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BASEL III, THE FISCAL CRISIS AND THEIR CONSEQUENCES ON THE GREEK BANKING SECTOR

Abstract

The need for tighter and more robust supervision of the global financial system was apparent long before nowadays economic crisis burst out. Although Basel I was the cornerstone of the first effort for the imposition of international regulations to banks, soon it was outrun being substituted by Basel II. The economic shock of 2007 financial crisis led the Committee of Banking Supervision of Basel to a new global regulatory framework for the banking system, aiming to strengthening it against future financial crises. In November 2010, a revised Pact of Basel II, named Basel III, was presented to the Seoul G20 Leaders' Summit. Basel III represents a fundamental strengthening of global capital standards. Together with the introduction of global liquidity standards, the new capital standards deliver on the core of the global financial reform agenda. It is argued that the implementation of Basel III will considerably increase the quality of banks' capital and significantly raise the required level of it. In addition, it will provide a „macro prudential overlay" to better deal with systemic risk. Finally, the new package will allow sufficient time for a smooth transition to the new regime. During the last years the Greek banking system has been found itself in the middle of a turmoil bearing successive shocks; first the global financial crisis and later on a side effect of it: Greece's debt crisis. This paper discusses the future implementation of the newly introduced Basel III into a unique context: Can Basel III secure the congruous operation of the banking system in periods of severe fiscal problems?

JEL classification code: G01, G21

Keywords: Banking Supervision, Basel III, Bank Regulation, Greece.

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The consequences of a financial crisis: Making banking supervision more rigorous

Since July 2007, the world has been facing the most serious economic crisis after the Great Recession of 1929. The main cause of the financial crisis was the real estate price bubble in the U.S.A. which was accompanied with the crisis in the market of high risk mortgage loans (Edward, 2010). The financial services market began to shake while some financial institutions were exposed to complicated structured products (Petsas, 2009). The breaking to pieces of the supervising authorities in the U.S.A. did not allow the direct diagnosis of the crisis and the prompt and effective co ordination for the crisis's confrontation. The crisis soon passed on the other side of the Atlantic with Northern Rock, an investment bank of the United Kingdom, being its first victim. The global financial crisis brought on several discussions about the strengthening of the global banking system. In one of these, in 2010 G20 Leaders' Summit in Seoul, a revised pact of Basel Accord II was presented „Basel Accord III". Basel III is comprised of structural elements agreed by the G-20 leaders and published by the Committee of Banking Supervision of Basel[1]. The basic scopes of these structural elements – measures are[2]:

1. The improvement of the banking sector ability to absorb the vibrations that emanate from financial and economic pressure, independently of its source.
2. The improvement of risks management and governing.
3. The enhancement of transparency and banks' notifications.

The new Basel Accord III

Basel III is referred to a combination of the revised Basel II framework and the new world models of capital. The application of Basel III aims to increase considerably both the quality of banks' capital and the required level of it. It also intends to reduce the systemic risk. The key measures of Basel III for the banking supervision are (Caruana J., 2010):

Better quality of banks' capital: The new Basel Accord III will increase considerably the quality of banks' capital. This crucial feature tends to be forgotten because observers are focused mainly on the level of regulatory capital that is required by the new Basel Accord III. The new definition of capital is as significant as the increased level of capital. Higher quality of capital means more loss – absorbing capacity, which in turn means that banks will be stronger, allowing them to better withstand financially stressed periods.

[1] The Basel Committee's response to the financial crisis: report to the G20 (2010).

[2] International regulatory framework for banks (Basel III).

A basic element is the greater focus on what is called common equity; that is the highest-quality component of a bank's capital. According to the current standards banks are supposed to possess at least half of their regulatory capital as Tier 1 capital. The rest is made up of other elements of loss-absorbing capacity. The definition of common equity under Basel III is becoming stricter. According to the present system, certain types of assets of doubtful quality have already been removed from the capital base. In the frame of Basel III, these removals will be more stringent, since they will be applied directly to common equity. This represents an important strengthening of the definition of the highest banks' capital quality. And, moving on a step further, the definition of Tier 1 capital has also strengthened so that it includes common stocks and other financial instruments based on strict criteria. By strengthening the quality of capital, the new Basel Accord III will lead to a substantial improvement in the loss-absorbing capacity of banks.

Increased required level of capital: Equities are constituted by various financing means with special characteristics and they mainly have the capacity for absorbing damage (Zakka, 2010). It is known that the equity of credit institutions is the base of their robustness. It is, therefore, very important they are sufficient both in terms of quantity and quality. According to Basel III rules, banks should over-double their regulatory capitals. Nevertheless they are given an eight years deadline in order to conform to the new rules. Taking into account the present statements, the banks are asked to reach their final regulatory capital (Core Tier 1) up to 7%, by the 1st January 2019, which will include a minimum common equity requirement of 4.5% and a „cushion of equity" of 2.5% (Kourtali, 2010). As a result, the banking system will be able to withstand possible future periods of stress.

Reduction of systemic risk: The third essential element of the new regulatory capital framework is that it provides what could be called a „macroprudential overlay" for the confrontation of the systemic risk; that is the risk of financial system disruptions that can deregulate macro economy. In order to be sure, individual banks with better capitalisation will lead to a more powerful banking system, but this firm-specific approach by itself may not be sufficient. This is because the risk posed by the system is bigger than the total risk of individual banking institutions. That became particularly obvious during the financial crisis in 2007.

According to the Bank of International Settlements (Caruana, 2010) there are two basic tasks that should be pursued in order to limit effectively the systemic risk. The first is the reduction of procyclicality, which is the tendency of the financial system to amplify the ups and downs of the real economy. The second is to take into account of the inter-linkages and common exposures among financial institutions, specifically for those considered to be systemically important.

Basel III represents a fundamental turning point in the design of financial regulation. It is the first time that the conscious need to supplement the micro-

economic level of financial supervision with the macroprudential dimension finds expression in financial regulation. On the pro-cyclicality aspect Basel III will promote the creation of buffers in good times, which might be used in periods of stress. First, the new requirement for common equity is 7%. This new higher level includes the capital conservation buffer of 2.5% and will ensure that the banks maintain a buffer of capital, which can be used for the absorption of losses during periods of stress without going below the minimal capital requirements. Second, a basic element of Basel III rules to limit procyclicality will be the countercyclical capital buffer, which will rage from 0% up to 2.5%. This buffer would be built up during periods of rapid total credit growth, if, according to national authorities, this growth is increasing the systemic risk. On the contrary, the capital that is held in this buffer could be released in periods of downturn of the cycle. This would decrease the risk that available credit could be constrained by the regulatory capital requirements. The intention is to mitigate procyclicality and moderate the impact of the ups and downs of the financial cycle. Apart from addressing pro-cyclicality, Basel III will also allow for a better management of the systemic risk, due to the inter-linkages and common exposures among the individual credit institutions.

The administrative Board of Financial Stability and the Basel Committee are exploring several measures to deal with these systemically important financial institutions. The new Basel Accord III includes specific macroprudential tools, which the national supervisors can use to establish concrete capital requirements, in order to face the systemic risk over time and across institutions.

Sufficient time for a smooth transition to the new regime: The Basel Committee has stated that the reforms will be applied in such a way that does not impede the economic recovery. However, time is required for these new internationally agreed standards to be introduced in the national legislation. In this spirit, on 12 September 2010 the Basel Committee announced a sequence of transitional arrangements for the new standards. National authorities can and indeed, should impose higher standards, if it is required from the local conditions and from the prevailing economic conditions. Similarly, they can impose a shorter transition period whenever this is necessary. The new definition of capital will be effective from January 2013 while the higher minima for common equity and Tier 1 capital will be gradually adopted from January 2013. Tables 1 and 2 show the scheduled time plan.

Table. 1. Transition period for capital requirements

	before 2013	01.01.2013	01.01.2014	01.01.2015
Tier 1 Capital	4.0%	4.5%	5.5%	6.0%
Core Tier 1	2.0%	3.5%	4.0%	4.5%

Table. 2. Transition period for capital conservation buffer

	before 2016	01.01.2016	01.01.2017	01.01.2018	01.01.2019
Capital conservation buffer	0.0%	0.625%	1.25%	1.875%	2.5%

The Greek Banking Sector in Turmoil: What does the future brings?

The Greek banking sector can be characterized as one of the most active and dynamic sectors of the Greek economy. During the last two decades Greek banks have been undergone tremendous changes which led to the substantial expansion of their activities both inside Greece and abroad; especially in the South Eastern Europe. The deregulation and harmonization of European Union's banking/financial system, the privatization of the most state-owned Greek banks and the introduction of Euro in the beginning of the 21st century are just but a few factors which have created favorable conditions for the expansion of the Greek banks. A characteristic example is the evolution of interest rates (see Table 3). The introduction of a common currency in 2001 led to the rapid reduction of the interest rates which in turn led to higher net interest rate for the banks and consequently more profits, lower cost of borrowing, new investments and higher consumption amongst others. Figure 1 describes one of these favorable consequences. From 2001 until 2009 the aggregate actual consumption of individuals increased by almost 70%.

Today, however, the prosperous years of 00's are only a good memory. While these lines are being written, a super deal is being completed between the second and the third biggest Greek banks. The Boards of Directors of Alpha Bank and EFG Eurobank have come upon an agreement for the two banks being merged, forming a banking colossus in the South East Europe and one of the top 25 largest banking groups in Eurozone. The reasons that lead to this merger are far different from those led to a series of mergers and acquisitions during 90s. The merger is not a strategic movement for further expansion but simply a matter of survival: In the first half of 2011 the aggregate losses after taxes of the two banks reached €1.3bil. While the aggregate impairment losses on Greek Government's bonds net of taxes were more than €1.2bil. In addition, a few weeks before banks reported their interim financial statements, European Banking Authority stress tests[3] revealed inadequacies in EFG Eurobank's capital[4], speeding up the realization of last months' rumors of oncoming mergers among Greek banks.

[3] For a detailed discussion http://stress-test.eba.europa.eu/

[4] Vaughan et al (2011) characterize EFG Eurobank as one of the eight Europe's „problem children" due to the fact that it was found „…to have insufficient reserves to maintain a core Tier 1 capital ratio of 5 percent in the event of an economic slowdown".

Table. 3. Basic Interest rates for loans and deposits in the end of year

	1998	1999	2000	2001	2002	2003	2004
To Households							
For new deposits (without agreed maturity)	8.84	8.30	3.95	1.83	1.10	0.87	0.96
For new loans (without defined maturity)	22.35	21.91	17.80	15.39	14.54	14.08	13.41
To Non-Financial Corporations							
For new deposits (without agreed maturity)	3.57	3.57	2.07	1.18	0.74	0.59	0.55
For new loans (without defined maturity)	15.71	14.71	10.25	7.89	7.23	6.78	6.97
	2005	2006	2007	2008	2009	2010	2011a
To Households							
For new deposits (without agreed maturity)	0.91	1.14	1.23	1.24	0.43	0.44	0.47
For new loans (without defined maturity)	13.07	13.80	14.47	14.83	14.08	14.40	14.94
To Non-Financial Corporations							
For new deposits (without agreed maturity)	0.71	0.92	1.05	0.96	0.35	0.36	0.42
For new loans (without defined maturity)	7.00	7.35	7.56	7.13	5.81	6.79	7.59

Source: Bank of Greece Database.

At the same time, however, as Table 4 shows, Greek banks sufficiently cover the capital adequacy requirements not only of Basel II but also of the newly proposed Basel III. Moreover, the recent stress tests of the European Banking Authority showed that the three out of four major Greek banks (apart from EFG Eurobank) have strong enough capital position to absorb the economic shocks resulted from the designed adverse scenarios. Hence, taking into consideration the ongoing merger of EFG Eurobank with Alpha Bank, it could be claimed that the backbone of the Greek economy is resilient. However, such an argument would be at least superficial. Even though Greek banks have succeeded in reporting an adequate level of capital, a more precise look into their fundamentals reveal some, at least, unsettling facts. Further down the most important of those facts (namely profitability and performance, volume of deposits, credit growth and quality) are discussed.

Table 5 gives an illustrative picture of the deterioration of Greek banks' performance over the last few years. In 2008 the aggregate profits before taxes for all listed Greek banks (except for the Central Bank of Greece) dropped by 35% in comparison to 2007. In 2009 profits ware less than half of 2008 while in 2010 the banking sector on the Athens Stock Exchange (ASE) presented aggregate losses

of almost €283 mil. Moreover, the interim financial statements for the first six months of 2011 which were published in late August 2011 revealed that the results of the four biggest Greek banks would have been extremely negative even in case they had not had to recognize impairment losses on Greek Government's bonds. Specifically profit before taxes and before impairment losses on Greek Government's bonds net of tax would have been almost 90% less than in 2010 same period for Alpha Bank and National Bank of Greece, while Eurobank would have had to recognize losses of near €126 mil. It should be also mentioned that Piraeus Bank would have been the only one of the „Big 4" with relatively positive results; mainly due to the fact that it was the only one of the four banks which recognized impairment losses in the interim financial statements of 2010.

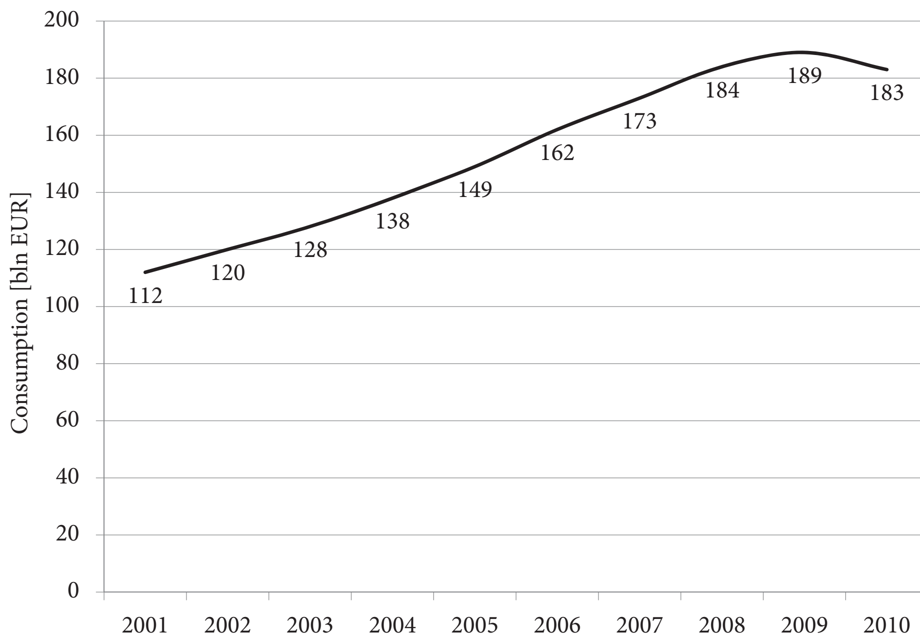

Fig. 1. Actual annual individual consumption (in bil. €)

Source: Hellenic Statistical Authority Database

Table. 4. Tier-1 capital adequacy ratio of the „Big-4" Greek banks under Basel II rules

	2008	2009	2010	2011a
Alpha Bank	8.0%	11.6%	11.9%	11.1%
EFG Eurobank	8.0%	11.2%	10.6%	11.6%
National Bank	10.0%	11.3%	13.1%	11.2%
Piraeus Bank	8.0%	9.1%	8.4%	8.6%

Source: Banks' Annual Financial Statements 2009, 2010 and Interim Financial Statements 2011.

Table. 5. Profit (Loss) before taxes of the „Big 4" Greek banks and of the banking sector (in mil. €)

	2005	2006	2007	2008	2009	2010	2011a
Alpha Bank	634.14	800.76	985.26	625.63	501.82	216.37	(511.03)
EFG Eurobank	676.00	832.00	1,050.00	818.00	398.00	136.00	(956.00)
National Bank	943.09	1,268.30	1,902.93	1,937.01	1,252.07	637.63	(1,280.83)
Piraeus Bank	304.62	556.55	785.31	385.79	286.62	10.75	(1,003.8)
Sector*	3,312.67	4,367.74	6,498.24	4,243.74	1,902.05	(282.85)	–

*Aggregate Results of the 14 Listed Banks on the ASE: ALPHA BANK, ATE BANK, ATTICA BANK, EFG EUROBANK, MARFIN POPULAR BANK, MARFIN EGNATIA, PROTON BANK, T BANK, GENERAL BANK, NATIONAL BANK, COMMERCIAL BANK. POST BANK, BANK OF CYPROUS, PIRAEUS BANK
Source: Corporate Benchmarking Financial Analysis Database, Hellastat Inc.

However profitability is not the only problem the Greek banks are facing. Another alarming issue is the steep decrease of domestic residents' deposits and repos. In an 18-month period (end 2009 – June 2011), Greek banks have lost almost 20% of their domestic deposits (Table 6). This loss is translated into absolute numbers as €22.5bil. and €25.5bil. in 2010 and the first six months of 2011 respectively. In this one and a half year companies' accounts present the most rapid drop as a percentage (almost 30%), while households' deposits present the most rapid drop in absolute numbers (more than €40 bil.).

Table. 6. Deposits and repos of domestic residents (in mil. €)

	2006	2007	2008	2009	2010	2011a
Households	141,070	158,414	185,424	196,860	173,510	156,116
Non-financial corporations	30,612	35,107	38,185	35,877	29,810	25,767
General Government	5,979	7,011	8,258	7,940	13,269	9,102
Insurance corporations	1,357	1,859	1,810	1,787	2,377	2,341
Other financial institutions	1,898	2,549	2,201	3,007	3,908	3,955
Total	**180,916**	**204,940**	**235,878**	**245,470**	**222,874**	**197,281**

Source: Bank of Greece Database.

The causes of this vicious circle of illiquidity in which Greek economy is entrapped are multiple. First, the uncertainty of the economic environment: The non-ending rumors for a possible default of Greece prohibit any capital inflow from foreign investments and also lead depositors to transfer their deposits to

„safer" economies abroad. In addition, the consecutive austerity measures of the Greek government and especially the increase of both indirect and direct taxes and salaries' cut off have reduced dramatically the consumption as well as the economic activity with the undesirable but also inevitable consequences of unemployment increase and further deposits decrease, since households have seen their real purchasing power to diminish, they tried to compensate it using their deposits. Hence, banks are watching their cash reserves to be substantially decreased having as a last resort of liquidity the European Central Bank.

Another negative aspect of the current condition of the Greek banking system is the cessation of lending activity. The total amount of credit to domestic private sector has remained almost stable for the last three and a half years following a 7-year period of rapid expansion in which the annual credit growth rate fluctuated between 16% and 21% (Table 7).

Table. 7. Credit to domestic private sector by domestic financial institutions (in mil. €)

	2001	2002	2003	2004	2005	2006
Private Sector	74,601	87,177	103,848	123,754	149,639	179,158
– Corporations	50,908	55,843	63,619	71,432	81,008	93,574
– Individuals	23,693	31,334	40,229	52,323	68,630	85,584
– Housing	15,516	21,060	26,589	33,843	45,187	56,909
– Consumer	7,852	9,755	12,385	17,025	21,794	26,540
– Other loans	325	518	1,255	1,455	1,649	2,135
	2007	**2008**	**2009**	**2010**	**2011a**	
Private Sector	215,088	249,324	249,321	257,474	253,102	
– Corporations	111,288	132,457	130,042	139,726	137,398	
– Individuals	103,801	116,866	119,280	117,747	115,704	
– Housing	69,075	77,386	80,225	80,155	79,442	
– Consumer	31,915	36,412	36,023	35,061	33,572	
– Other loans	2,811	3,068	3,032	2,532	2,690	

Source: Bank of Greece Database.

Beyond the above findings, it should be underlined the extreme increase of non-performing loans the last few years. Table 8 shows that from 2008 to 2010 the housing and business non-performing loans doubled while the respective consumer loans increased by 150%. The halt in credit growth as well as the increase of non-performing loans are two more factors aggravating the illiquidity problem of the Greek banking system. Moreover these two factors deteriorate the profitability of banks due to the fact that lack of credit growth means stagnation of turnover and increase of non-performing loans means increase of costs due to loans' write-offs.

Table. 8. Non-performing loans (NPLs)

	2006	2007	2008	2009	2010
Housing loans	3.40%	3.60%	5.30%	7.40%	10.00%
Consumer loans	6.90%	6.00%	8.20%	13.40%	20.50%
Business loans	6.00%	4.60%	4.30%	6.70%	8.70%
Total	**5.40%**	**4.50%**	**5.00%**	**7.70%**	**10.40%**
Accumulated provisions over NPLs	**61.80%**	**53.40%**	**41.50%**	**41.50%**	**44.70%**

Source: Bank of Greece Annual Reports 2006-2010

Last but not least, it should be underlined that neither Basel II nor Basel III capital adequacy requirements seem to provide strong enough assurance for appeasing markets' concerns for Greek banks' ability to cope with a possible hair cut of the Greek Government bonds. This is clearly evidenced by banks' market capitalization. Figure 2 shows the extremely negative pricing of the „Big 4" Greek banks' shares after October 2009. Specifically, from the end of 2009 until September 2011 Alpha Bank's, EFG Eurobank's, National Bank's and Piraeus Bank's stock prices have lost 84%, 88%, 79% and 89% of their market value respectively.

It is becoming clear from the previous analysis that Greek banks are facing severe problems, even though they fulfill even the newly proposed Basel III capital adequacy requirements. Hence, a question arises: does Basel III guarantee a safer banking system?

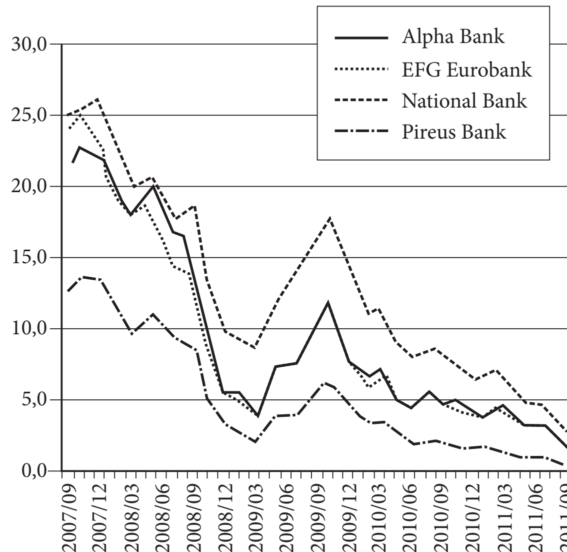

Fig. 2. Average daily stock prices of the „Big 4" Greek banks by month for the period September 2007 – September 2011 (in €)

Source: Athens Stock Exchange.

Does Basel III Guarantee a Safer Financial System?

According to Arestis and Karakitsos, the main causes of the „great recession" in the US are twofold, the significant redistribution of income from wage earners to the financial sector and the huge expansion of the liquidity in the world economy. During the period 1970-2007 the average fall of the wage share in five countries (USA, Japan, UK, Germany and France) was 10.5%, while the world liquidity between 1988 and 2008 increased from 8% to 19% of the world GDP. The income redistribution forced ordinary households to borrow and invest in financial and physical assets. This was made possible through financial liberalization and financial innovation (Arestis & Karakitsos, 2011).

Apart from these main causes there were also contributory factors: the international imbalances, mainly due to the growth of China, the monetary policy pursued by countries over the period leading to the crisis and the role played by the credit rating agencies. The role of the credit rating agencies as a basic source of information for investors, enterprises and organizations, forms an object of criticism from academics years ago.

Credit rating agencies, being unable to predict the increasing risk of the financial sector, which led to the 2008 crisis, compete among them to first predict risk undertakings leading to the next crisis. As they compose an oligopolistic market (there are only three firms: Moody's, Standard & Poor's and Fitch, accounting for the 95% of the world market), there is a high degree of interdependence among their decisions. Also, conflict of interests is another important feature of the credit rating agencies. In fact they receive most of their revenues from the issuers they rate. An effective regulative framework is necessary; otherwise their decisions contain the danger to be developed in self-fulfilled prophesies.

Suggested reforms of the financial sector are: credit rating agencies regulation, separation of commercial from investment banking and the break up of banks that are „too big to fail". Basel III does not face the „too big to fail" syndrome. The toxic leverage is highly probable, so the exposure of the banking sector to risk would be very high. Basel III is not by itself enough to correct the mechanism through which the main causes of the „great recession" emerged.

Conclusions

The implementation of Basel III will considerably increase the quality of bank's capital and will raise the required level of it. In addition it will provide a „macroprudential overlay" to better deal with systemic risk. Finally, the new package, will allow sufficient time for a smooth transition to the new regime. Today the Greek banking sector accepts strong pressure as a result of the fiscal crisis which has led to the downgrading of the financial credibility of the country.

The Greek banking system although fulfills the newly proposed Basel III capital adequacy requirements faces a number of serious problems such as profitability, volume of deposits, credit growth and an increasing amount of non-performing loans. Better banking regulation is critical but not enough. The promotion of financial stability requires a broad policy framework. A number of suggested reforms are: credit rating agencies regulation, separation of commercial from investment banks and the break up of banks that are „too big to fail".

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