BASEL III: IMPLEMENTATION AND CHALLENGES FACED BY PAKISTAN'S BANKING INDUSTRY

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ABSTRACT

The recent financial crises 2007/2008 revealed that the current banking regulations stood inadequate to avoid prevent banks from taking in unnecessary risk actions. Therefore, Bank for International settlement (BIS) and G-20 leaders endorsed a new international standard of banking regulations by revising previous Basel II rule into Basel III in late 2010, so as to enhance the quality including quantity of capital, leverage ratio and liquidity standards, which infect has become a challenge for nationals to implement these strict reforms under their existing banking system. Thus, this will ensure a huge influence upon the world's commercial schemes and economies. On the other side, recently strengthened principal and fluidity necessities would make worldwide economic systems safer than earlier ones. Since, enhanced safety will become costly for banks to grip additional principal and to be extra liquefied, investment facilities will be inflexible to attain but less risky. The implementation impact of Basel III in long run to engage both banks and regulators in Pakistan about the operation and management changes within legal framework will result in a sound and stable banking system.

Keywords: Basel III, Banking Regulation and Supervision, Capital Adequacy, Capital Requirement Financial Stability.

INTRODUCTION

Banking is one of the most important parts of the financial sector, which plays a crucial role in development of an economy (Chisty, 1998). It is not only facilitator of deposits of surplus unit but also main source of credit to productive unit. As channeling funds efficiently from savings to productive activities or playing an essential role of credit intermediary between savers to investor, the soundness and stability of banking is foundation for economic growth and welfare (Dewett, 2005). The Basel Agreement, therefore, developed like an effort to protect stability in financial and economic system by means of standardized set of rules which are suitable for entire global economic and financial system.

On May 17th, 1930, the Basel Committee, after establishment of Bank for International Settlement (BIS), formed a forum in 1974 by G10

leaders; pursuing the slump of Franklin National Bank of the United States and Bankhaus Herstatt of Germany, for providing cooperation on banking supervisory matters, purportedly enhance financial stability. The Committee of Basel is the key international standard-setter for the bank's prudential regulation and furnished a forum for collaboration on supervisory matters of banking. Its directive is to strengthen the banking practices, regulation and supervision worldwide with the motive of increase financial stability (Walker, 2001 and BIS, 30th December 2016).
In response to such international financial crises of 2007-2008 Basel committee release a new revised Basel framework after Basel I and II, entitled "Basel III" a global regulatory system for more strong banking sector and to enhance ability of banking and to take up shocks turned out from economic and financial stress (Jayadev, 2013).

LITERATURE REVIEW

The global financial crises like the Great Depression in the 1930s, international financial crisis of 1970s and the current crisis of 2007-2008 were particularly characterized by major bank failures that brought global economies unprecedented instability (Claessens and Kodres, 2014).

The Basel agreement was framed in 1970 in reaction to the international financial crisis with presumption so assigned stander of capital would help reduce systemic risk and with self reliant financial institutions greater able to combat all costs in imprecise especially credit loss. Therefore, the first accord introduced in 1988 by the Basel committee and recognized as Basel I. The main initiative of this agreement was to safeguard international systems of banking against the consequences of crises. Basel I aimed to deal with capitalization of banks, besides further instabilities in banking domain primarily by concentration against risk of credit, which began with lowest requirements for capital adjust at 8 percent of risk regulated assets Girling (2013). The agreement adopted throughout the world over more than 100 countries, as Engelen (2005) examine, almost all international banks adopted this accord worldwide since 1988. The acceptance of Basel I, in a notable number of countries in all part of the world enhances the resilience of the global banking system by better capital standards.

Girling (2013) Basel II was the other standard developed in 2004 as a modification of the earlier. The Basel II prime intention was to ensure safety of financial sector via guarantying so that banks were properly as well as adequately capitalized relating to several distinct factors of risk. BIS (2006) the three pillars framed as, Minimum Capital Requirements (MCR), Supervisory Review (SR) and market discipline used by this

accord. The introductory minimum requirements of capital included the basic attributes of Basel I – computation of risk as well as adjustment with regulatory capital besides included the risk description to cover risk of credit, operational risk as well as market risk. Secondly, Supervisory Review framed the Basel II pillar, which was purposive to guarantee that banks had enough capital to assume their internal risk analysis.

Masood and Fry (2011) stated as infect in September 2008, prior to collapse of Lehman's brothers, an essential strengthening in Basel II had apparently required. Consequently, due to some lapses in Basel II came to light during the crisis and banking sector had stepped into financial crises because of highly leveraged and insufficient liquidity buffer. Resultantly, Basel III was commence in 2010, which is a complete set of reform determination (Ramirez, 2017), and formed by BCBS (the Basel Committee on Banking Supervision) to make stronger the regulation, supervision also risk management of the banking sector. These measures would augment the banking sector's ability to absorb shocks arising from financial and economic stress, whatever is the source improve risk management and governance strengthen banks' transparency and disclosures (BIS, September 1997).

Basically, Basel III formed on Basel II that formulate the recent rules of capital sufficiency but it goes more advanced than existing rules of Basel II. It has brought not only considerable increase in the capital requirements, which banks are required to fulfill but this improvement is more considerable for the reason that it crucially strengthen the prudential structure. Besides requirements of capital, liquidity necessity as well as a leverage ratio were also established and adjust to present in the medium term. From this perspective, Basel III accord is a wide-ranging improvement of regulation in banking (Christian, 2012).

TABLE-1
BASEL III STAGES AND TIME ARRANGEMENTS
(ALL DATES ARE FROM 1 JANUARY)

		End of the Year						**From Dec 31**
	Ratio (in percent)	2013	2014	2015	2016	2017	2018	2019
Capital	Leverage ratio		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015	Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015			Migration to Pillar 1	
	Minimum (common Equity capital ratio)	3.5	4.0	4.5	4.5	4.5	4.5	4.5
	CCB (Capital Conservation Buffer)				0.625	1.25	1875	2.5
	Minimum (Common Equity) Plus (Capital Conservation Buffer)	3.5	4.0	4.5	5.125	5.75	6.375	7.0
	time of deductions from common equity tier 1 (CET1)		20	40	60	80	100	100
	Minimum (Tier 1 Capital)	4.5	5.5	6.0	6.0	6.0	6.0	6.0
	Minimum Capital (total)		8.0	8.0	8.0	8.0	8.0	8.0
	Minimum (total Capital) plus (Conservation Buffer)	-	8.0	8.625	9.25	9.875	9.875	10.5
	Instruments for capital, which no longer qualify as (non-core Tier 1 capital) or (Tier 2 capital)	Dispose of gradually over 10 year cycle starting in 2013						
Liquidity (in %)	minimum (Liquidity coverage ratio) requirement			**60**	**70**	**80**	**90**	**100**
	Net stable funding ratio						Introduce minimum standard	

Source: Bank of International Settlement (BIS, BASEL III, 2013)

BASEL III IMPLEMENTATION IN PAKISTAN

The State Bank of Pakistan (SBP) regulates banks through the banking supervision department. It has organized a plan for the enactment of accord that aims to follow per Basel agreement or execution guidelines provided by the BCBS (Masood and Fry, October 2011). The State Bank of Pakistan had decided to apply new reform such as Basel III to strengthen the capital related rules, which became operative from 31 December, 2013 in stages with full execution. Basel III rule implemented in Pakistan under the circular # 06 which is issued by BPRD (Banking Policy and Regulation Department) on August 15, 2013, in which banks are instructed in conformity with the capital adequacy requirement that is based on three guidelines of capital such as Minimum Capital Requirement (MCR), Capital Adequacy ratio (CAR), and Leverage ratio.

TABLE-2
STAGES FOR ADAPTATION AND FULL EXECUTION OF THE MINIMUM REQUIREMENTS OF CAPITAL IN PAKISTAN

Ratio (in percent)	End of the Year						from Dec 31
	2013	2014	2015	2016	2017	2018	2019
Common Equity Tier 1 (CET1)	5.0	5.5	6.0	6.0	6.0	6.0	6.0
Additional T-1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Tier 1	6.5	7.0	7.5	7.5	7.5	7.5	7.5
Capital (Total)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Capital conservation buffer (CCB) (contains only CET1)	-	-	0.25	0.65	1.275	1.900	2.5
(Total Capital) Plus (Capital conservative buffer)	10.0	10.0	10.25	10.65	11.275	11.90	12.5

Source: SBP (2013)

i. Minimum Risk Weighted Capital Adequacy Ratio (CAR) of 10% i.e. Tier 2 capital can be allowed maximum up to 2.5% of the overall risk weighted asset.
ii. Furthermore, 2.5% of Capital Conservation Buffer (CCB) of the total risk weighted asset is being presented that will be conserved in the Common Equity Tier 1 (CET1) form.
iii. Considering the tier 1 capital and capital adequacy requirement, the bank is able to recognized surplus supplementary Tier 1 so also Tier 2 furnished, the bank have some surplus CET1 over and beyond 8.5% least possible requirement (i.e. 6.0% plus capital conservation buffer of 2.5%).

iv. The Capital adequacy ratio (CAR) specified by State Bank of Pakistan (SBP) that is higher level than the BCBS requirements, and few instructions were issued on the operational basis phase for the countercyclical capital buffer (CCB) implemented separately.

METHODOLOGY

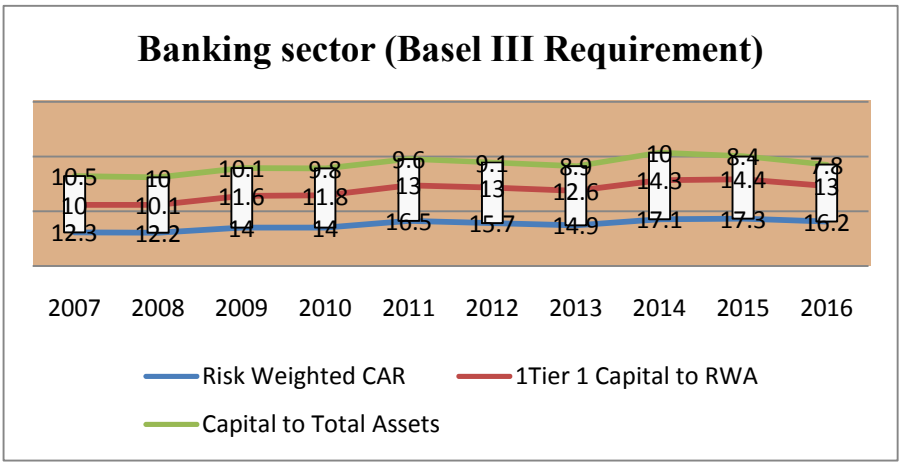
The study discussed the data of BSCS Fixed for Basel III and schedule for its implementation for Pakistan. All the data to be collected is secondary base while source is taken out from Bank for international settlement which is the main creator of this accord, year wise schedule for implementation is taken from BIS which is in different phases from 2013 to 2019. Data from The State Bank of Pakistan (SBP) has been taken to discuss the execution schedule and phases, which Pakistan set by taking BIS schedule rules under its own legal framework and structure of industry. The position and growth of Pakistan banking sector from 2007 to 2016 is taken to analyzed responsiveness and impact of Basel three before and after implementation. So also other related organization and publications, article and speeches were also discussed because all expertise views must be discussed to make any conclusions.

HYPOTHESIS

1. Implementation of Basel III in Pakistan would improve risk management practices.
2. Confidence of investors would be increased due to safe banking system.
3. Banking sector's performance will improve by forming more capitalized business and make less risky business activities.
4. Basel III implementation would positively influence on banking business in Pakistan.

ANALYSIS OF DATA

FIGURE 1
CAPITAL ADEQUACY RATIO PAKISTAN



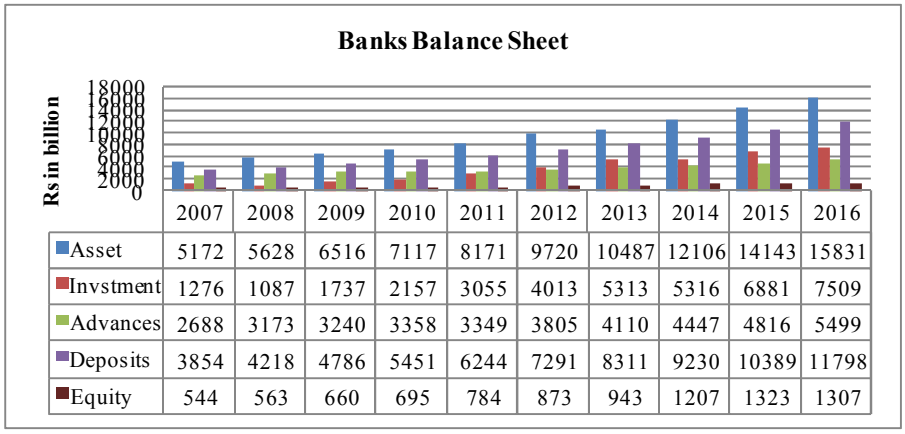
Source: State Bank Pakistan (FSI June 2011 and FSR 2015).

The banking of Pakistan indicatively shown a positive growth in sector's stability, such as risk weighted CAR which is set on 10 % as per Basel rule III, shown a result at 12.3 % in 2007 and 16.3% in 2016, higher than of minimum ratio.

Tier 1 Capital to risk weighted also increases from 10 % in 2007 to 13 % in 2016 which is also higher than minimum 7.5 % in 2015 up to 2019.

Leverage ratio which is shown in capital to asset ratio has decreased from 10.5 % in 2007 to 8.4 percent in 2015 which is a positive sign to reach in settled rule of minimum 5 % in 2013 and 6% in 2015 as per Pakistan schedule but not achieved the target yet. It indicated that Pakistan banking industry is still leveraged more than required ratio.

FIGURE-2
BANKING SECTOR GROWTH

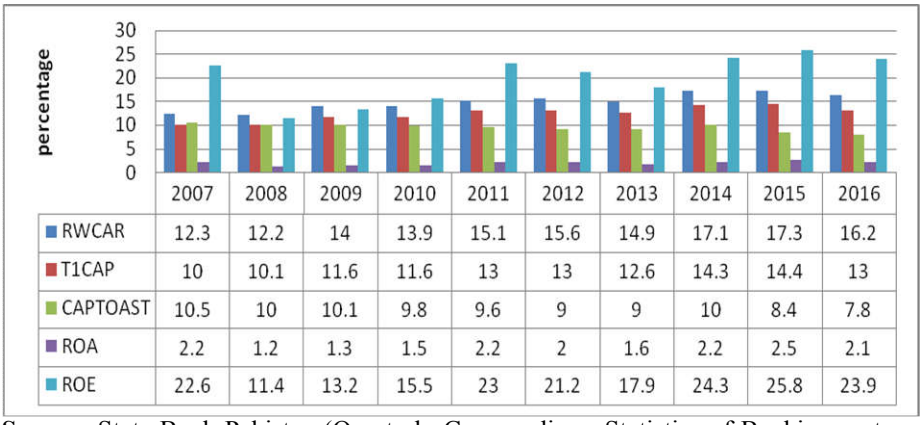


	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Asset	5172	5628	6516	7117	8171	9720	10487	12106	14143	15831
Invstment	1276	1087	1737	2157	3055	4013	5313	5316	6881	7509
Advances	2688	3173	3240	3358	3349	3805	4110	4447	4816	5499
Deposits	3854	4218	4786	5451	6244	7291	8311	9230	10389	11798
Equity	544	563	660	695	784	873	943	1207	1323	1307

Source: State Bank Pakistan (Quarterly Compendium: Statistics of Banking system 2013 and 2017).

Figure 2 shows a rapid increase in all given indicators of banking sector, which shows Asset as a size of banking sector shows Rs.5172 billion in 2007 and Rs. 15831 in 2016. Advances indicated Rs. 2,688 billion in 2007 and Rs. 5,499 billion in 2016 so also deposits shows Rs.3,854 billion in 2007 and Rs.11798 billion in 2016 as investor's response and growing interest over the years as well as rising trend of borrowing from banking sector. Investment trend went on positive track as well Rs. 544 billion in 2007 and Rs.1307 billion in 2016.

FIGURE-3
BASEL III CAPITAL ADEQUACY RATIOS AND BANKS PERFORMANCE INDICATORS



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
RWCAR	12.3	12.2	14	13.9	15.1	15.6	14.9	17.1	17.3	16.2
T1CAP	10	10.1	11.6	11.6	13	13	12.6	14.3	14.4	13
CAPTOAST	10.5	10	10.1	9.8	9.6	9	9	10	8.4	7.8
ROA	2.2	1.2	1.3	1.5	2.2	2	1.6	2.2	2.5	2.1
ROE	22.6	11.4	13.2	15.5	23	21.2	17.9	24.3	25.8	23.9

Source: State Bank Pakistan (Quarterly Compendium: Statistics of Banking system 2013 and 2017).

TABLE-3
SUMMERY STATISTICS OF MODELS

Dependent Variables	Independent Variable	R	R^2	Std. Error	Mean Std Res	Df1	Df2	Coefficient B	Durbin-Watson	F value	Sig
ROA	RWCAR*	61%	40%	.363	.132	1	8	.158	1.565	5.411	.048
	T1CAP **	61%	37%	.372	138	1	8	.178	1.486	4.834	.059
ROE	RWCAR*	70%	49%	3.811	14.527	1	8	1.986	1.493	7.781	.024
	T1CAP **	67%	45%	3.95	15.679	1	8	2.221	1.406	6.622	.033

1. Dependent variable (ROA= Return on Asset ratio and ROE= Return on Equity Ratio)
2. Independent variable (*Risk weighted capital adequacy ratio, ** Tier 1 Capital)

In table 3 results show the estimation using ROA and ROE as dependent variable which provide R^2 that indicate the relationship and strength of regression model among variable.

The above estimated result for Return on Asset (ROA) as explanatory variables shows R^2 for RWCAR and T1CAP about 40% and 37% respectively shows that there is an average relationship available between variables to fit the model. Independent variables like RWCAR with probe value (0.048) further described by F value (5.411) significant statistically and T1CAP with probe value (0.059) further described by F value (4.834) statistically significant. The coefficient of RWCAR (.158) and T1CAP (.178) hold significant and positive impact on ROA. The Durbin-Watson statistic explains the correlation between the variables in the model and values are RWCAR (1.565) and T1CAP (1.486). The estimations for Return on Equity (ROE) as dependent variable, contains the value of R^2 for RWCAR and T1CAP about 49% and 45 % respectively which is also an average relationship among variables to fit the model. Further described by F value which is RWCAR (7.781) significant statistically with ROE and Probe values is (0.024) and T1CAP with F value (6.622) statistically significant with ROE with probe value (0.033) significant statistically. The Durbin-Watson statistic explains the correlation between the variables in the model and values are RWCAR (1.493), T1CAP (1.406). Therefore, it is suggested that there is some average impact exist of Basel III on performance of banks as well as it is positively associated with return on equity.

FINDINGS

Benefits and Influence of Effective Execution of Basel III: The effective execution for Basel III would revealed to officials, shareholders and the customers who are improving banking system fine since financial stress of the worldwide that appears in 2008. A smooth execution has contributed to the bank's attractiveness by conveying healthier supervision in perception into the industry, permitting it to yield benefit of upcoming prospects (Mahapatra, B., 2012). Implementation of newly established regulations would influence both charging stricter rules and regulations to banking sector which will impact positively and provide benefit regarding rising resilience and stability of banking system or those benefit would bring costly and restricted financial activities, thus, influence a declining trend in economic performance and growth (krugs, Lengnick, and Wohltmann; 2013).

Positive (Benefit) Impact: In terms of influence, Basel III on macroeconomic productivity (for instance GDP) will have encouraging influence (i.e. benefit) to reduce the possibility of crises and severe economic downturn. Whereas by way of presenting fresh guideline, the banking organization can turn into more strong and less susceptible to crises that have a huge macroeconomic impacts concerning previous outputs. Therefore, the regulatory reform benefit reveals the productive gain related to a decrease with sternness of crises in the banking.(Aosaki, Minoru, 2013).

Negative (Cost) Influence: In order to get greater requirements of capital, banks may decrease the volume of their lending credit or increase rate that will be charged to borrowers. Some organizations as well as clients will become incapable to take loans from banks and will minimize their expenditure that may decrease the volume of investment and consumption and economic productivity will drop in the country. Consequently, the economic cost concerning regulatory changes is a probable decrease of economic productivity result in a decrease of credit lending (Aosaki, Minoru, 2013).

TABLE-4
INTRODUCING REGULATIONS OF BANKING:
COMPARISON FOR COST AND BENEFIT

Positive affect (Benefit)	**Negative affect (Cost)**
Banking sector become stronger	Banks may decrease lending
↓	↓
Reduce possibility of a crisis	Firms and consumers reduce spending
↓	↓
Economy grows without crises	GDP declines

Source: Aosaki, Minoru (2013).

The quantitative impact study of BCBS (hereinafter denoted likewise QIS, 2010) and assessment of macroeconomic outcomes propose that several actions suggested by Basel III might create equally positive and negative impacts over macro economy and the banking business . The banks would achieve the requirements of Basel III as soon as possible; they need to possess an enormous capital stock and liquidity conducive to get new requirements. The banking profitability can be threatened by it due to increased financial costs in the small time period. The function of financial intermediation may also be hampered by growing lending charges and decreasing volumes of lending that could eventually lead to sluggish economic growth. Though, over the average to extensive period it could foster growth of an economy by decreasing the funding cost and capital as well as liquidity by means of decreasing the possibility of financial crises and improving the firmness of banking sector over all. Enhanced requirements for capital are typically estimated to decrease the bank's ROE. To avoid ROE from dropping, banks can respond by adopting many actions. Those actions comprise: (a) rise loaning ranges, (b) decrease operational expenditures, (c) rise non-interest revenue foundations, (d) move to extremely cost-effective trade segment, and (e) change the charges or (f) mixture of numerous actions at once. Which technique is satisfactory be subject to the economic atmosphere of banks surroundings. If they recover from distress by growing proficiency and cutting operational expenditures, the negative effects from the stronger requirements of capital would be relieved. Similarly, banks might have inducement to raise the asset risk or to raise the exposure of risk by means of growing the development gaps (Sun, Hoon, Wonhong, 2012).

Modification to the fresh regulatory rule is an essential phase to avoid one main financial stress. Basel III will guide nationwide controllers in the direction of the flexibility of the banking segment, but simultaneously it could upset other public strategy purposes, as well as economic advancement. Therefore, it is significant for regulators to recognize their own native supervisory surroundings and balance Basel III with some other actions to secure financial system. Specifically, regulators need to form the regulatory changes in such a way that will enhance a positive influence of Basel III to avert following financial stress and simultaneously restrict negative effect that may decrease economic growth.

In the last, the views of some critics have been added to show experts opinions, as Ingves (2012), Sveriges Riks bank's Governor also Chairman of the Basel committee, says in his speech "The lesson, thus, is not depends on either risk-based or non-risk-based measures individually, but to have each strengthen the other. As Basel III introduces, a combined approach is better than any single approach. Allen, Chan, and Milne (2012) view it as, "Basel III: Is the cure worse than the disease". Wellink (May 2011) "Basel III: a roadmap to better banking regulation and supervision".

CONCLUSION

Implementation/adoption of Basel III discussed herein above are essential for Pakistani Banks as is applied in other developed and developing countries. It has been introduced by State Bank of Pakistan, also is in traditionalism with the worldwide banking standards. Pakistani banks cannot function in isolation, but are to be remained in interaction with international financial markets, thus need extra work to compete internationally.

Although, Basel III has been a challenge for banks but it can furnish a reliable foundation and provide many opportunities not only for banking sector but also for economic development. However, there is no any strong relationships found among variables in the analytical results but Basel III has a positive and significant impact on banks performance such as Return on Asset (ROA) and Return on Equity (ROE). Results highlighted that after implementing Basel III in Pakistan that sector indicatively shown a better position than before such as Asset (Size of bank) shows a positive growth which is observed as in 2007 it has Rs. 5172 billion which increased about Rs. 15831 in 2016. Banks Advances (Net) shows Rs. 2,688 billion in 2007 and Rs. 5,499 in 2016. A growing trend of deposits and other liabilities has been seen as well as no any

negative impact is observed from data such as Rs.3, 854 billion deposits in 2007 and Rs.11798 billion in 2016 has been observed. The rising trend of investment appears as Rs. 544 billion in 2007 and Rs.1307 billion in 2016 shows a positive track towards stability of banking sector. Though, Basel III has been made applicable in Pakistan since 2013, even then system demands its implementation as per schedule designed by the Basel committee, for a sound and stable banking system.

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