factor. This is a highly trained segment of the population, whom, given their youth, are immersed in a phase of inactivity. Nevertheless, the case of the 26-35 age group is worthy of mention, as despite falling into the category of young adults, they remain affected by the instability of the labour market. As a result, they experience cash flow difficulties and are forced to resort to an informal system of loans (financial support from friends and relatives). As for their at-

Figure 3. Discrimination mean values, Dimension 1 and 2. Symmetrical normalisation.

Discrimination mean values

Symmetrical normalisation
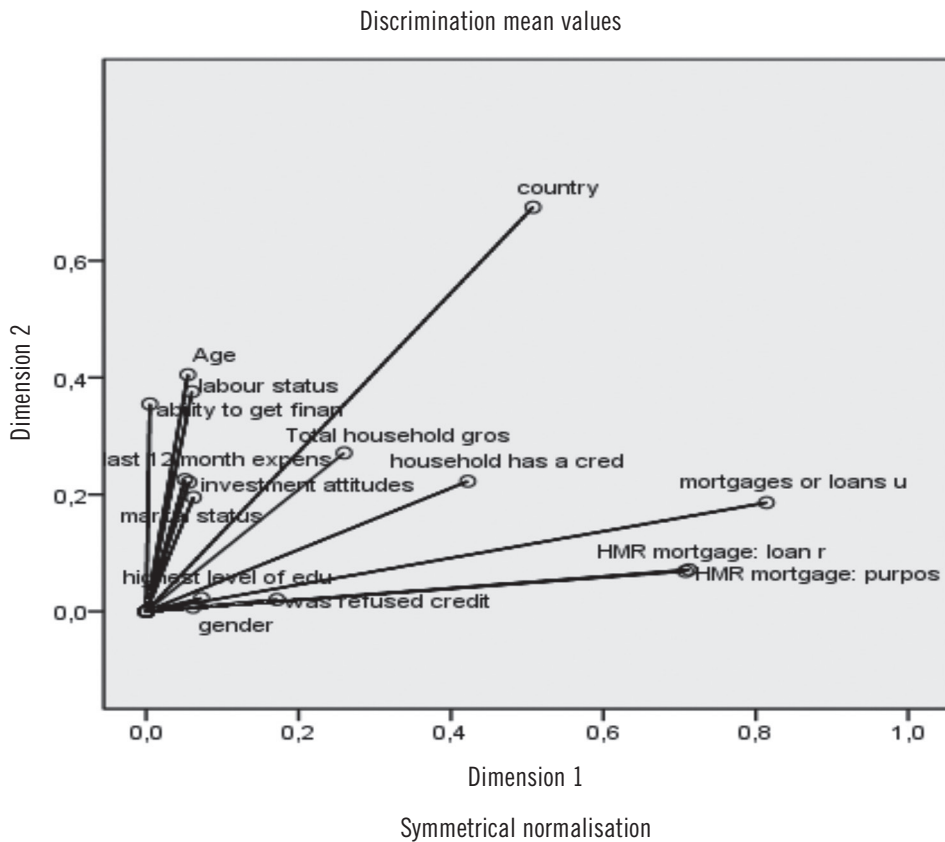
titude towards investment, they are not willing to assume risks.

The multiple correspondence analysis reveals a link between the socio-demographic and loan variables analysed. They have all been grouped in two dimensions that differentiate between Spain and Italy on the one hand, and Greece and Portugal on the other. The first dimension, which includes Spanish and Italian households, reflects a socio-demographic profile of an indebted group aged between 36 and 65 and over. Their consumption strategies are linked to credit, and therefore they tend to have loans pending repayment. In this dimension, the profile that emerges is that of a group ready to

assume a high level of risk in the hope of obtaining a high degree of return. The second dimension comprises households in Greece and Portugal. Unlike their first dimension, the socio-demographic profile is that of a young group aged under 35. An unstable job market excludes them from the formal loan system and therefore they are not prepared to assume risk.

The multiple correspondence analysis provides a descriptive insight into the indebtedness of southern European households. In order to obtain explanatory models, we will now address the principal conclusions that can be drawn from the binary logistic regression analysis.

Table 3. Centroid coordinates for Dimension 1.

Variable	Categories	Centroid coordinates
Country	Spain	−1.293
	Italy	1.143
Mortgages or loans using HMR as collateral	Yes	−3.026
HMR mortgage: loan refinancing	Yes	−3.321
	No	−2.999
HMR mortgage: purpose of the loan	To purchase the HMR	−3.113
	To purchase another real estate asset	−2.113
	To refurbish or renovate the residence	−2.366
	To buy a vehicle or other means of transport	−1.953
	To finance a business or professional activity	−2.515
	To consolidate other consumption debts	−3.604
	To cover living expenses or other purchases	−2.236
	Other	−4.095
Household has a credit card	Yes	−0.961*
	No	0.857
Was refused credit	Yes, not given as much credit	−2.410
	No	−2.022
Investment attitudes	Take substantial financial risks expecting to earn substantial returns	−0.240
	Take above average financial risks expecting to earn above average returns	1.107*
Marital status	Married	0.425*
	Consensual union on a legal basis	−1.347*
Highest level of education completed	Primary or below	−1.172
	Lower secondary	0.585
	Upper secondary	0.351
	Tertiary	0.361*
Labour status	Doing regular work for pay/self-employed/working in a family business	0.162
	Permanently disabled	0.894
	Fulfilling domestic tasks	−0.429
	Other not working for pay	0.891
Gender	Male	0.337
	Female	0.403
Age	36-50	0.96
	51-64	0.489
	65 +	−1.145
Total household gross income	20.001-50.000	−0.873
	+50.000	−1.491*

NB*: The category is included in both dimensions as it obtained a very similar score, i.e. "correspondence".
Source: authors' own based on HFCS micro data (2010).

Table 4. Centroid coordinates for dimension 2.

Variable	Categories	Centroid coordinates
Country	Greece	−1,233
	Portugal	−1,650
Mortgages or loans using HMR as collateral	No	0,647
HMR mortgage: purpose of the loan	For education purposes	−5,531
Household has a credit card	Yes	0,931*
Was refused credit	Yes, turned down	−1,637
Investment attitudes	Take average financial risks expecting to earn average returns	1,200
	Not willing to take any financial risk	−0,262
Ability to get financial assistance from friends or relatives	Yes	−1,403
	No	−1,624
Marital status	Single/never married	1,088
	Married	−0,496*
	Consensual union on a legal basis	1,484
	Widowed	−1,235
	Divorced	−0,618
Highest level of education completed	Tertiary	−0,413*
Labour status	On sick/maternity/other leave, planning to return to work	1,462
	Student/pupil/unpaid intern	2,357
	Retiree or early retiree	−1,111
	Compulsory military service or equivalent social service	3,264
Age	16-25	2,152
	26-35	0,441
Total household gross income	Until 10.000	−1,231
	10.001-20.000	−0,746
	+50.000	1,557*

NB*: The category is included in both dimensions as it obtained a very similar score, i.e. "correspondence".
Source: authors' own based on HFCS micro data (2010).

Convergence towards financialized behaviour?

A binary logistic regression model with a two-fold objective has been carried out: firstly, to examine the factors underlying the indebtedness of households in Portugal, Italy, Greece and Spain, and secondly, to study the possible existence of a growing convergence towards an analogue financialized model among southern European states. Whilst the multiple correspondence analysis sheds light on indebtedness in peripheral Europe, the logistic regression analysis seeks to provide an insight into the variables underlying the pattern for households' private debt. This dependence technique for qualitative variables was selected due to the high number of independent variables and its simple interpretation.

Debt is the dependent variable, the result of a process of variable calculation and transformation. Two metric variables from the HCFS database —Outstanding balance of mortgage debt and Outstanding balance of other, non-mortgage debt— were added together to create a new variable that included the households' total insured and uninsured debt. This new variable was then divided into 'yes' (debt) and 'no' (debt) in order to conduct the regression analysis.

Initially, various models containing the set of independent variables included in the methodological design were considered. At a later stage, all the socio-demographic variables were ruled out as they shed no light on dependent variable behaviour. The final independent variables included in the logistic regression model were 'Investment attitudes, 'Last 12 months' expenses were below/above income' and 'Ability to get financial assistance from friends or relatives'.

It is important to highlight the lack of statistical significance of the socio-demographic variables in the logistic regression model, therefore ruling out the possibility of a homogenous model of indebtedness forged by the socio-demographic profile of the population. In this sense, there is no empirical evidence to back the first hypothesis posed in our research. Notwithstanding the fact that cultural and attitudinal variables have a relevant influence to explain patterns of credit behaviour in detriment of socio-demographic variables, opens up new lines of research.

Below is a table summarising the binary logistic regression model. It includes the variables that were statistically significant in terms of their contribution to the model's log-likelihood. Table 5 shows those variables that exert a greater influence on the probability that a southern European household will incur a debt (either insured or uninsured).

Table 5 reveals that all the variables included in the model are significant (with a significance level of less than 0.05), with the exception of one of the response categories for the variable Last 12 month expenses were below/above income. The coefficients (B) associated with the model's significant co-variables were positive, indicating that the variable for each coefficient (B) increases the probability of Y. Also worthy of note is the variable Investment attitudes, with a significance level of $p<0.001$ and high coefficients and is therefore the variable that most impacts on the likelihood of Y; in other words, the probability of households incurring debt. Finally, the table shows the statistics in terms of the Hosmer-Lemeshow test, in order to contrast the null hypothesis that there are no differences between observed and predicted values based on the regression model (Cea, 2004). The statistics indicate a high level of significance (greater than 0.05), and therefore the null hypothesis cannot be rejected, indicating that the model adjusts well to the data.

This section has described the construction of a logistic regression model intended to identify the factors underlying the variability of indebtedness in southern European households. Interaction between income and expenditure, financial support from friends and relatives or attitudes towards investment have a positive relationship with indebtedness. This regression model suggests that the likelihood that households and individuals of Southern Europe will incur debt, is related to the following: the management of personal finances; having a strong personal network, namely 'informal system of credit'; and the level of risk tolerance.

The three variables included in the model impact directly on the likelihood that households in Portugal, Italy, Greece and Spain will incur debt. These variables include an element of a vision

Table 5. Household indebtedness: logistic regression analysis coefficients (2010).

	B	E.T.	Wald	GL	Sig.	Exp(B)
Last 12 month expenses were below/above income (Expenses exceeded income reference category)			29.216	2	0.000***	
Expenses about the same as income	0.334	0.087	14.837	1	0.000***	1.397
Expenses less than income	-0.068	0.062	1.193	1	0.275	0.935
Ability to get financial assistance from friends or relatives (yes reference category)	0.119	0.052	5.217	1	0.022*	1.127
Investment attitudes (Take substantial financial risks expecting to earn substantial returns reference category)			125.134	3	0.000***	
Take above average financial risks expecting to earn above average returns	0.753	0.190	15.680	1	0.000***	2.123
Take average financial risks expecting to earn average returns	0.822	0.161	26.140	1	0.000***	2.275
Not willing to take any financial risk	0.725	0.075	93.274	1	0.000***	2.066
Constant	-0.984	0.072	189.338	1	0.000***	0.374
N	7280					
Hosmer -Lemeshow test	Chi squared 7.045					
	Sig. 0.217					

*p < 0.05.
**p < 0.01.
***p < 0.001.
Source: authors' own based on HFCS micro data (2010).

forged by a specific system of values and beliefs, although this will vary in each of the four countries analysed. Despite their significance, the findings are not sufficiently sound in order to prove the existence of a process of financialization convergence in Southern Europe. It is therefore not possible to contrast the second hypothesis due to the lack of evidence of a common cultural framework in peripheral Europe.

CONCLUSIONS

Regarding the first hypothesis, the analyses conducted have failed to reveal the existence of a stable loan behaviour pattern based on the socio-demographic values studied. The fact that these variables could not be included in the logistic regression model due to their lack of statistical significance prevents us from identifying a social structure based on these positional variables. The lack of empirical evidence as to how these variables relate to one another within a specific social structure is attributable to the complex nature of debt, determined by multiple cultural and institutional factors that prevents the mere statistical analysis of their socio-demographic determinants. It is therefore not possible to consider sex, age, marital status, employment situation or income as determinants of indebtedness in the case of peripheral households, thereby confirming the inexistence of a homogenous social structure for loans in Portugal, Italy, Greece and Spain.

In contrast, the binary logistic regression analysis did reveal the existence of various behavioural patterns related to risk and savings management; in other words, various models of indebtedness determined by cultural factors. Indeed, one particular variable has been identified as having a direct impact on household indebtedness, namely the attitude towards investment and risk. Since the early studies into the relationship between wealth and the aversion to risk conducted by Arrow and Pratt in the 1960s and 1970s, people's attitudes to risk have played a key role in many economic fields (Pratt, 1964; Arrow, 1974). Total household income is normally the mean used for repaying accumulated debt. However, this income is vulnerable to cyclical upsets such as redundancy or economic instability, thereby generating uncertainty regarding the ability to meet loan repayments. In this sense, it is understandable that household attitudes to risk play a key role in the decision to apply for a loan.

Based on the results of the multiple correspondence analysis, Spanish and Italian households adopt a far more wary attitude to investment than their Greek and Portuguese counterparts. The formers are prepared to assume a high degree of risk in order to obtain an equally high return, whilst the latter prefer to opt for a greater sense of security. The results of our analysis indicate that Spanish and Italian households are far more inclined to incur debt than those in Greece and Portugal. However, the exploratory, non-casual nature of the multivariant technique employed does not allow for the categorical confirmation of these two peripheral models of indebtedness, thereby not contrasting the second hypothesis of our research. Moreover, the precarious common trajectory of European integration observed amongst southern European countries and the economic instability of all four countries in 2008, should be taken into account when analysing households' attitudes towards financial risk as an explanatory variable to the decision to incur debt. Therefore, we cannot confirm the convergence towards a common financialization process in southern European countries due to their socio-economic, political and cultural diversity. In the light of the above, it becomes necessary to open up new lines of research focused on the study of the impact of cultural values on attitudes towards indebtedness and their relation with the institutional context of each country.

In short, the differences between the system of values between countries leads us to consider the extent to which such culturally divergent aspects can explain international differences in financial systems and practices, and specifically the various financialized models of indebtedness. These relevant differences between the financial and indebtedness practices of households raise questions that should be addressed within a new field of research that considers cultural and institutional aspects in its analysis of financial problems.

FUNDING

REFERENCES

Aalbers, M. (2008). The Financialization of Home and the Mortgage Market Crisis. *Competition & Change*, 12(2), 148-166.

Aglietta, M. (2000). *La globalización financiera* (online). http://old.sinpermiso.info/textos/index.php?id=50, retrieved August 1, 2019.

Aristegui, I., Beloki, U., Díez, A., Silvestre, M. (2017). Vulnerabilidad social percibida en contexto de crisis económica. *Revista Española de Sociología,* 26 (3 Supl.), 17-39.

Arrow, J. (1974). Essays in the Theory of Risk-Bearing. *The Journal of Business*, 47(1), 96-98.

Beck, U. (2013). *La sociedad del riesgo. Hacia una nueva modernidad*. Barcelona: Paidós Surcos 25.

Bruszt, L., Vukov, V. (2017). Making states for the Single Market European integration and the reshaping of economic states in the peripheries of Europe. *West European Politics,* 40(4), 663-687.

Calzada, I., Garrido, M., Moreno, L., Moreno-Fuentes, F. J. (2013). Regímenes de bienestar y valores en Europa. *Revista Española de Investigaciones Sociológicas,* 141, 61-90.

Carruthers, B. (2005). The Sociology of Money and Credit. In N. J. Smelser, R. Swedberg (eds.), *The Handbook of Economic Sociology*, (pp. 355-

378). Princeton: Princeton University Press and Russell Sage Foundation.

Cea. M. (1996). *Metodología cuantitativa: estrategias y técnicas de investigación social.* Madrid: Síntesis Sociología.

Crouch, C. (2009). Privatised Keynesianism: An Unacknowledged Policy Regime. *The British Journal of Politics and International Relations,* 11, 382-399.

Del Rio, A., Young G. (2005). The determinants of unsecured borrowing: evidence from the British Household Panel Survey. *Bank of England Working Paper,* 263, 5-37.

Di Feliciantonio, C., Aalbers, M. (2017). The Prehistories of Neoliberal Housing Policies in Italy and Spain and Their Reification in Times of Crisis. *Housing Policy Debate,* 28(1), 135-151.

Duesenberry, J. (1972). La renta, el ahorro y la teoría del comportamiento de los consumidores. Madrid: Alianza.

Ertuk, I., Froud, J., Johal, S., Leaver, A., Williams, K. (2007). The democratization of finance? Promises, outcomes and conditions. *Review of International Political Economy,* 14(4), 553-575.

Esping-Andersen, G. (2010). Los tres grandes retos del estado del bienestar. Barcelona: Ariel.

Ferrera, M. (1996). The "Southern Model" of welfare in Social Europe. *Journal of European Social Policy,* 6(1), 17-37.

Ferrera, M., Gualmini, E. (2004). Rescued by Europe? Amsterdam: Amsterdam University Press.

Foster, J., Magdoff, F. (2009). La gran crisis financiera: causas y consecuencias. Madrid: F. C. E.

Friedman, M. (1973). *Una teoría de la función de consumo.* Madrid: Alianza.

González, S., Luque, D. (2015). Crisis económica y deterioro de los pactos sociales en el Sur de Europa: Los casos de España y Portugal. *Revista Internacional de Sociología*, 73(2), 1-13.

Graeber, D. (2012). *En deuda: una historia alternativa de la economía.* Barcelona: Ariel.

Iacovello, M. (2008). Household debt and income inequality, 1963-2003. *Journal of Money, Credit and Banking,* 40(5), 929-965.

Jessop, B (2013). Revisiting the Regulation Approach: Critical Reflections on the Contradictions, Dilemmas, Fixes and Crisis Dynamics of Growth Regimes. *Capital and Class*, 37(1), 5-24.

Keynes, J. (1981). *Teoría general de la ocupación, el interés y el dinero.* Madrid: F. C. E.

Krippner, G. (2005). The Financialization of the American Economy. *Socio-Economic Review,* 3, 173-208.

Lapavitsas, C. (2014). *Crisis en la eurozona.* Madrid: Capitán Swing.

Lapavitsas, C. (2009). *El capitalismo financiarizado: expansión y crisis.* Madrid: Maia Ediciones.

Lazzarato, M. (2012). *The Making of the Indebted Man: An Essay on the Neoliberal Condition.* Los Angeles CA: Semiotext(e).

Massó, M., Pérez-Yruela, M. (2017). Financialisation in Spain: The Emergence of a New Accumulation Model? *Revista Española de Investigaciones Sociológicas,* 157, 103-122.

Martin, R. (2002). *Financialization of daily life.* Philadelphia: Temple University Press.

Martin, R., Rafferty, M., Bryan, D. (2008). Financialization, Risk and Labour. *Competition & Change,* 12(2), 120-132.

Modigliani, F. (1966). The cycle hypothesis of saving, the demand for wealth and the supply of capital. *Social Research,* 33(2), 160-217.

Moreno, L. (2002). Bienestar mediterráneo y supermujeres. *Revista Española de Sociología,* 2, 41-57.

Offe, C. (2015). *Europe Entrapped.* Cambridge: Polity Press.

Pratt, J. (1964). Risk aversion in the small and in the large. *Econometrica*, 32(1/2), 122-136.

Streeck, W., Schafer A. (2013). *Politics in the Age of Austerity.* Cambridge: Polity Press.

Torcal, M. (2010). Reflexiones finales sobre el comportamiento político de los europeos en el inicio del siglo xxi. In Torcal (ed.), *La ciudadanía europea en el siglo xxi: estudio comparado de sus actitudes, opinión pública y comportamiento políticos* (pp. 345-362). Madrid: CIS.

Van der Zwan, N. (2014). Making sense of financialization. *Socio-Economic Review,* 12, 99-129.

Zelizer, V. (2011). El significado social del dinero. Buenos Aires: Fondo de Cultura Económica.

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