

FACULTY OF GRADUATE STUDIES MBA Program

II

Operational Risk According to Basel II Requirements

A Study of its Nature and Management in the Case of Banks Operating in Palestine

. :

(MBA)

Thesis Submitted For The Degree Of Master In Business Administration (MBA)



II

Operational Risk According to Basel II Requirements A Study of its Nature and Management in the Case of Banks Operating in Palestine

: :

2007 30:

1		
2	Ab	ostract
4		
4		:1.1
5		:2.1
5		:3.1
8		:
8		:1.2
8		:1.1.2
10		:2.1.2
11		:3.1.2
11		:4.1.2
21		:5.1.2
28		:2.2
28		:1.2.2
29	II	:2.2.2
32		:3.2.2
33		:4.2.2
33		:5.2.2
37		:6.2.2
52		:7.2.2
54		:3.2
54	:	:1.3.2
58		: :2.3.2
67		:3.3.2
69		:4.3.2
71		:
71		:1.3

72			:2.3
72			:3.3
73			:4.3
76			:
76			:1.4
90			:2.4
92			:3.4
95			:4.4
99			:
99			:1.5
105			:2.5
105	()	:1.2.5
106			:2.2.5
111			
111			
112			
113			:1

شكى وتقلي الله على مسول الله محمد صلى الله عليه وسلم. . .

:II

الملخص:

.

2001 (II)

.2003

II.

.

.

Operational Risk According to Basel II Requirements:

A Study of its Nature and Management in the Case of Banks Operating in Palestine

Abstract:

The banking system incorporates various risks that require taking precautions and adequate procedures to manage and control these risks according to the best know international practices in order to mitigate potential risk exposures or avoid them. Operational risk is considered to be one of the most vital banking risks specially when taking into consideration the technological advancements in the banking activities, and deregulations, and globalization.

As a result of the increasing financial crisis in countries around the globe that resulted in the collapse of many reputable international banking institutions, which was a result of the inadequate managing and controlling the operational risk in addition to other risks. In this context, the Basel II accords was introduced in the year 2001, and made a major impact on the banking supervision and new concept in risk management. Where capital requirements were among the major additional requirements for facing operational risks, the Basel committee issued a paper titled "Sound Practices for Management and Supervision Operational Risk" in 2003 that reflected the ongoing debate between the Committee, Banks, and the Supervisory agencies throughout the world.

As in the case of all banks in emerging countries that are not fully capable of implementing the Basel II accords, the banks in Palestine must be aware of the significance of configuring an internal environment in accordance with the best practices and international standards in managing and controlling banking risk in general with emphasis on operational risk, due to the fact that it is a cornerstone to implement the Basel II accords.

The study at hand aims to identify the operational risks, generally, and the method of calculation the capital requirements for operational risks and identifying the scope of operational risk that threatens the banks in Palestine. In addition, the capability of banks to deal and manage this issue in accordance with sound practices. Hence, the readiness of the banks in Palestine to implement the requirements of Basel II that are related to operational risks.

This study was conducted through a methodology that incorporated two major elements: the first, conducting a comprehensive review of the literature that is related to risks in general, and operational risk in specific, with the emphasis on the related Basel Committee recommendations on Basel II and the sound practices for managing and controlling operational risk; the second, was based on the empirical results through a questionnaire that was dispersed among banks, and analyzing the results in order to reach to an actual understanding of banks' methodology and concept of managing and controlling operational risk.

Generally, the study has revealed that the commitment level of banks that operate in Palestine is relatively low when it comes to sound practices, due to the fact that most banks do not have posses the adequate levels of core requirements for such practices, which reflects a negative outlook for the readiness to commit to the Basel II requirements.

4	
4	:1.1
5	:1.1 :2.1 :3.1
5	:3.1

: :1.1

()

(II) 2004

: :2.1

.1

.2

.3

.4

: :**3.1**

.2007

8		
8		:1.2
8		:1.1.2
10		:2.1.2
11		:3.1.2
11		:4.1.2
12	Financial Risk	:1.4.1.2
17	Business Risk	:2.4.1.2
19	Country Risk	:3.4.1.2
21	Operational Risk	:4.4.1.2
21		:5.1.2
22		:1.5.1.2
24		:2.5.1.2

: :1.2

:1.1.2

)

(II)

1988 (I)

1996 (%8)

II

2001

2003

(2006)

.

(2006)

()

·

: :**2.1.2**

()

()

.

: :3.1.2

и .

/

(2006). : :4.1.2

(Systematic Risks)

(Diversification)

.Busines		.3
.Financia .Operational 1		.1
.(Corporate Gover	rnance)	;
(Miss-management)		
(Business Risks)	(Non-syste	ematic Risks)

.(Default Risk)

(%8)

:Market Risk

.(2006)

1996

:Interest Rate Risk :1-

:Foreign Exchange Rate Risk :2-

:Price Risk :3-

:Liquidity Risk

:Business Risks :2.4.1.2

:Strategic Risk

(Macro Level)

(Business Level)

:Legal & Regulatory Risks

(Legal Risks)

(Regulatory Risk)

.(2005).(II)

:Reputation Risk .

.(2005).

.(2006).

:Country Risk :3.4.1.2

(Inherent)

:Political Instability :1

:Economic Instability :2

:Natural Disability and Disasters :3

(Uncertainty)

:Operational Risk :4.4.1.2

.

:Risk Management :5.1.2

.(2001).

•

.

: :1.5.1.2

:

•

.

.(2006).

·

.(2006).

.(2001).

: .

:

:2.5.1.2

:

	:Risk Identification .
·	
	:Risk Measurement .
•	
	:Risk Control .

.(Outsourcing)

:Risk Monitoring

. (2006

28	Operational Risks	:2.2
28		:1.2.2
29	II	:2.2.2
32		:3.2.2
33		:4.2.2
33		:5.2.2
37		:6.2.2
38	Basic Indicator Approach	:1.6.2.2
39	Standardized Approach (SA)	:2.6.2.2
42	(AMA)	:3.6.2.2
42		
48		
49		
50		
50		
52		:7.2.2

Operational Risks :2.2

: :1.2.2

II

) 1997 1994

(

.

(E-Banking)
(Outsourcing)

·

2001

2003

(II) 2004 (I

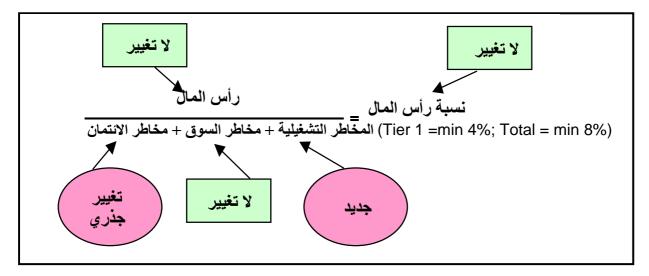
:2.2.2 :II (II)

)

)

.(2005) . (

Π I) Minimum Capital Requirements



:1-

:Standardized approach

:Internal rating based approach- IRB

-

. (IRB)

.

IRB

:2-

(Supervisory Review of Capital)
)

(Market Discipline)

II

: :3.2.2

(Outsourcing)

.(Back-up Systems)

)

(Securitization

: :4.2.2

II

. . .

. II
(Causal Definition)

(Operations Risk)

(Operational Risk)

: :5.2.2

: (2003)

: .

:1-

. :2-

. :3-

. :**4-**

: .

()

: :1-

: •

·

.

.(:2-:3-:4-:5-:1-:2-:3-:4-

. :5-

:

•

: :1-

: •

•

:

100 50 20

.

. •

.

.

: •

.(...) :2-

: :6.2.2

.(2004

.1 :

.2003

- **Basic Indicator Approach (BIA)**
 - Standardized Approach (SA)
- Advanced Measurement Approach (AMA) •

:

Basic Indicator Approach : :1.6.2.2

%15 (Alpha-)

. \mathbf{X} = $\mathbf{K}_{\mathbf{BIA}} = (\sum (\mathbf{GI1} \dots \mathbf{n} * \alpha))/\mathbf{n}$

3 :GI :K_{BIA} :

%15 () : $\acute{\alpha}$:n

(Outsourcing)

()

Standardized Approach (SA)

:2.6.2.2

()

(

(Business Units) ()

: (Business Lines) ()

	Indicator	()	
ß1 = 18%			
ß2 = 18%			
ß3 = 12%			
ß4 = 15%			
ß5= 18%			
ß6 = %15			
ß7 = %12			
ß8 = 12%			

() () :(ß) : 3/ [() x ()] = $\mathbf{K}_{TSA} = [\sum years \ 1-3 \ max \ (GI_{1-8} \ x \ \beta_{1-8})]/3$: $:K_{TSA}$:GI () :ß (Beta-)

() **Alternative Standardized Approach:**) (ASA) ((Retail Banking) (Commercial Banking) (Beta-) (0.35).(

 $K_{rb} = \beta_{rb} \times m \times LA_{rb}$

:m - : β_{rb} K_{rb} :

 $:LA_{rb}$ 0.35

: :3.6.2.2

Advanced Measurement Approach (AMA)

()

(Internal Measure Approach)

.(Scorecards) (Loss Distribution Approach)

•	(Quantitative)	(Qualitative)
) .	:Qualitative Standards	.(II).
		•
)

.()

:Quantitative Standards

:Quality of Standards

.1

Π

:Specific Standards .2

•

•

-

•

Internal Loss Data

. II

. .

. (

.

.

•

-

·

•

External Data

:Scenario Analysis and AMA

:Risk Mitigation & Insurance

(AMA)

II

%20

:

A -

•

. 90

•

•

-

•

•

:Partial Use

II

(AMA)

(AMA)

(AMA)

· (AMA)

:Diversification Benefits

.

.

II

:Transitional Arrangement

(Capital Floor) II

I II

()

.

(Capital Floor)

:

\$ xx		
\$ (xx)	:	
<u>\$ xx</u>	:	
<u>\$ xx</u>		=
\$ xx		%8
\$ xx	:	
<u>\$ (xx)</u>	:	
<u>\$ xx</u>		=

I II

(IRB)

.(AMA)

:7.2.2

)

.

" (2004)

.

_

:3.2			54
:1.3.2		:	54
	:		54
	:		56
	:		57
:2.3.2	:		58
	:		58
	:		60
	:		61
	:		65
:3.3.2		:	67
	:		67
	:		67
:4.3.2	:	:	69

Sound Practices for the Management and Supervising of Operational Risk

2003

(BCBS, 2003).

:

: :1.3.2

.

•

· :

.1

.2

)

.3

() .4

:

.

.1

.

.2

:

()

.1

·

.2

.3

.5

·

: :2.3.2

: :

.

·

:

.1

:)

(:)

.

.2 .3 :(Self- or Risk Assessment) :(Risk Mapping) :(Risk Indicators)

:(Measurement):

•

:

.1

.2

()

.

.3

.

·

.4

.5

.

:

:

.1

.2

.3

.4

. •

.(

(

. 6

.(

·

.7

.8

.9

(Outsourcing)

·

•

.10

. (

.

.11

:

.

·

.1

.2

(Back-up)

.3

: :**3.3.2**

:

.

: :

: .1

.

·

·

.2

•

.3

)

.(

.4

.

•

: : :4.3.2

:

.1

.2

(

71	
71	:1.3
72	:2.3
72	:3.3
73	· 4 .3

: :1.3

.()

2003

: :2.3

21 10 ()

. 8 11

%71

•

.

: :3.3

.(

)

: :4.3

Descriptive)

(Compare Means, Oneway anova) (Statistics, Frequencies and Crosstabs

76	
76	:1.4
90	:2.4
92	:3.4
95	:4.4

:

%71 21 15

:

:1.4

<u>:</u>

.1 : %73 %67 %33 %60 %78 %40 %22 %70 %20 %73 %27 %50

%40

77

%47

%13

%53 %20) %33 (%14 %47 %53 %7 %33 %7

%50

%42

%14

%60

. %86

. %40

%20

%73

%47

%67

· : :2

: %67

%33

%53

.

:()

%60

%50 .

. %43

. %30 %25

.

.

;

:3

%47

%27

%13 %13

· ·

. . . • %73

%10

:() • %70

%25

%70 %86

. %70

%50

%53 .

(Risk Assessment

%10 (Measurement) %10

%86 %75

: :5

:

;

%93.3

%20 %40 . %40

;

%47.7

%47.7

:() :6 %80 %80 () %67 %100 %47 %47 %67

%67

%34

%42 %50

%50 %50 %75

%92 %75

%80 %20

;

%33

%40

%13 %50

:()

%88

%70

:7 %87 %73 %80 %73 %80 () %87 (Back-up) %47 %27 %26 %53 :()

%75

7073

%20

%20

•

: :8

. %40

%50 %30

·

.

.

: :2.4

%20

%80

<u>,</u>

%30

%20

%50

.

()

.

: :**3.4**

•

·

%50.3 %20 %33.3)

%40.1 (%6.7 %26.7)

%33.4 (%6.7 %6.7 %26.7)

%6.7) %13.4 (%6.7

<u>:</u>

%93 %27 %67 %7 %34 %80 : %27 %7 %60 %7 %60

. %7

%53

. %33 . %67

%73 : -

. %20

. %47

%60 : **-**

%93

%53 : **-**

%67 .

•

: :**4.4**

:

-

2002 (2)

.

(

(KYC)

99			
99			:1.5
104			:2.5
104	:()	:1.2.5
106			:2.2.5

:

: :1.5

.1

.2

.

.3

.4

%20

%30 %20

.5

· %67

. %33

.6

%67

%33

%53

%80 .**9** %47

%50 .**10**

%53 .11

Self- or Risk) %80 .12

(Assessment

.13 %90

.14

%48

.15 %67

%47 %47

%67

.16

(%27 - %20)

%60 .**17**

.18

: .

. -

-

.19

%13

.20

(II)

: :**2.5**

:() :1.2.5

()

.

-

.

II

: :2.2.5

: :1

•

·
.

:

·

()

.

, II

II

(II

:

. (2006) .

. II .(2005) . -

.2002 (2) . -

. (2004). –

·

•

- -Basel Committee on Banking Supervision, (2001), Regulatory Treatment of operational risk. (BIS).
- -Basel Committee on Banking Supervision, (2001) *The New Capital Accord, Consultative Document, May 2001 (BIS).*
- -Basel Committee on Banking Supervision, (2003), Sound Practices for the management and Supervision of Operational Risk. (BIS).
- -Basel Committee on Banking Supervision, (2004), *International Convergence of Capital Measurement and Capital Standards (A Revised Framework)*. (BIS).
- -Basel Committee on Banking Supervision, (2004), *Implementation of Basel II: Practical Considerations.* (BIS).
- -Basel Committee on Banking Supervision, (2004), *Principles for the home-host recognition of AMA operational risk capital. (BIS)*.
- -Basel Committee on Banking Supervision, (2003), *High-level principles for the cross-border implementation of the New Accord. (BIS)*.
- -Basel Committee on Banking Supervision, (2003), Overview of the New Basel Capital Accord. (BIS).
- -Basel Committee on Banking Supervision, (1996), Part B of the Amendment to the Capital Accord to Incorporate Market Risks. (BIS).
- -Basel Committee on Banking Supervision, (2001), *Principles for the Management and Supervision of Interest Rate Risk. (BIS)*.
- -International conference of Banking Supervisors (Sep 2004), Madrid.
- -Henring, Richard. (2004), *The Basel II Approach to Bank Operational Risk*. University of Pennsylvania.USA. www.en.wikipedia.org

(1)

(Operational Risk)

:

-

()	:			:1
2005/12/31	2004/12/31	2003/12/31			
					-
					_
			,		
			()	*
					:2
					:3
			 		:4
			 	••••	: :5
					:6
					:7
/sv		,			.0
(X)			:8

	.()	:9
	······································		:11
	·		:12
			:14
			:15
:			:16

			:17
		()	:18
		Г	:19
² .(Self- or Risk A	Assessment) ³ .(Risk M ⁴ .(Risk Indica (Measurement)	Lapping)	:20
	`		:21
			:22

: 3

					:23
("X"):		:24
`			, .		
			•		
			•		
	("X"):			:25
	(11	, .			.20
			:		
•					
•					
					1 1
					26
		(25 + 24)			:26
				: :("X"	:26
				:("X"	

			,	:27
			/	
	:		/	:28
:		(Back up)		:29
				:30
				:31
	()		:32
		(1)		:33
		(2)		:34