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Banking Regulation and Supervision Agency

October 2013

Online at https://mpra.ub.uni-muenchen.de/69195/
MPRA Paper No. 69195, posted 05 Feb 2016 16:07 UTC

Paper ID Number: 21

Paper prepared for the

EY International Congress on Economics I

"EUROPE AND GLOBAL ECONOMIC REBALANCING"

Ankara, October 24-25, 2013

EKONOMİK YAKLAŞIM

Quaterly Peer-Reviewed Scientific Journal

Department of Economics - Gazi University

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A Look at the Structural Bank Regulation Initiatives and a Discussion over Turkish Banking Sector?[1]

Sakarya B.

Abstract

Following the 2007-8 Global Crisis, a significant shift is observed towards the international regulatory approach about the banks. Apart from reform efforts from international institutions such as the IMF, G20 and BIS, several proposals are set forward in some advanced financial systems. Moreover, it is debated that, these so called structural bank reform efforts, also present a chance to indirectly solve the issue of "To-big-to-fail" problem, the SIFI-"systemically Important Financial Institution" problem by its new title. In this study the fundamental characteristics of globally known structural bank reform initiatives are compared and a panel data analysis conducted for the Turkish commercial banks for the 2002-2012 period to investigate the effect of risk diversification on profitability to test for diversification in bank activities.

Keywords: Structural Reforms in Banking, Turkish Banking Sector.

JEL classification: G21, G01, C23.

1. INTRODUCTION

As the first blow of the global financial crisis was trampled, a wave of regulatory reactions followed especially for regarding internationally active banks. This type of behavior is somewhat expected if one looks at the history of the evolution of international bank regulations and standards. However, this time, the reaction has a wider scope, or a deeper concern to it.

This crisis does not have a single problem bank at its core. Or this time a newer approach to make up for capital buffers is not found to be sufficient to handle future possible problems. With this crisis, the global consensus identifies the issue to be the "banking business" in general. Hence the culprit was hit from many fronts. One may be called the newer capital adequacy front, namely Basel-III, the other front is the Systemically Important Financial Institution (SIFI) front. The last one is the so called Structural Reform front. These last two fronts relate to each other in a many ways. The idea behind these two measures are to keep banks simple and plain for supervisors to monitor effectively, and keep them small for deposit insurers (or preferably stake holders) to resolve them least costly, and quickly.

[1] The views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of BRSA

As financial institutions that are too important to fail (TITF) pose systemic risks, one major tool to handle this is the SIFI measure. This measure basically comprises higher loss absorbency and increased supervision at its heart. These are rightfully classified as "price-based regulations" by Viñals et al (2013). However, placing complex and internationally active banks in to the core of the crisis, another reaction initially came from US, in the form of structural constraints on the scope of the activities of these institutions (The Volcker Rule). Eventually, Europe followed this initiative with the "The Vickers Report", and "The Liikanen Report". Moreover, recently, in April, 2013, the International Monetary Fund (IMF) held a high-level roundtable on structural banking reform. IMF First Deputy Managing Director David Lipton closed the event by underlining the importance of the design of structural measures on national level, which would complement the international reform agenda (IMF-PR, 2013).

In this study, a short review about major global structural reform proposals is provided, followed by a discussion of these issues regarding the Turkish banking system. Later on a panel data analysis conducted for the Turkish commercial banks to investigate the effect of risk diversification on profitability to test for diversification in bank activities. The last section of this paper is the concluding remarks.

2. STRUCTURAL REFORM EFFORTS

The term "structural reform" stems from the intention to (generally) break up the universal baking model in to two main lines of business: "commercial" and "investment" banking businesses. Thus introducing restrictions on each of this block to "leak" to each others' financial operational. Thus, via these constraints it is assumed that the systemic risk would be reduced significantly. Moreover, smaller sized banks would be easier to resolve in case of any bankruptcy ..

2.1. The Volcker Rule

The first effort to bring structural restrictions to banks is "The Volcker Rule". The Volcker Rule is implemented by Title VI of the Dodd-Frank Act and named after the former Federal Reserve Chairman Paul Volcker. The Dodd-Frank Act, passed on 21st of June 2010, is also called the Wall Street Reform and Consumer Protection Act. And the original statement is as follows:

> *[…To promote the financial stability of the United States by improving accountability and transparency in the financial system, to end ''too big to fail'', to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes…]* (US Senate, 2010)

Coming the Act itself, Section no: 619, prohibits proprietary trading and certain relationships with hedge funds and private equity funds. Thus prohibiting insured deposit-funded,

licensed commercial banks in the United States, or bank holding companies (BHCs) with US affiliates:

- Engaging in "proprietary trading",
- Acquiring or retaining any equity, partnership, or other ownership interest in a hedge fund or private equity fund; and
- Sponsoring a hedge fund or a private equity fund.

These restrictions draw clear borders between deposit banking and investment banking. The goal is to create a sound deposit banking system immune from the diseases of the investment banking, where products are complex, leverage is high and risk measurement can be faulty.

While the Volcker Rule draws distinctive lines between activities, there are several exceptions to the rule. For example nonbank financial companies designated by the Council for supervision by the Board of Governors would not be subject to this prohibition. The Act provides, however, that they could be subject to additional capital requirements for, and additional quantitative limits with respect to, the foregoing activities (Sweet and Christiansen, 2013). The remaining exceptions mainly comprise activities related to transactions of securities which are critical to US financial and housing market (such as debt instruments issued by Fannie Mae or Freddie Mac), and transactions related to market fundamentals, such as market making and hedging activities.

Gambacorta and Van Rixtel (2013) list these exceptions in a very clear fashion as follows:

- Transactions involving bank-eligible securities
- Transactions in connection with underwriting or market-making activities in response to client/counterparty demand.
- Hedge transactions.
- When acting as agent for customers.
- Transactions in connection with securitisation or sale of loans.
- Proprietary trading conducted by non-US subsidiaries or branches of non-US banks or BHCs .

These restrictions are also valid for ownership, and investment of such entities in the other type of institution. Also it prevents sponsorship of, entities that could expose firms to similar risks.

Even with all the exceptions that the Volcker Rule carries, this act brings a distinct separation between deposit banking and investment banking. And the act is of the pieces that attempts to end "too-big-to-fail" issue for the US system.

As the "big" banks offer diverse and cross-border activities, the regulatory reform efforts such as "The Volcker Rule", has its ramification in other areas of similar financial depth. Hence, while in November 2010, Basel III was endorsed by G20 leaders at the Seoul summit, and there will be a phased implementation with full application in 2019, in June 2012, the UK Government published a white paper describing the current coalition's legislative reactions to the recommendations of the Vickers Report (HM Treasury, 2012).

2.2. The Vickers Report

The financial reform in UK has two main pillars. The first pillar of this program, reform of financial services regulation, has been legislated in the Financial Services Act of 2012. The second key pillar of the UK Government's program for reform of the financial sector, following the financial crisis of 2007-09, is the component titled "Banking Reform". This initiative has the recommendations of the Independent Commission on Banking (ICB), at its core. And this is called The Vickers Commission Proposals and/or The Vickers Report.

The Vickers Commission proposals have a broader scope than the Volcker Rule, and uses "ring fencing" to achieve its goals. Report states its aim as *"...to create a more stable and competitive basis for UK banking in the longer term. That means much more than greater resilience against future financial crises and removing risks from banks to the public finances. It also means a banking system that is effective and efficient at providing the basic banking services of safeguarding retail deposits, operating secure payments systems, efficiently channelling savings to productive investments, and managing financial risk....."*(ICB, 2011:7).

The proposal has a main purpose to end universal banking and require retail banking and wholesale and investment banking to be carried out by separate banks. By this, the taxpayers would be isolated by the risks transmitted from the financial activities of global wholesale and investment banking. It is clear that the main idea behind the Volcker Rule and the Vickers Report is fully in line. However the tools and restrictions used to detach retail banking and wholesale banking. The proposal structures its action plan on estimation of systemically important banks. These banks should have an equity ratio of at least 10% provided that they also have genuinely loss-absorbing debt (ICB, 2011, Vickers, 2012). Then we see the retail "ring-fence". Which is, each banking group would be required to "ring-fence" critical banking services whose temporary interruption would have a systemic ramification. The ring fencing means that the bank would have to break up as a different legal entity from its wholesale body, with a totally different set of decision making ensemble.

This ring fencing has two dimensions as Gambacorta and Van Rixtel (2013) points out. One is the "location" the other is the "depth" of a given bank. The location simply refers to the actual entity that a given financial transaction is allowed to be conducted by. the What type of financial transactions can be done in retail banking and what type of products are going to be left

out to the wholesale banking would be the appropriate questions. And then once these two are separated, what type of financial relation between these two sets of financial institutions are going to be permitted? That would be the “depth” problem.

Coming to the first set of issues, UK Government proposal asks certain financial services to be provided by a ring-fenced entity i.e. the retail entity which is protected from international wholesale banking. These services are basic retail banking services regarding the financial intermediation role of a deposit bank has. The Report suggests containing all deposits from individuals and SMEs. The activities that the protected or ring fenced bank is prohibited to engage in trading or other investment banking activities, provide services to financial companies, or services to customers outside the EEA (Edmonds, 2013). Within these constraints, the ring fenced entity is allowed to take deposits from larger companies and provide non-financial larger companies with other intermediation services such as simple loans.

The proposal uses a distinct set of financial services sets. These are mandated services, prohibited services and ancillary services. Mandated services are the financial services that only retail banks i.e. ring fenced banks may provide, where any disruption of such services would create systemic effects, regarding a wider range of population. Prohibited services are the services that these protected banks are not allowed to commence and these include complex financial instruments, and services that would expose these ring fenced banks to global financial market fluctuations.

2.3. The Liikanen Report

A High-level Expert Group on structural bank reforms was formed by European Commission in February 2012. This Commission chaired by Erkki Liikanen, hence the *Final Report* of the Commission is called *The Liikanen Report.* This Report basically assesses the need for structural reforms in the EU regarding the banking sector and makes relevant proposals. The objective, like other initiatives, focuses the financial stability concerns with establishment of an efficient banking system serving the needs of citizens.

The Report claims that it is necessary to require legal separation of certain particularly risky financial activities from deposit-taking banks within the banking group. Once more the reasoning, the central objective of the separation is to make banking groups, especially their deposit-taking and real financial intermediary parts safer and less connected to trading activities. Thus, limiting the implicit or explicit costs to taxpayers that may be transmitted from the trading parts of (universal) banking groups.

And there are five measures; (1) proprietary trading and other significant trading activities should be assigned to a separate legal entity given that the activities to be separated exceed threshold (a significant share of a bank's business)-however the banking group still can live as a group-, (2) bank are obliged to provide a convincing recovery and resolution plan for their deposit

taking business conducts –the relevant authority would asses this plan-, (3) Banks should structure their liabilities that would imply an effective bail-in procedure, (4) higher standards for capital adequacy measurement –meaning robust risk weights and better internal models-, and (5) better corporate governance for the separated sections of the business conduct.

The mandatory separation is valid, if a bank's assets held for trading and available for sale, exceed a threshold of 15-25% of the bank's total assets or an absolute threshold of 100 billion Euros. This brings the bank to the next stage where, supervisors suppose to determine the need for separation based on the share of assets to which the separation requirement would apply. Once a bank exceeds these limits, all the related financial activity is to be transferred to a legally-separate trading entity – however, this new entity may live under the same banking group- . Moreover, this banking group (i.e. the group also has a deposit bank unit) must provide that the deposit banking business is well protected from the activities of the remaining financial bodies.

One other important issue that the Report draws attention is that each individual entity with in a banking group, namely the trading bank part and the deposit bank part are individually subject to the regulatory requirements, such as the CRR/CRDIV and consolidated supervision, which pertain to EU financial institutions. According to the Report this is a must to ensure the resilience of the two types of entities (Liikanen et al, 2012).

Apart from the separation of the activities there are also issues regarding the regulation and resolution. These issues fall beyond the scope of this study, but, the proposals regarding the resolution reflects, and supports the philosophy behind the structural reform efforts. These proposals in general focus on minimization of public costs, with an emphasis on bail-ins.

Table 1: Advantages and Disadvantages of Structural Reform Efforts

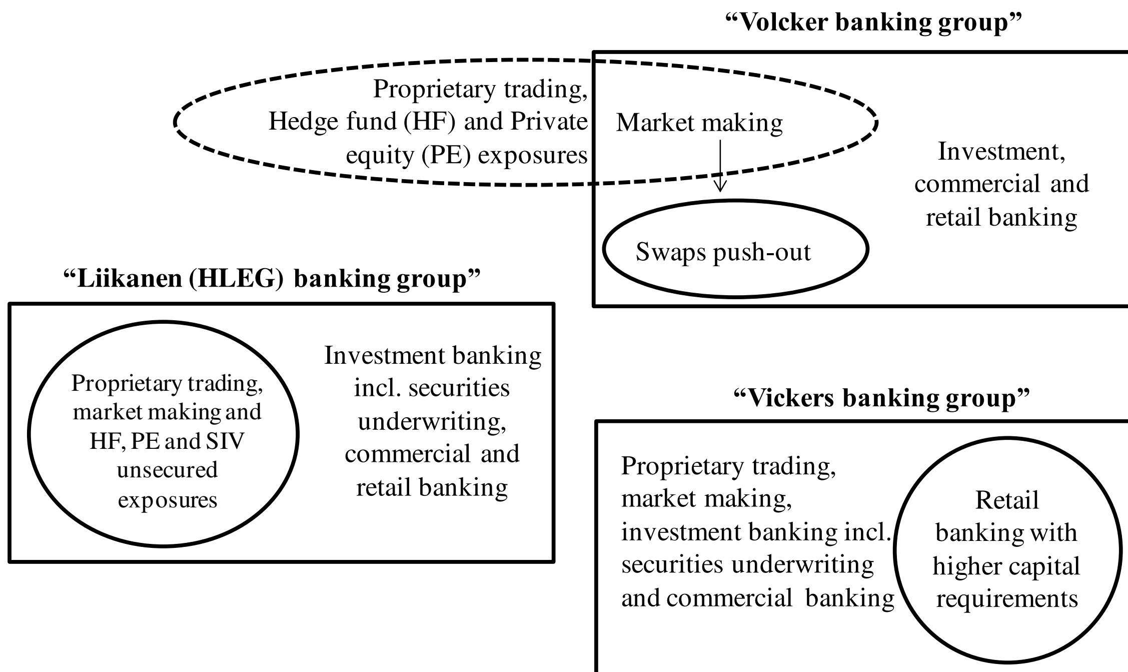
Advantages	**Disadvantages**
1) Lowers complexity, increasing effectiveness of price-based tools *1a)Complexity: (simpler banks after separation)* *1b)Interconnectedness: (contagion og risks from trading to deposit line is limited)*	1) Implemantion Costs *1a) Misclassification of prohibited activities* *1b) Adjustment costs of the institutions* *1c) Increased costs of supervision*
2)Improving resolution: (lowered cost, simpler process)	2) Risk migration *2a) Shadow banking* *2b) Exempt institutions* *2c) Cross border issues (flights)*
	3) Market liquidity and borrowing costs *3a) Impact on trading and market making* *3b)Increased costs on alternative instruments,*
	4) Lower diversification benefits *Loss of returns from economies of scope*

Source: (Vinals et al 2013and the author)

Looking at these major approaches to two main issues come to surface. First off can they help to solve to problem of too-big-to-fail, and the follow up issues like resolution. Second can they provide a more efficient banking (financial system), regardless of the first problematic.

Still the follow up issues such as the cross-border implications, international regulation and cross border resolution remain way to elaborate to tackle as of present international state.

Figure 1: Comparison of suggested structural reforms



Source: Liikanen (2013)

3. STRUCTURAL REFORMS AND TURKISH BANKING SYSTEM

When evaluating the Turkish banking system with this structural reform framework, one needs to keep in mind that these efforts are originating from global financial centres. These centres can also be coined as "systemically important economies" considering the global financial stability and soundness. However this does not necessarily implies that these issues are to be overlooked for emerging economies. As all SIFI and G-SIFI issues spread to a wider base, and has domestic considerations, the structural reforms may also have similar implications. Nevertheless when conducting a cost-benefit analysis for these efforts, it is obvious that the positive externalities brought from reforms in the global financial centres will be much more.

In Table 2, the major activities subject to licensing from the regulatory and supervisory authority is listed. By the article 4 of the Banking Law Nr. 5411, main activities of banks may carry out are stipulated by function groups. The most significant division is observed at accepting deposit, accepting participation funds and financial leasing transactions.

Table 2: Main Activities Subject to Banking License by Bank Type in Turkey

		Deposit Bank	Participation Bank	Dev. & Inves. Bank
Banking Transactions	Accepting deposits	√		
	Accepting participation fund		√	
	Extending loan transactions	√	√	√
	Payment, fund transfer and collection of revenues	√	√	√
	Purchase of bills of Exchange	√	√	√
	Storage services	√	√	√
	Transactions concerning payment instruments	√	√	√
	FX transactions; Money market instruments, precious metal purchase, sale, safekeeping	√	√	√
	Guarantee operations	√	√	√
	Intermediation to Money purchase and sale transactions in interbank market	√	√	√
Capital Markets Transactions	Purchase, sale and intermediation of futures and option contracts, financial instruments	√*	√	√
	Purchase and sale and promise to re-purchase of re-sale of capital markets instruments	√*	√	√*
	Intermediation transactions to sale of capital markets instruments by issuing or public offering	√	√	√*
	Intermediation transactions to purchase and sale of issued capital markets instruments	√*	√	√*
	Investment consultation transactions	√	√	√*
	Portfolio operation and management	√	√	√*
	Market maker	√	√	√
	Safekeeping services	√	√	√
Insurance Transactions	Insurance agent and individual pension intermediary services	√	√	√
Other	Factoring and forfeiting transactions	√	√	√
	Financial leasing transactions		√	√

*: Not all banks have the relative license
Source: BRSA (2011)

While the deposit banks are authorized to accept deposit and extend loans, participation banks are authorized to collect funds by special and participation accounts and extend loans. Development and investment banks can extend loans but cannot accept deposits or participation funds. One other significant division is that the deposits banks cannot perform leasing transactions. However these banks a dominant in capital markets transactions and services related to these financial instruments. Hence in a bank dominated financial system, a deposit bank dominated sector is observed.

Thus, while considering such measures for economies like Turkey, it is best to confer that the price based measures yield expected results dealing with large financial institutions, which are deposit banks. For example the macro prudential policy measures taken since the global crisis, proved to be quite successful in Turkish banking system.

One other issue is the incentive scheme present in the market should correspond with the current regulations. As the major hurdle for developing domestic financial markets, the regulatory arbitrage and shadow banking is a major concern.

However, these structural reforms convey also major benefits for emerging economies. First of all a proper separation may bring an uninterrupted conventional financial service to household and corporate sector. Thus, the cost of a possible failure to the public finance may also be limited with a size and/or activity constraints.

Another issue arises from the cross border banking activities. Since these reforms are well on way for developed financial centres, ne significant disadvantage for these centres could generate opportunities for developing financial centres. The activity limitations within these centres may also induce a flight of complex banking activities to other (emerging) financial systems. This might be a particularly important matter for Istanbul Financial Centre project, providing an efficient and acknowledged supervisory framework.

Apart from the cost benefit analysis built upon a possible bank failure and resolution, there exists another aspect of the structural reform discussion. That is the possible effects of the structural breakup on banks' business conduct. Regardless of big bank resolution and costs to public finance, there is an issue of banks loosing advantages of economies of scale and scope. This issue perhaps should play a greater part especially dealing with developing banking systems where financial depth and inclusion are still on the agenda. Hence in the next section an empirical analysis is presented to try to identify the limits of returns from activity diversification of the Turkish banking system.

4. DATA AND METHODOLOGY

In this study, apart from the overall discussion of structural reform proposals and their possible reflections on Turkish banking sector, the relationship between the diversification ratio and bank profitability is analyzed through a non linear structure. A broader implication of this analysis has been conducted by Gambacorta and Van Rixtel (2013) by constructing a non linear model utilizing a diversification definition regressed over a bank profitability measure. A proxy for product differentiation as the ratio of non-interest income (trade revenues, fees and commissions for services) to total income is utilized. Then return on equity is regressed over this diversification parameter in a non linear fashion also using several macroeconomic indicators to take account for country specific conditions. Moving from the same vein of analysis, in this study,

return on assets as well as return on equity is regressed over a proxy variable to represent diversification for a given bank. The return on assets is considered as a more relevant indicator of profitability regarding the size of a financial institution. Apart from the addition this variable an interacting dummy variable for large scale banks is also tested.

The size, scale, and scope issues in banking are a vast area. There are many proponents of diversification and benefits of utilizing the economies of scope in banking most recently studies such as Lown et al (2000) , Yu and Neus (2005), Allen and Liu (2007) and . At the same time Klein and Saidenberg (2008) provides econometric evidence for adverse effect of diversification on bank holding companies.

The data covers 39 banks over a period of 11 years, spanning 2002 to 2012. The summary statistics are provided below.

Table 3: Summary Statistics for the Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
divr	350	0.1958414	0.1143498	-0.8486	0.8229
roa	350	0.0197154	0.0540361	-0.6324	0.2272
roe	350	0.1291609	0.2370803	-1.8886	0.5449

The representative estimated equation is as below:

$$ROE_{i,t} = \alpha + \beta DIVR_{i,t} + \gamma DIVR_{i,t}^2 + [\delta DUMB.DIVR^2] + \varepsilon_{i,t} \qquad (1)$$

$$ROA_{i,t} = \alpha + \beta DIVR_{i,t} + \gamma DIVR_{i,t}^2 + [\delta DUMB.DIVR^2] + \varepsilon_{i,t} \qquad (2)$$

The terms in parenthesis are added for large scale bank consideration as an alternative augmentation on simple versions.

When the estimation outputs are analyzed, It is expected the linear relationship between profitability and diversification would be positive. The non linear part of the equation is of importance. Hence, it is seen that the non-linear portion of the equation, which is $DIVR^2$ is significant and negative. However, the main problem for the Turkish case is that the size of this coefficient is larger than expected. This makes the diversification issue a problem for almost any firm. Thus, as mentioned before, another term for large scale banks is introduced to correct for this problem. Looking at this variable, it is found to be significant for return on equity. This interaction variable is expected to be insignificant for the equation on return of assets, as ROA has some sort of a clustering regarding the bank scale.

Table 4: Summary Statistics for the Equations

	ROE					
	Coef.	t	P>|t|	Coef.	t	P>|t|
divr	0.308	2.420	0.016	0.262	2.040	0.042
divrsq	-0.666	-3.270	0.001	-0.710	-3.480	0.001
dumbdivsq				3.188	2.100	0.036
id_cons	0.103	3.800	0.000	0.089	3.210	0.001
R^2	0.442			0.450		
	ROA					
	Coef.	t	P>|t|	Coef.	t	P>|t|
divr	0.221	10.670	0.000	0.219	10.400	0.000
divrsq	-0.410	-12.390	0.000	-0.413	-12.380	0.000
dumbdivsq				*0.166*	*0.670*	*0.505*
id_cons	-0.002	-0.560	0.575	-0.003	-0.700	0.481
R^2	0.716			0.717		

The results obtained from these equations are in line with the findings of by Gambacorta and Van Rixtel (2013). It should be noted that even the results indicate a decrease in returns from increased diversification, which does not imply a certain threshold regarding the size of a given bank. Moreover, most recent studies cannot exactly pinpoint the net benefits (or costs) of activity and for those matter size restrictions. Thus the size thresholds for bank assets, vary from 100 billion USD to 1 trillion USD (Wheelock and Wilson, 2011).

One major short coming of the application is, the lack activity based testing rather than use of a proxy for this issue. The available data does not allow for such modelling, which makes it impossible to distinguish between a significant and an economically reasonable separation of activities.

5. CONCLUDING REMARKS

The global financial crisis and the public costs from the crisis ultimately labelled characterized the big banks as the culprits. While the issues of too-big-to-fail, re emerged in the form of “systemically important banks”, another aspect of breaking-up came from the structural side. The reasoning is quite simple, there is a “good” banking, which is the traditional depositor to lender type financial intermediation banking, and there is the “bad” banking, which is the wholesale, investment banking filled up with complex instruments where risk measurement is blurry.

Hence major proposals emerged to break up the “bad” from the “good” banking. However, these major financial centres were the ones who endorsed scale and scope economics in the financial system, and rooted for advanced risk measurement techniques. So, one should try to be

clear about whether is this pendulum of regulation is a short one or not, before going out and implementing them.

Moreover, IMF (2013) in its Financial Sector Assessment Program report of the EU raises a question on the first issue stating that, "*...separation of banking activities would not have helped address some of the most serious problems of the crisis. Lehman Brothers, for example, was not a retail deposit taking institution. Also, many banking sector difficulties derived from the "plain vanilla" side of the bank, most particularly lending for residential real estate..*". So a separation of bank activities might only bring size constraints to reduce too-big-to-fail issue. The removal of the interconnectedness and complexity issues might not be sufficient to solve the too-big-to-fail (SIFI) problem. In defence of this argument, the most recent European banking woes originates from a single and not much of a complex source, EU public debt management.

Still bank executives frequently cite the attainment of scale economies as an important reason for bank mergers and acquisitions (Weelock and Wilson, 2011). European Banking Federation claims that strengthening the use of Recovery and Resolution Plans (RRP) as recommended in the HLEG's avenue 1 (where additional capital surcharges are introduced as price based tools) fits better with the regulatory reform agenda and will have considerable less distortive impact (EBF, 2013).

So the discussion over the banking systems structural separation seems to be a conundrum. Looking at this issue from the Turkish banking case, while we observe a decreasing return on diversification, the size and scale issue remains as a challenge as, there are problems of financial depth and inclusion. As Haldane (2010), executive director for financial stability in Bank of England points out *"..The essence of these arguments is that limits on the optimal size and scope of firms may be as much neurological as technological"* (Heldane, 2010).

Further studies of such should include a distinction between bank operations and net income generated from these lines of businesses. That would help any policy maker to answer the structural break issue. Additionally, this would definitely help deciding the ways to go with the style of structural break, such as plain ring fencing, absolute separation.

ACKNOWLEDGMENT

The author wishes to thank Mr. Münür YAYLA for his invaluable contributions to this study.

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