

# Handbook of Research on Corporate Restructuring and Globalization

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# Chapter 1

## Strategic Groups in the Portuguese Banking Industry: An Analysis of the 2008–2010 Period

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### ABSTRACT

*This chapter analyzes the retail banking behavior in Portugal for the period between 2008 and 2010. The data collection took place through the accounting consultation of the reports and accounts of the years under analysis. The selected variables reflect the strategic actions of retail banking during the period under analysis, and it can be argued that retail banking in Portugal has clear differences among players over time. In particular, banking institutions have different competitive strategies, the strategic groups do not have similar resources, and strategies also differ between strategic groups. This reflects the competitive structure of the national retail banking industry.*

### INTRODUCTION

The organizations of the banking industry have a relevant position in the economy, playing a fundamental and determinant role in economic growth. They are the financial intermediaries between the State, firms, and consumers.

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In the last 20 years, banking has undergone deep changes that influence strategic business options and significantly shape the future of banking organizations. Within the banking industry it is possible to identify banks that follow similar strategies that can be grouped in several strategic groups (e.g., Amel & Rhoades, 1988; Fiegenbaum & Thomas, 1990; Scannell et al., 2003; Staake et al., 2012; Tsai et al., 2011).

The study of strategic groups (SGs) is based on the foundations of strategic management (Chen & Miller, 2012; Hatten & Hatten 1987; Hervás, Dalmau, & Albors 2006). A strategic group can be defined as a set of companies employing similar strategies within an industry (Porter, 1979), although results and motivations of those companies may differ (Chen & Miller, 2012; Cool & Schendel 1987).

Research on SGs has analyzed several industries, addressing the relationships, rivalry, competitive dynamics and strategic decisions between companies within the strategic group and/or between SGs (e.g., Claver-Cortés et al., 2006; Leask & Parker 2007; Parnell, 2011; Pätäri et al., 2011) as well as the performance and stability differences over time among SGs (e.g., Martins et al., 2010; Más-Ruíz & Sala, 1992; Reger & Huff, 1993). There is also research exploring the similarities between the theory of strategic groups and the resource-based view (e.g., Leask & Parnell, 2005; Martins et al. 2010; Mehra, 1996), and, lastly, research addressing SGs as a strategic tool for the planning and implementation of competitive strategies (e.g., Ebbes et al., 2010).

The studies interpret how strategies influence SGs in a particular industry, evidencing the existence of a certain degree of homogeneity between companies in a same SG and of heterogeneity between SGs (Cool & Dierickx, 1993; Cool & Schendel, 1987; 1988; Zúñiga-Vicente et al., 2004a).

Although there are several studies addressing SGs in the banking industry (Lozano-Vivas & Pastor 2010; Más-Ruíz, 1999; Más-Ruíz et al., 2005; Más-Ruíz & Ruíz-Moreno, 2011; Más-Ruíz et al., 2014; Maudos & Pastor, 2003; Zúñiga-Vicente et al., 2004a; Zúñiga-Vicente et al., 2004b), there is none on the Portuguese banking industry. As such, the main aim of this chapter is to address how SGs are formed in the Portuguese banking industry between the years 2008, 2009 and 2010, which is a period in which the Economic and Financial Assistance Program (FEAP) was implemented in Portugal with serious consequences for the banking industry in Portugal.

The chapter is organized in seven sections. The first section presents the introduction of the chapter. In the second section, strategic groups and the schools of thought behind them are presented. The third section discusses the classification of strategic groups, including strategic groups in the banking industry. The methodological approach, the data and the results are presented in the three following sections. Finally, some concluding remarks are given in the seventh section.

## **STRATEGIC GROUPS**

### **Strategic Groups and Schools of Thought**

An industry can be seen as a combination of clusters, or groups of companies, that follow a similar strategy in accordance with some decision-making variables.

Literature on SGs appeared for the first time during the 1970s, with the identification of significant differences in the characteristics of several companies, although some of those companies followed similar strategies (Hunt, 1972). Several researchers have studied the existence of SGs in various industrial sectors (e.g. Day et al, 1999; Claver et al., 2003; Cool & Schendel, 1987; Finch et al., 2013; Flavián et al., 2002; Mascarenhas & Aaker, 1989; Mayor et al., 2012; McGee & Thomas, 1986; Porter, 1979; 1980;

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Tang & Thomas, 1992; Vachani, 1997) determining their formation and influence within the industry (e.g., Claver et al., 2003; Claver-Cortés et al., 2009; Cool & Schendel, 1987; Finch et al., 2013; Kalaf & Bomtempo, 1999; Mayor et al., 2012; Pätäri et al., 2011).

The study of SGs is seen as an analytical instrument for the study of the existing competition in an industry that fosters the implementation of business strategies, being of great importance to the analysis of the competitiveness of companies (Smith et al., 1997).

There are two points of view in the study of SGs: the industrial organization (e.g., Caves & Porter, 1977; Hunt, 1972; Newman, 1978; Oster, 1982; Porter, 1973; 1979) and the strategic management (e.g. Cool, 1985; Hatten, 1974; Patton, 1976). Both strategic thoughts are based on the reference model of the industry analysis.

The point of view of the industrial organization school is focused on a study perspective that takes company size, number of participants of an industry, and degree of vertical integration into account. The main principle of the strategic management school is based on the study of company performance as a way of justifying its existence.

### **Industrial Organization School**

The industrial organization's perspective has taken into account company size (e.g. Más-Ruíz, Ruíz, & Martínez, 2014; Más-Ruiz, Ruiz-Conde, & Calderón-Martínez, 2018; Más-Ruíz & Ruíz-Moreno, 2011; Nicolau-Gonzálbez & Ruiz-Moreno, 2014; Porter, 1973; 1979; Ruíz-Moreno et al., 2010), number of participants in the industry (e.g., Oster, 1982; Porter, 1976), degree of vertical integration (e.g., Mascarenhas 1989; McGee & Thomas, 1986; Newman, 1978) and market positioning (e.g. Hahn & Powers, 2010; Martins et al., 2010; Ramakrishnan, 2010).

The concept of “mobility barriers” between the strategic groups is the basis for the theory of industrial organization. These barriers are an obstacle to companies involved in a specific strategic group (Caves & Porter, 1977; Mascarenhas & Aaker, 1989; Porter, 1980).

SGs are structures separated by mobility barriers and with different strategies. Leask (2004) argues that SGs are stable “structures” separated by mobility barriers, segmenting different corporate groups with different strategies. The performance homogeneity within a strategic group is explained by the “mobility barriers” undertaken by firms from the same strategic group. Such strategic homogeneity within the same group limits the access of other firms to the group, thereby reducing the risk of strategic imitation. Thus, SGs are protected from competition arising from firms outside their group, and act in a way that prevents mobility between SGs. The mobility obstacles depend on the entry cost of a strategic group, i.e. the investment that is necessary in order to overcome the entry barriers of a specific strategic group.

Reger and Huff (1993) question, on one hand, the existence of mobility barriers within the same group, and, on the other hand, whether or not firms within a group are developing a new market niche. They suggest that company strategy is less similar to group strategy the further the positioning of the company is from the core of the group. They concluded that it is possible that mobility barriers and resource heterogeneity exist amongst companies of the same strategic group.

Empirical research regarding SGs from the banking industry has focused on the analysis of performance, analyzing the existence of significant performance differences between SGs over time (e.g. Zúñiga et al., 2004a). Performance differences are the result of: strategic positioning (Cano & Oliva, 2008); asymmetrical rivalry within and between SGs (Más-Ruíz & Ruíz-Moreno, 2011; Más-Ruíz et al., 2014); resource composition (Mehra, 1996); market power, efficiency, and differentiation (Más-Ruíz &

Ruíz-Moreno, 2011); technological innovation and productivity (Epure et al., 2011); and lastly, of the mobility between SGs (Flores-Márquez et al., 2015).

## **The Strategic Management School**

The strategic management school argues that SGs are an analytical tool that groups firms with identical or similar strategies, allowing their comparison. Research focuses on firms from the same industry and their competitive patterns, based on the use of relevant strategic variables as a way of identifying the more relevant SGs of an industry (e.g., Altuntas et al., 2016; Cool, 1985; Cool & Schendel, 1987; Dess & Davis, 1984; Dikmen et al., 2009; Gary & Wood, 2011; Hatten, 1974; Patton, 1976; Oster, 1982; Hatten & Hatten, 1987; Kabanoff & Brown, 2008; Kale & Arditi, 2003; Mascarenhas & Aaker, 1989; Nair & Kotha, 2001; Nicolau-Gonzálbez & Ruiz-Moreno, 2014; Porac et al., 2011; Rhee & Mehra 2006; Schreyögg & Von Reitzenstein, 2008).

A study regarding the American brewing industry revealed the existence of differences that are not due to company size or the number of participants involved in an industry.

For the strategic management school, there are significant differences between SGs. In turn, firms belonging to a strategic group display homogenous and usually stable behaviors over time. Since they follow similar strategies, they compete heavily with each other, which, consequently, makes the study of SGs of great importance to the analysis of the competitive rivalry among companies (Smith et al., 1997).

The main criticism to the SG theory is focused on methodology (Barney & Hoskisson, 1990; Cool & Dierickx, 1993; Ferguson & Ketchen, 1999; Ketchen & Shook, 1996; Leask, 2004; Leask & Parker, 2007), namely regarding its statistical significance and the lack of reliability provided by the results obtained. In turn, Barney and Hoskisson (1990) argue that it has not been proven that a company strategy is determined as a result of the strategic group that it belongs to.

There have been attempts within the banking sector to identify strategic dimensions and to analyze the performance between SGs and within the same strategic group, establishing behavioral links and performance analyses (Tywoniak et al., 2007), as well as the influence of geographical coverage in performance (Márquez & Gutiérrez, 2012).

SGs can be considered a group of organizations or firms from the same industry that follow similar strategies, objectives, characteristics, and market assumptions. In short, the SGs' analysis presents the following characteristics:

- Heavy reliance on the analyst, since they establish the variables that shape SGs;
- Summary of a large volume of information, making it easier to understand the industry and the groups, although losing the individual features of the firm or organization;
- Are largely based on the supply side, with variables that are difficult to obtain.

## **CLASSIFICATION OF STRATEGIC GROUPS**

Empirical research shows that the study of strategic groups is vast and diverse. Several researchers have tried to organize it, contributing with different points of view.

Hatten and Hatten (1987) followed the method of number of used variables, dividing the research into bivariate and multivariate systems. Depending on the theoretical reference, Cool and Schendel (1987)

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make the distinction between economic research of the industrial organization perspective and of the strategic management view. On the other hand, while Thomas and Venkatraman (1988) used variables on the dual approach rule for the formation of groups, Jegers (1989) established a structure for assessment based on four elements (way of measuring groups; use of data and variables; relationship of groups and industries; and analysis unit – group and/or firm).

Lastly, Reger and Huff (1993) made the distinction between variables arising from theory and variables arising from perceptions of strategists, believing that such perceptions reflect the competitive strategies used by companies.

Studies in the financial area can be divided into two main research areas, taking the financial and the capital investment structures into account.

In this regard, studies that consider the financial structure have the following variables: (i) the use of external financing (Dess & Davis, 1984); (ii) current liquidity (Fiegenbaum & Thomas, 1990); (iii) quick ratio (Sudharshan et al., 1991); (iv) debt-to-equity ratio (Baird et al., 1988); and (v) financial leverage (Fiegenbaum & Thomas, 1990). Studies that consider capital investment structure use, among others: (i) investment diversity (Amel & Rhoades, 1988); (ii) asset profile (Amel & Rhoades, 1988); and, lastly, (iii) new capital investments (Lawless & Tegarden, 1991).

Table 1 empirically classifies strategic groups, taking into account the research criteria and characteristics.

Within the bivariate research, the researcher determines the formation of strategic groups based on predetermined factors, such as company size and pattern of integration. Thus, the formation of strategic groups can be based on criteria determined by researchers, without resorting to statistical methods, with the intention of being used in the production of charts or graphics making the analysis of strategic groups easier. However, the use of a single variable may not reflect the different strategic choices (Amel & Rhoades, 1988).

On the other hand, the multivariate classification uses a set of strategic variables, which are selected based on the knowledge that the researcher has of the industrial sector, using advanced statistical techniques for variable reduction (e.g. factor analysis). This leads to a (possibly) consistent and stable number of groups, allowing for the analysis of the strategies undertaken by firms of the strategic groups.

The cluster analysis is the most frequent technique for the formation of strategic groups, and is usually applied to the original variables or to key strategic dimensions. This method allows us to identify the limits and distances between strategic groups based on the average of the variables, estimating the amount of mobility barriers that exist in strategic groups.

Cool and Schendel (1987) have a different approach for the classification of empirical studies on strategic groups based on two theoretical perspectives: the industrial organization and the strategic management. The main difference of the proposed classification is related to the research target.

The theory of industrial organization uses the concept of strategic groups to prove the heterogeneity between groups and explain competitiveness among them. From a strategic management point of view, the concept of strategic groups does not only seek to demonstrate heterogeneity, but also the existence of similar strategic choices, thus identifying ways to minimize threats and identify competitive opportunities. However, strategic management focuses on the determining factors of the results from firms in an individual manner, limiting research to a specific sector. The main critical area regarding the research is based on the industrial organization theory, noting that results cannot be generalized since they use many variables derived from the concept of business strategy (Cool & Schendel, 1987).

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*Table 1. Empirical classification of strategic groups*

Criteria	Research Characteristics		
	Bivariate classification.		Based on criteria determined a priori by researchers, not using statistical methods.
	Multivariate classification.		Groupings based on direct methodologies (cluster, factor analysis); groupings based on indirect methodologies (combined cluster and factor analysis); multidimensional scaling; logit models; game theory.
	Industrial organization. Strategic management.		
Inductive approach and deductive approach.	A priori.	One or few strategic dimensions.	
	A posteriori.	With few dimensions.	To choose a particular industry;
			To identify a set of strategic dimensions;
			To obtain data related to it;
			To use a data reduction technique (e.g., factor analysis);
			To analyze the groups regarding the dimensions used.
		With many dimensions.	To confirm the results empirically.
	Strategic dimensions.	With many groups.	
Way to measure groups;	Direct and indirect.		
Use of data and variables;	Define groups, classify industries and research.		
Relation of groups and industries;	One industry, several industries, a posteriori selection of industries.		
Unit of analysis;	Differences between groups, industries and companies.		
Level of analysis;	Groups, companies and industry.		
	Strategic dimensions proposed by the researcher.		
	Strategic dimensions perceived by managers.		
Financial approach.	Financial structure.		External financing; current liquidity; quick ratio; debt-to-equity ratio; financial leverage.
	Capital investment structure.		Diversity of investment; asset profile; new capital investments.

Source: own elaboration.

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Thomas and Venkatraman (1988) propose an approach based on two principles: the specification of the company strategy and the approach for the development of strategic groups.

The approach for strategy specification explains how the researcher establishes the SGs. Thus, the “explanatory power” of the strategic group concept depends on the validity of the scheme that has been implemented in order to specify the firm’s strategy. In this context, there are two options to explain strategy, one of which focuses on a few dimensions, being based on functional areas, and the other one using several dimensions to characterize the functional areas of the organization, creating a multidimensional vision of the strategy.

Jegers (1989) proposes the use of five relationship criteria. The first one connects the way that measurements are made in strategic groups, which can be direct, using strategic discriminating variables, and indirect. The second one uses strategic variables, classifying the studied industry based on its strategic homogeneity or heterogeneity. The third one addresses the relation between groups and the industry, separating studies that form strategic groups of an industry and those of several industries, whose approaches are governed by the statistically significant differences between groups, between industries, and between firms.

Reger and Huff (1993) propose a classification of the empirical research on strategic groups based on two points of view: the first, from the executives’ perspective, who identify and suggest points of view regarding the dimensions that describe the firm’s strategies, and which can be classified as strategic dimensions acknowledged by the managers. The second uses a set of dimensions and variables provided by researchers, and which can be classified as strategic dimensions proposed by the researcher.

Reger and Huff’s (1993) line of research is based on the perceptions from executives, managers, or strategists, where they carry out judgments regarding the similarity of strategies of the competition in what concerns their previous history in order to later identify strategic groups. In this regard, the cognitive research of strategic groups is based on the perceptions from firm executives in a specific line of business.

Empirical studies show that the cluster analysis is usually implemented through accounting variables of the balance sheet, as a percentage of total assets. Many empirical studies found significant performance differences between strategic groups (e.g., Altuntas et al., 2016; Cool & Schendel, 1987; Dess & Davis, 1984; Dikmen et al., 2009; Hatten, 1974; Hatten & Hatten, 1987; Huang et al., 2017; Kale & Arditi, 2003; Mascarenhas & Aaker, 1989; Nair & Kotha, 2001; Oster, 1982; Schreyögg & Reitzenstein, 2008).

The establishment of the strategic groups can be carried out through several data sources. Said groups can be classified in accordance with the used criteria, number of used variables, research characteristics, and theoretical framework.

## **Strategic Groups in the Banking Industry**

SGs have been subject to scrutiny in the banking industry. Although Ramsler (1982), Hayes et al. (1983), Passmore (1985), and Azofra and Fuente (1987) carried out the first researches on SGs within the banking industry, Amel and Rhoaes (1988) are the main influencers in that field of research.

Ramsler (1982) studied the 100 largest non-American banks by analyzing product differentiation within the market, size, and geographical scope. In turn, Hayes et al. (1983) look into investment banking by analyzing the connection between the characteristics of the investment bank and the characteristics of individual customers, with variables of customers and banking features. Passmore (1985) and Azofra and Fuente (1987) used financial data from banking in their proposals for the analysis of the sector, whilst Passmore (1985) analyzes a period between 1976 and 1983 using several financial ratios as variables.

Azofra and Fuente (1987) studied 21 banks listed in the stock exchange from 1975 to 1985, resorting to four variables: (i) activity; (ii) expansion; (iii) technological dimension; and (iv) profitability. These first studies focused on the traditional analysis of intra-group homogeneity, and heterogeneity between groups.

The stability of the SGs of the American banking industry was studied for eight years, using fifteen large balance sheet accounts as statistical variables in the group formation analysis. The chosen variables reflect the ownership structure and strategic choices undertaken by directors taking into account the characteristics of consumers, products, and risks. By comparing the averages obtained in each variable from each group, it was concluded that banks had similar targets, regardless (i) of their size; (ii) of the cities where they were located; and (iii) of the different laws in force for each US state. Consumer loans are irrelevant, contrary to the dominant view concerning the selection of the main strategy, claiming that banks are oriented towards the banking consumer. The six identified SGs were considered stable over time, since 70% of banks remained in the same strategic groups during the analyzed periods (Amel & Rhoaes, 1988).

Amel and Rhoaes's (1988) main contribution was the subjective definition of periods of stability, using a cross-section analysis with accounting data of three different years: 1978, 1981 and 1984.

Spanish banking institutions were widely studied (Espitia et al., 1991; Martínez, 1992; Más-Ruíz & Sala, 1992, 1993), although innovation and geographical scope received little attention for the identification of SGs.

The implications associated with product/market and the geographical scopes of Spanish banking institutions from 1983 to 1985 were analyzed by Espitia et al. (1991). In turn, Más-Ruíz and Sala (1992) analyze the expansion of Spanish banking institutions from 1986 to 1989 taking into account the growth in the number of subsidiaries. Martínez (1992) studies the expansion of Spanish banking institutions between 1986 and 1990, also analyzing the cost leadership strategy and the business structure. Más-Ruíz and Sala (1993) also carry out a study on Spanish banking institutions from 1986 to 1989, analyzing the geographical aspects and taking into account their significant presences due to the growth in the number of subsidiaries.

The studies of Reger and Huff (1993) provide an innovative perspective by cognitively analyzing and mapping the individual actions of managers as a result of the external perceptions of reality, thereby creating models and mental representations of markets, competitive environment, competition, and strategic grouping. In that sense, perceptions and beliefs are influenced by available information and the interactions of agents, either as cooperation or competition in the industrial banking sector (Reger & Huff, 1993).

The cognitive school is the foundation for this approach. The principles of psychology look at the analysis of mental processes of business executives or managers based on bounded rationality, arguing that managers develop cognitive maps in decision-making (Bougon, 1983) so as to represent and provide a description of the interpretation in different fields of knowledge, encompassing competitive rivalry.

The cognitive identity of SGs by managers shows consistency regarding performance within the group and a heterogeneous performance between SGs of the American banking industry, during the 1982–1985 period when the 18 largest banks in Chicago were analyzed (Reger & Huff, 1993).

Reger and Huff's (1993) research found that managers of an industry who are part of a specific group perceive the characteristics of companies of the group; however, the mental maps of strategists tend to ignore the conflicting data that is obtained over time regarding environmental changes (Reger & Huff 1993). They reject the explanation that the formed groups are artifactual results of a simple grouping technique, supporting the vision shared amongst strategists.

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The main advantage provided by the research of Reger and Huff (1993) was the identification of SGs using an environment simplification cognitive process, through the analysis of, and the interactions with, other competitors. If it is clear that managers of an industry understand SGs, by sharing perceptions on perceived characteristics of the firms, it is necessary to take into consideration that some firms do not follow clear and consistent strategies, changing strategies as events unfold. Consequently, there may be firms without specific strategic positioning inside a group. Additionally, it is not always possible to assign a group to a firm or a firm to a group.

The study of competitive patterns in the US banking industry compares SGs, based on resources and SGs, analyzing rivalry and performance to explain variations of inter-firm performance, determining that the differentiation translates into high heterogeneity.

Companies that follow seemingly different market strategies may have strategic interdependences. Thus, the company can analytically identify its potential rivals, by mapping SGs (Mehra, 1996).

Major regional differences were found in the financial system through the analysis of the strategic positioning of Spanish savings banks using financial data. The empirical research uses an exploratory data analysis to obtain SGs, with a proposal for the combination of an unsupervised neural network, the Self-Organizing Feature Maps (SOFM), with a cluster analysis. This made it possible to find major regional differences in the Spanish financial system and, with a bivariate analysis of the financial ratios, describes the differing aspects of savings banks from different Spanish regions (Serrano-Cinca, 1998).

Research carried out regarding the Spanish banking industry between 1984 and 1991, with a sample composed of twenty-four banks and subdivided into four stable periods, shows that the structure of SGs changes over the years in what concerns number, composition and strategy, thereby granting a dynamic perspective to SGs (Más-Ruíz, 1999).

Based on a concern between financial analysts and policy makers on the high degree of cost dispersion in the banking sector, Tortosa-Ausina (2002) analyzes whether dispersion and specialization factors can influence the dynamic of financial and operating costs of the Spanish banking services. It shows that there is no decrease in the degree of cost dispersion, although the relative position of firms may change.

The most recent studies on SGs redirect their research to the study of internal structure of the groups through the analysis of the complexity of the knowledge structure belonging to a strategic group, composed by the best management teams of the companies and through the assessment of the relationship between complexity of said knowledge structures and firm performance. With a sample of the 76 best banking management teams of three cities in the United States and using a set of fifteen variables, McNamara et al. (2002) found a relevant relationship between the complexity of cognitive SGs and the subsequent performance of the firm, confirming that the strategic structures' development managers know their strategic group and their competitive environment.

The relation between major environmental stressors and the changes that occurred over time in the competitive structure was studied for the Spanish banking system between 1983 and 1997. Performance differences between SGs are stable through time, and there is also strategic stability regarding the group and the firm, although marked by a high degree of strategic instability during periods with major environmental stressors. Since there are geographical constraints in the banking sector competition, SGs are studied in geographically restricted areas, thereby proving the existence of changes in several moments and not only during periods of instability. This confirms the possibility of there being firms that wish to move from one strategic group to another, faced with new environmental conditions (Zúñiga et al., 2004a).

The asymmetrical rivalry between SGs and the degree of response (Más-Ruíz et al., 2005), the rivalry of SGs and its consequence to performance (Más-Ruíz & Ruíz-Moreno, 2011) and the asymmetrical rivalry inside and between SGs (Más-Ruíz et al., 2005) were also analyzed in the Spanish banking system. The data information for the formation of SGs of the three studies comes from reports and accounts of the corresponding balance sheets and economic statistical bulletins. The formation of SGs was limited by the size of banking firms, which was determined by the total monetary amount of granted loans.

This new study perspective on inter-firm rivalry assumes that the competitive dynamic is represented in the existing rivalry between firms and, consequently, in the continuous exchange of competitive actions, making it a more appropriate way of explaining the performance and differences between firms.

The rivalry of the industry in a given sector during a deregulated period, the behavior of firms from a strategic group, and their behavior between groups are asymmetrical (Más-Ruíz et al., 2014). Dominant groups expect strong retaliation from firms belonging to that same group, but have a strong strategic desire no minimize responses from firms of smaller groups. In this context, the size of SGs is key within complex industries that are undergoing changes or are part of a deregulated sector. Thus, managers should analyze the competitive environment from the point of view of each competing strategic group (Más-Ruíz et al., 2005). On the other hand, firms of a specific strategic group are able to anticipate rivalry within the core of the group and such competitive behaviors are detected by firms belonging to other SGs (Más-Ruíz & Ruíz-Moreno, 2011).

Strategic decisions are a valid instrument for the analysis of the formation of SGs, with the understanding that these groups can be formed based on the strategic decisions of the companies. Rhee and Mehra (2006) propose a model of two strategic dimensions: one at organizational level and the other at marketing decisions level, using a cluster analysis.

With the aim of analyzing the Colombian banking stability over a period of 10 years (1995/2004), Cano and Oliva (2008) study market stability and its relationship with the average performance of banking firms.

The strategic positioning coming from the industrial economy and strategic management studies, emphasizing external factors that determine strategic behavior of firms and their competitive approach, have some similar characteristics, such as: long-term stability, with high mobility barriers, isolating mechanisms and other common structures of the oligopolistic sector asymmetries, and a fair stability in number and composition of SGs. Cano and Oliva (2008) did not find consistent evidence to prove or deny the relationship between structural differences in performance and the results of firms.

Li (2008) challenges conventional tenets by studying direct competition between foreign and national American banks, exploring the possibility that foreign banks boost the expansion of domestic banks. This research seeks to clarify the competitive interactions between Californian and foreign banks. Results suggest that the presence of foreign banks in a specific segment of the market may represent favorable market opportunities for national banks, thus promoting new entries of national banks. Although Li (2008) shows that foreign banks were not a barrier to the entry of domestic banks, the presence of domestic banks discourages the entry of foreign banks.

The banking industry of the United States has been researched from an evolutionary perspective, and it was concluded that there are significant differences in the performance of firms in all five SGs. The strategic adherence of the groups can be relatively stable through time, co-evolving strategically in the pursuit of different paths over time (DeSarbo et al., 2009).

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Although theory predicts that groups differ on performance and their reaction to external shocks, Halaj and Zochowski (2009) researched the Polish banking sector between 1997 and 2005 and showed that the identified groups differ in what concerns profitability and react differently to external shocks, supporting the explanation of earnings in the banking sector. However, no evidence was found regarding the usefulness of SGs in explaining the quality of the bank portfolios, as measured by irregular loans over total loans.

Epure et al. (2011) analyzed changes in productivity and efficiency of Spanish private and savings banks over eight years using two different periods: 1998–2002 and 2002–2006. Results show that productivity improvements of savings banks are partially due to technological innovation, and private banks benefit from efficiency improvements. Therefore, it can be concluded that the economic explanations of the performance of banking groups are the result of primary differences of productivity elements.

The impact of entering the American banking industry through purchase/acquisition was analyzed by Mukherji et al. (2011) between 1995 and 2003. Results argue that incumbents are more inclined to align their strategy of product mixture with that of the competition that entered through purchase/acquisition, as long as: (i) the incumbent is a large firm; (ii) the past performance of the acquirer had been strong; and, lastly (iii) the incumbent's served market is small.

Studying the Venezuelan banking system regarding the performance and geographical coverage during the first semester of 2008, Márquez and Gutiérrez (2012) concluded that: (i) SGs combine behavioral patterns; (ii) the different strategies implemented by banks were not expressed through differentiation; and (iii) the geographical coverage strategy was related to the financial strategy.

A new approach on the theory of SGs uses data envelopment analysis (DEA) to identify groups and performance group leaders. By analyzing over 1,000 branches/subsidiaries of the Canadian banking system, Paradi et al. (2012) refer that management groups are the result of the combination of management preferences, performance goals, and the implementation of similar resources due to market forces. Thus, groups can help firms create opportunities of continuous improvement with the actual development of the best management practices within the groups due to the similar operating characteristics of each strategic group (Paradi et al., 2012).

Empirically we analyzed the actions and competitive responses of Spanish deposit banks and how they compete within and between the SGs, giving rise to the adoption of aggressive strategies. The results provide a deeper understanding of the competitive behavior of firms, since it identifies the different patterns of actions and reactions, depending on the strategic group to which the company belongs (Nicolau-Gonzálbez & Ruiz-Moreno, 2014).

Huang, et al. (2017) explored efficiency differences between strategic groups in the context of transport, the results identified significant differences in efficiency across the four strategic groups (proactive-prudent, conservative-prudent and conservative-chance) prudent ratio showed significant capacity and efficiency, with low leverage compared to other SGs.

Actors can exert pressure on GS members according to organizational practices. Thus, the mode of entry into foreign markets is determined by the previous choices of other companies in the strategic reference group. Más-Ruíz et al. (2018) argue after analyzing 351 foreign direct investments of 30 Spanish banks in 55 countries between the 1986–2008 period they conclude that imitation behavior among members of the SG shows the important role of the group in strategic thinking.

Several empirical studies on the banking system found significant performance differences between SGs (e.g., Cool & Schendel, 1987; Dess & Davis, 1984; Dikmen et al., 2009; Hatten, 1974; Hatten & Hatten, 1987; Huang, et al., 2017; Kale & Ardit, 2003; Mascarenhas & Aaker, 1989; Nair & Kotha, 2001; Oster, 1982; Schreyögg & Von Reitzenstein, 2008). There is a general agreement that professionals are a reliable and valid source for data collection, even within a rapidly changing industry (e.g., Gary & Wood, 2011; Kabanoff & Brown, 2008; McNamara et al., 2002; Porac et al., 2011; Reger & Huff, 1993; Thomas & Carroll, 1994).

The concept of strategic group allows us to group firms from the same industry, enabling the creation of a multidimensional analysis of the competition. This can be used as a way of separating the competition within the retail banking sector, establishing the competing banking firms, and providing the identification of unexplored segments where said banking firms compete or may potentially compete.

The establishment of SGs can be carried out through several data sources and said groups can be classified in accordance with the criteria based on the number of used variables, research characteristics, and, lastly, theoretical framework.

## **METHODOLOGICAL APPROACH**

The empirical study develops a set of steps in the analysis of the retail banking industry, in order to achieve the objectives it proposes. The methodological process of the research is constituted by the following steps: (i) identification of the period; (ii) identification of strategic groups; (iii) characterization of strategic groups; and (iv) analysis of differences between strategic groups.

The first stage of the study involves identifying the analysis period, which was defined as the years 2008, 2009 and 2010, i.e. at the beginning of the critical period the Portuguese economy went through. Periods subjectively determined *a priori* derive from the knowledge and analysis of the industry under study (e.g., Más-Ruíz & Moreno, 2011; Más-Ruíz et al., 2014).

The second step involves a cluster analysis Ward's method (e.g., Martins et al., 2010; Más-Ruíz & Sala, 1992; Pătări et al., 2011; Reger & Huff, 1993) in order to determine strategic groups from the homogeneity of the corporate conduct. This model uses a hierarchical grouping procedure where similarities are identified to create clusters.

The third stage characterizes the SGs' dimension around which banks try to cluster together, aiming at identifying similar and dissimilar strategies.

The fourth stage involves the analysis of the differences of the main strategic groups, as the strategies of banks between groups may be dissimilar. The change in a group's composition will be the result of a change of the initial strategy, thereby leading to a new strategy similar to that of another group and that may not be followed by the remaining banks in the group.

## **IDENTIFICATION OF THE SAMPLE, SOURCE OF DATA AND VARIABLES**

In this context, based on the aforementioned methodology, this section outlines the study of the Portuguese retail banking sector, with the purpose of analyzing the industry from a longitudinal perspective, as well as the changes occurred during the period under analysis, showing the different strategies of the corporate banking industry. Thus, the Portuguese banking system from 2008 to 2010 was identified

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using data from statistical bulletins of the Portuguese Banking Association [Associação Portuguesa de Bancos], known hereafter as APB.

Of the 33 financial institutions that integrate APB and that reported their data in 2011, there was a total of 6,306 branches or subsidiaries, with 57,069 employees.

Human resources are divided into 30,680 male employees and 26,389 female employees, 4,574 of which have primary education, 23,066 have secondary education, and 29,429 have higher education. From the total of human resources of all the financial institutions that form APB and reported their data in 2011, 37,206 are connected to the commercial activity and 19,863 to other activities of the financial sector.

Institutions had a total equity amounting to 21,124 Million Euros; total asset amounting to 505,923 Million Euros; a total liability amounting to 484,799.5 Million Euros; and a net result of minus 1,307 Million Euros.

The 33 financial institutions that are part of APB and that reported their data in 2011, are divided into: financial institutions – domestic, with 21 institutions, representing 63% of the total; financial institutions – affiliates with five institutions, representing 15% of the total; and lastly, financial institutions – subsidiaries with seven institutions, representing 21% of the total of institutions that are part of APB.

The information of banking groups was excluded from the total of institutions that compose the group of financial institutions associated with APB, with a license to operate in Portugal, even if the strategic decision of these groups influences the strategic options of the groups' banks, during the analyzed period. Data from electronic and investment banking were also excluded, since their nature is not encompassed in the scope of the study. Institutions that developed their main activity as offshore were equally excluded, and the following institutions were taken out of the analysis due to lack of available data for the financial year of 2008: BPN, EFISA and BPP. BIC was incorporated into BPN and the new entity became Banco BIC Português, S.A. The data from 2011 corresponds to the acquired entity, as published in the 2012 report and accounts. BPP stopped preparing consolidated accounts starting from the financial year ended on December 31<sup>st</sup>, 2011.

The shareholder structure of retail banking is composed by individual persons, firms, members of governing and institutional bodies, and by the Portuguese State. The Portuguese State has participated in two institutions: Banco Comercial Português, with 3.01% and Caixa Geral de Depósitos, S.A., with 100%.

Table 2 presents the shareholder structure of the financial institutions in retail banking during 2011.

For these reasons, this study focuses on the Portuguese retail banking sector from 2008 to 2010.

The characterization of the retail banking industry is analyzed according to the number of banking entities, number of subsidiaries, number of employees and, lastly, by the amount of the total asset of banking entities for each year (Table 3).

The 20 retail banking institutions that were operating in 2008 counted on a geographical coverage of 5.291 branches/subsidiaries in national territory, with 48,941 employees and a total asset of 434,529.3 Million Euros.

Lastly, we analyze a sample of the Portuguese retail banking system, according to the size of the total assets of each bank operating in Portugal (Table 4).

In accordance with the assets, represented in Millions of Euros from each bank, four types of retail banking entities can be identified, based on the corresponding dimension: (i) very small, with assets lower than 5,000 Million Euros; (ii) small institutions, with assets between 5,000 and 14,999 Million Euros; (iii) medium-sized institutions, with assets between 15,000 and 50,000 Million Euros; and, lastly, (iv) large banking institutions, with banking assets exceeding 50,000 Euros.

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Table 2. Shareholder structure of the Portuguese retail banking industry (2011)

Institutions	Private	Businesses	Members of governing and institutional bodies	Institutional	State
Banco BIC Português, S.A. <sup>(1)</sup>	21.00%	60.00%	19.00%		
Banco BPI, S.A.	14.70%	84.40%	0.90%		
Banco Comercial Português	34.31%	22.80%	0.20%	39.86%	3.01%
Banco Espírito Santo, S.A.	16.20%	52.80%	0.20%	30.80%	
Banco Espírito Santo dos Açores, S.A.		32.50%		67.50%	
Banco Finantia, S.A.	3.90%	35.50%	0.80%	59.80%	
BANIF – Banco Internacional do Funchal, S.A.				100.00%	
Caixa Central – Caixa Central de Crédito Agrícola Mútuo, CRL		100.00%			
Caixa Económica Montepio Geral				100.00%	
Finibanco, S.A. <sup>(2)</sup>				100.00%	
Caixa Geral de Depósitos, S.A.					100.00%
Banco Bilbao Vizcaya Argentaria (Portugal), S.A.		100.00%			
Banco Itaú BBA International, S.A.		100.00%			
Banco Popular Portugal, S.A. <sup>(3)</sup>		100.00%			
Banco Santander Consumer Portugal, S.A.		100.00%			
Banco Santander Totta, S.A.	0.10%	99.90%			

Note: (1) Banco BIC was incorporated into BPN and the new entity adopted the corporate name of Banco BIC Português, S.A. The 2011 data are those of the acquired entity, as published in the Annual Report and Accounts of 2012; and (2) Banco Popular Portugal, S.A. ceased to prepare consolidated accounts in December 31, 2011.

Source: own elaboration.

Table 3. Sample characterization

Years	Nº of entities	Nº de branches <sup>(1)</sup>	Nº of workers <sup>(2)</sup>	Total Assets <sup>(3)</sup>
2008	20	5 291	48 941	434 529.3
2009	20	5 389	49 185	461 849.6
2010	18	6 170	54 923	463 911.1

Note: <sup>(1)</sup> National geographic coverage; <sup>(2)</sup> workers in Portugal; <sup>(3)</sup> Million Euros.

Source: own elaboration.

## Strategic Groups in the Portuguese Banking Industry

During 2008 and 2009, the number of banking entities of the retail banking system is stable, composed of 20 retail banks, accounting for an increase of the total asset from 434,529.3 in 2008 to 461,849.6 Million of Euros in 2009. Very small banking entities became even smaller due to their assets, which decreased from 19,907.3 in 2008 to 16,963.5 Million of Euros in 2009. The remaining types of banks (small, medium, and large) became larger, whereby large institutions contributed to the total asset growth for the year of 2009 with an asset of 325,823.1 Million Euros.

The number of retail banking entities went from 20 in 2008 to 18 in 2010, with the shift of a large bank to the medium-size bank category, increasing total assets of medium-size banks to 167,079 Million Euros.

The information used to characterize the sample comes from the information provided in balance sheets and individual income statements, which are recorded in the statistical bulletins no. 44, 2008; 45, 2009; 46, 2010; of APB. However, not all accounting data of the balance sheets and individual income statements are consolidated at the time of collecting and processing information.

The selection of variables for establishing the performance ratios is based on the retail banking industry requirement to comply with the FEAP, which is expected to decisively influenced banking behavior regarding its actions *vis-à-vis* the Portuguese economy. Therefore, nine strategic variables and six economic and financial ratios have been considered, as shown in Tables 5 and 6.

Banking performance is largely influenced by the economic profitability of the banking product, with a major impact on banking personnel expenses and banking administrative expenses (Sinkey & Joseph 1992).

## RESULTS

The Ward hierarchical technique was used for the identification of strategic groups, in accordance with the proposed methodology. Clusters are formed in order to minimize the internal variation of the strategic group.

Table 7 analyzes the summary of the results regarding the selection of the number of groups for the analyzed period. During the 2008–2010 period, six strategic groups were identified, as presented in Table 7: SG1, is composed of eight banking institutions (BAC; BANIF; BBVA; CCCAM; DEUTSCHE; FINI; MG; BPP); SG2 is composed of two institutions (BIC; BPI); SG3 is composed of four institutions

Table 4. Sample characterization according to size of total assets

Type of retailing bank	Limits of the size of Classes <sup>(1)</sup>	2008		2009		2010				
		Nº of entities	Assets <sup>(1)</sup>	Nº of entities	Assets <sup>(1)</sup>	Nº of entities	Assets <sup>(1)</sup>			
<b>Very small</b>	Lower than 5,000	9	45%	19,907.3	9	45%	16,963.5	7	38%	17,033.0
<b>Small</b>	5,000 – 14,999.9	6	30%	46,863.2	4	20%	39,387.4	6	33%	86,223.1
<b>Medium</b>	15,000 – 50,000	2	10%	87,088.3	3	15%	79,675.6	3	16%	167,079.5
<b>Large</b>	More than 50,000	3	15%	280,670.5	4	20%	325,823.1	2	11%	215,046.8
<b>Total</b>		20		434,529.3	20		461,849.6	18		485,382.3

Note: <sup>(1)</sup> Million Euros.

Source: own elaboration.

**Strategic Groups in the Portuguese Banking Industry**

*Table 5. Strategic dimension/operationalization of strategic groups*

Dimension	Strategic Function	Operationalization	Code
Strategic reach.	Specialization (product/market).	Credit not represented by securities / Total Assets.	V1
		Securitized and non-derecognized credit / Total Assets	V2
		Other credit and values (titles) / Total Assets	V3
		Overdue credit and interest loan / Total Assets	V4
		Provisions and Impairments / Total Assets	V5
		Call-Demand deposits / Total Liabilities	V6
		Term Deposits / Total Liabilities	V7
	Resources.	Central Bank Resources / Total Liabilities	V8
	Size of the institution.	Total Assets	V9

Source: own elaboration.

*Table 6. Result variables*

Dimension	Variables	Acronym	Operationalization
Economic and financial dimensions	Economic profitability.	PBMF	Banking product / Financial margin.
		CPMF	Costs with Personnel / Financial margin.
		GGAMF	General administrative expenses / Financial margin.
	Financial profitability.	ROE	Return on Equity (Net results / Shareholder Equity).
		ROI	Return on Investment (Net results / Total Assets).
		GAF	Degree of financial leverage (Operational results / EBIT).

Source: own elaboration.

*Table 7. Composition of Strategic Groups during the 2008–2010 period*

	SG 1	SG 2	SG 3	SG 4	SG 5	SG 6
	BAC	BIC	BES	BARCLAYS	BCA	BSC
	BANIF	BPI	CGD	BSNP	BPG	
	BBVA		BCP	BF		
	CCCAM		BST	ITAU		
	DEUTSCHE					
	FINI					
	MG					
	BPP					

Source: own elaboration.

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(BES; CGD; BCP; BST); SG4 is composed of four institutions (BARCLAYS; BSNP; BF; ITAU); SG5 is composed of two institutions (BCA; BPG); and, lastly, SG6 is composed by one institution (BSC), for a total of 21 banks.

In this point of the empirical research, the different strategies of the aforementioned SGs will be identified. The identification method was chosen based on the proposal of Amel and Rhoades (1988), which is founded on the comparison of average amounts of the strategic variables from each group.

The study focuses only on the analysis of SGs which were observed more than once. In that sense, a detailed analysis of the groups' centroids was carried out, with regard to the average amounts of the national industry, for all strategic groups. The behavior of a SG is analyzed in relation to the strategic variables, using the average of the arithmetic sum of the variables from each strategic group to enhance the defining elements of the strategy implemented by each strategic group. Lastly, we identify the different competitive models in strategic groups over time.

Table 8 presents a summary of the average values of the strategic variables of the national retail banking industry.

Strategic groups can be classified as: “Universal Banking”; “Traditional Banking”; “Specialized Banking”; and “Undefined Banking”. Such classification is based on the transposition of an EU directive into the Portuguese legal system by Decree-Law no. 298/92, of December 31<sup>st</sup>, setting out the purpose or scope of the banking activity in article 4, which, in its broader sense, is called “Universal Banking” (personal banking; corporate banking; institutional banking; investment banking; and specialized financial services), and thus the traditional classification of commercial and savings banks has disappeared. In this context, the strategic features of each SG have been identified, as specified below.

The first group can be characterized as “Universal Banking”. It is comprised of small institutions in the first period and very small, small and medium-sized institutions.

The second strategic group may be classified as “Traditional Banking”. It is composed of three large institutions and one medium institution. This SG is composed of banking institutions traditionally operating at a national level in all market segments.

*Table 8. Behavior of strategic variables over time*

<b>Variables</b>	<b>Operationalization</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2008–2010</b>
V1	Credit not represented by securities / Total Assets	0.69	0.46	0.46	0.54
V2	Securitized and non-derecognized credit / Total Assets	0.00	0.06	0.07	0.04
V3	Other credit and values (tittles) / Total Assets	0.00	0.02	0.02	0.01
V4	Overdue credit and interest loan / Total Assets	0.00	0.01	0.02	0.01
V5	Provisions and Impairments / Total Assets	0.02	-0.01	-0.02	0.00
V6	Call-Demand deposits / Total Liabilities	0.35	0.15	0.10	0.20
V7	Term Deposits / Total Liabilities	0.00	0.22	0.24	0.15
V8	Central Bank Resources / Total Liabilities	0.02	0.06	0.11	0.06
V9	Total Assets <sup>(1)</sup>	22 569.0	23 092.5	26 965.7	24 209.1

Note: <sup>(1)</sup> Million Euros.

Source: own elaboration.

The third group may be classified as “Specialized Banking”. It is comprised of three very small banking institutions and one small institution being difficult to classify according to the strategic variables considered. This group is influenced by the strategic variables’ ratio, securitized and non-derecognized credit on total assets and a high central bank resource ratio on total liabilities.

The fourth strategic group is classified as “Undefined Banking”, due to being difficult to describe according to strategic variables. BIC is a very small banking institution that started operations in 2009 and incorporated BPN in 2011. Lastly, BPI is a medium-sized institution. In the third period this SG is composed of Novo Banco, which is a large institution.

Table 9 and 10 display the average values of the strategic and economic and financial ratios over time.

The main Portuguese private banking institutions display different behaviors: BPI is part of the strategic group classified as Undefined Banking whilst BCP and BES are part of Traditional Banking.

In the characterization of the composition of the Strategic Groups (Tables 11, 12, 13 and 14) the proposal of Reger and Huff (1993) was used when characterizing the composition of the strategic groups, obtaining SGs according to their structure, distinguishing the following corporate features within the same strategic group: “core” [0;5[; “secondary” [5;10[; “transient” [10;15[; “misfit” [15;20[ and, lastly, “idiosyncratic” [20;+∞[, through the average Euclidean square distance seen among individual players. Table 13 provides an analysis of the characterization of the composition of SGs in the period under analysis.

Table 11 allows us to compare the square of the Euclidean distances of the strategic group of Universal Banking, during 2008–2010. Banking institutions of Universal Banking should have developed similar strategies, with the exception of BPP, which presents higher values in most comparisons. Thus, BAC, BANIF, BBVA, CCCAM, DEUTSCHE, FINI and MG banks are classified as “secondary” institutions.

*Table 9. Characterization of average values of the strategic variables in strategic groups*

Strategic variables	Universal Banking	Traditional Banking	Specialized Banking	Undefined Banking	Average Value
V1 – Credit not represented by securities / Total Assets	0.681	0.553	0.204	0.273	0.285
V2 – Securitized and non-derecognized credit / Total Assets	0.041	0.049	0.000	0.031	0.020
V3 – Other credit and values (titles) / Total Assets	0.020	0.022	0.002	0.000	0.007
V4 – Overdue credit and interest loan / Total Assets	0.015	0.009	0.000	0.001	0.004
V5 – Provisions and Impairments / Total Assets	-0.007	-0.004	0.000	-0.001	-0.002
V6 – Call-Demand deposits / Total Liabilities	0.215	0.188	0.208	0.078	0.115
V7 – Term Deposits / Total Liabilities	0.252	0.158	0.000	0.092	0.084
V8 – Central Bank Resources / Total Liabilities	0.036	0.053	0.043	0.504	0.106
V9 – Total Assets <sup>(1)</sup>	8 249.2	74 633.9	6.095.5	742.7	14 953.5

Note: <sup>(1)</sup> Million Euros.  
Source: own elaboration.

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Table 10. Results of strategic groups

Variables	Universal Banking	Traditional Banking	Specialized Banking	Undefined Banking	Average Value
PBMF: Banking product / Financial margin	1.800	1.592	1.951	1.859	0.647
CPMF: Costs with Personnel / Financial margin	0.542	0.490	0.985	0.616	0.204
GGAMF: General administrative expenses / Financial margin	0.366	0.560	0.626	0.679	0.175
ROE: Return on Equity	0.064	-0.887	-0.133	0.049	-0.003
ROI: Return on Investment	0.004	0.000	-0.009	0.001	0.002
GAF: Degree of financial leverage	0.827	0.652	0.946	2.534	1.006

Source: own elaboration.

Table 11. Squared Euclidean distance in the Universal Banking SG

	BAC	BANIF	BBVA	CCCAM	DEUTSCHE	FINI	MG	BPP
BAC	–							
BANIF	9.045	–						
BBVA	4.911	13.236	–					
CCCAM	6.447	7.992	9.825	–				
DEUTSCHE	2.522	12.264	4.262	8.411	–			
FINI	8.341	3.622	9.030	5.665	11.630	–		
MG	4.632	2.565	9.367	4.797	6.157	4.867	–	
BPP	17.185	17.950	7.693	10.802	17.225	8.588	17.343	–

Source: own elaboration.

During the 2008–2010 period, the strategic group of Traditional Banking is composed by BES, CGD and BCP, which were classified as “core”. In turn, BST was classified as a “secondary” institution within this strategic group.

The strategic group of Specialized Banking is composed by BARCLAYS, BSNP, BF and ITAU, which can be classified as “secondary”.

Lastly, the strategic group of Undefined Banking, which can be difficult to describe, given its “evolution” during the two periods, is composed by two banking institutions: BIC and BPI. These can be classified as “transitional” during the first period.

Table 14 classifies strategic groups, selecting the following variables: number of entities, number of subsidiaries, and number of employees.

In summary, during 2008 to 2010, the national retail banking system was composed by three predominant strategic groups: Universal Banking, Traditional Banking, and Specialized Banking. The identified strategic groups of the Portuguese banking industry reflect the structure of the competitive model of the industry at that time. The Universal Banking strategic group is composed by eight institutions (seven which are characterized as “secondary” and one as “transient”). The Traditional Banking strategic group

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Table 12. Squared Euclidean distance in the Traditional Banking SG

	BES	CGD	BCP	BST
BES	–			
CGD	3.880	–		
BCP	2.937	2.565	–	
BST	7.273	7.104	6.356	–

Source: own elaboration.

Table 13. Characterization of the composition of strategic groups in the period under analysis

Classification	Universal Banking	Traditional Banking	Specialized Banking	Undefined Banking
Core	– <sup>(1)</sup>	BCP; CGD; BES	– <sup>(1)</sup>	– <sup>(1)</sup>
Secondary	MG; BAC; FINI; CCCAM; BBVA; DEUTSCHE; BANIF	BST	ITAU; BARCLAYS; BF; BSNP	– <sup>(1)</sup>
Transient	BPP	– <sup>(1)</sup>	– <sup>(1)</sup>	BIC; BPI
Misfit	– <sup>(1)</sup>	– <sup>(1)</sup>	– <sup>(1)</sup>	– <sup>(1)</sup>
Idiosyncratic	– <sup>(1)</sup>	– <sup>(1)</sup>	– <sup>(1)</sup>	– <sup>(1)</sup>

Note: <sup>(1)</sup> no data.

Source: own elaboration.

is composed by three institutions which are very close to the “core”. The Specialized Banking strategic group is composed by four institutions which are characterized as “secondary”.

The challenging conditions faced by the Portuguese economy conditioned the competitive strategies of banks and caused a reorganization of strategic groups of the retail banking. This effect is significant in what concerns the Undefined Banking strategic group, composed by BIC and BPI, with an undefined competitive strategy.

Table 14. Classification of strategic groups

Strategic Groups	Number of entities	Number of Branches <sup>(1)</sup>	Number of workers <sup>(2)</sup>	Total Assets <sup>(3)</sup>
Universal Banking	8 <sup>(4)</sup>	1 793 <sup>(4)</sup>	112 025 <sup>(4)</sup>	65 993.4
Traditional Banking	4	3 159	27 816	330 095.4
Specialized Banking	4	251	2 456	24 382.0
Undefined Banking	2	1 130	7 281	43 816.6

Note: <sup>(1)</sup> national geographic coverage; <sup>(2)</sup> Number of workers in Portugal; <sup>(3)</sup> Million Euros; <sup>(4)</sup> Finbanco was acquired by Montepio in 2010.

Source: own elaboration.

## CONCLUSION

This chapter allowed us to characterize the retail banking industry in Portugal and identify the main SGs and, consequently, its direct or potential competition. It was possible to analyze several entities at once, assessing the effectiveness and efficiency of the banking strategies, as well as the consequences of a specific strategic decision or of any collective movement from the members of a strategic group. This information provides managers with an outlook on competitive actions of members from the several SGs, thereby allowing them to establish any defensive or offensive positioning.

In this context, one can argue that it is possible to obtain a strategic vision of the relative positioning of players in the sector through the SGs analysis, providing them with a systematic assessment process of the strategic ability, taking into account their competitive advantages.

It was possible to conclude that: banking institutions have different competitive strategies; strategic groups do not have similar resources; and strategies also differ between SGs. The selected variables reflect the strategic actions of retail banking during the period under analysis, and it can be argued that retail banking in Portugal has clear differences among players over time.

SGs reflect the competitive structure of the national retail banking industry. The main limitation of this chapter is related to the short time horizon analyzed: only the years 2008, 2009, and 2010, were a period of volatility of the Portuguese economy, in general, and of the banking industry, in particular.

Finally, we have to consider that in future empirical investigations we must evaluate the decomposition of the credit variable not represented by securities, composed of credits to companies, consumption and housing over total assets. It will also be important to assess the effect of inflation and risk on equity accounting valuations and their benefits.

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## KEY TERMS AND DEFINITIONS

**Cluster Analysis:** Is a data mining technique that groups together a set of objects or firms in such a way that objects or firms in the same group (called a cluster) are more similar (in some sense) to each other than to those in other groups (clusters).

**Competitive Advantage:** Is the advantage a firm has over its competitors, which allows the firms to outperform its competitors and thus generate more revenues. The firm with a competitive advantage has an edge over the rivals, which is based on unique resources or capabilities, which allow it to generate more value to the shareholders. The main sources of competitive advantage may be patents, strong distribution network, innovative culture, stronger new product development capabilities, cost-efficient production systems, etc.

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**Competitive Dynamics:** Is the set of actions and reactions in a competitive business environment that rival firms display. The action of an individual firm becomes the key indicator of competitive dynamics as each rival firm enacts this action in order to enhance its competitive advantage *vis-à-vis* its competitors.

**Competitive Rivalry:** Occurs when two or more firms try and garner favorable market position over its competitors.

**Industrial Organization School:** Is concerned with the use of economic analysis in studying competition between firms and the evolution of market structure.

**Strategic Group:** Is a management concept that separates groups of firms within the same industry with similar characteristics, strategies, business models from those with different characteristics, strategies, business models. As a result, strategic groups, within an industry, can be grouped as a dimensional homogeneous construct.

**Strategic Management School:** Is concerned with the formulation and implementation of the major goals and initiatives taken by an organization's top management, taking into account the resources, competencies and capabilities of the firm and the match of those internal resources to the external environments in which the firm operates.