

Abstract

The financial crisis highlighted the negative impact of a damaged banking system on the real economy. In this context, there is a real need for the improvement of the banking system quality, to ensure support for the real economy particularly, this being now the focus of the banking regulation. The question is that a back-to-basics approach that relies on traditional measures of capital strength and liquidity and on traditional products can replace the sophisticated model used by the Global Systemically Important Financial Institutions (GSIFIs).

So the question is can sustainable banks which are focused on “people, planet, prosperity”, grounded in communities, serving the real economy, long-term relationships with clients and a direct understanding of their economic activities and the risks involved cope better with a changing environment, innovation and globalisation to ensure a sound banking system?

Keywords: Banking system, Risks, Financial crisis

JEL Classification: E 58, E 59, E 60

1. Introduction

The last financial crisis highlighted that authorities failed to properly regulate and supervise the financial sector, especially the complex and international spread operations performed by the *Global Systemically Important Financial Institutions (GSIFIs)* and by the shadow banking system. The crisis had many separate driving forces converging and interacting, but the GSIFIs are at the top, because they are dominating the interbank market, are active in derivatives trading, they are prime brokers and they are the most important player in the originate to distribute chains (securitizations).

Another key issue was the misconduct of businesses and the recklessness, associated with the *Global Systemically Important Financial Institutions (GSIFIs)*.

The large banking groups played an important role in the *supply push* factor, being also responsible for the large part of the currency *carry trade* around the world (borrowing low rate interest currency and take short positions in currencies with higher interest rates).

GSIFIs determined the lowering of the lending standards and developed sophisticated products (some of them hiding the risk from the investors) in order to expand their non-core liabilities to finance their lending when access to core deposit funding did not keep pace with the growth of the lending.

Recent studies suggest that these financial institutions are no longer connected to the real economy since they are using only a minority of their assets to provide loans to their customers, while the rest is represented by the *available for trade* assets (large amounts of derivatives).

Most of these actions were considered to be unethical and based on short term profits expectations.

GSIFIs pose systemic risks to financial stability, since unlike smaller institutions, they cannot be easily wound down, because they are large and complex, operate internationally and play a role as backbones of the financial infrastructure. So these institutions are too important to fail or too big to fail, leading to government subsidies.

On the opposite side there are sustainable banks, which are focused on people, planet and prosperity. The products and services of these banks are designed primarily for the people's needs and for the environment's safety. These banks are focused on financing the real economy as it is reflected by the loans in total assets ratio.

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An empirical analysis will be made to evaluate if sustainable banking can be a solution to replace the more riskiness business model used by the *Global Systemically Important Financial Institutions*.

2. Background

No matter the complexity of the banking system, the main channel to which banks' balance sheet mismatches and weaknesses affects the real economy is usually the contraction in the supply of credit (Bernanke, 1983, 257). And there is enough evidence to demonstrate this in the case of *GSIFIs*. Also, banking crises regularly come on the heels of periods of strong credit growth (Bordo and Meissner, 2012, 7-14, Gourinchas and Obstfeld, 2011, 38-40).

The financial sector is inherently procyclical, that is, it amplifies the business cycle, irrespective of the capital requirements or other regulations. In the pre-crisis period, the balance sheet mismatches of banks include rising leverage ratios, maturity mismatches and, especially in the case of emerging markets and developing countries, foreign exchange mismatches. This is reflected on the liability side by an increase in the ratio of noncore-to-core funding. As banks seek to expand their balance sheets, they generally turn to noncore funding since the more stable core (mainly deposits) liabilities tend to be more sluggish (Shin, 2011, 1-7). Shin find out that excessive asset growth is mirrored on the liabilities side of the balance sheet by shifts in the composition of bank funding, given by the fact that in a lending boom when credit is growing very rapidly, the pool of retail deposits is not sufficient to fund the increase in lending.

Bruno and Shin (2013, 4-9) found that an increase in noncore-to-core funding is the most consistently reliable indicator of vulnerability of a country, both to a currency crisis and to a credit crisis.

Once the financial system as a whole becomes more leveraged, it becomes vulnerable to shocks such as sudden withdrawals of funds, stops in capital inflows or changes in asset prices (Claessens, Ghosh and Mihet, 2013, 158).

The primary source of the funding for banks, which is considered the core funding, is represented by deposits raised from retail clients from the household sector. During a credit boom the bank resorts to alternative, non-core liabilities to finance its lending. This affected both global and local banks. Shin (2011, 3-4) considers Northern Rock's funding structure being the most relevant example (Figure 1).

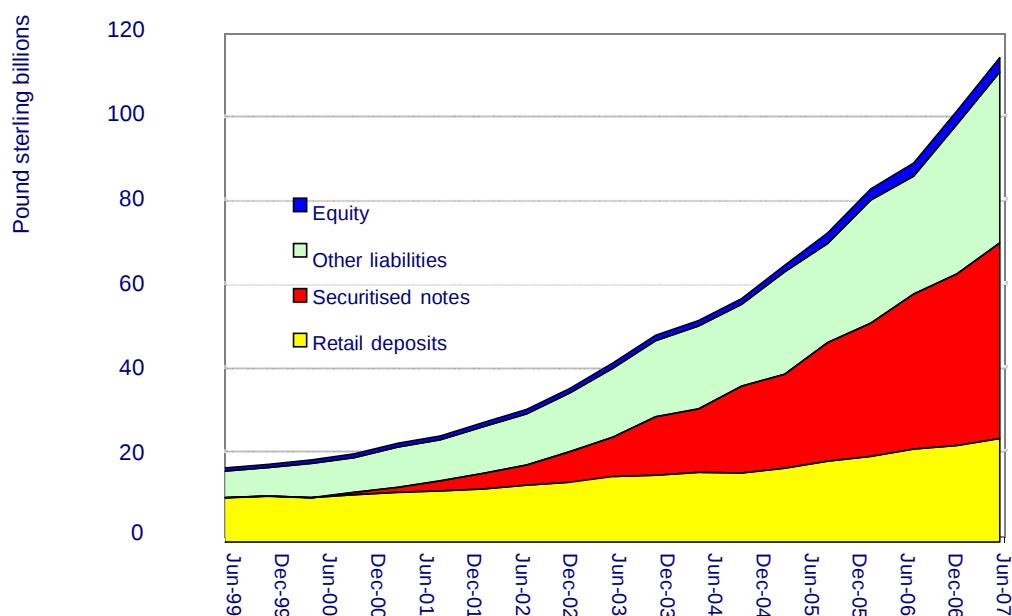


Figure 1. Composition of Northern Rock's Liabilities (June 1998 - June 2007)

Source: Shin H., Macroprudential policies beyond Basel III, 2011.

From 1998 to 2007, Northern Rock's lending increased 6.5 times. With respect to this increase it is to be outline that it exceeded the funds raised from retail clients, the rest being covered from the wholesale funding.

A Bank for International Settlements study (2010) highlights how the branches and subsidiaries of foreign banks in the United States borrow from money market funds and then channel the funds to their headquarters. Bruno and Shin (2013, 3-7) note (based on Baba, McCauley and Ramaswamy, 2009) that in the run-up to the crisis, roughly 50% of the assets of U.S. prime money market funds were obligations of European banks. The funds channeled by the branch to headquarters (interoffice assets) constitute gross capital outflows from the United States (Figure 2). In normal conditions, net interoffice assets should be negative, considering that foreign bank branches should act as lending outposts, but the parent banks started to consider them funding sources, which led to a positive net interoffice assets between 2001 to 2011. Bruno and Shin (2013, 3-7) based on the BIS report (2010), note that many European banks use a centralized funding model in which available funds are deployed globally through a centralized portfolio allocation decision. Also they point out that there is extensive evidence that internal capital markets serve to reallocate funding within global banking organizations (Cetorelli and Goldberg 2009, 2010).

The net interoffice position of foreign banks in the US therefore reflects the extent to which global banks were engaged in supplying US dollar funding to other parts of the world. From the Figure 3 results that the US dollar is the currency that dominates in the international banking and it was behind the increase of capital flows. This was highlighted by Borio and Disyatat (2011).

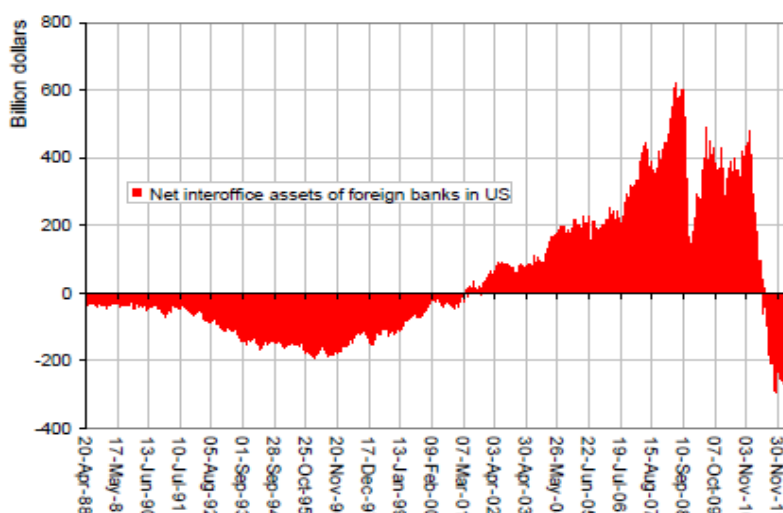


Figure 2. Net interoffice assets of foreign banks in the US

Source: Bruno V., H. Shin Working Paper 19084, Assessing Macroprudential Policies: Case Of Korea, National Bureau Of Economic Research 1050, May 2013.

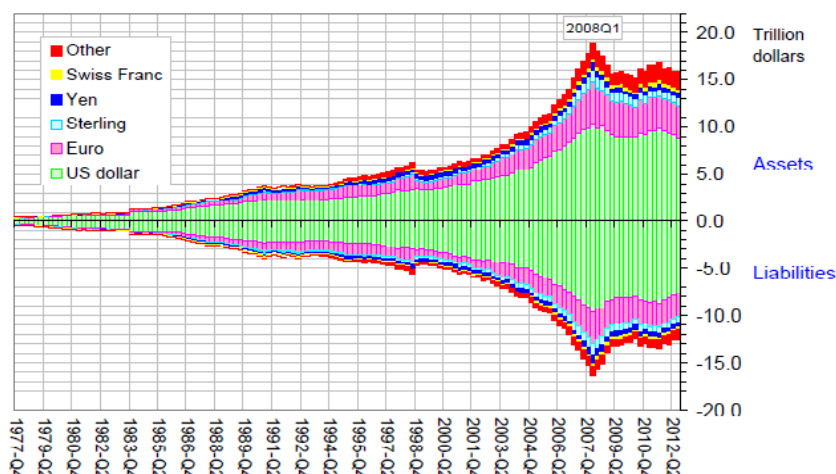


Figure 3. Foreign currency assets and liabilities of BIS reporting banks, classified according to currency (BIS Locational Banking Statistics Table 5A).

Source: Bruno V., H. Shin Working Paper 19084, Assessing Macroprudential Policies: Case Of Korea, National Bureau Of Economic Research 1050, May 2013.

Note: Locational data are organized according to the residence principle, and so the US dollar series in Figure 3 show the US dollar-denominated assets and liabilities of banks outside the United States. The Euro series show the corresponding Euro-denominated assets and liabilities of banks that are outside the Euro area, and so on.

The questions raised are: will GSIFs rethink their approach, can they focus on the most relevant markets, giving up on some areas, will they channel their resources to lending on lower rates of return and long repayment periods or they will continue to pursue the short term profits without having in view the people's needs?

3. Empirical Findings

The new international regulation framework seems to address the issues identified during the financial crises, being imposed capital surcharges linked to systemic risk, countercyclical capital requirements, limits on credit growth, liquidity limits (net stable funding ratio - NSFR, liquidity coverage ratio - LCR), changes to compensation, market discipline, governance, the separation of securities businesses from traditional banking (Volcker, Vickers, Liikanen initiatives) etc.

However the impact of the regulation and whatever the decision will be taken on the separation of activities (possibly into trading and traditional banking), it does not mean that *GSIFs* will adopt automatically a new business model, a sustainable one. This means *GSIFs* should focus on taking deposits and offering loans, and making a fair margin on the difference in interest rates between the two.

The *new business model* can imply just reconsidering the business towards the new wave of regulation and doing the same old activity but with a view to arbitrage the rules.

Some recent research found that the enhanced capital requirements could lead to an intense deleveraging of *GSIFs*, if they cannot raise new capital. This already happens in some cases. These cases are viewed as *bad deleveraging* (occurs via asset contraction) because this is more damaging for the economy, while good deleveraging occurs via building capital. The deleveraging of a bank after a negative balance-sheet shock may be optimal from a microprudential point of view, but the negative externalities of the deleveraging through the contraction in the supply of credit to the real sector may impose costs on the broad economy (Jiménez, Ongena, Peydró and Saurina, 2013, 3).

Deleveraging may also be argued to be bad if it occurs by manipulating risk-weighted assets (RWA) through regulatory arbitrage, because the intent is to minimize the holding of capital.

Some argue that Basel III is too complex (Haldane, 2012, 8-24) and regulatory arbitrage defeats the purpose of capital rules, derivatives playing a major role. This is in line with Blundell-Wignall and Atkinson (2012, 14) who highlights that some US universal banks have managed to hold total assets (TA) flat (including derivatives) in absolute terms, while they have managed to reduce risk-weighted assets (RWA) by about 11% from 2009 Q1 to 2012 Q1 via the usual risk-weight optimization techniques. But what is spectacular as Blundell-Wignall and Atkinson (2012, 15) suggest is that some investment banks have managed to hold RWA flat while more than doubling total assets.

Blundell-Wignall, Atkinson and Roulet (2013, 5-7), show us "how big is the derivative mountain?" and how *GSIFs* presents lower risk-weighted assets to total assets than traditional banks (Fig.4 and 5).

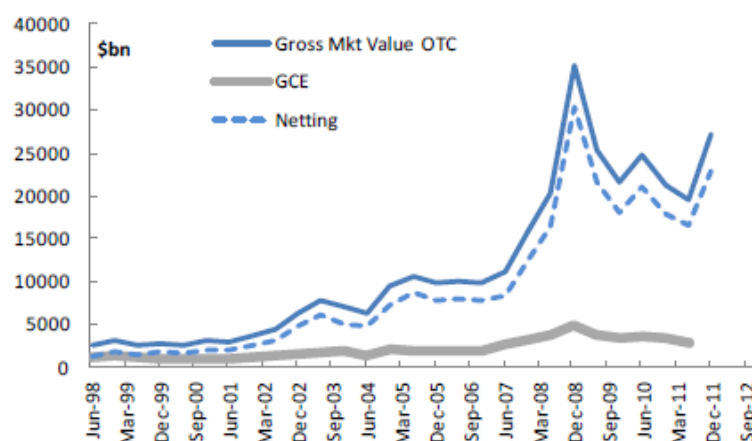


Figure 4. Gross market value of derivatives, netting and gross credit exposure

Source: Adrian Blundell-Wignall, Paul Atkinson and Caroline Roulet (OECD), The business models of large interconnected banks and the lessons from the financial crisis, ESRC/NIESR conference.

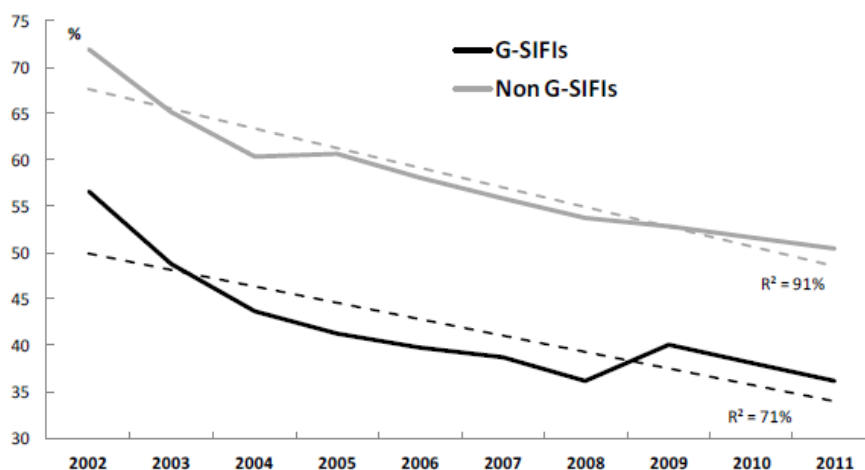


Figure 5. RWA/TA GSIFI & Traditional Banks

Source: Adrian Blundell-Wignall, Paul Atkinson and Caroline Roulet (OECD), The business models of large interconnected banks and the lessons from the financial crisis, ESRC/NIESR conference.

The ratio of risk-weighted assets to total assets of GSIFIs, as some studies suggest, could be the result of the sophisticated internal models used to determine the capital requirements, which often do not fully captured the risks involved.

The riskiness of the GSIFIs bank business model is evident, the model being associated with all the drivers of the latest financial crises (excessive leverage, maturity mismatches, assets prices increase driven by credit booms, credit booms funded with short-term wholesale deposits, reducing incentives to screen and monitor lending, exacerbating over borrowing due to securitization).

As far as concerns professional standards and culture in banking industry, reviewing these aims to reform behaviour that is defined as unsustainable and deteriorating for the good of customers, employees and shareholders. The measures imposed aimed at tackling irresponsible and unethical banking by placing greater responsibility on senior staff, those responsible for the most serious cases of malpractice, might end up being criminally prosecuted for reckless misconduct. But business decisions always involve a degree of risk and the commercial environment is unpredictable, so it is hard to determine if a decision was reckless after years it was taken, while at the time it is taken it may be a perfectly reasonable course of action (The Guide to Sustainable Banking, 2013, 11).

In conclusion, changing the regulations will not end up automatically in changing the values and the business model of GSIFIs, unless they adopt the sustainable banking model, which has some features that makes him more reliable and robust.

The *sustainable banking model* will be presented showing its good parts by contrast with the GSIFIs model and through a financial comparison between the two peer groups.

Global Alliance for Banking on Values (GABV) is the only association of sustainable financial institutions.

According to GABV, sustainable banks are focusing simultaneously on people, planet and prosperity. Products and services are designed and developed to meet the needs of people and safeguard the environment; generating reasonable profit is recognized as an essential requirement of sustainable banking but is not a stand-alone objective. Sustainable banks don't just avoid doing harm, they actively use finance to do good.

Principles of sustainable banking as defined by Global Alliance for Banking on Values (GABV), are as follows:

1. triple bottom line approach at the heart of the business model;
2. grounded in communities serving the real economy and enabling new business models to meet the needs of both;
3. long-term relationships with clients and a direct understanding of their economic activities and the risks involved;
4. long-term self-sustaining and resilient to outside disruptions;
5. transparent and inclusive governance;
6. all of these principles embedded in the culture of the bank.

The sustainable banks do not look for the highest financial rate of return, but for the highest *sustainable* rate of return, while being profitable in the long run. In case of sustainable banks this goal it is reflected in the shareholders vision and strategy. Among these banks, credit unions and financial cooperatives are a part of the financial sector that conducts sustainable banking since a long time ago. Their business and organizational structure base on community relations, on supporting local businesses and on solidarity. This institutions are owned by its members, and exists primarily to provide savings and loans to these members. This particular ownership structure and functioning principle is though not oriented in making profit for external shareholders.

The study made by GABV, called "*Strong and Straightforward: The Business Case for Sustainable Banking*", comparing sustainable banks and GSIFIs, found sustainable institutions to be more "*robust and resilient*" than much of the high street, as well as making a significantly bigger impact on society and on the real economy.

GABV updated the initial research by issuing in 2013 "*Real Banking for the Real Economy: Comparing Sustainable Bank Performance with the Largest Banks in the World*", expanding the number of sustainable banks, to include new members of the GABV, to revise the list of GSIFIs for changes made in November 2012 to this peer group by the Financial Stability Board and to include financial information for 2012.

This study presents the financial profiles of the two peer groups during a 10 year period, divided over three time periods: 2003 to 2012 (Over the cycle), 2003 to 2007 (Pre-crisis) and 2008 to 2012 (Crisis/post-crisis).

The study highlights the fact that the banks that dominate the current banking system have relatively low levels of lending to the real economy and relatively low capital positions (Peter Blom, chair of the GABV, *The Guide to Sustainable Banking*, 2013, 27). He also suggests that sustainable banks haven't developed their banking models because of regulations. They operate a different business model because of their values-based approach.

The degree to which a bank finances the real economy is evident from the portion of assets on its balance sheet that are devoted to lending. The findings show that on average, sustainable banks contribute over 75,9% of their balance sheet in loans to the real economy, while the GSIFIs set aside just over 40% (Table 1). For sustainable banks this level show that lending remains their core activity.

In addition, sustainable banks rely much more on client deposits to fund their balance sheet compared with GSIFIs, which reduces the liquidity risk. The sustainable banks had also strong capital positions, relative to the GSIFIs, especially as measured by the Equity/Total Assets comparison. These levels are associated with those in the past decades.

The sustainable banks did not show substantially higher levels of capital than the GSIFIs relative to risk based capital measures, but these could be affected by the relatively low level of risk weighted assets (RWA) compared to total assets for GSIFIs, as calculated by their risk models, which often not fully capture the risks for which capital is required and by the fact that sustainable banks determine their capital requirements using less refined approaches.

The sustainable banks have stable Returns on Assets although at levels below those reported by GSIFIs prior to the crisis. However, the sustainable banks provide resilient financial returns over the cycle, with lower levels of volatility. The GSIFIs perform better on Returns on Equity, on average, over the cycle, but there is more volatility and post-crisis returns are lower for the GSIFIs. In addition, the lower level of Equity/Assets for the GSIFIs means that a portion of these higher returns come from greater leverage, implying greater risk. However, the profits booked by large banks active in the financial markets prior to the crises may not have been real.

Relative to growth, the sustainable banks had much higher growth in Loans, Deposits, and Total Income compared with the GSIFIs over the cycle. As a result, the sustainable banks show a much more consistent growth pattern over the full period reviewed.

Table 1

Comparison between GSIFIs and sustainable banks financial position

Loans to Total Assets			
	Post-crisis 2008 to 2012	Pre-Crisis 2003 to 2007	Over the Cycle 2003 to 2012
Sustainable Banks	77.4%	74.5%	75.9%
GSIFIs	39.3%	41.0%	40.1%
Deposits to Total Assets			
Sustainable Banks	75.3%	74.5%	73.1%
GSFI's	42.8%	43.0%	42.9%
Capital Comparisons			
Sustainable Banks			
Equity/Total Assets	7.8%	6.7%	7.2%
RWAs/Total Assets	61.9%	n/m	n/m
GSIFIs			
Equity/Total Assets	5.9%	5.2%	5.5%
RWAs/Total Assets	39.4%	n/m	n/m
Financial Ratios			
Sustainable Banks			
Return on Assets	0.53%	0.59%	0.56%
Standard Deviation	0.16%	0.17%	0.21%
GSIFIs			
Return on Assets	0.37%	0.78%	0.57%
Standard Deviation	0.37%	0.29%	0.36%
Sustainable Banks			
Return on Equity	7.5%	8.8%	8.2%
Standard Deviation	2.1%	1.9%	2.7%
GSIFIs			
Return on Equity	5.2%	17.7%	11.5%
Standard Deviation	10.0%	10.6%	10.2%
Growth			
Sustainable Banks			
Loans	12.5%	13.6%	12.6%
Deposits	13.9%	13.1%	12.3%
Total Income	8.0%	12.8%	10.4%
GSIFIs			
Loans	3.8%	17.7%	8.4%
Deposits	6.5%	16.6%	9.5%
Total Income	2.0%	15.8%	6.1%

Source: Global Alliance for Banking on Values, Real Banking for the Real Economy: Comparing Sustainable Bank Performance with the Largest Banks in the World.

The study shows that over the long term the sustainable business model, which is based on values, offers a compelling route to a more stable and sustainable banking industry, allowing greater focus on the real economy, more resilience in the banking system, more profitable and less risky financial returns, and sustainable growth for banks.

If we analyze the client types and services offered by these two peer groups, we will make a strong point on the *GSIFs* side, because they serve wide world the corporate clients, which, like *GSIFs*, dominate the world's economy. Focusing on communities and playing by the old rules is obviously a good thing, but it's not enough. Playing local will not help to cover the *global needs*. It will be a big challenge for sustainable banks to serve the international players, considering their number and size. Even their commitment to lending will be hard to achieve when we are talking about large infrastructure projects or complex transactions because this is clearly not on the list of the relatively small sustainable banks.

On the short run it is obvious that sustainable banks will not grow enough to dominate the banking system.

We also assume that it is virtually impossible for *GSIFs* to reduce their size, their range of products and services and to return to a local and traditional approach, since that in the context of globalization they are playing key roles in channeling financial flows. But it does not mean that they cannot adopt the values and the principles of sustainable banks, which seems to offer the pattern for a more stable and sustainable banking industry.

We can see from the latest research that *GSIFs* are not making serious steps to adopt a more sustainable strategy, since they continue to arbitrage the rules due to their low level of capital and are involved in large speculative operations which leaves no room for lending to the real economy.

Not all banks can be sustainable, and we see that voluntary measures alone are not sufficient. On the other hand regulations are not ensuring either that they will advance sustainable.

4. Conclusions

Global Systemically Important Financial Institutions are still operating a risky business model on low level of capital, being involved in large speculative operations and less in lending to the real economy. It seems like the new wave of regulations did nothing to change their values, the focus being on how to arbitrage these new rules. Sustainable banks, as the latest reviews show, are more robust and resilient, funding themselves through a more stable structure, mostly from customer deposits and channelling a large part of their assets to the real economy and less to derivatives and risky transactions. The major differences between these two banking models reside in values, sustainable banks adopting them voluntarily. Even if in the future a decision will be taken on separation of activities, between trading and traditional banking, this will not ensure that *Global Systemically Important Financial Institutions* will become sustainable, since their experience and focus is on making short term profits on low level of equity, while arbitraging the rules. On the short run it is hard to believe that the *Global Systemically Important Financial Institutions* will reduce their size and their role in channelling the global financial flows, and the sustainable banks will grow enough to dominate the global banking system.

Through its values and financial performances the sustainable banking model is the solution, and it must be adopted by *Global Systemically Important Financial Institutions*, either on the pressure of the communities or on the pressure of a more tight and adequate regulation.

Acknowledgements

This paper is supported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number SOP HRD/1599/1.5/S/136077.

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