CONSEQUENCES OF THE GREEK ECONOMIC CRISIS ON THE STRUCTURE OF THE GREEK BANKING SYSTEM[1]

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Abstract

The Greek banking market developed considerably after the accession of Greece to the Eurozone, which was reflected on the growth of number of banks, banking network and number of employees. The application of the austerity program in Greece had serious consequences on the Greek banking market. These consequences can be witnessed in the dramatic increase of non-performing loans, the reduction of banks operating in Greece due to mergers and acquisitions, bank bankruptcy and withdrawal of foreign banks. All these resulted in Greece having the most concentrated banking market in the Eurozone. The reduction of the number of banks operating in Greece led to the closing of bank branches and dismissal of employees. Nevertheless, some aggregates seem to benefit the remaining banks in Greece. The ratios of deposits per branch and employee and in particular the ratios of loans per branch and employee have a positive impact on the productivity of the banks.

Keywords: Acquisitions, Banks, Greece, Mergers

JEL Classification: G01, G21, G33, G34

1. Introduction

The crisis Greece has faced for almost a decade, just after the global financial crisis, was not, initially, triggered by a banking crisis, as in the other countries, see particularly the Irish case, (Whelan, 2013). Greek banks avoided participating in high risk banking activities,

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following a more conservative policy. For example, in the case of Barclays Bank, in the period 2017-2018 the derivative financial products present on average 32% of assets against 33% for loans and advances to customers. In the case of Alpha Bank, in the same period, the derivative financial products present on average only 1% of assets against 63% of loans and advances to customers, (see Karafolas, 2019). The Greek crisis was caused by the high public debt and public deficit (see Table 1), since the global financial crisis prevented the financing of the Greek debt by private investors or, if this was done, it was at a very high cost.

The Greek governments had to ask for the financial support of the European Union and the International Monetary Fund (IMF), resulting in the Greek economic adjustment program, which was part of the Memorandum of Understanding (MoU) signed between Greece and its lenders, (see Bank of Greece 2014). This program required an austerity policy with the aim of reducing deficits and hence reducing the public debt in the long run. The program was carried out under the auspices of the IMF, the European Commission and the European Central Bank.

The macroeconomic consequences of this policy appear on the Table 1. Long after the international crisis, the Greek economy suffers from a continuing economic downturn that is evident on the reduction of the Gross Domestic Product (GDP), investments and consumption and, on the other spectrum, on the rise of unemployment and non-performing loans (Table 1). The Greek banks were adversely affected directly, through the non-paid loans, or indirectly, as a consequence of the general economic recession of the country.

Table 1

Evolution of macroeconomic indicators (rate change, %)

	2009	2010	2011	2012	2013	2014	2015	2016	2017
1. GDP	-2,3	-4,2	-9,2	-7,3	-3,2	0,7	-0,4	-0,2	1,5
2. Private consumption	-1,8	-4,1	-9,9	-7,9	-2,6	0,6	-0,2	0	0,9
3. Public consumption	7,6	-9	-7	-7,2	-6,4	-1,4	1,6	-0,7	-0,4
4. Investments	-11,4	-17,4	-20,7	-23,4	-8,4	-4,7	0,7	4,7	9,1
5. Percentage of Unemployment	9,6	12,7	17,9	24,4	27,5	26,5	24,9	23,5	21,5

	2009	2010	2011	2012	2013	2014	2015	2016	2017
6. Non-performing to total loans	7,7	10,5	15,9	22,5	31,2	35	35,7	46,3	43,1
7. Public Debt/GDP	127	146	172	159	177	179	176	178	176
8. Public Deficit/GDP	-15,2	-11,2	-10,2	-8,8	-12,4	-3,6	-5,6	0,5	0,8

Source: Bank of Greece, 2016 and 2018 and Bank of Greece, 2017a, (author's calculations), Eurostat, 2018, Bank of Greece, 2018a

The consequences on the banking structure were immediate and multiple. They were reflected on the recapitalization needs, or even on the bankruptcy of banks, which in turn led to the shrinking of the number of banks, the banking network and employees. This study focuses on some of these issues and in particular on the evolution of the banking market by examining the acquisitions and mergers that took place before and during the crisis; most of them were the consequence of the recapitalization insufficiency, even the bankruptcy of small banks. This regression has led to the biggest concentration of the banking market in the Eurozone. After the introduction, the first section examines the course of mergers and acquisitions in the banking market; the second section discusses the evolution of the banking network and the third section the consequences of the banking restructuration, followed by the conclusions of the paper.

2. Evolution of banking market: mergers and acquisitions

The beginning of the 1990s was characterized by the liberalization of the Greek banking market and the set-up of new banks. During this decade, and, in particular the first half of the decade, mergers and acquisitions involve small banks; in the second half, this situation is more serious, and it involves big banks (Table 2 and Athanasoglou and Brisimis, 2004). In the first decade of 2000, another significant movement of mergers and acquisitions took place. It involves Greek and foreign banks as well and it is connected with the accession of Greece to the Eurozone and the opportunities that it creates for the financial sector. It reflects the banking policies for their development in this environment. The cases of Piraeus Bank and Eurobank are quite characteristic, as is this of Alpha Bank that acquired a major competitive bank, Ionian Bank, Table 2. Another important example is that of the acquisition of two major Greek banks by two

French ones; Credit Agricole acquired Emporiki Bank and Société Générale acquired General Bank, Table 2.

From 2011, one year after the MoU, another wave of mergers and acquisitions took place. The new one differs from the past. During this period the banking market is adversely affected by the economic recession, the non-performing loans and, as a consequence, the need of recapitalization and the bankruptcy of several small banks considered minor for the economy; see the list of significant banks for the economy at European Central Bank, (2017). In the Greek case, four banks, Alpha Bank, Eurobank, the National Bank of Greece and Piraeus Bank are considered significant for the economy; therefore, they received the support from the Hellenic Financial Stability Fund (Bank of Greece, 2012) in order to ensure their capital increase and thus achieve recapitalization. This public support was refused to the minor banks; these banks had to cover their capital needs through their own means and the private market. A lot of them did not succeed and the Bank of Greece revoked their license. The Bank of Greece decided to sell the performing loans of these banks to other banks. The consequences appear on the Table of mergers and acquisitions from 2011 to 2015, Table 2. This phenomenon particularly affected cooperative banks since 7 of them went bankrupt and their performing loans were sold to other major banks; thus, three cooperative banks were sold to Alpha Bank, four others were sold to the National Bank of Greece while the Piraeus Bank acquired the PanHellenic Bank, a stock company created by Greek cooperative banks and received the support of the German cooperative bank, DZ Bank, which possessed, since 2005, 10% of Pan Hellenic's stock capital (Karafolas, 2016). The Bank of Greece revoked the license of some other small banks but also of two state banks, the Agricultural Bank of Greece and the Post Bank; performing loans were sold to the major banks, Alpha Bank, Eurobank, National Bank of Greece and Piraeus Bank, Table 2.

Table 2

Merges and acquisitions in the Greek banking market

Year	Acquiring bank	Acquired bank
1991	Group of investors	Piraeus Bank
1993	Hanwha First Investîmes	Bank of Athens
1996	Eurobank	Interbank
1997	National Mortgage Bank	Housing Bank
1997	Piraeus Bank	Chase Manhattan (*Greek network*)
1998	Piraeus Bank	Macedonia and Thrace Bank
		Crédit Lyonnais (*Greek netowrk*)
		Chios Bank
	Eurobank	Bank of Athens
		Bank of Crete
	Egnatia Bank	Bank of Central Greece
	National Bank of Greece	National Mortgage Bank
1999	Piraeus Bank	National Westminster (*Greek netowrk*)
	Alpha Bank	Ionian Bank
	Telesis Finance	Doriki Bank
	Eurobank	Ergasias Bank
2001	Eurobank Ergasias	Telesis Finance
	Marfin Financial Group	Piraeus Prime
	First Business Bank	Nova Scotia (*Greek netowrk*)
	Piraeus Bank	ETBA
2002	National Bank of Greece	ETEBA
	Aspis Bank	ABN AMRO (*Greek retail network*)
2003	Marfin Financial Group	Investment Bank of Greece
2004	Societe Generale	General Bank
2006	Proton Bank	Omega Bank
	Marfin Financial group	Egnatia Bank
	Credit Agricole	Emporiki Bank
2011	Post Bank	T Bank
	Piraeus Bank	Agricultural Bank of Greece
		General Bank
2012	National Bank of Greece	Ahaiki Cooperative Bank
		Cooperative Bank of Lamia
		Lesvos-Limnos Cooperative Bank
2013	Alpha Bank	Emporiki Bank
	Piraeus Bank	Bank of Cyprus
		Cyprus Popular Bank
		Hellenic Bank
		Millenium Bank
	Alpha Bank	Cooperative Bank of Dodecanese
		Cooperative Bank of Evia
		Cooperative Bank of West Macedonia
	National Bank of Greece	FBBank
	Eurobank	New Proton Bank
		New Post Bank
2015	Piraeus Bank	PanHellenic Bank
	National Bank of Greece	Cooperative Bank of Peloponnese

Source: Karafolas, 2018

A main consequence of the acquisitions during the crisis period was the massive concentration of the Greek banking market. At the beginning of the crisis the Greek banking market was characterized by significant concentration, (five bigger banks controlled 70% of total assets); the acquisitions during the crisis period resulted in four big banks controlling 97% of the banking market at the end of 2017, Table 3. In the same period in the Eurozone the share of the total assets of the five largest credit institutions never surpass 50% of the market, even if a marginal increase appears this period, Table 3.

Table 3

Share of total assets of five largest credit institutions

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Eurozone	44	44	47	47	47	47	48	48	48	
Greece	70	69	71	72	79	94	94	95	97	97

** Only for Greece, European Central Bank, 2018*

Source: European Central Bank, 2017a

3. Consequences on the banking network and employees

The shrinking of the banking network and banking employees appears on Table 4 and it is the result of at least the following reasons: a/the recession of the economy that limited the banking activities; b/the result of the acquisitions and the necessity of a geographic restructuring of the network; c/ the bankruptcy of several banks that had to close off their branches and to lay off their employees or to have them be recruited by the acquiring banks; d/the withdrawal of foreign banks.

On the first reason, all macroeconomic aggregates have fallen dramatically during the crisis period, as it appears on the table 1. Furthermore, banks suffer from the non-performing loans that affected the banking transactions and capital needs. On the second reason, acquiring banks had to deal with the problem of the network implantation; in most cases banking branches of acquiring and acquired banks were very close in the same geographic area. The question that was raised was whether two branches of the same bank should be located in the same place. Banks decided to close one or more branches placed in the same area. Bankruptcy and withdrawal of banks appear on the number of banks, Table 4. In 2010, the first year of the MoU, the number of banks registered was 37 against 52 one year earlier. 23 banks were in function in 2013 and since 2016 there are only 16. As a consequence, in 2010 the banking network experienced a downward trend for the first time; this trend characterized the crisis period, Table 4.

Table 4

Banking network end employees in Greece

	Number of banks *	Athens area	Thessaloniki area	Rest of Greece	Total Branches	Total employees
2001	59	1.182	308	1.610	3.100	59.636
2002	59	1.231	379	1.650	3.260	60.338
2003	58	1.244	339	1.686	3.269	60.531
2004	61	1.293	341	1.741	3.375	59.631
2005	61	1.430	404	1.658	3.492	60.138
2006	61	1.533	429	1.748	3.710	61.775
2007	57	1.522	392	1.806	3.720	64.350
2008	56	1.656	405	2.004	4.065	65.304
2009	52	1.684	406	2.008	4.098	64.635
2010	37	1.582	387	1.961	3.930	61.274
2011	37	1.568	390	1.942	3.900	57.737
2012	35	1.430	358	1.827	3.615	55.878
2013	23	1.213	303	1.499	3.015	51.072
2014	23	1.046	263	1.380	2.689	45.254
2015	17	993	247	1.290	2.530	45.266
2016	16	893	223	1.206	2.322	41.211
2017	16	808	210	1.143	2.161	41.441

** Not including Bank of Greece*
Source: Hellenic Bank Association, 2018, Association of Co-operative Banks of Greece, 2018, (author's calculations)

In 2010 the shrinking is related to the bankruptcy of small banks, in particular Aspis Bank and the withdrawal of foreign banks, most of which had branches in Athens; thus, the network in the area of Athens presents the bigger fall on banking branches, Table 4. On the contrary, in 2012-2013 the bankruptcy of cooperative banks provoked the shrinking of branches especially in the rest of Greece, (other than

Athens and Thessaloniki area), since cooperative banks are mainly regional banks outside Athens and Thessaloniki (see Karafolas 2016).

The same trend was observed in the number of banking employees. The reduction in the number of banks caused the reduction of employees, Table 4. In 2013, 2014 and 2016 the four major banks in Greece implemented voluntary retirement schemes for the rest of the period, till 2017. The consequences are reflected on the consecutive fall in the number of employees in 2013 and 2014 and then in 2016, Table 4.

4. The banking restructuration, some positive results for the banks

A dynamic boost of the economy which would lead the banking market to growth rates is still absent. Nevertheless, some banking indexes have been favoured by the banking restructuration; this is quite obvious on employee productivity if we examine the course of loans and deposits per employee; it is the same for the course of the same aggregates per branch.

In Table 5 we observe the evolution of loans in the private sector and deposits in credit institutions. A decline of loans is observed since 2011, which continues for the rest of the period. A more serious fall regarding the deposits, is observed in the same period; it begun with a significant fall in 2010 and 2011, followed by another serious fall in 2015. However, a different situation is observed in terms of deposits and loans per banking branch and employee, Table 5 and figures 1, 2, 3 and 4.

Table 5

Evolution of deposits and loans, in total and per employee and branch (millions of euros)

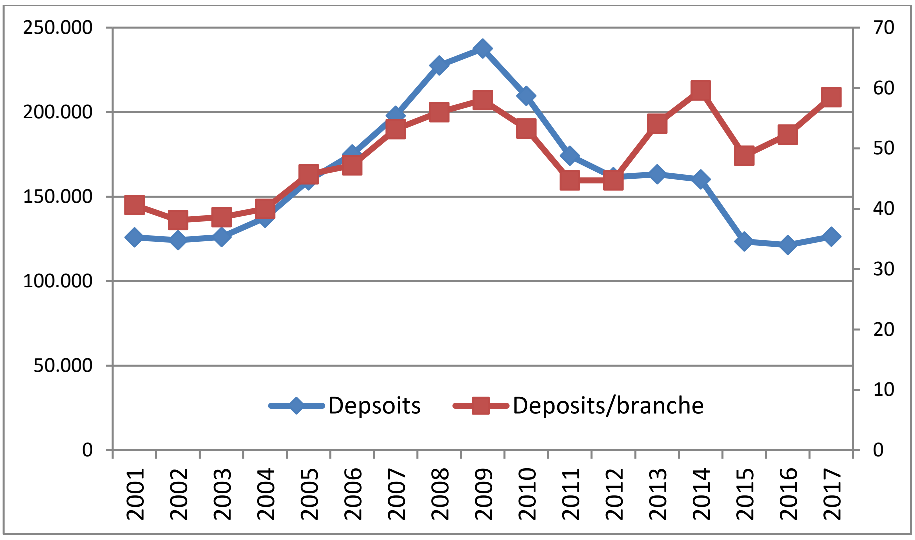
	Deposits	Loans to private sector	Deposit/branch	Deposit/employee	Loans/ branch	Loans/ employee
2001	125.962	74.601	40,6	2,1	24,1	1,3
2002	124.240	87.177	38,1	2,1	26,7	1,4
2003	126.152	103.848	38,6	2,1	31,8	1,7
2004	137.532	123.754	40,8	2,3	36,7	2,1
2005	159.581	149.639	45,7	2,7	42,9	2,5
2006	174.937	179.158	47,2	2,8	48,3	2,9
2007	197.929	215.088	53,2	3,1	57,8	3,3
2008	227.620	249.324	56,0	3,5	61,3	3,8
2009	237.531	249.321	58,0	3,7	60,8	3,9
2010	209.604	257.474	53,3	3,4	65,5	4,2
2011	174.227	248.146	44,7	3,0	63,6	4,3
2012	161.451	227.263	44,7	2,9	62,9	4,1
2013	163.251	217.518	*54,1*	*3,2*	72,1	4,3
2014	160.285	211.637	*59,6*	*3,5*	78,7	4,7
2015	123.377	203.927	*48,8*	*2,7*	80,6	4,5
2016	121.381	194.749	*52,3*	*2,9*	83,9	4,7
2017	126.346	183.562	*58,5*	*3,0*	84,9	4,4

Source: Hellenic Bank Association (2018); Bank of Greece, 2018b, 2018c, (author's calculations)

The serious decline of deposits is not followed by an analogous fall of deposits per branch and per employee. A gap appears in the evolution between the total deposits and these per branch and employee in the crisis period, while the period before a very similar evolution is observed (see figures 1 and 2). Therefore, banks have benefited from the decline in the number of employees and branches. This advantage is even more obvious in the case of loans, since the gap between the two categories of aggregates, loans and loans per branch and per employee, deepens in the period of the crisis. During the crisis period, the ratios loans per branch and loans per employee are the higher during the examined period, 2001-2017 (see figures 3 and 4).

Figure 1

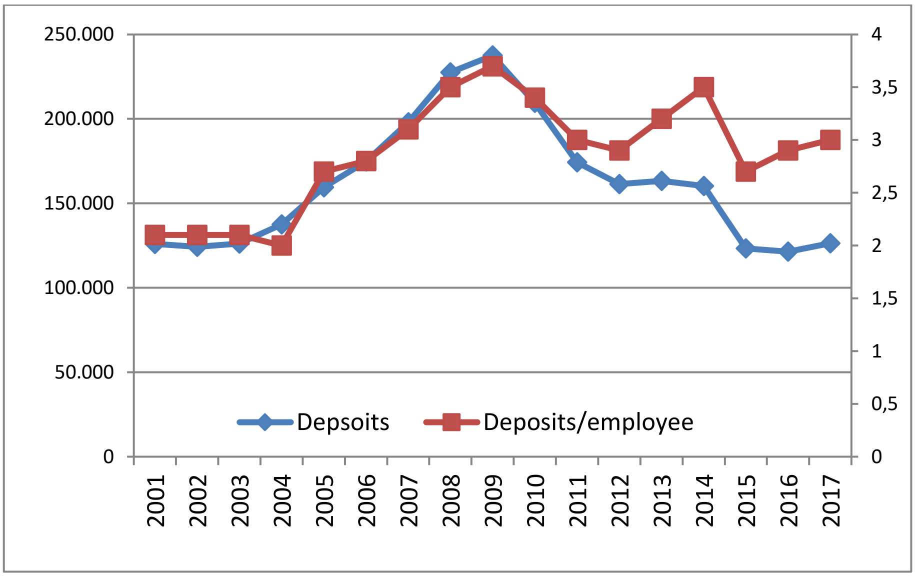
Evolution of deposits and deposits/banking branch (mil. EUR)



Source: Table 5

Figure 2

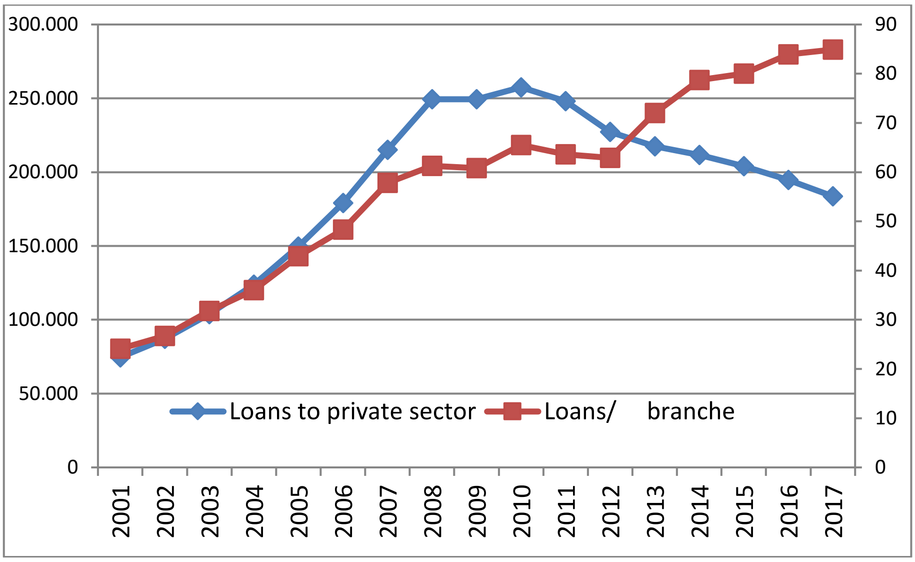
Evolution of deposits and deposits/banking employee (mil. EUR)



Source: Table 5

Figure 3

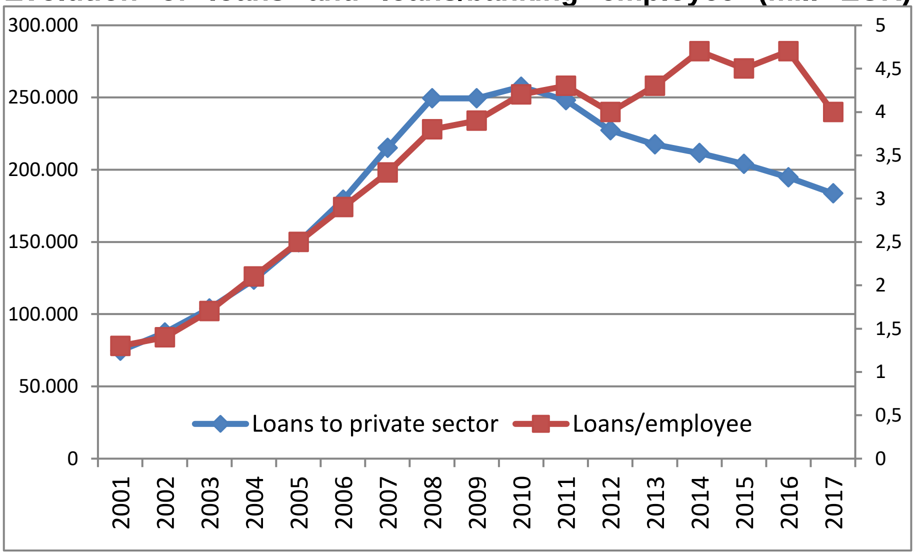
Evolution of loans and loans/banking branch (mil. EUR)



Source: Table 5

Figure 4

Evolution of loans and loans/banking employee (mil. EUR)



Source: Table 5

5. Conclusions

The global financial crisis was transformed into an economic and social crisis in Greece because of the austerity program and had a strong impact on the Greek banking market.

During the period 2001, (entry of Greece to the Eurozone), to 2009, (last year before Greece signed the MoU), more than 50 banks operated, Table 4. The year Greece signed the MoU in 2010, the banks operating in Greece were no more than 37. In the period that followed, the number of banks operating in Greece fell further, rising to 16 in 2017. Before the crisis, Greek banks followed a policy of development through mergers and acquisitions; this policy was necessary for new operating banks as Piraeus Bank and Eurobank. This policy would help to achieve the targets of better economies of scale and efficiency but also a better placement in the market. In some cases, mergers and acquisitions seemed to focus on a complementary policy; in some others it was the result of a much more aggressive policy, as in the case of the acquisition of the Ionian Bank by the Alpha Bank. The crisis changed the market's environment. The need for recapitalization, the bankruptcy especially of small banks and the withdrawal of foreign banks from the Greek market changed the characteristics of mergers and acquisitions. In most cases they seemed to have a crucial effect to the benefit of the four important for the economy banks, which received the public financial support for their recapitalization. The mergers and acquisitions created the most concentrated banking market in the Eurozone, since the four systemic banks possess 97% of the total assets of the Greek banking market. These developments are reflected on the banking network since the continuous growth of the number of branches till 2009, with 4.098 branches, was followed by a strong shrinking of the banking network, resulting in only 2.161 branches on 2017; that is a loss of 1.927, almost by half compared to 2009. The same applies to the employees, since the steady increase has been followed by a sharp decline of 23.194 banking employees since 2009 that is almost 36% of employees in 2009. This development benefited the remaining banks, which presented a bigger productivity if we compare the evolution of deposits and particularly the course of loans per branch and employee during crisis.

The huge concentration of the Greek banking market is not without risk for the national economy. In the event of difficulties, even for one of the systemic banks, the impact will be direct on the economy, as in the case of Ireland where the Irish government that had to rescue its financial system, (O'Sullivan K.P.V. and T. Kennedy, 2010). Further, since the financing of the economy depends on four banks, these banks are able to impose their own policy on the funding of the national economy. Focusing on the consequences of Greek crisis on the banking market other issues affecting the evolution of this market did not considered; for example, technological advances, as e-banking. This is a limitation of the study. In any case, the crisis had dramatic consequences on the banking market that outweigh any technological influence during this particular period in Greece. The Greek case may be an example for other countries with similar characteristics such extended public debt and increase of non-performing loans. The Greek case can be particularly illuminating on the consequences for the banking market and should lead to fiscal, financial and regulatory policies that will prevent such problems from arising.

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