Online ISSN : 2249-4588
Print ISSN : 0975-5853

Global Journal

of Management and Business Research: C

Finance

Socio-Economic Impact

Estimating the Volatility

Highlights

Co-Integration and Causality

Recovery Performance of Crops

Discovering Thoughts, Inventing Future

VOLUME 14 ISSUE 5 VERSION 1.0

Global Journal of Management and Business Research: C
Finance

Global Journal of Management and Business Research: C
Finance

Volume 14 Issue 5 (Ver. 1.0)

Open Association of Research Society

Incorporation No.: 0423089
License No.: 42125/022010/1186
Registration No.: 430374
Import-Export Code: 1109007027
Employer Identification Number (EIN):
USA Tax ID: 98-0673427

Global Journals Inc.

*(A Delaware USA Incorporation with "Good Standing"; **Reg. Number: 0423089**)*

Sponsors: *Open Association of Research Society*
Open Scientific Standards

Publisher's Headquarters office

Global Journals Headquarters
301st Edgewater Place Suite, 100 Edgewater Dr.-Pl,
Wakefield MASSACHUSETTS, Pin: 01880,
United States of America
USA Toll Free: +001-888-839-7392
USA Toll Free Fax: +001-888-839-7392

Offset Typesetting

Global Journals Incorporated
2nd, Lansdowne, Lansdowne Rd., Croydon-Surrey,
Pin: CR9 2ER, United Kingdom

Packaging & Continental Dispatching

Global Journals
E-3130 Sudama Nagar, Near Gopur Square,
Indore, M.P., Pin:452009, India

Find a correspondence nodal officer near you

To find nodal officer of your country, please email us at *local@globaljournals.org*

eContacts

Press Inquiries: *press@globaljournals.org*
Investor Inquiries: *investors@globaljournals.org*
Technical Support: *technology@globaljournals.org*
Media & Releases: *media@globaljournals.org*

Pricing (Including by Air Parcel Charges):

For Authors:

22 USD (B/W) & 50 USD (Color)

Yearly Subscription (Personal & Institutional):

200 USD (B/W) & 250 USD (Color)

Contents of the Issue

Global Journal of Management and Business Research: C
Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Estimating the Volatility of Brazilian Equities Using Garch-Type Models and High-Frequency Volatility Measures

By Macelly Oliveira Morais, Flavio de Freitas Val, Antonio Carlos Figueiredo Pinto & Marcelo Cabus Klotzle

Pontifícia Universidade Católica do Rio de Janeiro/IAG, Brazil

Abstract- Financial markets require an accurate estimate of asset volatility for various purposes such as risk management, decision-making and portfolio selection. Moreover, for risk management, volatility estimation is critical in Value-at-Risk (VaR) calculation models. However, there is still no consensus on a model that performs best in estimating volatility. This study proposes comparing volatility measures based on high-frequency data, such as RV and RRV, with heteroskedastic volatility models that use squared daily returns and daily closing prices. Four GARCH type models were implemented to estimate heteroskedastic volatility for the two most actively traded shares on the Brazilian stock exchange, using skewed generalized t (SGT) distribution and allowing flexibility for modeling the empirical distribution of these asymmetric financial data.

Keywords: volatility, garch-type models, high-frequency volatility measures, value at risk.

GJMBR-C Classification: JEL Code: E60

ESTIMATINGTHEVOLATILITYOFBRAZILIANEQUITIESUSINGGARCHTYPEMODELSANDHIGHFREQUENCYVOLATILITYMEASURES

Strictly as per the compliance and regulations of:

Estimating the Volatility of Brazilian Equities using Garch -Type Models and High-Frequency Volatility Measures

Macelly Oliveira Morais [α], Flavio de Freitas Val [σ], Antonio Carlos Figueiredo Pinto [ρ] & Marcelo Cabus Klotzle [ω]

Abstract- Financial markets require an accurate estimate of asset volatility for various purposes such as risk management, decision-making and portfolio selection. Moreover, for risk management, volatility estimation is critical in Value-at-Risk (VaR) calculation models. However, there is still no consensus on a model that performs best in estimating volatility. This study proposes comparing volatility measures based on high-frequency data, such as RV and RRV, with heteroskedastic volatility models that use squared daily returns and daily closing prices. Four GARCH type models were implemented to estimate heteroskedastic volatility for the two most actively traded shares on the Brazilian stock exchange, using skewed generalized t (SGT) distribution and allowing flexibility for modeling the empirical distribution of these asymmetric financial data. Performed tests indicated no differential between the GARCH models and the high-frequency volatility measures used to estimate the VaR, indicating that both measures could be utilized for risk management purposes.

Keywords: volatility; garch-type models; high-frequency volatility measures; value at risk.

I. Introduction

Financial markets require an accurate estimate of asset volatility for various purposes such as decision-making and portfolio selection. Moreover, for risk management, volatility estimation is critical in Value-at-Risk (VaR) calculation models.

According to Liu, Chiang and Cheng (2012), the debate on estimating volatility is intense and has been frequently explored in various academic studies. However, there is still no consensus on a model that performs best in estimating volatility. This may be explained by a failure to correctly specify true volatility.

A common practice, although one that has been questioned, is the use of squared daily returns as the most appropriate measure of true volatility. Studies like those of Andersen and Bollerslev (1998), McMilan and Speight (2004), and Angelidis and Degiannakis (2008) suggest that realized volatility (RV), which is based on squared intra-day returns, would be a more appropriate measure of true volatility.

Other empirical studies, like that of Garman and Klass (1980), suggest an alternative volatility estimator derived from the highest and lowest trading prices of each intra-day interval as well as the opening and closing prices. Martens and van Dijk (2007) adapted this concept. They proposed the use of squared returns for each intra-day period, considering the highest and lowest price of the period, with the aim of creating an estimator based on the realized range volatility (RRV), which they claim is more efficient than the RV in an ideal world.

The positioning of models in exercises comparing their performance in volatility forecasting has been highly dependent on each model's degree of measurement. Most studies of this type consider a single measure of volatility, which may result in a faulty evaluation of model performance. This suggests that there is a need for research evaluating the accuracy of estimates from several adaptations of GARCH models, using not only the RV, but also the RRV as measures of volatility.

This study proposes comparing volatility measures based on high-frequency data, such as RV and RRV, with heteroskedastic volatility models that use squared daily returns and daily closing prices. Among the models used to estimate heteroskedastic volatility are the GARCH (symmetric), EGARCH (asymmetric), CGARCH (long memory), and TGARCH (threshold-asymmetric) models.

The article is organized as follows: (i) a brief literature review will be presented in section 2; (ii) section 3 describes the methodology and the model estimates; (iii) the data used to estimate the RV and the RRV will be described in section 4; (iv) the results obtained will be presented in section 5; and (v) section 6 discusses the study's conclusions.

II. Brief Literature Review

Based on the theory that the measure of volatility converts to a genuine measure of latent volatility when the frequency of observations increases to an infinitesimal interval, Andersen and Bollerslev (1998) proposed using RV as a measure of intra-day volatility. After checking measures of regression errors and the coefficient of determination (R2), using different interval volatility measures, the authors concluded that intra-day

Author α σ ρ Ѡ: Pontifícia Universidade Católica do Rio de Janeiro/IAG, Brazil. e-mail: figueiredo@iag.puc-rio.br

volatility measures improved the measurement of latent volatility.

Martens and van Dijk (2007) adapted RV when they considered the square of daily returns using the highest and lowest price of each daily interval, thus creating the RRV. The authors conducted an empirical analysis of the Standard and Poor's (S&P) 500 and S&P 100 indexes to confirm the RRV's potential, and concluded, through simulations, that the RRV presented a mean squared error that was less than that of the RV.

Both RV and RRV are alternative means to measure the volatility of assets. Various studies have used these alternative measures to analyze the performance of volatility forecasting models.

Hsieh (1991) presented one of the first estimates of daily returns using 15-minute interval intra-day returns from the S&P 500 index. The research was informal in the sense that there was no association with the concept of the quadratic variation.

Andersen and Benzoni (2008) also addressed the concept of RV and its possible applications. The authors identified four areas of related research: (i) volatility forecasting, with emphasis on research focused on improving the performance of such forecasting, in literature related to detecting jumps and in research on problems related to the microstructure in forecast performance; (ii) implications for the distribution of returns for the no-arbitrage condition; (iii) multivariate measures of the quadratic variation; and (iv) realized volatility, specification, and the estimation of models.

Considering the research areas highlighted by Andersen and Benzoni (2008), this article can be classified among the first research area, since its aim is to evaluate improved performance in volatility forecasting by using RV and RRV measures.

The literature discussed below are classified and also relevant in this research area.

Andersen et al. (2003) created a framework for integrating high-frequency data in the measurement, modeling and projection of volatility, and the distributions of returns. Based on the theory of the arbitrage-free process and the theory of quadratic variation, the authors made a correlation between realized volatility and the conditional covariance matrix. In the study, the authors used data based on the German mark/dollar and the Japanese yen/dollar exchange rates.

Andersen et al. (2005) developed a model with adjustment procedures to calculate unbiased volatility based on realized volatility. According to these authors, the procedures are easy to implement and highly accurate in empirical situations.

Martens and van Dijk (2007) proposed creating a new indicator, RRV, based on changes in RV. The study was conducted using an empirical analysis of the S&P 500 and S&P 100 indexes. The authors concluded that the RRV was a better measure of volatility than the RV when the same sample was used.

Maheu and McCurdy (2011) proposed a bivariate model of returns and RV and explored which characteristics of temporal series models contributed to density forecasts for horizons of one to 60 days out of sample. This forecast structure was used to investigate the importance of intra-day information incorporated in the RV, the functional form for the dynamic log (RV), the time of information availability, and the distribution assumed for both the returns and the log. The study used data from the S&P 500 stock index and IBM shares.

Liu et al. (2012) compared the performance of GARCH-type models using the RV and the RRV of the S&P 500 stock index as volatility measures. Furthermore, the authors calculated the VaR for each model analyzed.

Dufour et al. (2012) provided evidence for two alternative mechanisms of interaction between returns and volatility: the effect of leverage and the effect of volatility. The authors emphasized the importance of distinguishing between realized volatility and implied volatility, and concluded that implied volatility is essential to evaluating the effect of volatility. Moreover, they introduced the concept of variance risk premium, which is equal to the difference between implied volatility and realized volatility, and concluded that a positive variance risk premium has more impact on returns than a negative one.

Zhang and Hu (2012) examined whether RV can provide additional information about the volatility process for the GARCH and EGARCH models, using data from the Chinese stock market. The authors concluded that RV adds information to the volatility process for some shares, but adds no additional information for a significant number of shares as well. The RV calculated for 30-minute intervals outperformed the measures taken at other intervals. The size of the company, the turnover rate, and amplitude partially explained the difference in the RV's explanatory power among companies. Although the authors concluded that there were doubts about the RV's additional information, they argued that the implied volatility was, at the least, the same information offered by the RV.

Vortelinos and Thomakos (2013) used daily, high-frequency data to test and model seven new volatility estimators for six international stock indexes. The authors concluded that the selection of the realized volatility estimator has a significant impact on the detection of jumps, magnitude, and modeling. The elements that each estimator is intended to incorporate affect the detection, magnitude, and properties of the jumps.

III. Methodology

The aim of this article is to compare the volatility estimated by the GARCH, EGARCH, CGARCH, and TGARCH models with the RV and RRV volatility measures, evaluating the performance of the models in implementing VaR for the Petrobras (PETR4) and Vale (VALE5) shares.

The models were estimated incorporating skewed generalized t (SGT) distribution, allowing flexibility for modeling the empirical distribution of asymmetric financial data with fat tails and leptokurtosis for the daily and weekly volatility estimates of the preferred shares of Petrobras and Vale. These two companies have the most traded shares on the Brazilian stock exchange. The buy options for these companies together represent more than 90% of the volume of options traded in the Brazilian market.

a) Estimated models

Bollerslev's (1986) symmetric GARCH(1,1) model is given by:

$$h^2{}_t = \omega + \alpha\varepsilon^2{}_{t-1} + \beta h^2{}_{t-1} \tag{3.1}$$

This model implies high volatility persistence. The impact of past information on forecasting future volatility decreases very slowly.The EGARCH model, proposed by Nelson (1991), is a GARCH-type model able to handle asymmetric volatility in response to asymmetric shocks, expressed by:

$$\ln\left(h^2{}_t\right) = \omega + \alpha\left(\nu\varepsilon_{t-1}/h_{t-1} + \left|\varepsilon_{t-1}\right|/h_{t-1} - \sqrt{2/\pi}\right) + \beta\ln\left(h^2{}_{t-1}\right) \tag{3.2}$$

The coefficient v captures the asymmetric impacts of new information, with the negative shocks having a greater impact than the positive shocks with the same magnitude of v < 0; the effect of volatility clustering is captured by a significant **α**.

The primary objective of the CGARCH model of Engle and Lee (1999) is to separate the permanent (or long-term) and transitory (or short-term) components of the effects of volatility with the following specifications:

$$h^2{}_t = q_t + \alpha\left(\varepsilon^2{}_{t-1} - q_{t-1}\right) + \beta\left(h^2{}_{t-1} - q_{t-1}\right) \tag{3.3}$$

$$q_t = \omega + \tau q_{t-1} + \phi\left(\varepsilon^2{}_{t-1} - h^2{}_{t-1}\right) \tag{3.4}$$

Here q represents the long-term volatility (or tendency); the estimation error serves as a driving force behind the movement of the trend dependent on time; and the difference between the conditional variance and its tendency is the transitory component of conditional variance.

Based on the study by Engle (1982), errors are assumed to be normally distributed. Thus, for the empirical distribution of the series of returns exhibiting fat tails, leptokurtosis, and asymmetry, this article uses the SGT distribution for the errors proposed by Theodossiou (1998) as follows:

$$f\left(z_t;N;\kappa,\lambda\right) = C\left(1 + \frac{\left|z_t+\delta\right|^k}{\left((N+1)/k\right)\left(1+sign\left(z_t+\delta\right)\lambda\right)^k\theta^k}\right)^{-(N+1)/k} \tag{3.5}$$

where:

$$C = 0.5\kappa.\left(\frac{N+1}{\kappa}\right)^{-1/\kappa}.B\left(\frac{N}{\kappa},\frac{1}{\kappa}\right)^{-1}.\theta^{-1} \tag{3.6}$$

$$\theta = \left(g-\rho^2\right)^{\frac{-1}{2}} \tag{3.7}$$

$$\rho = 2\lambda.B\left(\frac{N}{\kappa},\frac{1}{\kappa}\right)^{-1}.\left(\frac{N+1}{\kappa}\right)^{\frac{1}{\kappa}}.B\left(\frac{N-1}{\kappa},\frac{2}{\kappa}\right) \tag{3.8}$$

$$g = \left(1+3\lambda^2\right).B\left(\frac{N}{\kappa},\frac{1}{\kappa}\right)^{-1}.\left(\frac{N+1}{\kappa}\right)^{\frac{2}{\kappa}}.B\left(\frac{N-2}{\kappa},\frac{3}{\kappa}\right) \tag{3.9}$$

$$\delta = \rho.\theta \tag{3.10}$$

The parameter θ is obtained through the quasi-maximum likelihood (QMLE) method, as suggested by Bollerslev and Wooldridge (1992), maximizing the following function:

$$LL(\theta) = \sum_{t=1}^{T} \ln f(\theta) \tag{3.11}$$

The TGARCH model captures the asymmetry of the volatility:

$$\zeta_t^{\ 2} = \omega + \sum_{i=1}^{p} \alpha_i \left(|\varepsilon_{t-i}| - \gamma_i \varepsilon_{t-i} \right) + \sum_{j=1}^{q} \beta^j \zeta_{t-j} \tag{3.12}$$

b) *Volatility measures based on intra-day returns and intervals*

To compare the forecasting ability of each model, we consider two volatility measures: RV, as proposed by Andersen and Bollerslev (1998); and RRV, introduced by Martens and van Dijk (2007).

Andersen and Bollerslev (1998) define RV as the sum of the squared returns of five-minute intra-day intervals, as follows:

$$\hat{\sigma}^2_{RV,t} = \sum_{d=1}^{D} \left[100x \left(\ln\left(P_{t,d}\right) - \ln\left(P_{t,d-1}\right) \right) \right]^2 \tag{3.13}$$

Here P (t,d) is the price of the asset at time d in five-minute intervals observed during trading day t.

Martens and van Dijk (2007) substituted each squared intra-day return for the interval's highest and lowest prices, creating the RRV:

$$\hat{\sigma}^2_{RRV,t} = \frac{1}{4\ln 2} \sum_{d=1}^{D} \left[100x \left(\ln\left(H_{t,d}\right) - \ln\left(L_{t,d}\right) \right) \right]^2 \tag{3.14}$$

where H (t,d) and L(t,d) denote the asset's highest and lowest prices observed during a period of five minutes on day t.

c) *Evaluating the performance of volatility forecasting*

The three popular statistical functions Root Mean Square Error (RMSE), Mean Absolute Percentage Error (MAPE) and Logarithmic Loss Error (LLE) were employed to evaluate the accuracy of the competing models in forecasting volatility for daily and weekly horizons. These metrics are expressed below:

$$RMSE_k = \left[\frac{1}{T} \sum_{n=1}^{T} \left(h^2{}_{n,k} - \hat{\sigma}^2_n \right)^2 \right]^{\frac{1}{2}} \tag{3.15}$$

$$MAPE_k = \frac{1}{T} \sum_{n=1}^{T} \left| \frac{\left(h^2 - \sigma^2 \right)}{\sigma^2} \right| \tag{3.16}$$

$$LLE_k = \frac{1}{T} \sum_{n=1}^{T} \left[\ln\left(h^2{}_{n,k} \right) - \ln\left(\hat{\sigma}^2_n \right) \right]^2 \tag{3.17}$$

In practice, each market participant gives a different importance to overestimation and underestimation. For this reason, it is best to use the mean error (MME) statistic, as it allows potential asymmetry in the loss function (Liu et al., 2012).

UP (n,k) is defined as the potential loss from underestimation generated by model k for day n, and OP (n,k) as the potential loss from overestimation, as follows:

$$UP_{n,k} = \begin{cases} \left|\hat{\sigma}_n^2 - h^2_{n,k}\right| & \text{if} \quad \sigma^2_n - h^2_{n,k} \le 0 \\ \left(\hat{\sigma}_n^2 - h^2_{n,k}\right)^{0.5} & \text{if} \quad 0 < \sigma^2_n - h^2_{n,k} \le 1 \\ \left(\hat{\sigma}_n^2 - h^2_{n,k}\right)^{2} & \text{if} \quad \sigma^2_n - h^2_{n,k} > 1 \end{cases} \tag{3.18}$$

$$OP_{n,k} = \begin{cases} \left|\hat{\sigma}_n^2 - h^2_{n,k}\right| & \text{if} \quad \sigma^2_n - h^2_{n,k} \ge 0 \\ \left(\hat{\sigma}_n^2 - h^2_{n,k}\right)^{0.5} & \text{if} \quad -1 \le \sigma^2_n - h^2_{n,k} < 0 \\ \left(\hat{\sigma}_n^2 - h^2_{n,k}\right)^{2} & \text{if} \quad \sigma^2_n - h^2_{n,k} < -1 \end{cases} \tag{3.19}$$

The MME for volatility model k that harshly penalizes underestimation, MME(U)k, as well as overestimation, MME(O)k, are expressed as follows:

$$MME(U)_k = \frac{1}{T}\sum_{n=1}^{T} UP_{n,k} \tag{3.20}$$

$$MME(O)_k = \frac{1}{T}\sum_{n=1}^{T} OP_{n,k} \tag{3.21}$$

Value at Risk - VaR

The VaR estimate based on the GARCH model for one and five days is calculated according to the following formula:

$$Var_n^{\,k}(1;\alpha_1) = \mu + F(Z_n;\alpha_1).h_{n,k} \tag{3.22}$$

$$Var_n^{\,k}(5;\alpha_1) = 5\mu + F(Z_n;\alpha_1).h_{n,k}.\sqrt{5} \tag{3.23}$$

Here F (Z;α) corresponds to the quantile of the SGT distribution (99° or 99.5°) with specific parameters (N, κ and λ) and h(n,k) is the square root of the estimate of the conditional variance generated by the model k, calculated in time n.

In this study, with the aim of back-testing the VaR result, we employed the likelihood ratio test developed by Kupiec (1995), LR (uc), to determine whether the actual loss probability is statistically consistent with the theoretical probability given by the VaR model. The null hypothesis of the loss probability, p, is tested against the alternative hypothesis that the loss probability differs from p. The test uses the following formula:

$$LR_{uc} = -2\ln\left[\frac{p^{n1}(1-p)^{n0}}{\hat{\pi}^{n1}(1-\hat{\pi})^{n0}}\right] \sim \chi^2 \tag{3.24}$$

where $\pi = n^1/(n^0 + n^1)$ is the maximum likelihood estimate of p, and n is a Bernoulli random variable representing the number of times that the realized loss in Brazilian reals exceeds the estimated VaR for the period beyond the sample.

The conditional coverage test (LRcc), developed by Christoffersen (1998), jointly investigates whether the number of losses is equal to the expected number, and if the loss process of the VaR exceptions displays serial independence.

Initially, an indicator (It) should be defined with a value equal to one if a violation occurred, and equal to zero if a violation did not occur. This indicator is used for determining the variable n, as in the table below:

	$I_{t-1}=0$	$I_{t-1}=1$	
$I_t=0$ $I_t=1$	n_{00} n_{01}	n_{10} n_{11}	$n_{00}+n_{10}$ $n_{01}+n_{11}$
	$n_{00}+n_{01}$	$n_{10}+n_{11}$	N

π, in turn, represents the probability of observing a conditional exception the previous day:

$$\pi = \frac{n_{01}}{n_{00}+n_{11}}, \quad \pi_1 = \frac{n_{11}}{n_{10}+n_{11}} \quad \text{and} \quad \pi = \frac{n_{01}+n_{11}}{n_{00}+n_{01}+n_{10}+n_{11}} \tag{3.25}$$

By the null hypothesis of an independent loss process with loss probability, p, against the alternative hypothesis of a Markov loss process with a different probability transition matrix, the statistical test of the likelihood ratio is expressed as:

$$LR_{ind} = -2\ln\left(\frac{(1-\pi)^{n_{00}+n_{10}}\ \pi^{n_{01}+n_{11}}}{(1-\pi_0)^{n_{00}}\ \pi_0^{n_{01}}\ (1-\pi_1)^{n_{10}}\ \pi_1^{n_{11}}}\right) \tag{3.26}$$

According to Nieppola (2009), the Kupiec and Christoffersen tests are combined to test the actual loss rate and the independence of the exceptions; the test is as follows:

$$LR_{cc} = LR_{POF} + LR_{ind} \tag{3.27}$$

IV. Preliminary Data and Analysis

This study uses tick-by-tick trading prices of the PETR4 and VALE5 shares. The data was supplied by BM&FBOVESPA and covers the period between July 1, 2011 and August 31, 2013.

For each trading day, we selected trades that took place between 10:05 am and 4:54 pm, in order to exclude the auction period. The trades selected were classified into five-minute intervals. Thus, for each trading day, we set 84 intervals and for each interval we highlighted the highest, lowest, and last values traded to calculate the RV, RRV, and return. As a final result, for each trading day, there was one RV, one RRV, and one return.

To estimate the models, we calculated the returns, considering the first and last trades of the day, excluding the auction trades, as follows:

$$R_t = 100 \text{ x } \ln\left(\frac{P_t}{P_0}\right) \tag{3.28}$$

The returns were calculated in this way to avoid any inconsistency with the RV and RRV calculations, which were calculated considering only the prices of the referenced trading day.

Table 1 shows the descriptive statistics for the daily estimated RV and RRV of PETR4 and VALE5, using five-minute intervals. The results show that distributions of both shares are asymmetric on the right and exhibit fatter tails than those in a normal distribution.

Table 1 : Descriptive Statistics of the RV and RRV of PETR4 and VALE5

	RV Petro	RV Vale	RRV Petro	RRV Vale
Mean	1,63	1,42	1,64	1,41
Median	1,55	1,35	1,57	1,35
Maximum	4,82	7,20	4,09	4,53
Minimum	0,60	0,51	0,68	0,53

Std. Dev.	0,51	0,49	0,43	0,42
Skewness	1,72	3,85	1,35	2,27
Kurtosis	9,40	39,98	6,95	14,77
Jarque-Bera	1.180,85	31.918,95	511,81	3.558,94
Probability	0,00	0,00	0,00	0,00
Sum	873,41	764,12	878,26	759,78
Sum Sq. Dev.	139,95	128,63	97,50	93,13
Observations	537	537	537	537

Figure 1 shows the RV and RRV series of Petrobras and Vale over the period analyzed.

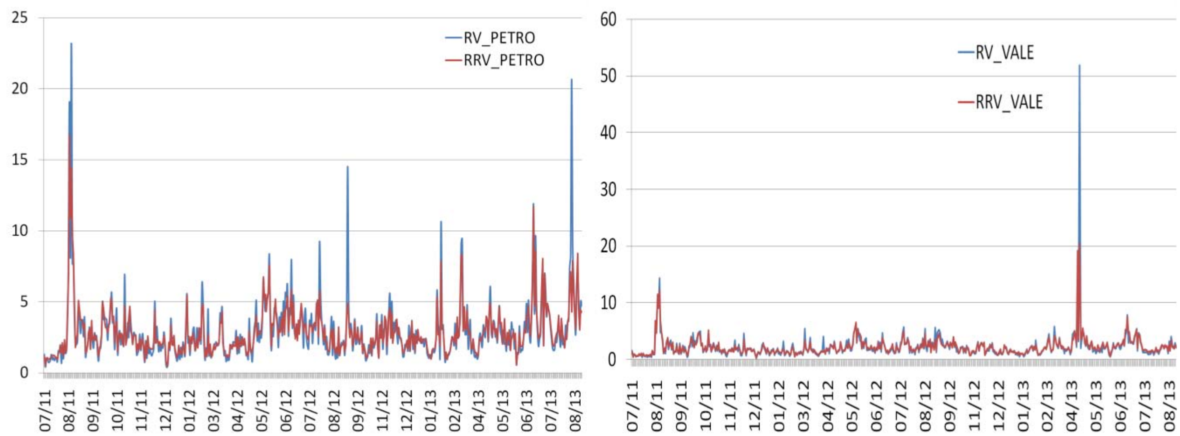


Figure 1 : The RV and RRV Series of Petrobras and Vale

V. Empirical Results

In this section, we present the results for the estimated models. From a sample of 537 observations, the last 165 were considered out of sample, i.e., they were not considered for estimating the parameters.

Table 2 shows the model estimates for the Petrobras shares. With the exception of the TGARCH model, all the conditional mean parameters are not statistically significant. The conditional variance is significant at a level of 90% for all the models.

Parameter β of the GARCH model is close to one and is significant at a level of 1%, which implies a high degree of volatility persistence.

The asymmetry parameter (ν) of the EGARCH model is positive and significantly different from zero at a level of 1%, indicating that negative shocks have a greater impact on volatility than positive shocks.

The sum of parameters α and β of the CGARCH model is less than the sum of the same parameters of the GARCH model, indicating that the short-term volatility component is not strong.

The long-term volatility component (τ) of the CGARCH model is equal to 0.95, indicating that the permanent component of the conditional variance shows that there is strong volatility persistence.

The Akaike Information Criterion (AIC) and the Log Likelihood, although very close for all the models, indicate that the TGARCH model suits the data most effectively.

Table 2 : Estimates of the Models- Petrobras

Parameters/Models	GARCH	EGARCH	CGARCH	TGARCH
μ	-0,08	-0,08	-0,1	-0,11**
ω	0,16***	0,08**	3,09*	0,11*
α	0,02	-0,01**	0,15*	-0,07*
β	0,93*	-0,05***	0,55**	0,07*
ν	-	0,93*	-	1*
τ	-	-	0,95*	-
Φ	-	-	-0,01	-
Log Likelihood	-723,04	-721,25	-1042,96	-718,77
Akaike	3,91	3,91	3,91	3,90

*, ** e *** indicate rejection of the null hypothesis at a significance level of 1%, 5% and 10%, respectively.

Table 3 presents the model estimates for the Vale shares. The conditional mean parameters of all the models are not statistically significant. The conditional variance is significant at a level of 95% for the CGARCH and TGARCH models.

Parameter β of the CGARCH model is close to one and is significant at a level of 1%, which implies a high degree of volatility persistence.

The asymmetry parameter (ν) of the EGARCH model is positive and significantly different from zero at a level of 1%, indicating that negative shocks have a greater impact on volatility than positive shocks.

The sum of parameters α and β of the CGARCH model is less than the sum of the same parameters of the GARCH model, indicating that the short-term volatility component is not strong.

The AIC and the Log Likelihood indicate that the TGARCH model suits the data most effectively.

Table 3 : The Estimates of the Models – Vale

Parameters/Models	GARCH	EGARCH	CGARCH	TGARCH
μ	-0,01	-0,01	0	-0,01
ω	0,93	0,17	2,2*	0,58**
α	0,05	0,02	0	-0,07**
β	0,53	-0,14**	-0,99*	0,21**
ν	-	0,76*	-	0,7*
τ	-	-	0,53	-
Φ	-	-	0,04	-
Log Likelihood	-672,37	-667,77	-670,95	-665,44
Akaike	3,64	3,62	3,65	3,61

*, ** e *** indicate rejection of the null hypothesis at a significance level of 1%, 5% and 10%, respectively.

a) *Errors*

In order to evaluate the accuracy of the models, we used the RMSE, MAPE, LLE, and MME measures[1], for both daily and weekly forecasts. The smaller these measures, the closer the models' volatility estimates are to real volatility. Tables 4 and 5 show the calculation of these measures for the two forecasts.

Analyzing the results of Table 4 and using the RMSE, MAPE, and LLE measures to evaluate the daily volatility forecasts of the Petrobras shares, for both the RV and the RRV, the CGARCH model displays the most accurate forecasts, followed by the GARCH, EGARCH, and TAGRCH models, respectively. However, the measures considering RRV indicate minor errors. We found the same results for the weekly forecasts (except for the MAPE measure).

The MME (UP) and MME (OP) measures enable the inclusion of potential asymmetry in the loss function. The MME (UP) measure penalizes undervalued volatility forecasts, while the MME (OP) measure penalizes overvalued volatility forecasts. Thus, they are considered important, as market participants can assign different degrees of importance to the undervaluation or overvaluation of volatility.

For the daily forecast, with the exception of the MME (OP) measure using the RRV, the model that is penalized the least for undervaluing or overvaluing volatility forecasts is the CGARCH model. This model

[1] The daily volatility forecasts come from each model, while the weekly volatility forecasts are generated by multiplying the daily volatility forecast by five. This occurs for each formula used in this study. This simplification was used in the study by Corrado and Truong (2007). The weekly measures of real volatility, RV and RRV, were obtained by adding together the volatility of the last five days, as in the study by Liu, Chiang and Cheng (2012).

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

has the most accurate forecasts, followed by the GARCH, EGARCH, and TAGRCH models, respectively.

For the weekly forecast, the rank for the MME (OP) is the same considering RV and RRV: the GARCH model is indicated as the model that overvalues volatility the least, followed by the CGARCH, EGARCH, and TGARCH models, respectively.

Additionally, for the weekly forecast, the MME (UP) indicates that the CGARCH model undervalues volatility the least, followed by the GARCH model, for both the RV and the RRV, although the ranking of the third and fourth models is different.

The error measures indicate that the model which forecasts volatility most accurately for Petrobras is the long memory model, CGARCH, suggesting that the ability to capture a long memory of volatility is more crucial than modeling asymmetry or high volatility persistence.

Table 4 : Errors and Ranks of the Models – Petrobras

Models	RMSE	Rank	MAPE	Rank	LLE	Rank	MME(UP)	Rank	MME(OP)	Rank
Daily volatility										
RV										
GARCH	2,118	2	0,575	2	0,322	2	4,312	2	1,625	2
EGARCH	2,209	3	0,643	3	0,376	3	4,456	3	1,960	3
CGARCH	1,958	1	0,523	1	0,275	1	3,646	1	1,567	1
TGARCH	4,657	4	1,435	4	0,892	4	5,318	4	19,651	4
RRV										
GARCH	1,603	2	0,451	2	0,226	2	2,511	2	1,311	1
EGARCH	1,713	3	0,527	3	0,279	3	2,659	3	1,643	3
CGARCH	1,502	1	0,422	1	0,198	1	2,163	1	1,328	2
TGARCH	4,502	4	1,271	4	0,770	4	4,149	4	19,287	4
Weekly volatility										
RV										
GARCH	7,221	2	0,368	2	0,166	2	41,531	2	15,355	1
EGARCH	8,219	3	0,450	3	0,232	3	47,852	4	25,315	3
CGARCH	6,843	1	0,337	1	0,144	1	35,563	1	15,835	2
TGARCH	22,413	4	1,200	4	0,744	4	47,810	3	469,728	4
RRV										
GARCH	6,025	1	0,321	2	0,129	2	27,229	2	13,217	1
EGARCH	6,968	3	13,037	4	0,189	3	30,627	3	22,986	3
CGARCH	6,135	2	0,309	1	0,123	1	26,228	1	15,642	2
TGARCH	22,188	4	1,128	3	0,680	4	37,841	4	469,437	4

Table 5 shows the forecasting errors of the implemented models. In the case of Vale, the indications of error measures are more divergent. Considering the MAPE and LLE measures for evaluating the daily volatility forecast, using both the RV and the RRV, the GARCH model provides the most accurate forecasts, followed by the TGARCH model. Ranking third and fourth are the EGARCH and CGARCH models (with an exception for the LLE measure considering the RV). It is worth noting that the error measures considering RRV are lower.

For the daily forecast, the RMSE measure indicates that the TGARCH model has the most accurate forecasts, followed by the EGARCH, GARCH, and CGARCH models, respectively. Thus, it provides a different model ranking when compared to the other measures.

For the weekly forecast, with the exception of the RMSE measure, the GARCH model provides the most accurate forecasts, followed by the EGARCH, TGARCH, and CAGRCH models, respectively. As with the daily forecast, the error measures considering the RRV are also lower.

Additionally, for the weekly forecast, the RMSE measure indicates that the TGARCH model has the most accurate forecasts, but diverges with regard to the other rankings when the RV or RRV is considered. The measures considering the RRV are also lower when compared to those considering the RV.

The MME (UP) measure using both the RV and the RRV, with either the daily or weekly forecast, indicates that the TGARCH model is penalized the least for undervaluing volatility forecasts, followed by the EGARCH, GARCH, and CAGRCH models, respectively.

For the daily forecast considering the MME (OP), the GARCH model is indicated as the model that overvalues volatility the least, followed by the TGARCH, EGARCH, and CGARCH models, in that order. When the weekly forecast is evaluated, the GARCH model is also indicated as being the model that overvalues volatility the least, although in that instance it is followed by CGARCH, EGARCH, and TGARCH, respectively.

Most error measures indicate that the GARCH model has the greatest accuracy in forecasting both the daily and weekly volatility of Vale shares. This suggests, in the case of Vale, that the ability to capture either long memory volatility, model asymmetry, or high persistence is not crucial.

Table 5 : Errors and Ranks of the Models _ Vale

Models	RMSE	Rank	MAPE	Rank	LLE	Rank	MME(UP)	Rank	MME(OP)	Rank
Daily volatility										
RV										
GARCH	2,538	3	0,587	1	0,337	1	6,510	3	1,170	1
EGARCH	2,521	2	0,602	3	0,389	4	6,382	2	1,247	3
CGARCH	2,577	4	0,609	4	0,363	3	6,674	4	1,249	4
TGARCH	2,480	1	0,591	2	0,353	2	6,163	1	1,237	2
RRV										
GARCH	1,581	3	0,514	1	0,275	1	2,609	3	1,017	1
EGARCH	1,574	2	0,527	3	0,297	3	2,536	2	1,079	3
CGARCH	1,632	4	0,538	4	0,299	4	2,740	4	1,089	4
TGARCH	1,540	1	0,518	2	0,289	2	2,416	1	1,076	2
Weekly volatility										
RV										
GARCH	7,576	3	0,403	1	0,210	1	51,588	3	9,930	1
EGARCH	7,519	2	0,418	2	0,223	2	49,033	2	11,708	3
CGARCH	7,799	4	0,424	4	0,234	4	53,816	4	11,342	2
TGARCH	7,261	1	0,420	3	0,227	3	44,835	1	12,120	4
RRV										
GARCH	5,869	2	0,388	1	0,187	1	28,683	3	9,516	1
EGARCH	5,869	3	0,404	2	0,200	2	26,801	2	11,499	3
CGARCH	6,126	4	0,412	4	0,209	4	30,566	4	10,971	2
TGARCH	5,654	1	0,410	3	0,204	3	23,799	1	12,071	4

b) *Value-at-Risk - VaR*

Forecasting the volatility of assets is a crucial element in the area of finance, particularly for risk management. Consequently, in this study, we use volatility forecasts generated by the GARCH, EGARCH, CGARCH, and TGARCH models to evaluate each model's performance in calculating VaR.

Table 6 shows the mean value of the VaR of the Petrobras shares for each model implemented and the exceptions when compared with the RV and RRV.

Considering the mean value of the VaR, the CGARCH model presents the lowest VaR mean and the lowest number of exceptions for both daily and weekly estimates; followed by the GARCH, EGARCH, and TGARCH models, respectively. It should be noted that this is the same order indicated by the error measures.

When the Kupiec Test is applied to the models presenting exceptions, all were rejected for daily forecasting with 95% and 99% confidence. The rejection on the tests indicates that the models' loss probabilities are not compatible with theoretical probability.

All the models for which it was possible to apply the Kupiec and Christoffersen joint test were rejected. This indicates that the exceptions are not independent and that when market volatility changes rapidly the models are slow to change the VaR value.

Based on the two volatility estimators used, the results indicate that the models were not suitable for estimating the VaR of PETR4.

Table 6 : Mean VaR and Exceptions – Petrobras

Models	Mean VaR	RV		RRV	
Daily - 95% confidence		Nº Exceptions	Exceptions (%)	Nº Exceptions	Exceptions (%)
GARCH	2,991	10	1,9%	6	1,1%
EGARCH	3,010	9	1,7%	9	1,7%
CGARCH	2,852	8	1,5%	5	0,9%
TGARCH	3,523	15	2,8%	13	2,4%
Daily - 99% confidence					

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

GARCH	4,538	1	0,2%	0	0,0%
EGARCH	4,543	2	0,4%	0	0,0%
CGARCH	4,227	1	0,2%	0	0,0%
TGARCH	5,144	3	0,6%	1	0,2%
Weekly - 95% confidence					
GARCH	6,476	6	1,1%	5	0,9%
EGARCH	6,515	10	1,9%	6	1,1%
CGARCH	6,099	6	1,1%	5	0,9%
TGARCH	7,559	22	4,1%	23	4,3%
Weekly - 99% confidence					
GARCH	9,935	0	0,0%	0	0,0%
EGARCH	9,943	0	0,0%	0	0,0%
CGARCH	9,173	0	0,0%	0	0,0%
TGARCH	11,184	2	0,4%	0	0,0%

Table 7 shows the mean value of the VaR of the Vale shares for each model implemented and the exceptions when compared with RV and RRV.

Considering the mean value of the weekly VaR, at a confidence level of 99%, the TGARCH model presents the lowest mean VaR, despite having the highest number of exceptions, for both the daily and weekly estimates, followed by the EGARCH, CGARCH, and GARCH models, respectively.

When the Kupiec Test is applied to the models presenting exceptions, all were rejected for daily forecasting with 95% and 99% confidence. The rejection of the tests indicates that the models' loss probabilities are not compatible with theoretical probability.

All the models for which it was possible to apply the Kupiec and Christoffersen joint test were rejected. This indicates that the exceptions are not independent and that the models are slow to change the VaR value when market volatility changes rapidly.

The results indicate that the models were not suitable for predicting the VaR, using the RV and RRV volatility estimators.

Table 7 : Mean VaR and Exceptions – Vale

Models	Mean VaR	RV		RRV	
Daily - 95% confidence		Nº Exceptions	Exceptions (%)	Nº Exceptions	Exceptions (%)
GARCH	2,637	6	1,1%	6	1,1%
EGARCH	2,531	8	1,5%	7	1,3%
CGARCH	2,623	5	0,9%	6	1,1%
TGARCH	2,519	11	2,1%	9	1,7%
Daily - 99% confidence					
GARCH	3,972	1	0,2%	2	0,4%
EGARCH	3,691	2	0,4%	2	0,4%
CGARCH	3,925	1	0,2%	2	0,4%
TGARCH	3,674	2	0,4%	1	0,2%
Weekly - 95% confidence					
GARCH	5,873	8	1,5%	10	1,9%
EGARCH	5,641	10	1,9%	11	2,1%
CGARCH	5,866	8	1,5%	8	1,5%
TGARCH	5,607	12	2,2%	5	0,9%
Weekly - 99% confidence					
GARCH	8,856	0	0,0%	0	0,0%
EGARCH	8,233	0	0,0%	0	0,0%
CGARCH	8,778	0	0,0%	0	0,0%
TGARCH	8,190	0	0,0%	0	0,0%

VI. Conclusions

Modeling the volatility of assets in finance is essential for asset allocation, portfolio selection, option pricing, and risk management. This study's contribution is to present alternate adaptations of GARCH-type models to forecast daily and weekly volatility, using intra-day volatility measures. While these types of measures have been used in studies from other countries, they are still rarely used with data from Brazilian companies.

When comparing the RV with the RRV for both Petrobras and Vale shares, the RRV was proven a more efficient volatility estimator, since it had the lowest error measures.

The applied tests indicate that the CGARCH model, in the case of Petrobras, and the GARCH and TGARCH models, in the case of Vale, presented the most accurate volatility forecasts compared with the other models. In the case of Petrobras, capturing long volatility memory appeared to be more important than asymmetry or volatility persistence. In the case of Vale, volatility persistence appeared to be less relevant since the symmetric and asymmetric threshold models presented the best results.

In the case of Petrobras, the MME (OP) measure suggests that the CGARCH model overestimates volatility the least. Thus, it is a useful model for option sellers of these shares because if the volatility were overestimated, the option's price would be overestimated as well. From the perspective of option buyers, the GARCH model would be more useful, since it underestimates volatility the least, and would thus be the least likely to lead to an underestimation of the option's price.

In the case of Vale, the MME (UP) measure suggests that the TGARCH model underestimates volatility the least, and would thus be the least likely to lead to an underestimation of the option's price. The GARCH model overestimates volatility and, consequently, overestimates the option's price.

The implemented tests did not indicate that the RV and RRV volatility estimators obtained a better performance than the GARCH family estimated models.

Moreover, both the RV and RRV estimators and the GARCH models showed unsatisfactory performance in estimating the daily and weekly VaR.

One possible extension of this study is the use of models that estimate volatility based on the high-frequency estimators used here. Moreover, it is possible that with a larger sample, the performance of the models in estimating the VaR would be improved.

References Références Referencias

1. Andersen, T. G., Benzoni, L., 2008. Realized Volatility. Federal Reserve Bank of Chicago, WP 2008–14.
2. Andersen, T. G., Bollerslev, T., 1986. Modeling the persistence of conditional variances: a comment. Econometric Reviews, 5(1), 51–56.
3. Andersen, T. G., Bollerslev, T., 1998. Answering the skeptics: yes, standard volatility models do provide accurate forecasts. International Economic Review, 39(4), 885–905.
4. Andersen, T. G., Bollerslev, T., Meddahi, N., 2005. Correcting the errors: volatility forecast evaluation using high-frequency data and realized volatilities. Econometrica, 73, 279–296.
5. Andersen, T. G., Bollerslev, T., Diebold, F.X., Labys, P., 2003. Modeling and forecasting realized volatility. Econometrica, 71, 529–626.
6. Angelidis, T., Degiannakis, S., 2008. Forecasting one-day-ahead VaR and intra-day realized volatility in the Athens stock exchange market. Managerial Finance, 34(7), 489–497.
7. Atak, A., Kapetanios, G., 2013. A factor approach to realized volatility forecasting in the presence of finite jumps and cross-sectional correlation in pricing errors. Economic Letters, 120, 224–228.
8. Bollerslev, T. 1986. Generalized autoregressive heteroskedasticity. Journal of Econometrics, 31, 307–327.
9. Bollerslev, T., Wooldridge, J. M. 1992. Quasi-maximum likelihood estimation and inference in dynamics models with time varying covariances. Econometric Reviews, 11, 143–172.
10. Christoffersen, P. 1998. Evaluating intervals forecasts. International Economic Review, 39(4), 841–862.
11. Christoffersen, P., Pelletier, D., 2004. Backtesting value-at-risk: a duration-based approach. Journal of Financial Econometrics, 2(1), 84_108.
12. Christensen, K., Podolskij, M., 2012. Asymptotic theory of range-based multipower variation. Journal of Financial Econometrics, 10(3), 417–456.
13. Degiannakis, S., Livada, A., 2013. Realized volatility or price range: evidence from a discrete simulation of the continuous time diffusion process. Economic Modeling, 30, 212_216.
14. Dufour, J. M., Garcia, R., Taamouti, A., 2012. Measuring high-frequency causality between returns, realized volatility and implied volatility. Journal of Financial Econometrics, 10(1), 124–163.
15. Engle, R.F., 1982. Autoregressive conditional heteroscedasticity with estimates of the variance of United Kingdom inflation. Econometrica, 50(4), 987–1077.
16. Garman, M.B., Klass, M. J., 1980. On the estimation of security price volatilities from historical data. The Journal of Business, 53(1), 67–78.
17. Hsieh, D.A., 1991. Chaos and nonlinear dynamics: application to financial markets. Journal of Finance, 46, 1839–1877.
18. Hwang, E., Shin, D. W., 2013. Statistics and Probability Letters, 83, 2045–2051.
19. Liu, Hung-Chun, Chiang, Shu-Mei, Cheng, Nick Ying, 2012. International Review of Economics and Finance, 22, 78–91.
20. Maheu, J. M., McCurdy, T. H., 2011. Do high-frequency measures of volatility improve forecasts of returns distributions? Journal of Econometrics, 160, 69–76.
21. Martens, M., van Dijk, D., 2007. Measuring volatility with the realized range. Journal of Econometrics, 138(1), 181–207.
22. McMillan, D. G., Speight, A. E. H., 2004. Daily volatility forecasts: reassessing the performance of GARCH Models. Journal of Forecasting, 23, 449–460.
23. Nieppola, Olli, 2009. Backtesting Value at Risk Models. Master's Thesis in Economics. Helsinki School of Economics - Department of Economics.
24. Meddahi, N., Mykland, P., Shephard, N., 2011. Realized Volatility. Journal of Econometrics, 160, 1.
25. Theodossiou, P., 1998. Financial data and the skewed generalized T distribution. Management Science, 44, 1650–1661.

26. Vortelinos, D. I., 2014. Optimally sampled realized range-based volatility estimator. Research in International Business and Finance, 30, 34–50.
27. Vortelinos, D. I., Thomakos, D. D., 2013. Nonparametric realized volatility estimation in the international equity markets. International Review of Financial Analysis, 28, 34–45.
28. Xu, D., 2012. Examining realized volatility regimes under a threshold stochastic volatility model. International Journal of Finance and Economics, 17, 373–389.
29. Zhang, J., Hu, W., 2013. Does realized volatility provide additional information? International Journal of Managerial Finance, 9, 70–87.

This page is intentionally left blank

Global Journal of Management and Business Research: C Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Loan Disbursement and Recovery Performance of Crops and Livestock of RAKUB- A Case of Binodpur Branch, Rajshahi, Bangladesh

By Md. Rostam Ali, Md. Mostafizur Rahman & Syed Moudud-Ul-Huq
Science and Technology University, Bangladesh

Abstract- Rajshahi Krishi Unnayan Bank (RAKUB) has taken some steps to alleviate the poverty of the north-west region in Bangladesh. Providing loan in agricultural sector is one of them because the most of the people in the country are directly and indirectly engaged in agriculture. Surprisingly they generate a low income causing low investments and more than one-third of the people live below the poverty line. This study is an endeavor to conduct with the objective of finding why loan recovery performance is lower in relation to loan disbursement. The descriptive research works have been used for analyzing and investigating the empirical data derived from primary and secondary sources related to loan disbursement and recovery performance of crops and livestock of the RAKUB, Binodpur Branch, Rajshahi. In this paper it has found that the branch is in ahead of loan disbursement but disbursed loan of this branch being unrecovered and classified due to use of that fund in family private expenses and festival expenses and natural calamity like flood, rain with hail, drought.

Keywords: crops, livestock, loan disbursement, loan recovery.

GJMBR-C Classification: JEL Code: H81

LOANDISBURSEMENTANDRECOVERYPERFORMANCEOFCROPSANDLIVESTOCKOFRAKUBACASEOFBINODPURBRANCHRAJSHAHIBANGLADESH

Strictly as per the compliance and regulations of:

Loan Disbursement and Recovery Performance of Crops and Livestock of RAKUB- A Case of Binodpur Branch, Rajshahi, Bangladesh

Md. Rostam Ali [α], Md. Mostafizur Rahman [σ] & Syed Moudud-Ul-Huq [ρ]

Abstract- Rajshahi Krishi Unnayan Bank (RAKUB) has taken some steps to alleviate the poverty of the north-west region in Bangladesh. Providing loan in agricultural sector is one of them because the most of the people in the country are directly and indirectly engaged in agriculture. Surprisingly they generate a low income causing low investments and more than one-third of the people live below the poverty line. This study is an endeavor to conduct with the objective of finding why loan recovery performance is lower in relation to loan disbursement. The descriptive research works have been used for analyzing and investigating the empirical data derived from primary and secondary sources related to loan disbursement and recovery performance of crops and livestock of the RAKUB, Binodpur Branch, Rajshahi. In this paper it has found that the branch is in ahead of loan disbursement but disbursed loan of this branch being unrecovered and classified due to use of that fund in family private expenses and festival expenses and natural calamity like flood, rain with hail, drought. The study suggests that the branch should be more concentrative on loan recovery performance through awareness and supervision then this branch will be able to expand the socio-economic activities at this region and the country to develop and generate the agro-based industries, self-employment facilities etc.

Keywords: crops, livestock, loan disbursement, loan recovery.

I. Introduction

Bangladesh is an agricultural country of having about 80% of total populations directly or indirectly dependent on farm business, livestock, fisheries, small cottage industry, etc., Xhakollari (2013).

In spite of gradual decline, agriculture sector of Bangladesh is the largest contributor of Gross Domestic Product (GDP) and it is almost 21.91% (Hossain). About 76.61% of the total population in our country live in rural areas and depend on agriculture for their livelihood.

As most of the cultivators follow traditional method of cultivation, it is no longer possible for them to support the increasing needs of the population of Bangladesh (Khan 1999). In Bangladesh the principal agricultural inputs are land and labor and alternative employment opportunities for agricultural workers are very limited. In addition to agricultural sector of Bangladesh is the principal source of labors, capital and raw materials for the industrial sector of the economy. But agricultural goods export contributes only 14% of the total export earning of Bangladesh. Whereas newly emerged Ready-Made Garments (RMG) contribute as much as 77% of the total export earnings. But agriculture (Jahan) still remains the largest employing sector (62.3% of the total workforce).

The salient features of agrarian economy of Bangladesh reinstate that agriculture sector should be considered to prime sector for sustainable economic development of Bangladesh. In the rural areas, most of the land-holders are marginal who have less than one hectare of arable land and their financial conditions are not satisfactory. In fact, consumption expenditure of largest part of them is higher than their real income.

To modernize agriculture as well as to increase its productivity, the use of various inputs such as hybrid seeds, balanced dose of fertilizers, pesticides, irrigation, drainage, etc. is indispensable. To purchase inputs the majority of farmers need additional funds. In most cases, the poor farmers depend on loans from "Mahajans or Moneylenders at an exorbitant rate of interest. The indigenous moneylenders and other landlords supply credit to produce crops and for other purposes to the farmers and many farmers lose their belongings due to inability to repay their debt. They take loan from moneylender and when they repay the money with interest, they would become landless day by day.

Since the Government of Bangladesh has put much emphasis on agricultural sector, as a result, different financial institutions have started giving agricultural credit to the farmers. Among the institutional sources the National Commercial Banks (NCBs), Bangladesh Rural Development Board (BRDB), Bangladesh Samabay Bank limited (BSBL), Grameen Bank, BRAC, Proshika, ASA etc., are increasing farm productivity as well as increasing business work. For the continuation Government established Rajshahi Krishi Unnayan Bank (RAKUB) as a state-owned specialized Bank on 15th march in 1987 by the president's order no.

Author α: Lecturer, Department of Business Administration, Mawlana Bhashani Science and Technology University, Santosh, Tangail-1902 Bangladesh. e-mail: aliru56@gmail.com

Author σ: Lecturer, Department of Management, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh. e-mail: mostafiz7241@yahoo.com

Author ρ: Assistant Professor, Department of Business Administration, Mawlana Bhashani Science and Technology University, Santosh, Tangail-1902 Bangladesh. e-mail: moudud_cu7@yahoo.com

58 of 1986. The main responsibility of this bank is to policy formulation for promotion of growth in agriculture leading to economic development of the northern side part of the country through agricultural credit support.

Binodpur Branch of RAKUB has been established on 27 August, 2006. The main objectives of this branch are to play a vital role to increase agriculture production, create income-generating activities and develop of socio-economic condition of the farmers of the Binodpur area of the country. Through achieving these objectives, it helps to be self-dependence of landless, marginal and small farmers and plays an important role for the economic growth of the country.

Binodpur Branch of RAKUB has distributed 93.5% loan in fiscal year 2006 – 2007, 91.6% loan in fiscal year 2007 – 2008, 64.25% loan in fiscal year 2008 – 2009, 54.29% loan in fiscal year 2009 – 2010 and 59.12% loan in fiscal year 2010 – 2011 in crops and livestock. In our study period most of the loan has been distributed in crops and livestock. So, loan disbursement and recovery performance of crops and livestock have great impact on overall performance of RAKUB Binodpur Branch. In our study we have tried to find out the problems of loan disbursement and recovery performance of crops and livestock of RAKUB, Binodpur Branch and give some remedial measures for the better performance of this branch.

a) *Financial Scenario of the Bank*

As per the charter of RAKUB, its vision is to serve commercial purpose with the primary objective of providing credit facilities to farmers and promoters engaged in cottage and other allied industries primarily in rural as well as urban area. By consecutive achievement of these objectives, Binodpur Branch of RAKUB is to perform some functions like providing credit facilities for the development of the agro based industries, poverty alleviation, modernize the agriculture, and develop the social state of villagers. As part of this they provide various lending program for crops loan, livestock loan, agro based industrial loan, fisheries loan, cash credit etc. Table 1 represents the financial scenario of RAKUB, Binodpur, Rajshahi.

Table 01 : Financial Scenario

Fiscal Years	Total Loan Disbursement	Total Loan Outstanding	Deposit Collection	Loan Recovery		
				Classified	Unclassified	Total
2006-2007	2711	12108	1167	1763	718	2481
2007-2008	5842	16769	3817	1797	3330	5127
2008-2009	10896	22390	4119	2283	6309	8592
2009-2010	23016	41635	6643	3561	9651	13212
2010-2011	20680	44755	12869	5669	18158	23827

**Amount in thousand Tk.*

***Source: Official Records of RAKUB, Binodpur Branch, Rajshahi.*

II. Objectives of the Study

The study has been conducted with the principal objective of finding why loan recovery performance is lower in relation to loan disbursement? To accomplish this objective, the study covers the following specific objectives:

a) To find out the reasons of low loan recovery performance.
b) To evaluate the effectiveness of lending program and loan recovery performance.
c) To find out the way to recover disbursed loan.

III. Methodology of the Study

The study is concerned with the analysis of loan disbursement and recovery performance of crops and livestock of the RAKUB, Binodpur Branch, Rajshahi. The approach adopted is basically analytical and interpretive in nature considering the objectives of the study. It is also decided to employ descriptive method of analysis and investigation of the empirical data of primary and secondary sources related to loan disbursement and recovery performance of crops and livestock of the RAKUB, Binodpur Branch, Rajshahi.

IV. Discussions and Results

a) *Crop loan*

RAKUB finances all the summer crops, winter crops and nursery etc. High yielding and high value crops and seeds production is particularly encouraged. But only the cultivations of paddy, banana and potato are financed by RAKUB “Binodpur Branch”

b) *Livestock*

The bank extends credit facilities of livestock farming, which includes dairy, beef, fattening, poultry, rising and setting up of hatcheries, which in turn is expected to increase production of milk, meat and eggs. As the marginal and small farmers can't borrow money from the other commercial banks due collateral and other conditions this bank provides credit facilities to the marginal and small farmers for livestock farming activities.

Table 02 : Financial scenario of crops and livestock loan

Years	Crops				Livestock			
	Loan Disbursement	Loan Outstanding	Loan Recovery	Loan Uncollected	Loan Disbursement	Loan Outstanding	Loan Recovery	Loan Uncollected
2006-07	1072	5366	1198	4168	1464	8696	2001	6968
2007-08	2065	6233	1890	4343	3287	10255	2807	7448
2008-09	2540	6883	1998	4885	4461	11909	6206	5703
2009-10	2669	7554	2458	5556	9827	15530	212	15318
2010-11	3426	9611	3992	5619	8800	30422	9408	21014

** Amount in thousand Tk.*

***Source: Official Records of RAKUB, Binodpur Branch, Rajshahi.*

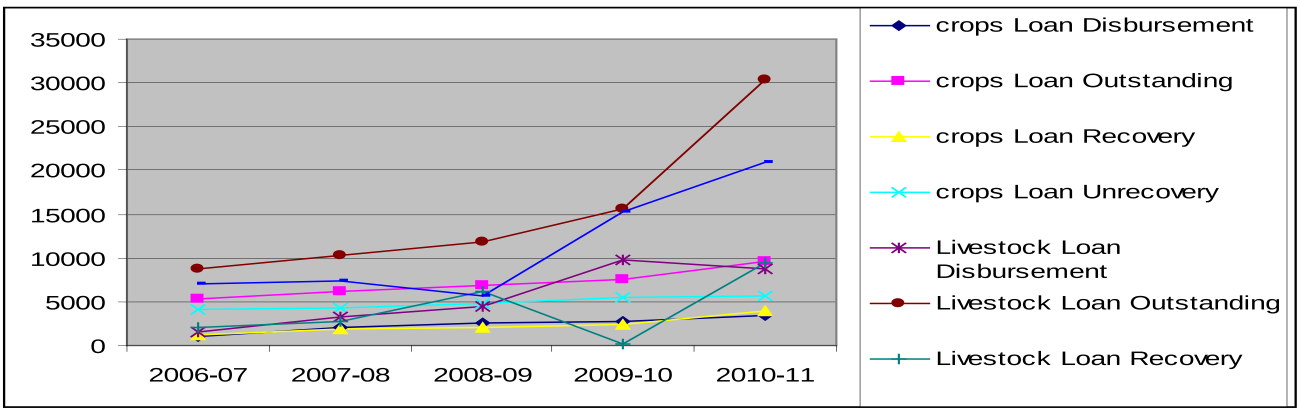


Figure 1 : Financial Conditions of Crops and Livestock Loan

According to the table 2 and figure 1 every item is gradually increasing as demand and production are increasing. This table and graph show that 22.33% crops loan in fiscal year 2006 – 2007, 30.32% crops loan in fiscal year 2007 – 2008, 29.03% crops loan in fiscal year 2008 – 2009, 32.54% crops loan in fiscal year 2009 – 2010 and 41.54% crops loan in fiscal year 2010 – 2011 have been collected where 77.67% crops loan in fiscal year 2006 – 2007, 69.68% crops loan in fiscal year 2007 – 2008, 70.97% crops loan in fiscal year 2008 – 2009, 67.46% crops loan in fiscal year 2009 – 2010 and 58.46% crops loan in fiscal year 2010– 20011 have been uncollected.

Again 23.01% livestock loan in fiscal year 2006 – 2007, 27. 37% livestock loan in fiscal year 2007 – 2008, 52.11% livestock loan in fiscal year 2008 – 2009, 01.37% livestock loan in fiscal year 2009 – 2010 and 30.92% livestock loan in fiscal year 2010 – 2011 have been collected where 76.99% livestock loan in fiscal year 2006 – 2007, 72.63% livestock loan in fiscal year 2007 – 2008, 47.89% livestock loan in fiscal year 2008 – 2009, 98.63% livestock loan in fiscal year 2009 – 2010 and 69.08% livestock loan in fiscal year 2010 – 2011 have been uncollected.

Table 03 : Loan Disbursement to Crops

Years	Amount
2006-07	1072
2007-08	2065
2008-09	2540
2009-10	2669
2010-11	3426

** Amount in thousand, Tk.*

*** Source: Official Records of RAKUB, Binodpur Branch, Rajshahi.*

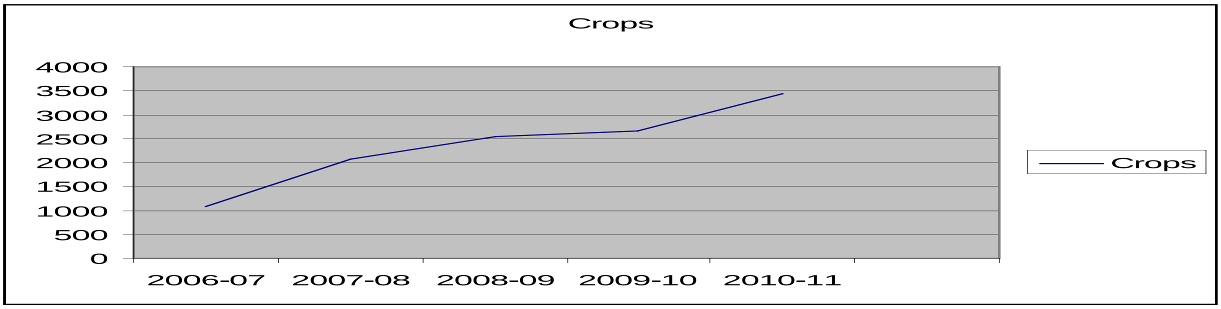


Figure 2 : Loan Disbursement to Crops

According to the table 3 and figure 2 loan disbursement to crops is gradually increasing as demand and production are increasing.

In the earlier this branch has provided small amount of paddy loan but now-a-days it provides only potato and banana loan due to increase the demand of these products. We know these products are seasonal products. The demand and price of these products depends on various factors. Such as Condition of weather and climate, Price of the factor of production Consumer test, Due to the above reasons and chance to be affected by Nipah virus the production of banana is decreasing as result the distribution of loan to cultivation of banana is decreasing. The production of potato is increasing as result the distribution of loan to cultivation of potato is increasing.

Table 04 : Loan Disbursement to Livestock

Years	Amount
2006-07	1464
2007-08	3287
2008-09	4461
2009-10	9827
2010-11	8800

** Amount in thousand, Tk.*

***Source: Official Records of RAKUB, Binodpur Branch, Rajshahi.*

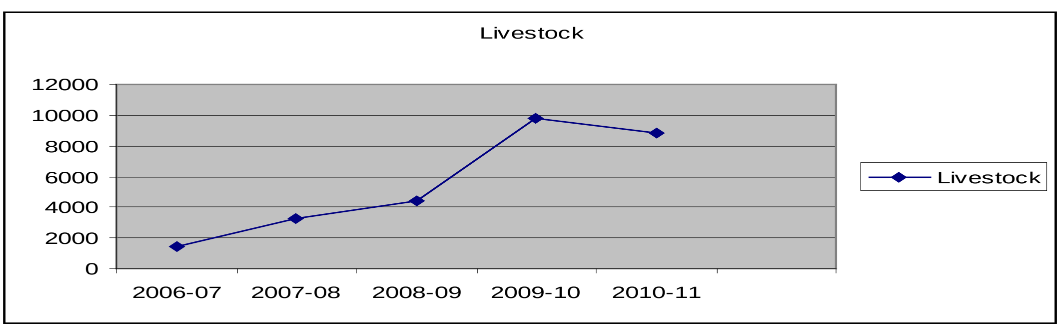


Figure 3 : Loan Disbursement to Livestock

According to the table and graph the disbursement of loan to this sector is increasing as demand and production of this sector are increasing. Livestock loan includes dairy, beef, fattening and poultry. It is known to all that livestock farming has been affected by Anthrax and Bird-flue. As a result, in fiscal year 2010 – 2011 loan disbursement to this sector has been decreased than the fiscal year 2009 – 2010.

Table 05 : Comparative Analysis of Loan Disbursement to Crops and Livestock

Years	crops	Livestock
2006-07	1072	1464
2007-08	2065	3287
2008-9	2540	4461
2009-10	2669	9827
2010-11	3426	8800

**Amount in thousand, Tk.*

*** Source: Official Records of RAKUB, Binodpur Branch, Rajshahi.*

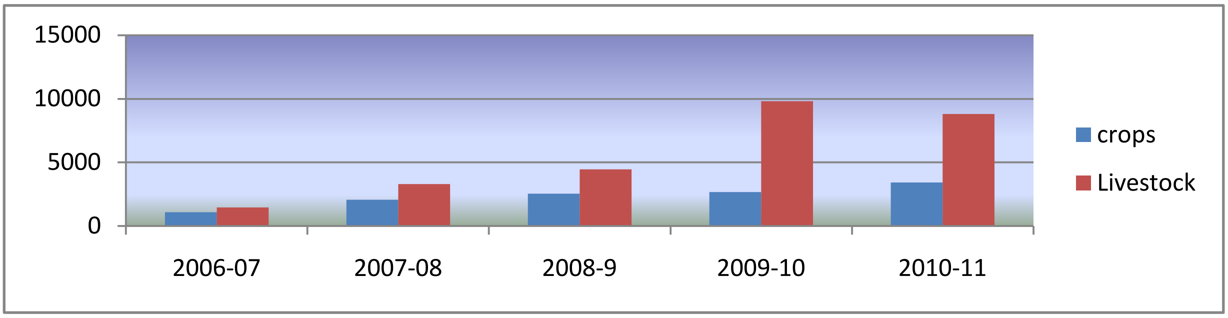


Figure 4 : Comparative Analysis of Loan Disbursement to Crop and Livestock

According to the table 5 and figure 4 the disbursement of loan to crops and livestock are increasing as demand and production of this sector are increasing. But the disbursement of loan to livestock is higher than the disbursement to crops due to most of the farmers are marginal farmers and can't meet the necessary condition to get crop loan, condition of collateral, loan disbursement to crop is risky etc.

Table 6 : Loan recovery from crops

Years	Crops
2006-07	1198
2007-08	1890
2008-09	1998
2009-10	2458
2010-11	3992

**Amount in thousand, Tk.*

***Source: Official Records of RAKUB, Binodpur Branch, Rajshahi*

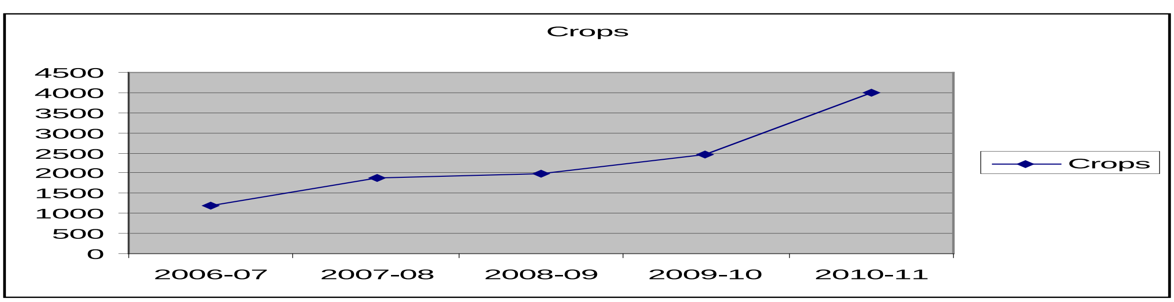


Figure 5 : Loan Recovery Trend of Crops

According to the table 6 and figure 5 the recovery of loan from this sector is increasing as disbursement of loan to this sector is increasing.

Table 7 : Comparative analysis of recovery performance of crops

Years	Loan Disbursement	Loan Outstanding	Loan Recovery	Loan Uncollected
2006-07	1072	5366	1198	4168
2007-08	2065	6233	1890	4343
2008-09	2540	6883	1998	4885
2009-10	2669	7554	2458	5556
2010-11	3426	9611	3992	5619

**Amount in thousand, Tk.*

***Source: Official Records of RAKUB, Binodpur Branch, Rajshahi.*

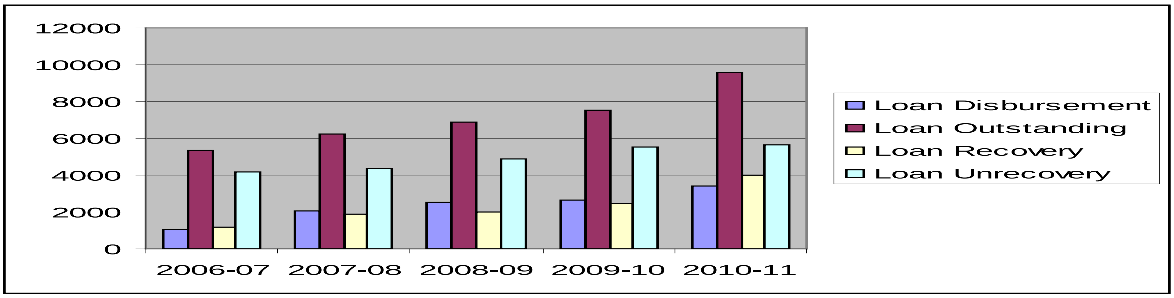


Figure 6 : Comparative analysis of recovery performance of crops

It is obvious from the table 7 and figure 6 that the collection of disbursed loan is increasing of the Branch. The branch has experienced huge amount of loan collection during the last fiscal years. From the above graph it is also clear that the amount of uncollected balance is very high with respect to the total amount of collection. Even this increasing rate is so high that it is insignificant to the collection amount. It indicates that the performance of the Branch in case of collection is not efficient. So the efficiency of the Management should be increased.

Table 8 : Loan Recovery from Livestock

Years	Livestock
2006-07	2001
2007-08	2807
2008-09	6206
2009-10	212
2010-11	9408

**Amount in thousand, Tk.*

***Source: Official Records of RAKUB, Binodpur Rajshahi.*

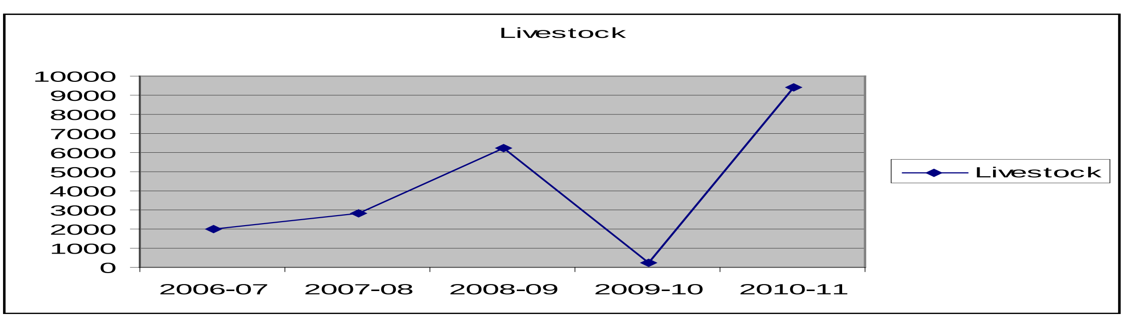


Figure 7 : Loan recovery from livestock

According to the table and graph the recovery of loan from this sector is sometime increasing and sometime decreasing as disbursement of loan to this sector is increasing and decreasing according to the production and condition of climate.

The bank extends credit facilities of livestock farming, which includes dairy, beef, fattening and poultry. We know livestock farming has been affected by Anthrax and Bird-flue. As a result the loanees have been unable to repay the loan in due date and loan recovery has been about to zero in fiscal year 2009 – 2010.

Table 9 : Comparative Analysis of Recovery Performance of Livestock

Years	Livestock			
	Loan Disbursement	Loan Outstanding	Loan Recovery	Loan Uncollected
2006-07	1464	8696	2001	6968
2007-08	3287	10255	2807	7448
2008-09	4461	11909	6206	5703
2009-10	9827	15530	212	15318
2010-11	8800	30422	9408	21014

**Amount in thousand, Tk.*

***Source: Official Records of RAKUB, Binodpur Branch, Rajshahi.*

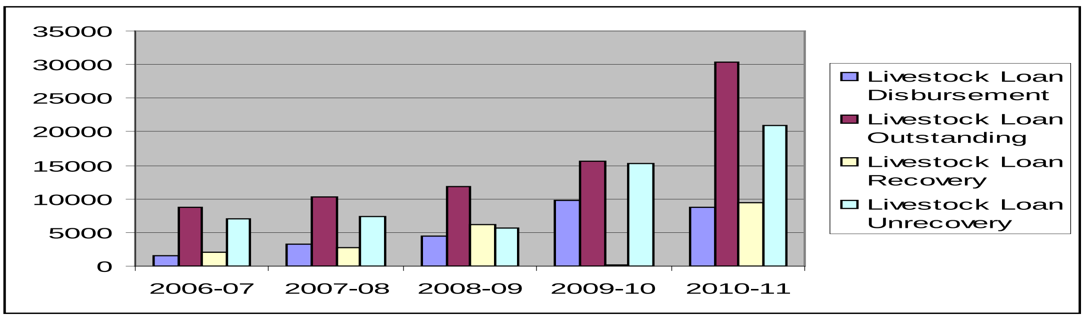


Figure 8 : Comparative Analysis of Recovery Performance of Livestock

It is clearly found from the table 9 and figure 8 that the collection of disbursed loan is increasing of the branch except the fiscal year 2009 – 2010 as the livestock has been affected by Anthrax and Bird-flue. The branch has experienced huge amount of loan collection during the last fiscal years. From the above graph it is also clear that the amount of uncollected balance is very high with respect to the total amount of collection. Even this increasing rate is so high that it is insignificant to the collection amount. It indicates that the performance of the Branch in case of collection is not efficient. So the efficiency of the management should be increased. If the Branch fails to increase the efficiency of the management, it may fall in continuous loss.

Table 10 : Comparative analysis of recovery performance of crops and livestock

Years	Crops	Livestock
2006-07	1198	2001
2007-08	1890	2807
2008-09	1998	6206
2009-10	2458	212
2010-11	3992	9408

** Amount in thousand, Tk.*

***Source: Official Records of RAKUB, Binodpur Branch, Rajshahi.*

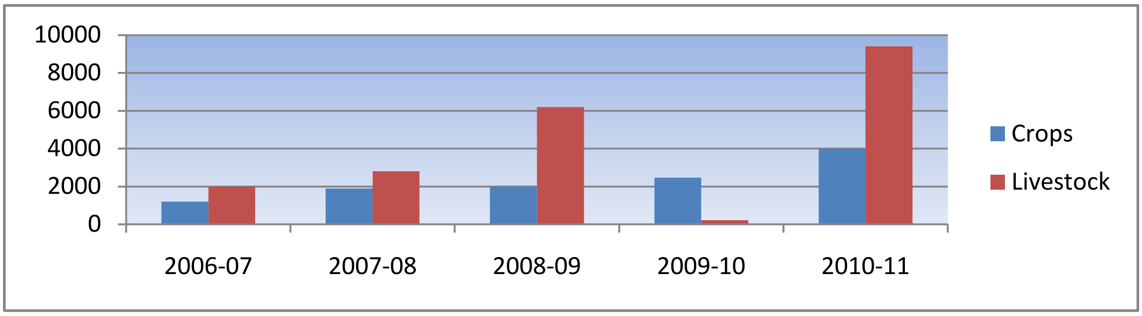


Figure 9 : Comparative analysis of recovery performance of crops and livestock

There is a fluctuation or variability (table 10 & figure 9) to collect the loan from crops and livestock as sometimes natural calamity destroys the crops, banana was affected by Nipah virus, livestock was affected by Anthrax and Bird-flue.

V. Findings of the Study

a) Loan recovery problem

Loan recovery problem is a major problem for specialized bank like RAKUB. Binodpur Branch is also not out of this problem. In our study we have found that collection rate is quite lower than the uncollected rate.

77.67% crops loan in fiscal year 2006 – 2007, 69.68% crops loan in fiscal year 2007 – 2008, 70.97% crops loan in fiscal year 2008 – 2009, 67.46% crops loan in fiscal year 2009 – 2010 and 58.46% crops loan in fiscal year 2010– 20011 have been uncollected. Again, 76.99% livestock loan in fiscal year 2006 – 2007, 72.63% livestock loan in fiscal year 2007 – 2008, 47.89% livestock loan in fiscal year 2008 – 2009, 98.63% livestock loan in fiscal year 2009 – 2010 and 69.08% livestock loan in fiscal year 2010 – 2011 have been uncollected.

b) Causes of default

The loanee can't make loan payment in due time in various causes. The main cause is like the natural calamity destroys the crops, for this reason the loanee is unable to pay in due time. Sometimes, RAKUB cannot take proper step against the influential loanee. The loanee does not use the loan properly and repay loan in due time.

c) Sector wise loan disbursement problem

Binodpur branch emphasizes only certain sector like Crops, Fisheries, Livestock, SME. But this cannot ensure the equal distribution for well balanced economy.

d) Classified loan problem

The rate of collection of classified loan is quite better. But the number of customer repaid is less. This problem can create serious hazard for this branch as well as RAKUB as a whole.

e) Co-ordination problem between inter department

There is a lack of co-ordination problem between loan disbursement department and loan collection department of Binodpur Branch. Hence my study tells uncollected balance is increase seriously.

f) Lack of Manpower

In our study period, the total number of executives and staff are thirteen. That is very insufficient. Furthermore there is a lack of experience and skill campaigner.

g) Inefficient Management

Binodpur Branch faces the problem of inefficient management due to lack of training facility available in this branch.

h) Lack of Effective field work

Field work is necessary for such type of specialized bank. Because most of the customer of this branch is illiterate in nature. But we have not found any effective field work.

i) Loan disbursement Problem

The study suggests that loan disbursement of this brunch is only for medium types of loan; usually extend loans for 1-3 years. Small and large types of loan are absent there. That is very much worst scenario for this brunch.

j) Political Influence

All of we know Government organization of LDC is heavily affected by political influence. RAKUB as well as Binodpur Branch is not out of this problem. And this is the major cause of loan recovery problem.

k) Crops loan disbursement problem

Crop loans are distributed only for certain crops like potato, banana and boro. The customer who wants to cultivate land for ladies finger can't excess for any kind of loan.

VI. Suggestions and Recommendations

RAKUB plays a vital role in agricultural sector in the northwest region of Bangladesh. In our study we have acquired practical banking experience from

Binodpur Branch of RAKUB and observed some shortcomings in loan disbursement and recovery of crops and livestock. The Binodpur branch of RAKUB should take some measures to overcome those limitations. The study suggested that branch must try to increase the no. of deposits accounts by offering attractive deposits schemes, loan recovery department must more transparent and there must have some regular supervision. The study also suggest training to employees relating proper utilization of loan, selection of genuine borrowers, selection of productive sectors, disbursement and recovery relationship, resource mobility and liquidity, taxes and lawsuits, refinance plan. The study also suggests gaining proper knowledge about loanee and use of modern technology like management information systems.

VII. Conclusion

Bangladesh is a developing country and 76.61% of the total population in our country is living in rural area (Census 2001, BBS). Financial condition of those people is miserable. They depend only on agricultural and small business activities. So, they will be taking loan from this bank for agricultural expends and their business activities. Getting loan from commercial bank is not possible as they charge high interest rate and collateral against loan. To solve this problem RAKUB has been established on 15 March, 1987 and Binodpur Branch of RAKUB has been established on 27 August, 2006. Due to illiterate and lack of technical knowledge, the farmers of our country do not use borrowed money properly, moreover they diverse their borrowed money for family private expenses and festival expenses. Crops are destroyed in natural calamities like flood, rain with hail, drought etc., and livestock are affected Anthrax and Bird-flue. As a result default culture has been created and loan default is one of the major problems of our country. It is quite impossible for a branch as well as RAKUB as a whole alone to improve the financial conditions of the rural people. But it requires the help of all classes' people and also the government should take necessary steps for the better performance of RAKUB so that it can help to fulfill its objectives.

References Références Referencias

1. Khan, A. R., 1999, Bank Management, ABC Publications, Dhaka, Fund Management, 2nd Edition, pp. 34-98
2. Xhakollari, L., 2013, Quality of Work Life of Mental Health Professionals in Albania, Mediterranean Journal of Social Sciences, Vol: 4, no: 1, pp. 529-534.
3. Hossain, Md. Zakir., Export Diversification and Role of Export Processing Zones (EPZ) in Bangladesh, BEPZA, available at http://siteresources.worldbank.org/Intranettrade/Resources/InternalTraining/Zakir_Hossain_Paper.pdf
4. Khan, Mahmood Hasan., Rural Poverty in Developing Countries Implications for Public Policy, IMF, Economic Issues, No. 26, available at http://www.imf.org/external/pubs/ft/issues/issues26/
5. Jahan, Nargis., Country Report : Bangladesh, BJSD, available at http://www.training.itcilo.it//.../Nargis_BJSD
6. Population Census 2001 – Preliminary Report; Bangladesh Bureau of Statistics, Statistics Division, Ministry of Planning, Government of Bangladesh, August 2001.
7. Statistical Pocket Book – Bangladesh 2002, BBS, Statistics Division, Ministry of Planning, Government of Bangladesh.
8. Robinson Roland L, The management of Bank Fund, Newyork, Mc Graw hill Inc. 1962.
9. Saha, Abhinaya Chandra, Principles of Business Finance, Hasan Book House, Dhaka, 1987.

This page is intentionally left blank

Global Journal of Management and Business Research: C
Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

The Impact of the Financial Activities of Amman Sock Markets on the Market Stock Value

By Dr. Ahmad Salem Alkhazali
Al Albyat University, Jordan

Abstract- The aim of this study is to recognize the relationship between the financial activities of Amman stock market and the market value of its prices, through identify the nature of weighted market value index and the market value prices, and the nature of the stock trading size and the market value prices beside identify the relationship between the companies numbers listed in the stock market and the market value prices during the period of 1998-2011.

Securities markets get important issue in the world, because it present opportunity place to maximize the wealth by short time but it has high risk, where it needs financial knowledge and culture and economic analysis for the listed companies listed.

Unless investor should get attention according to the main factors which related to the securities market and effects on the market stock value, where the activity of financial market is consider essential determinants of the stocks price , beside that securities market face for many crises which effects on its performance during decline of market sock prices.

GJMBR-C Classification: JEL Code: N20

THEIMPACTOFTHEFINANCIALACTIVITIESOFAMMANSOCKMARKETSONTHEMARKETSTOCKVALUE

Strictly as per the compliance and regulations of:

The Impact of the Financial Activities of Amman Sock Markets on the Market Stock Value

Dr. Ahmad Salem Alkhazali

Abstract- The aim of this study is to recognize the relationship between the financial activities of Amman stock market and the market value of its prices, through identify the nature of weighted market value index and the market value prices, and the nature of the stock trading size and the market value prices beside identify the relationship between the companies numbers listed in the stock market and the market value prices during the period of 1998-2011.

Securities markets get important issue in the world, because it present opportunity place to maximize the wealth by short time but it has high risk, where it needs financial knowledge and culture and economic analysis for the listed companies listed.

Unless investor should get attention according to the main factors which related to the securities market and effects on the market stock value, where the activity of financial market is consider essential determinants of the stocks price , beside that securities market face for many crises which effects on its performance during decline of market sock prices.

Investor needs identify of the factors in the stock market in order to avoid the risk and maximize the profit, where he should use some methods to reach the optimal decision. So this study use descriptive analysis method by implied multiple regression for the variables.

The main results of this study, there is a significant positive relationship between the weighted market value index and the market value prices, and there is a significant positive relationship between the stock trading size and the market value prices beside that there is a significant positive relationship between the companies numbers listed in the stock market and the market prices value.

I. Introduction

Associated with dealing with the financial markets and to know what are the main factors effects, which needs analyze the behavior of the stock prices of those markets and get knowledge about variables and the factors could effects, and get the relationship between markets that enable investors to make appropriate decisions, where financial markets represent source of providing the necessary data and information for investors which help them in making investment decisions at the right time in the right place (Al-Masri 2011).

The stock market has a wide interest in all countries of the world, where any investor need knowledge of the economic analysis of listed companies in this market because of the higher returns that might get but the risk where very high , where the investor can earn more than planned, and can lose all they have The stock market has a significant impact on economic growth, as it aims every investor get a yield estimated risk, the study examines the impact of activity Amman financial market on stock prices listed there, where the establishment of the Amman Financial Market related to 1978, which has successfully clear success in its infancy, where this market id divided into two divisions, market initially is the issuance of shares for the first time and a secondary market in which deal in shares previously issued, and there are several sectors listed in the Amman Financial Market is divided into four sectors (banking sector, the manufacturing sector, the services sector, and the insurance sector), and the investor before the process buy or sell ordinary shares at market prices traded in the stock market make it maintains an appropriate and fair to those prices and the objective of this assessment is to reach the real price paid by the investor in exchange for the stock or bond.

II. Problem of the Study

The price of the stock market is the main indicators to get investment decisions by the dealers or investors in the financial market, where investors get encouragement to invest whenever market prices of stocks predict to increase, but there are many factors which are related and impact on the financial market price which reflects in market value of the shares, and make it back down sometimes related to the activity of financial market determinant of stock prices, in addition to that, we find that financial markets has passed through many crises which have affected the level of performance through the decline of its stock market capitalization, where ASE of emerging considered one of the financial markets which has been affected by the financial crises in the world .

III. Importance of the Study

Financial markets Representing investment opportunity and attractive importance role for domestic capital and foreign, where recent years have seen efforts in most developing countries of the world to improve the investment climate through the creation of appropriate conditions for encourage investments, and, the countries could not get the financial resources available that its need to develop economic activities without those markets, and the efficiency, beside The

Author: Al Albyat University Finance and Banking Section.
e-mail: Ahmadkhzl@yahoo.com

effectiveness of the market reflects positively on the economic situation.

This study contributes to identify of the Amman Stock Exchange determinants which affect on the market value of the shares, so as to assist to determine the statement of the factors that could increase the market value of the shares

IV. Objectives of the Study

The study aims to try to detect the possible relationship between the activities of Amman Stock Exchange and the stock market prices of listed therein, through the questions below

1. To identify the nature of the relationship between the weighted index at par value, and the market price of the stock in the Amman Stock Exchange during the period (1998-2011)
2. Understand the nature of the relationship between the volume of stock trading and stock market prices during the period (1998-2011)
3. Identify the nature of the relationship between the number of listed companies and stock market prices during the period (1998-2011)

V. Hypotheses of the Study

H1: There is a direct correlation statistically significant between index weighted by market value and the market price of the stock

H2: There is a direct correlation between the statistically significant trading volume in the stock market and stock market prices

H3: There is a direct correlation between a statistically significant number of listed companies on the one hand and the market price of the stock

VI. Previous Studies

The following are a number of previous studies on the subject of this study, has been divided into studies of Arab and other foreign countries

a) The Arabic Studies

1. The purpose of the study Saidi (2011) to identify the factors affecting the rate of return on the stock market during the period 2006-2009. The study sample consisted of companies listed on the Stock Exchange Palestine Securities Exchange. The study found a range of important results, which reached that a positive relationship between the success of performance and the rate of return the market share, and the existence of a positive relationship between the rate of distributions (the price at the beginning of the perio) and the rate of return the market share, and also its found a positive relationship statistically significant between the quality of earnings and the rate of return of market share , while the study recommended the need for the companies that do not distribute dividends to adopt a dividend policy and work to increase the percentage of the distribution.
2. The Shawawrah (2008) study regarding the statement following which represent the effects of efficiency factors of Market Stock Exchange and intrinsic motivation for investors and financial performance indicators for public companies of Jordan on the average market price of ordinary shares.

In order to evaluate and try to take them off price equilibrium at which the market price represents the true value of the shares, and through measure the impact of the three-dimensional variables on the average market price of the time series stretches during the period between the years (1996-2002). The study found results that the degree of response to market prices for all of the information available in the stock market was high, and that the variables of subjective factors to investors did not have a clear impact on the price of the stock market and financial performance indicators for the stock companies of liquidity and profitability and capital structure have had a strong impact on the Average market prices.

3. study of Moses and Safi (2009) which explain the impact of the size of company size with total assets to equity returns in industrial companies listed on the Amman Stock Exchange , and the impact it on the risks of these companies , whether these risks represent systematic or in systematic , where the study cover the period from 1999 to 2006.this study Consists sample of 20 industrial company divided into ten companies represent small and ten large companies scale, the study results indicated a positive relationship between return and risk in the shares of large-sized companies , as study proved that the overall risk in small-scale enterprises is greater than the overall risk in large-sized companies.
4. The aim of the study Al moed (2005) is to try to identify the factors affecting the stock prices of the companies listed on the Amman Stock Exchange during the period between 1998 and 2003, the study sample consisted of 42 companies representing all sectors and contain the most important companies in terms of market value and volume Trading in the market , and the study has been findings of many result that the rate of turnover of the stock affects the share price directly and strong, and the interest rate affects the stock price adversely and strong while the study did not prove the existence of a relationship between earnings per share and dividend per share of cash distributions also could not approve a correlation between the rate of inflation and the stock price.

b) Foreign Studies

1. The purpose of the study Aghdaei & Ghasemi (2012) is to identify the nature of the relationship between the debt and the market value of the shares during the period (2003-2008) in Iran. The data were collected and analyzed using the necessary linear regression analysis. The results indicated the presence of a statistically significant relationship between the debt and the market value of companies in the financial market in Tehran, Iran.
2. The aim of the study Abadi et al (2012) to find out the impact of financial factors on stock prices in the financial market of Tehran during the period (2005-2009). To achieve the objective of the study was to build a model of linear regression linking the variables of the study. The results indicated the presence of a statistically significant relationship between the volume of sales and return on investment between stock prices and, while it did not prove the existence of a statistically significant relationship between profit margins and stock prices.
3. The study Menaje (2012) has looked at the impact of some factors on the stock prices of financial companies in the public sector in the Philippines in 2009. Study sample consisted of 50 companies have been collecting data and building a model of linear regression linking variables. Results of the study showed a positive relationship between earning per share and stock market prices, while showing a weak negative relationship between the return on assets and stock market prices.
4. A study Al-Halalmeh & Sayah (2010), which dealt with the impact of foreign direct investment on the stock prices in the Amman Stock Exchange. Where this study followed the method of descriptive analytical approach through the design and distribution of a questionnaire to a sample study of which distributed to (100) individuals where that have been selected at random from individuals working in the Amman Stock Exchange. Results of the study refers to a positive impact statistically significant between direct foreign investments and the stock prices at the Amman Stock Exchange.

VII. The Theoretical Framework

Securities considers the item's stock basis of the financial markets, and that as the only commodity traded in those markets, where the stock prices represent the most important ingredients upon which the investor to determine the nature of the investment, which will be presented to him whether this investment in the company or in the stock market, and thereby the study address the nature of the Amman Stock Exchange and the most important indicators that depend on them in the dissemination of information in the financial market and its impact on the combined effect on stock prices of companies listed on the Amman Stock Exchange. (Hindi, 1992, p 3)

VIII. The First Topic: The Stock Exchange

a) The nature of the stock market

The place which used to buy and sell the securities Financial market, usually the name of the stock exchange, with a view to conducting commercial transactions without providing or transporting goods. The Stock Exchange Amsterdam, Netherlands, Considers historical the first regulated market for securities and then followed by other markets in Western Europe, where the first of the Paris Stock Exchange established, where is the Stock Exchange of New York's consider the largest and most global markets. www.dfm.co.ae

b) Electronic Stock Exchange

According to the globalization and the development in financial services most institution adopt modern financial services to achieve their objectives where one of these institution is stock exchange which adopt trading and exchange of securities electronically through the Internet, all the securities and traffic circulation are trading on a computer screen., And each broker site on the Internet can a buyer or seller to contact him immediately for the purchase, sale and added or spot discount from his account, and are these deals for a fee of less much of the commission mediator in the absence of the electronic stock market, where will get many benefits through reduce the expenses when use the Internet and the commission and administrative expenses due to the transparency and knowledge of the sale price and the purchase (Shrap, 2006, p 29)

There are several conditions for the formation of the stock market as,

1. stable investment climate in the context of a fair distribution of wealth.
2. awareness of the economic and financial , which helps to spread awareness of the economic, financial and mechanisms of action of the stock exchanges.
3. traditional and innovative tools (stocks and bonds of all kinds and all kinds of other convertible), especially those tools that fit the low-income.
4. Offices specializes in modern management of securities portfolios.
5. Openness to international markets through advanced communications technology and keep up with modern output in those markets. (Shrap, 2006, p 30)

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

IX. Types of Exchanges

There are several exchanges diversity of economic activities in each country, according to the degree of economic progress, because the stock markets reflect the degree of social and economic well-being of the state. And free societies characterized by the diversity of the stock exchanges and spread to different aspects and areas of economic life, and in the following types of exchanges (Sharap, 2006, p 30).

a) In terms of traded products

1. Commodity Exchange, refers to a group of exchanges in which the trading of certain goods , such as exchanges of agricultural commodities (cotton - coffee - tea) and metal goods (gold - silver - copper - oil) and commodity exchanges of special nature such as real estate and land exchanges.
2. stock exchanges services, a variety of the most important tourism, hotels, insurance exchanges, transport and chartering of vessels, and exchanges of export contracts and trade debt.
3. exchanges of ideas , the latest types of exchanges and related to the supply and sale of patent rights and know-how, trademarks, and information systems.

b) The stock exchange in terms of the time period

1. Stock Products present: contracted and received and delivered and capture value immediately.
2. the Futures exchange: which refers to be agreed upon without delivery or receipt of the products, and it is only speculation on the price.

c) The stock market in terms of geographic deal

1. exchange, which operates at the local level and does not extend to transactions at the international level and is characterized by limited activity and presence in the newly emerging economies.
2. exchange, which operates at the international level and extends to transactions various international exchanges, a large and medium-sized.

d) The stock exchange in terms of registration and recognition of Government

1. Stock Exchange official: Established in accordance with the laws and rules governing and where there are a representative of the government is watching and following the transactions and intervene in time to prevent risk and maintains the stability of work.
2. non-official exchange: which operate to the working on an informal basis and in accordance with the rules and procedures of their own, where not recognized by the government and does not deal with them because they involve risks inevitable.

Among the most important developments in the Amman Financial Market, developments that seek to

Among the most important developments in the Amman Financial Market, developments that seek to globalization and opening up to the outside world is to use electronic trading systems and strengthen market supervision and remove all obstacles to investment to reach high levels of transparency. The issuance of the Securities Act of temporary important turning point in the Jordanian capital market, which included the restructuring of the market and the separation of the oversight role of the legislature from the executive and the replacement of the Amman Financial Market with three new institutions, namely: . (Jasser, 2006, p 48).

- Securities Commission
- ASE / stock market
- Securities Depository Center

X. The Amman Stock Exchange

Amman stock exchange began to exchange their work as a civil society with the independence of the administrative and financial dated 1999, where it is a non-profit, and it is the only entity in Jordan authorized to make transactions as a market systems for securities trading under the supervision of the Securities Commission, according to the Securities Law No. 23 of 1997, then allowed to create more than a market for the trading of securities in Jordan under the new Securities Law No. 76 of 2002. most important goals, create an attractive investment environment and safe, and the development of processes and methods of trading securities.

Financial, and applying the latest international standards, and dissemination of trading information to the largest possible number of dealers and interested, and increase the awareness of all segments of society and, in particular securities dealers, relying on the credibility and transparency in the dealings of the exchange.

XI. Securities Traded on the Amman Stock Exchange

There are many securities traded on the Amman Stock Exchange and can be summarized thus (AL_Shawawrah.2008, p 164).

Corporate bonds, which is a securities with a face value of tradable and issued by public shareholding companies and posed for public subscription or private for a loan of at least one to five years and the company undertakes under this attribution to repay this loan and its benefits, according to the terms of release, public debt instruments which is about treasury bills and bonds Treasury issued by the government to obtain loans from the public, Muqarada bonds, a tool of financing, according to the rules of Islamic economics is a relationship lending between the source and the subscriber take meaningful participation, common stock, a cash shares and may be in kind and paid at once or in installments of no more than four years ago, the stock certificates they document issued by the company in favor of the shareholder which recognizes the company's ownership of these shares .

XII. The Second Topic: The Stock Market Prices

a) What is the value or price

Price of stock is the key advantage of good or service, estimated by those who use them or they own, or the resulting price of the security which advertise during the session, was registered in the table after the meeting (Samira 0.2010, p 179).

The price of the securities, which changes depending on the market conditions change, according to supply and demand for the securities, under the efficient market is supposed to equal the price of the securities with their true value, which the value that compensates the investor for the risk of investing in, but are rarely equal the real value of the paper Finance with market value. (Samira 0.2010, p 180).

XIII. Factors Affecting the Stock Price

There are a range of factors affecting the stock price, among them (Samira 0.2010, p 180)

a) Factors related to the capital market and the general economic situation

Such as the direction of stock prices upward or downward, or other uses of capital, and the large international movements of capital.

i. The direction of stock prices upward or downward

This situation is related to the stock prices moving upward or downward, this trend is controlled by a combination of factors, the bulk of the cash allocated for investment in securities, if the volume of funds allocated for investment in stock, we'll record the emergence of a trend of rising stock prices as a result of increased demand and vice versa true.

ii. Compete with other uses of capital

The competition between the different areas that can be invested in capital significant impact on trends in stock prices, especially if the competitive strength for the rest of the largest areas of competitive strength in the field of investment securities.

iii. Large international movements of capital

May play some big moves to the capital to exercise their role in investing in securities or in any other area of investment.

b) Factors related to the financial paper

Issued securities at a certain price, which is known as the nominal value or par value and change this value later when dealing with buying and selling, and this is due to several factors related to the financial paper in itself and these factors the degree of return, and the importance of savings.

c) Technical factors related to the mechanisms of a private stock exchange

Among the technical factors specific mechanisms of action for the stock market psychology related to the stock exchange, the degree of market width, recipe holders of the securities, futures operations. Including psychology related to the stock exchange, the degree of market width, recipe holders of the securities and futures operations.

XIV. Determinants of the Market Value of Shares

The stock price is determined by the size of the cash flows expected to be generated from the operations of the facility and the rate at which it deducted these flows to reach its current value, which is equivalent in the aggregate market value of the property (Hindi, 1992, p 211).

There are many information that affect the market value of the shares, such as, global affairs, such as information available from wars or tensions potential in an area, or local economic conditions and is in the degree of economic growth in the state and the level of inflation, and the conditions of industry, such as general economic conditions in the state that affect all industries. (Hindi, 1992, p 214).

XV. The Third Topics: Indicators and Their Relationship to the Ase Securities

a) Stock index

The investor identifies the performance level of investment in the stock market, not to be a basis or standard, but should compare his or measuring it, thus making the procedure precautionary too, which guarantees achieving the best returns at the lowest risk possible, through rate prices or the so-called index of the stock exchange, which represent the value of all stocks in a given time, and it is one of the most important tools that can predict future trends in the ups and downs , and these indicators are of course vary according to the foundations upon which to build these indicators in each stock. (Al-Shawawra.2008, p 62)

To ensure the building is a good indicator reflects the stock market objectively take a sample representative of all shares listed and traded, and in which it has treated at the same time must include this sample all economic sectors, with the development of the relative weights of the shares of the sample or calculated by dividing the market value of the shares on the market value of the shares of the sample in every day, in order to lead the index intended purpose must be clear and understandable to all its clients. (Al-Shawawra .2008, p 63)

b) The main ways to calculate the index

There are two main methods for calculating market indices (Al-Shawawra.2008, p 63)

i. *Average price*

It is a quotient of total stock prices of the selected sample of the market at a certain date on the total number, and the indicators are calculated on this method, the Dow Jones industrial average

ii. *The market value*

The index is calculated on this basis, through the collection of multiplying the number of shares in the market price per share of the shares of the sample. Indicators are calculated on capital market Most countries in emerging of capital market

c) Indicators Amman Stock Exchange

Index figures is considered the most important standard of the financial markets indicators that indicate the levels of stock prices and determine the general direction of prices, and these used to measure changes in stock prices during a certain period, compared with the other period.

indicators traded in the Amman Stock Exchange Securities are Known as follows

(Jasser, 2006, p 54)

i. *The weighted index*

This figure Is calculated by the method of market value of the companies sample, so that gives each company's weight as much as what constitutes a market value of the market value of the sample as a whole, and constitute a market value of companies to the sample 90 % of the total market capitalization was adopted in 1991, the base year with a record of 100 point, then the value of the foundation was changed to 1000 points in 2004

ii. *Float Index Free*

This figure is calculated based on the market value of the weighting of the free shares available for trading in the companies and not the total number of shares listed for each companies, and supports this method a large number of international institutions, which calculates the record for most countries of the world such as the Foundation Stander & Poor's

iii. *Number of listed companies*

This indicator measures the extent of the size of the market, as an increase in the number of listed companies is working to increase investment, which contributes to increasing the efficiency of the stock market, while the decline in the number of registered companies or negative growth rate in the number of companies registered, means out companies that do not enjoy efficient, that the number of companies listed on the Amman Stock Exchange 150 company, and then rise up to 247 in 2011(Samira 0.2010, p 256)

iv. *Volume in the stock market*

Volume in the stock market of an item Known by the liquidity of securities, and it is intended liquidity " that buyer and seller can to conclude the deal quickly and at a price close to the price at which concluded last deal on the same paper, the liquidity required in addition to the ease of marketing, provides a feature regularity any attribute erratic prices, which are intended with price stability not exposed to any significant changes from the deal to the other " (Hindi, 1992, p 557)

XVI. Methodology of the Study

This study was followed descriptive analytical method by building a model of the linear relationship linking the variables of the study, where the data of study has represented time-series data. The following sample shows the relationship between the variables of the study

$MV = \alpha + \beta 1\ WIN + \beta 4\ VOL + \beta 5\ NO + e$ 1

Where

MV: the market value of the shares

WIN: weighted index in nominal terms

VOL: trading volume of the stock

NO: number of listed companies

e: random error , which represents the change in market prices wildly as a result of other factors not included in the study model

α: Fixed regression equation

$\beta 1, \beta 2, \beta 3$: slope of regression equation, which reflects the sensitivity of the change in the market prices of the change in the independent factors under study, according to their ranking

a) Sources of data collection

This study has been depending on the collection of data on the survey office, books and financial periodicals specializing in subject (stock market indicators, the Amman Stock Exchange indicators) as well as some of the literature and studies of Arab and foreign countries and some financial reports published on the Internet and location of the ASE and the annual reports of the Amman Stock Exchange

XVII. Methods of Data Analysis

Data were collected regarding the financial impact of the Amman Stock Exchange Securities on the stock prices of the companies market the study sample, and the statistical analysis was performed using SPSS program to answer the hypotheses of the study, which has been relying on linear regression analysis (Regression)

XVIII. Results of the Study

a) ASE financial indicators during the study period

Table (1) is shown Indicators of the Amman Stock Exchange during the period of study (size of stock trading, market value, number of listed companies, , stock price index weighted by market value) during the period (1998 -2011).

Table 1 : The activities of the Amman Stock Exchange during the study period (1998-2011)

Years	size of stock trading	stock price index weighted by market value	number of listed companies	Market value
1998	464374.268	1701.3	150	4156558,122
1999	389476.334	1673.5	151	4137711,690
2000	334724.633	1330.5	163	3509640,709
2001	668652.674	1727.2	161	4476364,817
2002	950272.995	1700.2	158	5028953,990
2003	1855176.028	2615.0	161	7772750,866
2004	3793251.050	4245.6	192	13033833,515
2005	16871051.948	8191.5	201	26667097,118
2006	14209870.592	5518.1	227	21078237,222
2007	12348101.910	7519.3	245	29214202,327
2008	20318312.547	6243.1	262	25406265,528
2009	9665312.327	5520.1	272	22526919,428
2010	6689987.155	5318.0	277	21858181,603
2011	2850252.628	4648.4	247	19272757,327
Average	652917993	4139		14867105304

Prepared by researcher

b) The dependent variable (market value)

Table (1) is shown the fluctuation in market value during the study period with higher until the year 2007, amounting to (29,214,202,327), and then declined to be reached in the year 2011 to (19,272,757,327) where the overall average market value during the study period (14,867,105,304)

c) Independent variables

Table (1) is shown the fluctuation in the volume of shares traded during the period of study with very high for the year 2008, amounting to (20,318,014,547), and then declined to be reached in the year 2011 to (2,850,252,628)

The index weighted by market value rose to the top of the rise in 2005, reaching (8191.5) and then decreased until it reached in 2001 (4648.4)

As for the number of companies are on the rise from 1998 to 2010, but in 2011, note down the number of companies in the Amman Stock Exchange Securities to become the (247), a joint stock company after it was (277), a joint stock company in 2010, has been attributed to mergers or liquidation that occurs in the stock market

d) Test hypotheses

To test the hypotheses of the study has been conducted linear regression analysis to determine the presence of a statistically significant relationship at the level of significance

($\alpha \leq 0.05$), and the results were as follows

The first hypothesis: There is a direct correlation statistically significant differences between index weighted by market value and the market price of the stock

Table 2 : The results of the regression analysis to test the first hypothesis

Result	F(table)	F	R	R2	sig
Accept	4.74	37.167	0.869	0.756	0.00

The level of significance R2

(Coefficient of determination) R

(Relational) F

The calculated F

e) Spreadsheet as a result of the hypothesis acceptance

The table (2) refers to the relationship between the index weighted by market value and the price of the stock market as statistical analysis results showed the

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

presence of statistically significant relationship , with a correlation coefficient R (0.869) at the level of statistical significance ($\alpha \leq 0.05$), the coefficient of determination R2 has reached (0.756), a significant relationship as the value of f calculated, which amounted to (37.167) which is higher than Tabulated value (4.74), and on the level of statistical significance was (0.00) which is less than the specified value 0.05, and therefore we reject the hypothesis negative and accept the alternative hypothesis, and this means that there is a direct correlation statistically significant differences between index weighted by market value and the market price of the stock

The second hypothesis: There is a direct relationship between the statistically significant trading volume in the stock market and stock market prices

Table 3 : The results of the regression analysis to test the hypothesis of the second

Result	F(table)	F	R	R2	sig
Accept	4.74	37.167	0.869	0.756	0.00

The table (3) the relationship between the volume of the stock market on the one hand and the prices of the stock market on the other hand, as statistical analysis results showed the presence of statistically significant relationship, with a correlation coefficient R (0.869) at the level of statistical significance ($\alpha \leq 0.05$), while the coefficient of determination R2 has reached (0.756), a significant relationship as the value of f calculated, which amounted to (37.167) which is higher than Tabulated value (4.74), and on the level of statistical significance was (0.00) which is less than the specified value 0.05, and therefore we reject the hypothesis nihilism and accept the alternative hypothesis, this means that there is a direct correlation between the statistically significant trading volume in the stock market on the one hand and the prices of the stock market on the other

The third assumption: There is a direct relationship between a statistically significant number of listed companies on the one hand and the market price of the stock

Table 4 : The results of the regression analysis to test the hypothesis of the third

The results of the regression analysis to test the hypothesis of the second

Result	F(table)	F	R	R2	sig
Accept	4.74	37.225	0.870	0.756	0.00

The table (4) the relationship between the number of listed companies on the one hand , and stock prices the market on the other hand , as statistical analysis results showed the presence of statistically significant relationship , with a correlation coefficient R (0.870) at the level of statistical significance ($\alpha \leq 0.05$), the coefficient of determination R2 has reached (0.756), a significant relationship as the value of f calculated, which amounted to (37.225) which is higher than Tabulated value (4.74), and on the level of statistical significance was (0.00) which is less than the specified value 0.05, and therefore we reject the hypothesis negative and accept the hypothesis alternative, and this means that there is a direct correlation between a statistically significant number of listed companies on the one hand and the market price of the stock on the other hand.

XIX. Results

This study aimed to investigate the effect of the Amman Stock Exchange Securities financial activities on the stock market priced-listed, and after analyzing the data and testing hypotheses this study was reached the following conclusions.

First, the study showed a positive relationship between the statistical significance index weighted by market value and the market price of the stock, as the interpretation that the index reflects the performance of the Amman Stock Exchange Securities as reflected in the index first.

Second: The study showed a positive relationship statistically significant differences between the size of stock trading and stock prices the market, explain this relationship is that the high volume of stock trading is accompanied by a rise in the share prices of the companies the more trading in the financial market works to increase stock prices for all companies significantly.

Third, the study revealed a positive relationship statistically significant differences between the number of companies and stock prices the market, and explain this relationship that the more companies listed on the Amman Stock Exchange Securities increased stock prices of companies to all companies This increase is attributable to the increase in the scale financial market, which works to increase turnout investors so that it described this market as an active market.

XX. Recommendations

In light of what has been reached from the results of the study recommends the following recommendations

1. Paying attention to indicators by investors of the activity ASE because of its relationship with the strong stock market prices, as these indicators reflect the state of the stock market prices up or decline.
2. Paying attention to the stock market department of its indicators and calculated by the credibility and transparency way and the publication of reports which include historical information and current, in order to reflect the performance efficient market.
3. The need to do promotional campaigns by the stock market department to encourage individuals to save in order to invest and improve the market awareness of saving and investing
4. The need f government role and stock market department to encourage foreign investment in the Amman Stock Exchange during the international economic conferences, so that the preparation of the stock market reports show the advantages of investing in the stock market of Jordan, it would increase investment awareness among foreign investors and What is an ASE and the mechanism to deal with the foreign investor, which leads to attract foreign capital to support of economic development in Jordan.
5. the need to reduce the cost of trading by the Department of stocks listed on the stock exchange where, by adopt of electronic trading.

Bibliography

a) First: Arabic references

1. Ahmed, Mafwag , Khodeir, and Hala Sami (2010) , foreign investment and its impact on the economic environment, " look for the calendar Iraqi investment law," Journal of Husbandry and Economics, Issue 80.
2. Jasser, Amaal Abdel-Hamid (2006), the impact of e-commerce on the index of stock prices in the Amman Financial Market , Master Thesis, University of Jordan
3. Rania, Droubi (2011), the impact of economic changes in the volume of foreign investment in the Amman Stock Exchange, Damascus University, Damascus University Journal of Science economic, legal, Journal 27, No. 4.
4. Samira, Ltoush (2010), the efficiency of the capital market and its impact on the market value of the shares, " a case study of a group of Arab Capital Markets " , Ph.D. thesis, University Mentouri
5. Shrap, Sbah Osama (2006), the effect of the announcement of the dividend on the stock prices of companies listed on the Palestine Securities Exchange, Master Thesis, the Islamic University
6. Shawawrah, Faisal Mahmood (2008), investing in the stock market, Dar Wael for publication, first edition
7. Saidi, Jameel Ismail (2011), the factors affecting the rate of return on the stock market Empirical Study on companies listed on the Palestine Securities Exchange), Master Thesis , University of Al-Azhar.
8. Moses, Nouri Shgairy, Safi, and Waleed Ahmed (2009), measuring the efficiency of the Amman Financial Market through the influence of the size of the company in return and risk a study published, Baghdad College of Economic Sciences, No. 19.
9. Almoed, Mahmoud Abdullah (2005), the factors affecting stock prices applied on the Amman Stock Exchange, Master Thesis, University of Sudan for Science and Technology.
10. Hindi, Munir (1992), securities and capital markets, Delta Center for printing, distribution facility Knowledge of Egept.

b) Second, foreign references

1. Abadi, H., Fathi, S., and Alikhani, M., (2012), "Analyze the impact of financial variables on stock pricesof Tehran Stock Exchange companies", Interdisciplinary Journal of Contemporary Research in Business, Vol. 3, No. 11, pp. 151-157.
2. Aghdaei, S., and Ghasemi, K., (2012), "Studying the Effect of Debt Ratio on Market Value of Stock Firms by Using the Liquidity", International Conference on Economics, vol.36, pp. 105-110.
3. Al-Halalmeh, M., and Sayah, A., (2010), "Impact of foreign Direct Investment on Shares Market Value in Amman Exchange Market", American Journal of Economics and Business Administration, 2 (1), pp. 35-38.
4. Menaje, P., (2012), "Impact of Selected Financial Variables on Share Price of Publicly Listed Firms in the Philippines", American International Journal of Contemporary Research, Vol. 2 No. 9, pp. 98-104

Websites

- http://www.ase.com.jo/ar
- http://www.ase.com.jo/ar/node/820
- www.dfm.co.ae

This page is intentionally left blank

Global Journal of Management and Business Research: C
Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Co-Integration and Causality between Equity and Commodity Futures: Implications for Portfolio Diversification

By Y. Bansal, S. Kumar & P. Verma
Thapar University, India

Abstract- This paper examines the long term statistical relationship of commodity future prices with equity prices using various tools including Augmented Dickey Fuller Test, Vector Auto Regression and Johansen's Cointegration technique. The paper also investigates the short term dynamics of prices by testing for the existence and direction of inter-temporal Granger-causality between the indices. The analysis shows that there is no long term cointegration between the commodity future prices and equity prices therefore, an investor with long term investment horizon would benefit by including commodity futures to a traditional portfolio.

Keywords: causality, cointegration, commodity futures, equity, portfolio diversification.

GJMBR-C Classification: JEL Code: G20, B26

COINTEGRATIONANDCAUSALITYBETWEENEQUITYANDCOMMODITYFUTURESIMPLICATIONSFORPORTFOLIODIVERSIFICATION

Co-Integration and Causality between Equity and Commodity Futures: Implications for Portfolio Diversification

Y. Bansal [α], S. Kumar [σ] & P. Verma [ρ]

Abstract- **This paper examines the long term statistical relationship of commodity future prices with equity prices using various tools including Augmented Dickey Fuller Test, Vector Auto Regression and Johansen's Cointegration technique. The paper also investigates the short term dynamics of prices by testing for the existence and direction of inter-temporal Granger-causality between the indices. The analysis shows that there is no long term cointegration between the commodity future prices and equity prices therefore, an investor with long term investment horizon would benefit by including commodity futures to a traditional portfolio.**

Keywords: causality, cointegration, commodity futures, equity, portfolio diversification.

I. Introduction

Strategic asset allocation is one of the most important set of decisions for a portfolio manager. Asset allocation is the amount of exposure (positive or negative) to a certain class of asset in the portfolio. Before doing the asset allocation the first step is to decide on the types of asset to be included in the portfolio. The theory says that an asset that has low or negative correlation with other assets existing in the portfolio should be included. But correlation being a short term estimate; the key issue for an investor is how to consider the long term movements between the asset prices (Kasa, 1992). In standard risk –return models, any long term trends in the data is removed by differencing the prices of the assets. Although these trends are implicit in the returns data, but then these risk- return models does not include the decisions based on long term common trends in the price data (Alexander, 1999). To incorporate this long term impact in portfolio construction, the paper uses cointegration technique developed by Johansen (1988, 1991, 1992b) and Johansen and Juselius (1990) to test the long term co-movement of commodity future prices with equity prices.

Correlation and cointegration although related, are two different concepts. Correlation having a short term implication reflects comovements that are liable to instabilities over time. So, correlation based portfolio strategies require frequent re-balancing. In contrast, cointegration measures long run co-movements in prices that may occur even through periods when static correlations appear low. The high correlation of returns does not essentially imply high cointegration in the prices (Alexander, 1999). Thus, diversification decisions based on cointegrated assets may be more effective in the long term. By including the assets that are not cointegrated would result in a more effective portfolio that does not require frequent re-balancing of the portfolio. While constructing a portfolio, high correlation among assets cannot be taken as a sufficient measure for long term diversification benefits, there is a need to enhance the standard risk-return modeling methodologies to take account of common long term trends among the asset prices. To complement this, the paper extends the traditional models by including a preliminary stage in which the asset prices are analyzed, and then augments the correlation analysis to include both short term and long term dynamics.

The aim of the paper is to estimate the long and short run relation of asset prices applying the principle of cointegration, vector error correction approach and granger causality to time series analysis.

II. Review of Literature

Relatively, a number of empirical studies validate the low correlation among commodity futures and other asset classes over certain periods of time (Bodie & Rosansky, 1980; Erb & Harvey, 2006; Gorton & Rouwenhorst, 2006; Buyuksahin et al., 2010; Chong & Miffre, 2010) and these studies concluded that the return of an equal weight commodity futures portfolio was comparable to a stock portfolio. Following, Ankrim & Hensel (1993), Lummer & Seigel (1993), Satyanarayan & Varangis (1996), have shown that commodity futures provide a good diversification to the portfolio of equity & bond. Anson (1999) found out that commodity futures can prove to be a valuable asset for risk-averse investor, but the amount of investment in commodity futures depends upon certain factors like utility functions, level of risk tolerance & portfolio composition.

Simon (2013) has modeled the conditional relationships between the Goldman Sachs Total Return Commodity Index and Sub-Indexes and the S&P 500

Author α ρ: LM Thapar School of Management, Thapar University, Patiala-147004, Punjab, India.
e-mails: yashika.bansal@gmail.com, pverma@thapar.edu
Author σ: Indian Institute of Information Technology, Allahabad-211012, Uttar Pradesh, India. e-mail: shailendrak@iiita.ac.in

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

index using the bivariate GARCH framework and the results indicate that while the diversification benefits of commodities have diminished over the sample period, the estimated conditional correlations remain low enough for commodities to provide meaningful diversification benefits to equity investors.

Buyuksahin et al.(2010) empirically investigated the relationship between ordinary, as well as extreme, returns on passive investments in commodity and equity markets using Johansen's Cointegration technique and identified that commodities provide substantial diversification to opportunities to passive equity investors.

Perhaps one of the more important contributions to the literature is that of Gorton and Rouwenhorst (2006). They construct their own commodity futures index for the period 1959 – 2004 and examine how this compares with returns from stock and bond indices. They concluded that the average annualized return on the collateralized futures index was very similar to that on the S&P 500 over the whole period and both assets outperformed corporate bonds. They also found that the relative performance varied over time and that "the diversification benefits of commodities work well when they are needed most". Hence, one conclusion reached was that commodity futures are useful in creating diversified portfolios with respect to the idiosyncratic component of returns.

Becker and Finnerty (2000) stated, with reference to the period from 1970 to 1990, that the risk and return of a portfolio composed of stocks and bonds had increased with the inclusion of commodities in asset allocation. They specify that this increase had been more valid in the 1970s compared to the following decade, due to high inflation in the first part of the study period.

Bodie and Rosansky (1980) analyzed the returns of an equal weight commodity futures portfolio, and showed that the results obtained with medium and long-term portfolios were comparable to stock portfolios.

Kasa (1992) is one of the first ones to use the multivariate cointegration method proposed by Johansen and Juselius (1990) to analyze co-movements in stock markets and found a common stochastic trend for the period 1974 – 1990 between the U.S., Japan, England, Germany and Canada. Arshanapalli and Doukas (1993) had used cointegration techniques to test the linkage and dynamic interactions among stock market movements and reported that The U.S. stock market has a considerable influence on the French, German and English markets in the post-crash period. On the same line of research, Meric and Meric (1997) analyzed changes in the co-movements of the 12 largest equity markets in Europe and the U.S. after the 1987 market crash and found that the benefits of international diversification decreased considerably in these developed markets after the crash.

Wong et al. (2005) investigated the long run equilibrium relationship and short run dynamics between the Indian market and 3 developed countries (U.S., U.K. and Japan) for the period 1991- 2003 and found that the Indian market follows these markets and is therefore integrated with them in the long run.

In essence, we are not interested in finding or explaining relationships between economies, but we are rather trying to find assets that move on their own in the long term, so that they can increase the portfolio performance.

III. Research Methodology

The paper provides detailed empirical evidence on the extent to which the prices of commodity futures and equity market move in sync so that the investor is able to take better investment decisions. We take the perspective of a passive investor when analyzing the relationship between commodity future and equity investments. Modern portfolio theory suggests that the relevant information matrix for such an investor includes the expected asset returns, the variability of these returns, as well as cross-asset correlations (Buyuksahin et al., 2010).

Additionally, leads or lags in the time series make correlations almost useless. For example, if we lag by one or two days some of the daily time series, that we will be using in the empirical part of the paper, the effect on the correlation between the series will be significant, the correlation might even turn from positive to negative. On the other side, the effect on the common long term relationship between the series will be minimal. Cointegration allows for short term divergence between two different time series, meaning that in a day to day basis, the series does not necessarily have to go up or down at the same time, one might go up while the other goes down, thus there is no need for the two series to move in daily synchrony at all. In the long run, however the two price series cannot wander off in opposite directions for very long without coming back to their long term equilibrium.

The distinction between stationary and non stationary time series is extremely important because stationarity is a precondition to make statistical inferences. If the mean or variance of our time series change with time, then it is impossible to generalize results from regressions made for a specific period of time into a different period of time. So, it is necessary to identify if our time series is stationary or not before any statistical inference can be made.

If we perform regression analysis on time series where the dependent, independent, or both variables have a unit root process, then the results will have no economic significance, in particular, the estimates will be biased and hypothesis tests will be invalid. This is the problem of spurious regression which was first reported back in 1926 by Yule. In order to confirm the (stationary) nature of the series, we perform the Augmented Dickey-Fuller test under the unit root test to identify whether or not the series is stationary. To analyze long-term cointegration, we use the daily settlement prices for all the indices.

Our study of testing whether there is a long-run statistical relationship between commodity futures and equity markets depend on the methods of Johansen's cointegration analysis. The idea for the analysis is that if two series each follow upward trend, then, in general, they will diverge in the long run. Our approach will comprise of four parts: (1) testing for a unit root in each price indices, (2) testing for the number of cointegrating vectors in the systems of asset prices, provided the null hypothesis of a unit root for every price index is not rejected, (3) testing the vector autoregression between the assets, and (4) testing the causality effect among the two assets.

1. Unit Root Test: To test for a unit root in each series, we employ the Augmented Dickey-Fuller (ADF) (Dickey and Fuller, 1981) methodology. The tests are conducted with and without a deterministic trend (t). The general form of ADF test is estimated by the following regression

$$\Delta Y_t = \alpha_0 + zt + a_1 Y_{t-1} + \sum_{i=1}^{p} \alpha_i \Delta Y_{t-1} + \varepsilon_t$$

where $\alpha 0$ is constant, t is a deterministic trend, and enough lagged differences (p) are included to ensure that the error term becomes white noise. If the autoregressive representation of Yt contains a unit root, the t-ratio for a1 should be consistent with the hypothesis, a1=0. However, the ADF test loses power for sufficiently large values of p.

2. Cointegration Test: To investigate the existence of a long-term relationship between real and financial variables, we explore existence of any significant long-run relationships among the variables in our model. If the real and financial variables are cointegrated with one another, then this will provide statistical evidence for the existence of a long-run relationship. Though, a set of economic series are not stationary, there may exist some linear combination of the variable which exhibit a dynamic equilibrium in the long run (Engle and Granger 1987). We employ the maximum-likelihood test procedure established by Johansen and Juselius (1990) and Johansen (1991).

Specifically, if Yt is a vector of n stochastic variables, then there exists a p-lag vector auto regression with Gaussian errors of the following form:

$$\Delta Y_t = k + \Gamma_1 \Delta Y_{t-1} + .. + \Gamma_{p-1} \Delta Y_{t-p+1} + \Pi Y_{t-1} + z_t$$

where Γ1, ... Γp-1 and Π are coefficient matrices, zt is a vector of white noise process and k contains all deterministic elements.

The focal point of conducting Johansen's cointegration tests is to determine the rank (r) of matrix Γ k. In the present application, there are three possible outcomes. First, it can be of full rank, (r = n), which would imply that the variables are stationary processes, which would contradict the earlier finding of non-stationarity. Second, the rank of k can be zero (r = 0), indicating that there is no long-run relationship among the variables. In instances when Γ k is of either full rank or zero rank, it will be appropriate to estimate the model in either levels or first differences, respectively. Finally, in the intermediate case when there are at most r cointegrating vectors 0≤ r ≤ n (i.e., reduced rank), it suggests that there are (n -r) common stochastic trends.

The number of lags used in the vector auto-regression is chosen based on the evidence provided by Akaike's Information Criterion. The cointegration procedure yields two likelihood ratio test statistics, referred to as the maximum eigenvalue (λ-max) test and the trace test, which will help determine which of the possibilities is supported by the data.

3. VAR and Granger Causality: If the variables are found to be not cointegrated in long run, then the next step is to employ vector autoregression followed by the granger causality. The vector auto regression (VAR) is commonly used for forecasting systems of interrelated time series and for analyzing the dynamic impact of random disturbances on the system of variables. The optimum lag length is identified using Akaike Information Criteria (AIC). The VAR approach sidesteps the need for structural modelling by treating every endogenous variable in the system as a function of the lagged values of all of the endogenous variables in the system.

Consider two time-series variables, yt and xt. Generalizing the discussion about dynamic relationships to these two interrelated variables yields a system of equations:

$$y_t = \beta_{10} + \beta_{11} y_{t-1} + \beta_{12} x_{t-1} + v_t^y$$
$$x_t = \beta_{20} + \beta_{21} y_{t-1} + \beta_{22} x_{t-1} + v_t^x$$

The equations describe a system in which each variable is a function of its own lag, and the lag of the other variable in the system.

IV. Data & Empirical Analysis

The daily prices for asset classes from Indian Capital market, viz., Equity (S&P CNX Nifty), and Commodity futures (MCX COMDEX) are examined for the period June 2005 to December 2011. Daily data was preferred because any transmission mechanism between the stock markets in the ECM (Error Correction Model) is most likely to occur within few days. Monthly data was our backup option. A drawback in using daily data is that we will most likely face Autoregressive Conditional heteroskedastic (ARCH) residuals - the variance of the residuals in one period is dependent on their variance in the previous period. It is possible that monthly data will correct or eliminate the ARCH residuals; therefore, we performed cointegration analysis using monthly data, however, the ARCH processes of the residuals were not eliminated – although decreased slightly for some series. The estimation results from monthly data were generally the same as the results obtained from daily data.

a) Correlation Test

The short term estimation of the relationship between the variables can be studied using the cross-correlation coefficients (as shown in Table 1). For the asset to be included in a portfolio, it should have low or negative correlation with other assets existing in the portfolio.

The MCX COMDEX also demonstrates a significant low correlation with the equity during the analyzed period. Thus, commodity futures have the potential to reduce risk in a portfolio of stocks.

Table I : Correlation Matrix for the asset classes (2005-2011)

Asset Class	S&P CNX Nifty	NSE G-Sec	NSE TB	MCXCOMDEX
S&P CNX Nifty	1.00000			
NSE G-Sec	-0.01138	1.00000		
NSE TB	-0.18278	-0.02050	1.00000	
MCXCOMDEX	0.36436**	-0.35956**	-0.12306	1.00000

** denotes significance at the 1% level (2-tailed)

b) Unit Root Tests

To analyse the long term relation among the variables we use Johansen Cointegration Analysis. But, before running this analysis the data is checked for stationarity. As discussed in the above section, Figure 1 depicts the line graph for Equity and Commodity Futures at level, showing that the two indices are not stationary. Figure 2 depicts the line graph of log of Commodity Futures [D (CF)] and log of Equity [D (Equity)], showing that the two indices are stationary at their first difference.

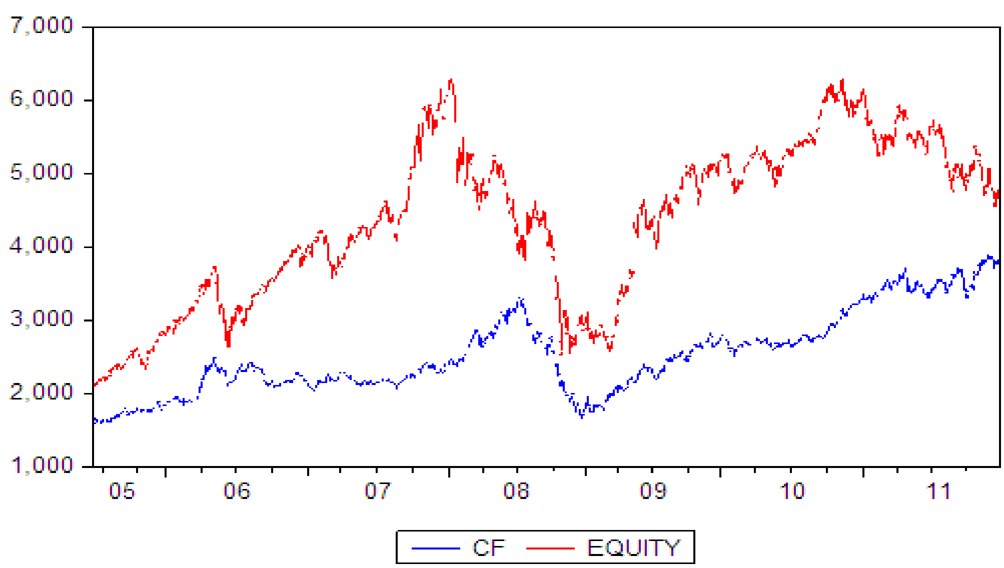


Figure 1: Line graph of Commodity Futures and Equity.

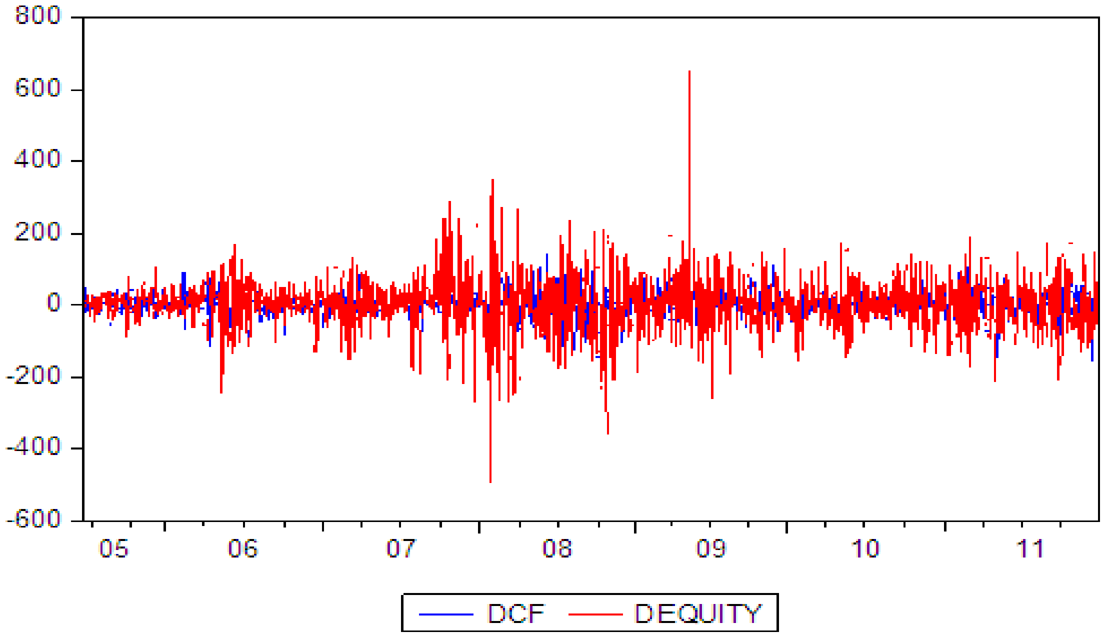


Figure 2: Line Graph of D (CF) and D (Equity).

Further, the study tests the stationarity by running Augmented Dickey Fuller test (ADF) on log of price indices. The optimal lag length is determined using minimum Akaike Information Criteria (AIC). The null hypothesis in case of ADF test is that the series under reference has a unit root, which implies that the series are not stationary in nature. A probability value of below 0.05 does not accept the null hypothesis at 5% level of significance and implies that the series under reference are stationary at 5% level of significance.

The probability value of less than 0.05 for log of commodity futures D (CF) and log of Equity, D(Equity) as presented in Table 2A and 2B, implying that the null hypothesis is not accepted and the variable does not have a unit-root, which confirms that the series is stationary meaning that both the indices are integrated of the order 1, I(1). The stationarity is verified at all the three conditions, i.e.,no intercept - no trend, intercept but no trend, no intercept but trend. Since the series are observed to be stationary in nature after the first differential, further econometric analysis can be performed on the log prices of indices.

Table 2A : Unit Root results for D (CF)

Null Hypothesis: D(CF) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=23)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-37.22596	0.0000
Test critical values:	1% level	-3.434307	
	5% level	-2.863175	
	10% level	-2.567688	

**MacKinnon (1996) one-sided p-values.*

Table 2B : Unit Root results for D(Equity)

Null Hypothesis: D(EQUITY) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=23)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-36.92791	0.0000
Test critical values:	1% level	-3.434307	
	5% level	-2.863175	
	10% level	-2.567688	

**MacKinnon (1996) one-sided p-values.*

c) *Cointegration Test*

We applied Johansen and Juselius (1990) multivariate cointegration tests to determine the number of cointegrating relations, r. The results are shown in Table 3A and 3B.

Table 3A : Results of Johansen Cointegration between Commodity Futures & Equity

Series: CF EQUITY
Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.005067	13.73898	15.49471	0.0904
At most 1 *	0.003676	5.774479	3.841466	0.0163

Trace test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.005067	7.964500	14.26460	0.3823
At most 1 *	0.003676	5.774479	3.841466	0.0163

Max-eigenvalue test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

CF	EQUITY
-0.001071	0.001262
0.002539	-0.000612

Unrestricted Adjustment Coefficients (alpha):

D(CF)	1.569698	-1.278129
D(EQUITY)	-3.062121	-3.749438

1 Cointegrating Equation(s):	Log likelihood	-16563.05
Normalized cointegrating coefficients (standard error in parentheses)		
CF	EQUITY	
1.000000	-1.178339	
	(0.30654)	

Table 3B : Results and critical values for the λ_{trace} and λ_{max} test for CF and Equity

Lag: 2						
Ho	λtrace	CV (trace,5%)	Prob.	λmax	CV (max,5%)	Prob.
r=0	13.73898	15.49471	0.0904	7.964500	14.26460	0.3823
r≤1	5.774479	3.841466	0.0163	5.774479	3.841466	0.0163

Table 2A shows the results of Johansen Cointegration analysis run among the variables. The results are further compiled in Tables 2B. Johansen Cointegration results can be studied either on the basis of Trace value or Max Eigen value. From the above table, trace value indicates that there is no cointegration at level as p-value of 0.0904 is more than 0.05 and critical value(15.495) is more than the trace statistic(13.739), therefore we accept the null hypothesis that there is no cointegration equation among the variables. On the similar lines, Max-eigen value also indicates no cointegration by accepting the null hypothesis that there is zero cointegration equations among the variables, with p-value 0.3823 more than 0.05 and critical value(14.264) is more than the max eigen statistics (7.964). Therefore, both the tests indicate that there is no cointegration among equity and commodity futures.

d) Vector Autoregression

Since the above results show that there is no cointegration among the two variables, therefore we run the vector autoregression among CF and Equity to identify the cause and effect relationship. The results are shown in Table 4A and 4B.

Table 4A : Vector Autoregression estimates among CF and Equity

Vector Autoregression Estimates Standard errors in ( ) & t-statistics in [ ]		
	CF	EQUITY
CF(-1)	1.054101 (0.02556) [41.2393]	0.204671 (0.06309) [3.24394]
CF(-2)	-0.058845 (0.02553) [-2.30501]	-0.210345 (0.06302) [-3.33800]
EQUITY(-1)	0.007831 (0.01031) [0.75965]	1.052822 (0.02545) [41.3748]
EQUITY(-2)	-0.005175 (0.01034) [-0.50052]	-0.054759 (0.02552) [-2.14558]
C	1.717696 (3.65195) [0.47035]	24.03004 (9.01439) [2.66574]

R-squared	0.997015	0.995221
Adj. R-squared	0.997007	0.995209
Sum sq. resids	1458921.	8889045.
S.E. equation	30.52250	75.34105
F-statistic	130765.8	81530.88
Log likelihood	-7597.055	-9016.550
Akaike AIC	9.677983	11.48510
Schwarz SC	9.695040	11.50216
Mean dependent	2529.031	4367.760
S.D. dependent	557.9515	1088.462
Determinant resid covariance (dof adj.)	5163154.	
Determinant resid covariance	5130341.	
Log likelihood	-16594.82	
Akaike information criterion	21.13917	
Schwarz criterion	21.17328	

Table 4B : OLS for CF and Equity

Estimation Method: Least Squares

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	1.054101	0.025561	41.23928	0.0000
C(2)	-0.058845	0.025529	-2.305007	0.0212
C(3)	0.007831	0.010309	0.759652	0.4475
C(4)	-0.005175	0.010340	-0.500521	0.6167
C(5)	1.717696	3.651948	0.470351	0.6381
C(6)	0.204671	0.063093	3.243942	0.0012
C(7)	-0.210345	0.063015	-3.338005	0.0009
C(8)	1.052822	0.025446	41.37481	0.0000
C(9)	-0.054759	0.025522	-2.145576	0.0320
C(10)	24.03004	9.014388	2.665743	0.0077

Determinant residual covariance 5130341.

Equation: CF = C(1)*CF(-1) + C(2)*CF(-2) + C(3)*EQUITY(-1) + C(4) *EQUITY(-2) + C(5)
Observations: 1571

R-squared	0.997015	Mean dependent var	2529.031
Adjusted R-squared	0.997007	S.D. dependent var	557.9515
S.E. of regression	30.52250	Sum squared resid	1458921.
Durbin-Watson stat	1.996879		

Equation: EQUITY = C(6)*CF(-1) + C(7)*CF(-2) + C(8)*EQUITY(-1) + C(9) *EQUITY(-2) + C(10)
Observations: 1571

R-squared	0.995221	Mean dependent var	4367.760
Adjusted R-squared	0.995209	S.D. dependent var	1088.462
S.E. of regression	75.34105	Sum squared resid	8889045.
Durbin-Watson stat	2.002214		

From the table 3B, we can identify that for the equation CF = C(1)*CF(-1) + C(2)*CF(-2) + C(3)*EQUITY(-1) + C(4) *EQUITY(-2) + C(5), the coefficients C3 (0.4475) and C4 (0.6167) are insignificant, therefore, Equity does not cause CF. For the second equation EQUITY = C(6)*CF(-1) + C(7)*CF(-2) + C(8)*EQUITY(-1) + C(9) *EQUITY(-2) + C(10), the coefficients C6 and C7 are significant with 0.0012 and 0.0009 being less than 0.05, thereby meaning that CF does cause Equity. These results confine to the results given by cointegration analysis.

e) Granger Causality Test

Further, we run the Granger Causality among the variables, to identify the direction of causality in the variables. Results of Granger Causality test are reported in Table 5. We test the null hypothesis that one series does not Granger Cause another series at the conventional levels of significance. As in the below table, p-value of 0.1565 > 0.05, accepts the null hypothesis that equity doesnot granger cause commodity future. For the next hypothesis, we accept the alternate hypothesis that commodity futures granger cause equity as p-value of 0.0029 <0.05. We can say that there is a unidirectional relationship between commodity futures-equity.

Table 5 : Pairwise Granger Causality Test for CF and Equity

Null Hypothesis:	Lags	Obs	F-Statistic	Prob.
EQUITY does not Granger Cause CF	4	1569	1.66108	0.1565
CF does not Granger Cause EQUITY			4.04775	0.0029

So for the given data it is identified that there is no long run relation between commodity future prices and equity prices and that there is a unidirectional relation between CF and Equity.

V. Concluding Remarks

The paper has undertaken an examination of cause and effect between equity and commodity futures so that commodity futures could be considered as a diversification tool for investors to earn an extra return by using the data across 2005-2011. This is done by evaluating the short and long run relationship between the two variables. Since the introduction of commodity futures in India is of late (2003), therefore the data available for analysis is not very large. The analysis shows that there is a very low correlation among the two variables and no cointegration between equity and commodity futures results in no long term relation between the two variables meaning that the two series do not share a common stochastic drift. So if a passive investor includes commodity futures to the traditional portfolio mix of equity and bond, he would be able to earn high return in lieu of low risk. Thus, the results of the analysis do support the diversifying properties of commodity futures. The paper can be considered for future research by verifying the diversifying properties of commodity futures globally. The extension of this study could look at the behavior of commodity futures as an asset class during inflationary conditions.

References Références Referencias

1. Alexander, Carol. (1999). Optimal Hedging Using Cointegration. *Philosophical Transactions of the Royal Society, London,* Series A 357, 2039-2058.
2. Arshanapalli, Bala. & Doukas, John. (1993). International Stock market linkages: Evidence from the pre - and post – October 1987 period. *Journal of Banking and Finance, 17,* 193-208.
3. Ankrim, Ernest., M.,Chris. & R. Hensel. (1993). Commodities in Asset Allocation: A Real Asset Alternative to Real Estate? *Financial Analysts Journal, 49(3),* 20–29.
4. Anson, Mark. (1999). Maximizing utility with Commodity Futures diversification. *Journal of Portfolio Management, 25(4),* 86-94.
5. Becker, G. Kent & Joseph E.Finnerty. (2000). Indexed Commodity futures and the Risk and Return of Institutional portfolios. *OFOR Working Paper, No. 94-02.*
6. Bodie, Z., & V. Rosansky. (1980). Risk and Returns in Commodity Futures. *Financial Analysts Journal,* 36(3), 27-39.
7. Buyuksahin Bahattin, Michael S Haigh & Michel A Robe. (2010). Commodities and Equities: Ever a Market of One? *The Journal of Alternative Investments, 12(3),* 76-95.
8. Chong, James. & J Miffre. (2010). Conditional Correlation and Volatility in Commodity Futures and Traditional Asset Markets. *Journal of Alternative Investments, 12(3),* 61-75.
9. Engle, Robert F. & C.W.J. Granger. (1987). Co-integration and Error Correction: Representation Estimation and Testing. *Econometrica,* 55(2), 251-276.
10. Erb, C. & C. Harvey. (2006). The Strategic and Tactical Value of Commodity Futures. *Financial Analysts Journal, 62(2),* 69-97.
11. Gorton, G., & K. Rouwenhorst. (2006). Facts and Fantasies about Commodity Futures. *Financial Analysts Journal, 62(2),* 47-68.

12. Kasa, Kenneth. (1992). Common stochastic trends in international stock markets. *Journal of Monetary Economics, 29(1),* 95-124.
13. Lummer, Scott L., and Laurence B. Siegel. (1993). GSCI Collateralized Futures: A Hedging and Diversification Tool for Institutional Investors. *Journal of Investing, 2(2),* 75–82.
14. Meric, Ilhan & Meric Gulser. (1997). Co-movement of the European Equity Markets Before and After the 1987 crash. *Multinational Finance Journal, 1(2),* 137-152.
15. Satyanarayan, Sudhakar., & Panos Varangis. (1996). Diversification Benefits of Commodity Assets in Global Portfolios. *Journal of Investing, 5(1),* 69–78.
16. Simon, David.P. (2013). A Conditional Assessment of the Relationships between Commodity and Equity Indexes. *The Journal of Alternative Investments, 16(2),* 30-51.
17. Seren Johansen, Katarina Juselius. (1990). Maximum likelihood estimation and inference on cointegration – With applications to the demand for money. *Oxford bulletin of Economics and Statistics. 52(2)* 0305-9049, 169-210
18. Wong, Wing-Keung., Agarwal, Aman. & Du, Jun. (2005). Financial Integration for India Stock Market, a Fractional Cointegration Approach. *National University of Singapore Department of Economics paper, wp0501.*

Global Journal of Management and Business Research: C
Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Socio-Economic Impact of Foreign Remittance in Bangladesh

By Md Ashraf Ali
The Millennium University Momenbag, Bangladesh

Abstract- In Bangladesh, remittance is one of the most important economic variables in recent times as it helps in balancing balance of payments, increasing foreign exchange reserves, enhancing national savings and increasing velocity of money. For about two decades remittance has been contributing around 35% of export earning. Moreover, it is greater than foreign aid and thus helps in lessening dependence on foreign aid remittance gets momentum in recent time in Bangladesh and is the second largest sector of foreign exchange earning after the garment; sector. If cost of imported raw materials is deducted from the foreign exchange earning of the garments sector, remittance becomes the sign: largest sector of foreign exchange earning. Remittance earning ; increasing day by day but at a lower rate than the increase in emigration from Bangladesh due to the increasing share of unskilled or semi-skilled labors than the professionals in international migration. The share o remittance in GNI (Gross National Income) is increasing day by day. Remittance affects almost all the macro-economic indicators of a country positively. Though there are also negative sides of remittance earning e.g. brain drain, its overall contribution to Bangladesh economy is very much effective.

Keywords: *anti money laundering, money laundering, remittance.*

GJMBR-C Classification: *JEL Code: Z10, F31*

SOCIOECONOMICIMPACTOFFOREIGNREMITTANCEINBANGLADESH

Socio-Economic Impact of Foreign Remittance in Bangladesh

Md Ashraf Ali

Abstract- In Bangladesh, remittance is one of the most important economic variables in recent times as it helps in balancing balance of payments, increasing foreign exchange reserves, enhancing national savings and increasing velocity of money. For about two decades remittance has been contributing around 35% of export earning. Moreover, it is greater than foreign aid and thus helps in lessening dependence on foreign aid remittance gets momentum in recent time in Bangladesh and is the second largest sector of foreign exchange earning after the garment; sector. If cost of imported raw materials is deducted from the foreign exchange earning of the garments sector, remittance becomes the sign: largest sector of foreign exchange earning. Remittance earning ; increasing day by day but at a lower rate than the increase in emigration from Bangladesh due to the increasing share of unskilled or semi-skilled labors than the professionals in international migration. The share o remittance in GNI (Gross National Income) is increasing day by day. Remittance affects almost all the macro-economic indicators of a country positively. Though there are also negative sides of remittance earning e.g. brain drain, its overall contribution to Bangladesh economy is very much effective. The major roadblocks of a smooth and efficient payment of foreign remittances are poor infrastructure in rural and semi-urban economy, inadequate reach of private commercial banks within the country, massive information asymmetry in the market, inefficiency of financial institutions, poorly regulated exchange houses etc. Appropriate and timely government policies and initiatives can boost up the amount of remittance and can rectify the problems related to it. Remittance has created a new dimension in the economic development of Bangladesh. We have to properly unlock the potentialities of remittances and utilize it properly to make it an indispensable tool of the economic development of Bangladesh.

Keywords: anti money laundering, money laundering, remittance.

I. Introduction

The importance of foreign remittances in the economy of Bangladesh is widely recognized and requires little reiteration. Along with the readymade garment (RMG) sector and non-farm activities in the agricultural sector, remittances have been identified as one of the three key factors that have been responsible for reducing the overall incidence of poverty in Bangladesh. The volume of remittances from Bangladeshi migrant workers exceeded USD 4 billion in early 2007), [1] a figure which shows the amount of yearly foreign direct assistance received by the country. Indeed, any comment on the abovementioned aspect of remittances will at best be speculative unless supported by firm empirical evidence. We therefore propose to carry out a statistical study on the effect of remittances on per capita incomes, which have a direct implication on the welfare of households, in order to remove such speculation and channel the discourse away from the qualitative realm onto a more secure, quantitative footing. Such an effort is necessary in order to derive more accurate conclusions which will greatly assist in the formulation of guidelines for future policy. Remittance is one of those important instruments, which helps to solve our problem by strengthening the economy. Migration is such a process, which helps to reduce unemployment, increases reserves and helps to make the balance of payment favorable and also helps immensely in other socio-economic aspects. Unemployment situation is one of the most alarming economic indicators of a country; migration and consequent remittance is mainly related with employment and earning of foreign currency. So, remittance is a vital issue for over-populated countries like Bangladesh. Therefore, we need to give proper attention on this issue. It also helps to increase foreign reserves, national savings and investments. From socio-economic point of view it uplifts living standard, social status and help ensuring basic needs.

II. Statement of the Problem

Remittances have emerged as a key driver of economic growth and poverty reduction in Bangladesh, increasing at an average annual rate of 19 percent in the last 30 years (1979-2008). Revenues from remittances now exceed various types of foreign exchange inflows, particularly official development assistance and net earnings from exports. The bulk of the remittances are sent by Bangladeshi migrant workers rather than members of the Bangladeshi Diaspora. Currently, 64 percent of annual remittance inflows originate from Middle Eastern nations. Robust remittance inflows in recent years (annual average growth of 27 percent in (FY06-FY08) have been instrumental in maintaining the current account surplus despite widening a trade deficit. This in turn has enabled Bangladesh to maintain a growing level of foreign exchange reserves. There are some key macroeconomic determinants of remittances in Bangladesh. Based on a simple regression exercise

Author: Senior Lecturer, Dept. of Business Administration The Millennium University Momenbag, Malibagh Dhaka, Bangladesh.
e-mail: ashrafrupab@gmail.com

we find that number of workers finding employment abroad every year, oil price, exchange rate and GDP growth are the key determinants of changes in the level of remittance inflow. Each additional migrant worker brings in $816 in remittances annually. Every dollar increase in oil price increases annual remittance by nearly $15 million. Depreciation of exchange rate by one taka increases annual remittance by $18 million and remittances are higher during periods of low economic growth. An interesting implication is that the impact of oil price increase on Bangladesh's balance of payment is unfavorable. A dollar increase in oil price increases oil import payments by about $26 million whereas it increases remittances by $15 million. Thus the impact of a dollar increase in oil price on the balance of payments is a deficit of $11 million[2].

There is a widespread concern that recent decline in international oil prices and slow own in the global economy, particularly US, Europe and Middle-East are likely to have adverse effects on Bangladesh's remittance inflows. Assuming oil prices at around $70 per barrel and GDP growth of 5.5 percent we predict: Remittance will grow by 12.4 percent, reaching $10.76 billion, if we are able to export another 610,000 workers (annual average of 2006-2008) in FY10. This is the optimistic case. Remittances will grow by 10.2 percent, reaching $10.55 billion, if the outflow of migrant workers in FY10 reverts to levels observed before the recent oil price boom—350,000. This is the base case. Remittances will grow by 8.5 percent, reaching $10.38 billion, if the outflow of migrant workers in FY10 is only 50 percent of the base case—150,000. Growing remittance is a lifeline to Bangladesh, but it threatens to create risks of a bubble with a partial use of the funds in productive investment activities. "Rising labor migration and the attendant high remittance inflows are not altogether unmixed blessings. They pose some challenges to macroeconomic management that require care fill handling," said the central bank chief. Expatriate remittance jumped to $9.7 billion in 2009 from just $2.5 billion in 2002. Even in times of global recession, Bangladesh's remittance inflow showed 32.4 percent and 22.3 percent growth in 2008 and 2009. The remittance inflow fuelled foreign currency reserves to a new high of $9.3 billion, according to statistics updated until September 24[3].

III. Importance of the Study

The outward migration of labor and the remittances that are generated as a result have been a feature of Bangladesh's post liberation history. The earliest official records on remittances indicate that the country received about US$24 million in overseas remittances in 1976. Since then foreign remittance receipts have grown at an exponential rate. For any worker sending country, migration results in a mixture of benefits and costs. The costs may include the loss of the labor supply in which substantial amounts of human capital are invested, possible distortions in the age structure of the population, rural depopulation and a "brain drain" to developed countries. On the benefits side, we may see a reduction in social tensions caused by unemployment and/or underemployment, skill acquisition of returning migrants and, most significantly, money transfers from migrants to their families back home.

The role of remittances in the economies of labor sending countries such as Bangladesh is assuming increasing importance. It is viewed as a very stable source of foreign exchange (Ratha 2005) and even as being counter-cyclical (Esquivel and Huerta-Pineda. 2006). The effect of remittances on the macro-economy of a country has been well documented in the literature. The incoming foreign exchange helps receiving countries to pay import liabilities, improve their balance of payments position, strengthen foreign exchange reserves and finance external debt. At the micro level, remittances contribute towards increasing the income of receiving households with concomitant effects on the standard of living, while depending upon consumption patterns they have been known to increase the level of savings which is a source of capital. Thus, in resource scarce countries like Bangladesh remittances have a great potential to generate positive economic and social impacts. This fact has been recognized by policymakers and has received attention from researchers. However, as has been mentioned, there are hardly any studies on the microeconomic impact of remittances on household or per capita incomes. Most research has tended to be on the potential use of remittances as a policy tool and, having acknowledged its importance, on possible avenues of further increasing the volume of official remittance receipts by channeling them through legal avenues and by promoting even greater export of labor.

Objectives of the study: The major objectives of the study are as follows:

1. To find out the volume of foreign remittance in Bangladesh during last ten years.
2. To find out the source of foreign remittance, nature of foreign remittance and their impact on balance of payment of Bangladesh.
3. To identify the major determinants of foreign remittance along with the constraints and prospects.
4. To focus the socio-economic impact of foreign remittances on economic advancement of Bangladesh.
5. To suggest for increasing foreign remittance and liberalize the procedural difficulties and flaws.

IV. Review of Related Literature

Kuntal Roy Chowdhury and others[4] authored an article on "Remittance as a tool of Economic Development: Bangladesh Perspective". They find that in Bangladesh, remittance is one of the most important economic variables in recent times as it helps in balancing balance of payments, increasing foreign exchange reserves, enhancing national savings and increasing velocity of money. For about two decades remittance has been contributing around 35% of export earning. Moreover, it is greater than foreign aid and thus helps in lessening dependence on foreign aid. Remittance gets momentum in recent time in Bangladesh and is the second largest sector of foreign exchange earning after the garments sector. If cost of imported raw materials is deducted from the foreign exchange earning of the garments sector, remittance becomes the single largest sector of foreign exchange earning. Remittance earning is increasing day by day but at a lower rate than the increase in emigration from Bangladesh due to the increasing share of unskilled or semi-skilled labors than the professionals in international migration. The share of remittance in GNI (Gross National Income) is increasing day by day. It affects almost all the macro-economic indicators of a country positively. Though there are also negative sides of remittance earning e.g. brain drain, its overall contribution to Bangladesh economy is very much effective. Appropriate and timely government policies and initiatives can boost up the amount of remittance and can rectify the problems related to it. Remittance has created a new dimension in the economic development of Bangladesh. We have to properly unlock the potentialities of remittances and utilize it properly to make it an indispensable tool of the economic development of Bangladesh.

Muntakim M. Choudhury and others[5] wrote an article on "The Global Financial Crisis and its impact on remittance of Bangladesh". This paper evaluates the impact of worldwide recession and its effect on developed economies taking Bangladesh as an example. Due to global economical downturn, least developed economies have suffered a number of adverse effects of which one was the decline in inflow of foreign currency. This study found that inflow of remittance has remained slayable in Bangladesh. However if the recession continues some crisis would be discernable by the end of 2009. The paper ends exploring the steps to tackle the situation as well as providing guidelines for exporting skilled and unskilled labor force. Recommendations, based on the findings, if implemented will enable the Government of Bangladesh to deal with adverse economical conditions when remittance inflow will decrease. Policies will need to be implemented and proper formulation of the activities should be done to achieve the target as laid down in this paper. Hence, decrease in remittance will not have a major importance in least developed countries like Bangladesh.

Md. Mizanur Rahman and Brenda S.A. Yeoh[6] wrote the article entitled "The Social organization of Remittances: Channeling Remittances from East and South East Asia to Bangladesh". They found that there are two types of remittance systems; (i) formal and (ii) informal. Formal systems are those that operate under the regulated financial system. In formal systems the institutions involved in money transfers are supervised by government agencies and laws that determine their creation, characteristics, operations and closure (APEC, 2003: 3). Formal systems include banks and postal services, money transfer operators (MTOs) and other wire transfer services, and credit unions. Banks and postal services offer reliable remittance services in almost all host and home countries in Asia. However, migrant workers usually find their services expensive. The World Bank estimates that the average cost of transferring remittances remains about 13 per cent, and sometimes exceeds 20 per cent of the amount remitted (Maimbo, 2005:5). They not only charge higher fees but also take a longer time to complete the process. Bureaucratic hassles and weak or absence of banking services in many rural areas are some other drawbacks (Passas, 1999; El-Qorochi et al, 2003).

Another important player in formal funds transfer systems is money transfer operators (MTOs). They provide the fastest service in formal money transfer systems. They take minutes to transfer money from one part of the world to another. Because of this service, they are gradually establishing firm rooting in the remittance market, beating the formal banking system. However, they charge higher fees. Western Union and Money Gram are examples of two major MTOs. They first started operations in North America and now cover almost all countries in the world. Western Union transfers money to make payments using money orders and other electronic systems. Consumers can quickly and easily transfer money to more than 225,000 Western Union Agents located in over 195 countries and territories worldwide, the largest network of its kind Money Gram is operating in 170 countries worldwide and have 75,000 local agents. The MTOs had penetrated the Asian remittance market at the end of last decade and are presently operating in almost all receiving and sending countries in Asia.

Debit and credit cards are used to draw cash from Automatic Teller Machines (ATM) in many remittance recipient countries. Every time cash is withdrawn by using such cards, a small fee is charged. The debit and credit card companies have started to fill the niche in the remittance market in Latin America (Orozco, 2004). Immigrants in North America are increasingly using debit and credit cards for remittance. They are faster and comparatively cheaper. However,

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

they have yet to reach migrant workers in Asia. The use of such cards (credit or debit) is still limited to skilled migrant workers who are on authorized status. The majority of low-skilled migrant workers do not have access to the banking services in host and home countries. Therefore, we see little prospect for these smart cards to penetrate the Asian remittance market in the near future. In general, the formal system is plagued by high transaction costs, long delays in transferring remittances, exchange loss (due to official foreign exchange conversion rate), and last but not least, overly bureaucratic procedures.

M. Serajul Islam[7] wrote an article on "Banks and the Foreign Remittance Business". He found that foreign remittance is one of the major economic success stories of Bangladesh. Last year, nearly 7 million Bangladeshis have sent almost US$ 11 billion in foreign exchange to the country. Major part of the money remitted has come from the Middle East where the overwhelming majority of our expatriates lives and works in conditions that are sometimes too sad to describe. There is no dearth of praise for the efforts of the expatriates, particularly from the Government. We even have a Ministry of Expatriate Welfare. Other major manpower exporting countries in South Asia and Philippines have nothing like what we have. Yet we all know our expatriates suffer in every step of their epic journey to go abroad, serve there in conditions that are often inhuman and then send almost all they earn expect what is required to keep them alive, and then return home to find the same poverty awaiting them as the one from which they wanted to escape by deciding to go overseas. Those who speak of the role of our expatriates in glorious terms in reality offer very little help to them when they grapple with unscrupulous manpower agents, loan sharks and their unfair employers in their work places broad. It is true that the expatriates remit a mind boggling amount of foreign exchange to the country. By offering us far less than that amount, our development partners behave as our masters, humiliating us publicly in any manner they like. Yet those who contribute so much to the economy of the country have not even been given a policy transparent enough for them to understand and seek protection within its provisions when they are subjected to fraud and miseries at every step of their effort to go abroad and during their stay abroad. It has now common knowledge that the average Bangladesh expatriate worker spends to 3 times more money for a job abroad than an expatriate from other countries where the job is the same type and the workers have the same qualification and experience or the lack of it. When they land in their work places, many of our expatriate workers sadly find out that the pay given to them is substantially less than what they had been promised. Given the fact that many of the expatriates borrow money from loan sharks or by selling whatever possession they have, the discrepancy in salary has two serious effects. In quite a few cases, these poor expatriates fall sick both physically and mentally and some even die from heart attacks. In many cases, the workers try to change jobs because they have no other alternative but to seek a job at better pay so that they can repay the loan that they have incurred at home. Such efforts to change jobs are illegal in the Middle East. In Saudi Arabia alone, there are reportedly over 2 hundred thousand Bangladeshis running from Saudi police for seeking a better paying job. There are just too many things that need to be done to bridge the gap between the lip service that our Government provides and what is actually offered to the expatriates to help them in their efforts. Our expatriates literally take their hearts in their hands to send us those mind boggling sums of foreign exchange. The nation owes them a big debt but doing very little to pay it back.

Aktar-uz-Zaman Kazi[8] had a study on "Foreign remittance fluctuation needs to be stabilized". He finds that inward flow of foreign remittance to our country is fluctuating for the last few months. The last financial year has passed bagging 13.25 per cent growth over the previous financial year. Foreign remittance is the major source of foreign currency of Bangladesh. Remittance inflow rose by 10-32 per cent in the last 20 years, which continued even during the global recession in the past two years. Impact of remittance is well known to all. It reduces the extent of the country's dependence on foreign aid. The amount of remittance received in a year is four times higher than the foreign aid the country receives yearly. It contributes to the GDP of the country. A research showed that increase in remittance by Tk1.00 would result in the increase in national income by Tk.3.33. Currently, garment manufacturing is considered as the highest foreign currency-earning sector of our country. However, if the cost of importing raw materials is adjusted then the net earnings from migrant workers' remittances stand higher than that of the garment sector. As Bangladesh has a very narrow export base, remittance has been used in financing the import of capital goods or raw materials for industrial development. So it improves the balance of payment (BOP). It also helps increase the supply of national savings. Foreign remittance constitutes one-third of foreign currency earnings. It should be added here that our foreign remittance is nine times larger than the foreign direct investment. Identification of problem regarding oscillation of foreign remittance is necessary. A senior economist of World Bank has recently said that remittance inflow into Bangladesh would fall because of recession, and its impact is being felt now. He also said one of the causes for negative growth is that the recovery from the global economic meltdown is slow. Most economies, except China and India, are not showing a strong rebound. This is holding back the earnings of the Bangladeshi expatriates working abroad. However, a recent Asian Development Bank research says, the reason for the rise of incoming remittance is due to the tendency of migrant workers to spend less and save more during the crisis. A relatively lower impact of global recession on countries such as Kingdom of Saudi Arabia (KSA), an employer of nearly 20 lakh Bangladeshi migrants, also helped to maintain an upbeat trend in remittance inflow. The research also indicates a macro-micro mismatch. At macro level, we can see a rosy picture of an increase in inward remittance, but at micro level, many families of migrant workers are suffering as a result of the global financial crisis. In the Middle East, more than 30 lakh Bangladeshi are employed out of 50 lakh migrants across the globe. These migrant workers in the Middle East send about 62 per cent of the total remittance. The government has set the target for exporting about five lakh people in the year 2010, but up to September 2010 only 91,904 persons were sent abroad. In the last 10 months manpower export stood at 5,768 to KSA, 34 to Kuwait, 609 to Malaysia and 12,132 to Libya. In the year 2007 and 2008, Bangladesh had exported 2, 04,112 and 90,234 to KSA, 2, 73,201 and 38,332 to Malaysia respectively. Bangladeshi expatriates are returning home in greater numbers because most of their contracts have expired. As a resulting these markets are being occupied by other manpower exporting countries. According to media reports, no country is interested to take foreign labors except Singapore, UAE and Mauritius. Experts believe a huge amount of remittance also flows through an illegal network known as Hundi, which is a big problem for our economy. This unlawful inflow covers around 40 per cent of inward remittance. Hundi is prohibited by law in Bangladesh.

Prof Tasneem Siddiki[9] in 2004 showed that only 46 per cent remittance comes through proper channel and 8.0 per cent carried by wage earners themselves and 5.0 per cent via friends or relatives. She also shows that the goods brought by the migrants, although not considered remittance as such, are a remarkable segment of the wages earned. Recently, some real estate and other business groups are influencing the expatriates to invest their money at a high profit rate or to purchase plots or flats. Sometimes they encourage wage earners to send their money through Hundi and avoid banking channels. Even when the rate of USD in open market has been increased, it is found that some remitters are using Hundi for its high exchange rate. It has badly affected the flow through legal channel. The government is trying its best to mitigate the situation, but very little has been achieved so far. Bangladesh Bank had arranged special campaigns to prevent Hundi activities in the country.

In July 2002, the government announced full tax exemption on money remitted through the official channel. In this arrangement emigrants will not be required to furnish TIN certificates to purchase immovable property. Interest earned from foreign currency deposit account and wage earners development bond has also been made tax-free. Such type of incentives and exemption do exist, but it is not enough to attract remitters. The area of the exemption has to be widened. Bangladesh is used to send unskilled or semiskilled manpower abroad who earn a little compared to the skilled and trained professionals. For going abroad all categories of manpower spend about the same amount of money. But their earnings vary according to their skills. An unskilled person earns four times less than a skilled person, while professionals earn even higher. Sp the number of outgoing manpower is not always important, but fewer skilled people can earn much more than a large number of unskilled persons. So it is very important to develop skills in the relevant sectors to cater to the demand abroad.

Fariha Haque[10] had a study on "General Overview of inflow of Remittance in Bangladesh". This paper develops a theoretical framework to examine the effect of workers remittance on Bangladesh economy. To illustrate the effect of remittance, this paper uses the same national income accounting framework as considered by Amjad R. (1986), in his paper "Impact of Workers' Remittances from Middle East on Pakistan Economy: Some Selected Issues- the Pakistan Development Review (1986)". Findings suggest that the inflow of remittances increased from $0.2 billion in 1980 to $1.7 billion in 1999 that is about $1.5 billion increase over the 18 years. In the year of 1996-97, remittances contributed almost 53.34% to overall balance of payment for Bangladesh. Moreover, remittance contributed the highest of 62.12% in the year 1998. As remittances, GNP and remittance as percentage of GNP shows similar trend in growth rate, this indicates that inflow of remittances positively contributes to GNP. Furthermore, remittance earnings also positively contribute to the Balance of Payments (BOP).

V. Major Findings

'Foreign remittance' means purchase and sale of freely convertible foreign currencies as admissible under Exchange Control Regulations of the country. Purchase of foreign currencies constitutes inward foreign remittance and sale of foreign currencies constitutes outward foreign remittance.

So we see that there are two types of Foreign Remittance:

- Foreign Inward Remittance
- Foreign Outward Remittance

Banks in Bangladesh, for example, MTBL (Mutual Trust Bank Ltd.) has established remittance arrangements with a number of exchange houses to facilitate wage earners to remit their money to Bangladesh. This bank has already been in operation with UAE Exchange Centre LLC, Wall Street Exchange LLC, Trust Exchange, Route Asia Exchange, Instant

Cash and Bangladesh Money Transfer. MTBL have obtained permission from Bangladesh Bank to start operation with Al Saad Exchange, First Solution Exchange, Al Ahalia Exchange Bureau and Federal Exchange. The bank maintains correspondence with other 16 Exchange House which are Al Fadaral Exchange, National Exchange, City Exchange, Future Exchange, Al Ghurair Exchange, Habib Exchange, Al Ansari Exchange, Emirates India International Exchange, Instant Exchange, Oman UAE Exchange, Modern Exchange, Purusuttam Kanji Exchange, Musandam Exchange, Lasidas Tharia Exchange, Oman United Exchange and ICICI Bank. The extensive branch network of these Exchange Houses has been largely helping Bangladeshi expatriates working in the UAE, UK, Qatar, and Oman to transfer their funds speedily and efficiently through online network. MTBL's total foreign remittance volume was Tk.2, 671.53 million in 2006. MTBL is exploring further avenues of remittance from other countries such as Saudi Arabia, Malaysia, USA and Italy in the near future. The Foreign Remittance department of MTBL Dilkusha Branch is equipped with a number of foreign remittance facilities. Following are the types of foreign

- Issuance of Foreign Demand Draft (F.D.D)
- Issuance of travelers Cheques (T.C)
- Issuance of foreign T.T (Telegraphic Transfer)
- Disbursement of the cash of incoming F.T.T.
- Collection of F.D.D.

Table 1 : Trends of Major Macroeconomic Indicators

Indicators	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10
Exchange Rate	54.0	57.4	57.9	58.9	61.4	67.1	69.0	68.6	68.8	69.2
Per Capita GDP in Taka	19525	20754	22530	24628	27061	29955	33603	38330	42628	47405
As percentage of GDP										
Domestic Savings	18.4	18.2	18.6	19.5	20.0	20.3	20.3	20.3	20.1	19.0
Investment	23.1	23.1	23.4	24.0	24.5	24.7	24.5	24.2	24.4	25.0
Revenue Income	9.6	10.2	10.4	10.6	10.6	10.8	10.5	11.1	11.3	11.5
Revenue surplus/deficit	1.5	1.9	2.0	2.1	1.6	2.0	0.9	0.5	0.4	1.6
Annual Development Program (ADP)	6.3	5.5	5.6	5.7	5.5	5.2	3.8	4.1	3.7	4.1

Sources; Bangladesh bank annual report, 2009-2010

Medium Term Macroeconomic Framework: Key Indicators

Indicators	Actual		Revised	Estimated	Projected	
	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
Total Revenue	10.8	10.4	11.5	11.9	12.5	13.1
Tax	8.8	8.6	9.3	9.7	10.2	10.8
Non-tax	2.0	1.8	2.2	2.2	2.3	2.3
Domestic borrowing	3.5	3.1	2.5	3.0	2.6	2.3
External borrowing	1.6	0.8	2.0	2.0	2.1	2.0
Exports(% change)	17.4	10.1	8.0	15.0	16.0	16.5
Imports(% change)	25.6	4.2	6.0	16.0	17.5	18.0
Remittances(US$ million)	7915	9689	10987	14000	17100	20800
Current account balance(% of GDP)	0.9	2.8	3.7	3.6	3.3	3.0

Source: Bangladesh Bank Annual Report, 2009-10

VI. Remittance in Bangladesh

Remittance is the life line of Bangladesh economy. Some 4.5m nonresident Bangladeshis are working abroad, and sending home hard earned foreign currencies. It is believed that the actual number of Bangladeshi migrants, both legal and illegal, would be close to 7.5 million. In the first 10 months of FY 2006-07, number of manpower export stood at 0.42m, showing 83.14% rise, compared to 0.25m in FY2004-05 . In FY2005-06, the number stood at 0.29m, current year to year growth is around 16%. In addition to achieving higher export earnings, the country witnessed a 44 percent growth in remittance earnings during the first quarter of 2008-09 fiscal year compared to the same period of the previous fiscal year. The other records of remittance earnings in a single month are $820.71 million in July and $808.72 million in March of year 2008. A total of 9,81,102 Bangladeshi people went abroad in 2007-08 fiscal year which is about 74 percent above the previous fiscal year figure, Bangladesh Bank statistics show. According to the statistics, on monthly average basis more than 81,000 Bangladeshis went abroad in 2007-08 fiscal year. The figure was 46,000 in the previous fiscal year. Non-resident Bangladeshis (NRBs) sent $2.345 billion to Bangladesh between July and September of 2008, according to the Bangladesh Bank statistics. Meanwhile, private bank officials said the global economic slowdown, mainly in the US and European countries, is yet to impact the remittance inflow. They, however, apprehend that if the crisis continues it may have a negative impact on the inflow. The remittance market of Bangladesh has been showing a steady growth in terms of incoming remittance volume. Considering the current macro-economic indicators: it seems that this growth run will continue in the coming years. Central Bank predicts that our annual incoming foreign remittance will touch $10 billion in the next 3 years. The reasons for such robust growth can be summarized as:

- Stable macro-economic indicators including GDP growth,
- Steady growth in manpower export specially in the middle east
- Substantial devaluation of the local currency
- Rapid urbanization
- Development of new remittance corridors in Australia and part of Europe and Africa
- Increased focus of Central Bank and the Government to channel funds through formal channels
- Increased competition among financial institution to grab market share
- Aggressive marketing policy adopted by Banks to increase their share of wallet
- Expansion of branch network of various commercial banks
- MFIs involvement in channeling remittance funds in remote areas
- Participation in the UN peace keeping missions
- Anti-Money Laundering rules and regulations came in force

However, the market is still far from perfection in terms of service quality, cost structure, and transaction risk aspects. Among all, the biggest impediment is the speed of transactions and cost of transaction. In cases, it takes more than a week to send a foreign remittance to beneficiary. Average cost is 20 SAR for a remittance from Saudia Arabia to Bangladesh.

VII. Major Remittance Sending Countries

Overseas migration from Bangladesh may be divided into two categories. Outflows of Bangladeshis to the Western World, mainly to UK, and more recently to the USA and Canada have been going on for a long time. The migrants tend to stay permanently and tend to be skilled and semi skilled workers and professionals. On the other hand the migration boom in the early eighties relates mostly to temporary migration of mostly semi skilled and unskilled laborers to the Middle East. In recent years Malaysia, Korea and Singapore have emerged as important destinations for Bangladeshi migrant workers. Around 41 percent of the migrants have gone to the Kingdom of Saudi Arabia alone, while the other Gulf States namely, UAE, Oman, Qatar, Bahrain, Kuwait, Iraq and Iran have cumulatively absorbed nearly 53 percent of the migrant workers from Bangladesh. The employment of workers abroad is quite sensitive to the prevailing socio-political environment of the recipient countries. The Gulf crisis in the 1990s forced the return of some 56,000 workers back home and led to a sudden decline in remittance inflows from Kuwait and Iraq.

Table 2 : Country-wise Workers' Remittances[12]

(Million US Dollar)

Countries	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	Average growth rate
Saudi Arabia	1386.0	1510.5	1697.0	1735.0	2324.2	2859.1	3427.1	16.73%
UAE	373.5	442.2	561.4	804.8	1135.1	1754.9	1890.3	32.01%
UK	297.5	375.8	555.7	886.9	896.1	789.7	827.5	21.29%
Kuwait	361.2	406.8	494.4	680.7	863.7	970.8	1019.2	19.35%
USA	467.8	557.3	760.7	930.3	1380.1	1575.2	1451.9	22.10%
Italy	27.2	41.4	83.0	149.6	214.5	186.9	182.2	43.49%
Qatar	113.6	136.4	175.6	233.2	289.8	343.4	360.9	21.58%
Oman	118.5	131.3	165.3	196.5	220.6	290.1	349.1	19.95%
Singapore	32.4	47.7	64.8	80.2	130.1	165.1	193.5	35.53%
Germany	12.1	10.1	11.9	14.9	26.9	19.3	16.5	10.71%
Bahrain	61.1	67.2	67.3	80.0	138.2	157.4	170.1	20.62%
Japan	18.7	16.0	9.4	10.2	16.3	14.1	14.7	0.56%
Malaysia	37.1	25.5	20.8	11.8	92.4	282.2	587.1	150.59%
Other countries	65.3	80.1	134.6	164.7	186.8	281.1	497.4	42.32%
Total	3372.0	3848.3	4801.9	5978.5	7914.8	9689.3	10987.4	21.94%

Source: Bangladesh Bank Annual Report, 2009-10.

VIII. Current Remittance Process

Currently the remittance process is mostly manual, partially automated. Migrants use different methods in sending remittance involving both official and unofficial channels. A major portion of remittance is being processed by Hawala's which is also known as 'hundi', which is an illegal process. And these Hawalla's are getting market due to lengthy process of remittance management using banking channel.Legally bank and exchange house acts as main means for remittance. Exchange houses play a vital role as remitters touch point. Mostly, remittance process initiates from exchange house .Exchange house acts as the contact point for remitter, exchange house receives the payment instruction from remitter and transfer the instruction to bank with which they have bilateral arrangement for fund mobilization. The receiving bank receives the fund and routes the remittance to actual beneficiary thro other banks or agents. Central bank acts as clearing house for inter bank fund transfer.

Officially, transfer of remittance takes place through demand draft issued by a bank or an exchange house, telegraphic transfer; postal order; account to account transfer. When remittances are transferred directly from the foreign account of migrant worker to his own account at home it is known as direct transfer. This can be through telegraphic means or otherwise. Remittances are frequently sent through demand draft in Taka issued by a bank or an exchange house in favor of a nominee of migrant. Usually the draft is sent by post or in emergency by courier service. One can send remittance through the postal authorities. In such case the remitted money is handed over to the receiver by the local post-office.

As there is no automated system between exchange house to and bank to bank – the process takes weeks to process a transaction in general.

Table 3 : Export and Import Index

Year	Export price Index	Import price Index	Commodity terms of trade
FY 00	120.31	136.17	88.35
FY 01	123.15	146.41	84.11
FY 02	126.23	157.76	80.01
FY 03	135.19	164.15	82.36
FY 04	139.60	169.96	82.14
FY 05	142.38	176.66	80.60
FY 06	149.28	183.09	81.53
FY 07	165.70	232.52	71.26
FY 08	171.29	241.15	71.03
FY 09	178.23	248.33	71.77
FY 10	190.07	264.27	71.92

Source: Bangladesh Bank Annual Report, 2009-10.

Roadblocks in Current Remittance Process: The major roadblocks of a smooth and efficient payment of foreign remittances are as follows:

- Poor infrastructure in rural and semi-urban economy
- Inadequate reach of private commercial banks within the country
- Massive information asymmetry in the market
- Active 'Hundi' market
- Inefficiency of financial institutions
- Poorly regulated exchange houses
- Low literacy rate in the country
- Uneven competition among financial institutions
- Lack of investment in IT backbone development for market efficiency
- Absence of a strong central payment gateway for 'Straight Though Processing (STP) of payment services. These above imperfections/inefficiencies have resulted in abnormal share of 'Hundi' business in this sector. Today, it is estimated that the share of 'Hundi' business constitutes roughly 40% of total incoming foreign remittances.

Table 4 : Foreign Aid Receipts and Debt Payment

Particulars		FY 08	FY 09	FY 10
1.	Receipts	2062.0	1847.0	2216.9
i)	Food aid	111.0	52.0	88.0
ii)	Commodity aid	-	-	-
iii)	Project aid	1951.0	1795.0	2128.9
2.	Repayments	767.0	831.0	879.0
i)	Principal	580.0	641.0	687.0
ii)	Interest	187.0	190.0	192.0

3. Outstanding external debt as of end June	20266.0	20859.0	21792.0
4. Outstanding debt as percentage of GDP	25.5	24.3	21.9
5. External debt services as percentage of exports	5.4	6.4	5.3

Source: Bangladesh Bank Annual Report, 2009

Table 5 : Balance of Payment

(Million US Dollar)

Item	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10
Trade balances	-2319	-3297	-2889	-3485	-5330	-4710	-5152
Export fob(including EPZ)	7521	8573	10412	12053	14151	15581	16236
Of which, Ready Made Garments(RMG)	5686	6418	7901	9211	10700	12348	12497
Import fob(including EPZ)	-9840	-11870	-13301	-15511	-19481	-20291	-21388
Services	-874	-870	-1023	-1255	-1525	-1616	-1237
Receipts	924	1177	1340	1484	1891	1832	2471
Payments	-1798	-2047	-2363	-2739	-3416	-3448	-3708
Income	-374	-680	-702	-905	-994	-1484	-1484
Receipts	63	116	136	244	217	95	52
Payments	-437	-796	-838	-1149	-1211	-1579	-1536
Of which, official interest payment	-175	-203	-204	-212	-234	-238	-215
Current transfers	3743	4290	5438	6554	8551	10226	11610
Official	61	37	125	97	149	72	122
Private	3682	4253	5313	6457	8402	10154	11488
Of which: worker's remittances	3372	3848	4802	5979	7915	9689	10987
Current account balance	176	-557	824	936	702	2416	3737
Capital account	196	163	375	490	576	451	442
Capital transfer	196	163	375	490	576	451	442
Financial account	-31	784	-141	762	-457	-825	-641
Foreign Direct Investment(net)	276	800	743	793	748	961	913
Portfolio Investment	6	0	32	106	47	-159	-117
Other Investment	-313	-16	-916	-137	-1252	-1627	-1437
MLT loans(excluding suppliers credit)	544	940	1023	1037	1338	1204	1601
MLT amortization payment	-397	-449	-488	-525	-580	-641	-687
Other long term loans (net)	-41	-46	-37	-24	-6	-70	-156
Other short term loans (net)	13	241	-256	493	-160	-169	67
Other capital	-125	-182	-495	-535	-603	-650	-902
Trade credit (net)	-321	-320	-898	-481	-1108	-1277	-1045
Commercial Bank	14	-200	235	-102	-133	-24	-315
Assets	86	-91	31	-86	-146	-129	-410
Liabilities	-72	-109	204	-16	13	105	95

Source: Bangladesh Bank Annual Report, 2009-10.

IX. Conclusion

It can be concluded that there had been increasing trend in workers remittances during 2004 to 2010. There was also similar situation in other remittances. Country-wise remittances shows that remittances of Soudi Arabia and USA are the highest followed by UAE, Kuwait, Qatar, Italy, Oman etc. Foreign Direct Investment did not had increasing trend during the period rather it had declining trend. Average per capita GDP was Tk.30642 per year during 2004 to 2010 and average foreign remittance was $6656 every year. Practically, there is enough scope to increase our foreign remittances by increasing manpower export through good training, good monitoring, and good advertisement and international liaison. For the expansion of technical education co-operation of recruiting agencies publicity of opportunities available in different countries are needed.

Therefore, it is very vital for the acceleration of economic growth in Bangladesh. Remittance has some problems also but they are very negligible in comparison to its overall benefit. So, government, concerned authorities and the people of Bangladesh have to take proper care about remittance considering its importance in our economy.

References Références Referencias

1. The daily Star, February 27, 2007
2. Bangladesh Bank (BB) Annual Report, 2009-10.
3. www.bangladesh.bd.org,www.bangladesh-bank.org
4. Bangladesh Research Publications Journal, Volume-4, Page 286-296, September- October, 2010.
5. Journal of the Cost and Management Accountant Bangladesh, November- December, 2009.
6. "The Social Organization of Remittance: Channeling Remittances from East and Southeast Asia to Bangladesh" ASIAN METACENTRE RESEARCH PAPER SERIES, NO. 20.
7. 'Banks and the foreign remittance business' Published in The Independent, October 16, 2010.
8. "Foreign Remittance Fluctuation needs to be stabilized." By Akter-uz-Zaman Kazi.
9. Asian Development Bank, Manila, August, www.samren.org/Research Papers/doc ADB Remittance study, May.
10. Internship Report, Independent University, Bachelor of Business Administration, Bangladesh, April, 2006.

Global Journal of Management and Business Research: C Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Impact of the Resources Gap on the Interest Margin in the Jordanian Commercial Banks (1990-2011)

By Yousef Ali Al-Hayek & Dr. Ghazi Abdulmajeed Al-Rgaibat
Al al-Bay University, Jordant

Abstract- This study aims to analyze the impact of the resources gap on the interest margin in the Jordanian Commercial Banks. Since the interest margin is the main source of profit in commercial banks, the existence of a gap have a negative impact on the interest margin. In addition, as the change in sensitive assets to interest rate and sensitive liabilities of interest rate has an impact on the bank's profits; especially when the commercial banks pay the costs of some sources of funds to increase what they get from the benefits derived from credit facilities of credit interest and the debt interest. This is all embarked upon within a sample that included eight Jordanian commercial banks (out of thirteen are banks in Jordan)..The analysis relies on the annual data for banks to identify the resource gap in the Jordanian commercial banks, their impact on the interest margin and sensitive assets, sensitive reductions. The result of this study aim to provide Jordanian banks with up-to-date feedback which can help in advancing the Jordanian banking sector.

Keywords: gap, interest margin, commercial banks.

GJMBR-C Classification: JEL Code: G21

IMPACTOFTHERESOURCESGAPONTHEINTERESTMARGININTHEJORDANIANCOMMERCIALBANKS19902011

Impact of the Resources Gap on the Interest Margin in the Jordanian Commercial Banks (1990-2011)

Yousef Ali Al-Hayek [α] & Dr. Ghazi Abdulmajeed Al-Rgaibat [σ]

Abstract- This study aims to analyze the impact of the resources gap on the interest margin in the Jordanian Commercial Banks. Since the interest margin is the main source of profit in commercial banks, the existence of a gap have a negative impact on the interest margin. In addition, as the change in sensitive assets to interest rate and sensitive liabilities of interest rate has an impact on the bank's profits; especially when the commercial banks pay the costs of some sources of funds to increase what they get from the benefits derived from credit facilities of credit interest and the debt interest. This is all embarked upon within a sample that included eight Jordanian commercial banks (out of thirteen are banks in Jordan)..The analysis relies on the annual data for banks to identify the resource gap in the Jordanian commercial banks, their impact on the interest margin and sensitive assets, sensitive reductions. The result of this study aim to provide Jordanian banks with up-to-date feedback which can help in advancing the Jordanian banking sector. The study used methods of econometrics where the Simple Linear Regression model is used. The study shows the existence of statistically significant effect of the resources gap in the Jordanian commercial banks on the interest margin. And it also shows the existence of statistically significant effect for the resources gap in the Jordanian commercial banks on the debt interest. Finally, the study shows the existence of statistically significant effect for the resources gap in the Jordanian commercial banks on the payable interest.

Keywords: gap, interest margin, commercial banks.

I. Introduction

Commercial banks are considered from the most important specialized financial institutions and intermediary between surplus units and deficit units ,more that the oldest, and considered its basic function accepting deposits from individuals, institutions and re-used in the granting of credit to individuals, institutions or units for various economic, as can invest these funds in assets that yield the greatest return in light of carrying a minimum level of risk, as a result of the multiplicity of functions carried out by the commercial banks and the expansion of its operations savings and credit exposed the banking sector for many of risks and foremost of which is interest rate risk, that would affect the performance of commercial banks, which may extend to failure an achievement the expected return on its investments. The risk of fluctuations and the fluctuation of interest rates is an important subjects to the commercial banks, the emergence of the so-called (with a gap of resources) which arise through the comparison between the assets sensitive to changes in interest rates and liabilities are sensitive to changes in interest rates when the commercial banks pay the costs of some sources of funds (deposits and borrowing) to increase what you get from the interest accrued from credit facilities.

The interest margin in the commercial banks is the main goal of his works and the goal sought by and included in the constant quest to increase the present value of the institution, so the gap is negative will affect the interest margin, which can lead to achieve the losses in commercial banks. The most important activities of internal departments in commercial banks is how to manage the resource gap and control interest margin, that requires constant work to improve the interest margin achieved in light of the changes that take place on interest rates, and there is a possibility to achieve the yield and avoid risk through flexible management Bank of amendments to the composition of both sides of assets and liabilities, especially rolling them in order to obtain the desired gap.

II. Problem of the Study Study Significance

As a result of the change in assets sensitive to interest rate compared with the change liabilities sensitive to interest rate and due to sudden changes in interest rates at the commercial banks, the inability to predict, leading to a lack of balance between the interest rates on a portion of assets and liabilities components, which contributes to creation of so-called resource gap (when banks face higher debt interest rates, which contributes to increase cost sources of funds in return for lower interest rates payable and thus lower income from lending, which achieves significant losses and negative impact on the interest margin in the commercial banks). From above problem can be formulated as:

1. Is there an impact to the resources gap on the interest margin in Jordanian commercial banks during the period (1990-2011)?

Author α σ: Department of Banking and Finance - Faculty of finance and Business administration / Al al-Bay University- Jordant.
e-mail: ghazi.alrgaibat@yahoo.com

2. Is there an impact to the resources gap on the debt interest in the Jordanian commercial banks during the period (1990-2011)?
3. Is there an impact on the resources gap for interest payable in the Jordanian commercial banks during the period (1990-2011)?

III. Importance of the Study Study Importance

The importance of the study came from their usefulness to the departments of commercial banks through by studying risk of the resources gap to maintain the safety of banking and reduce risks to commercial banks, thus achieving the equilibrium constant and positive between the interest rates payable and the debt on each of assets and liabilities to be permanent work on the restructuring to ensure success and obey the instructions of the permanent monetary authority.

Objectives of the study Study Objective: This study aims to achieve the following objectives:

1. Identify the impact of the resources gap on interest margin in the Jordanian commercial banks.
2. Identify the impact of the resources gap on the debit interest rate in the Jordanian commercial banks.
3. Identify the impact of the resources gap on the Credit interest rate in the Jordanian commercial banks.

Hypotheses Study Hypothesis: Based on the study problem, hypotheses of the study were formulated as follows:

The first major hypothesis:

H01-: No statistically significant effect of the resource gap on the interest margin in the Jordanian commercial banks for the period (1990-2011).

H02-: No statistically significant effect of the resource gap to debit interest in the Jordanian commercial banks for the period (1990-2011).

H03-: No statistically significant effect of the resource gap on the payable interest in Jordanian commercial banks for the period (1990-2011).

Literature Review: In study of Ahmed (2012), entitled (factors influencing the interest rate margin). this study aimed to determine the factors affecting the interest margin in the Syrian commercial banks. The study sample included six commercial banks, the researcher collected the necessary data for commercial banks from Damascus stock Exchange, also problem of the study address the factors affecting the interest margin, which in turn affect the size of the banks returns ,so because of disparity between the interest payable and debit interest, whether from fluctuations in interest rates or liquidity risk the operational costs, the researcher used in the analysis of data simple regression, this study reached to a set of results which is a positive relationship between interest margin and operating expenses and index loans, also a positive correlation but weak between interest margin and growth index, in addition to the existence of an inverse relationship between interest margin and the index of property, and in study of Ala (2009), entitled :the impact of monetary policy on interest rates in the Jordanian commercial banks (1993 - 2007)., This study aimed to identify the impact of monetary policy in Jordan, tools used by central bank which influenced the activity of commercial banks through (credit ceilings and interest rates), then he used tools of monetary and quantitative represented (rate of discount, and open market operations, the legal reserve ratio) to influence on the commercial banks and the impact on interest rates at the commercial banks, the researcher believes that the problem of the study lies in attempt to demonstrate the impact of monetary policy on interest rates at commercial banks, also to achieve the objectives of this study the researcher adopted in analysis of data on multiple regression analysis, the study concluded a set of results the most important that there is a negative impact on the size of the rediscount interest rates at the commercial banks, in addition to having a positive impact statistically significant for open market operations on interest rates, and there is a positive impact and moral reserve compulsory on interest rates, Finally there is a negative impact and a moral to the money supply on interest rates at the commercial banks, either study Mohammed (2008), entitled: "The Impact attenuators credit risk on the value of banks, Empirical Study on the Jordanian commercial banks". Where this study aimed to analyze the impact of using of techniques that mitigate credit risk on value of banks, and the study sample included a ten commercial banks during the period (2001-2006), the researcher believes that the problem of this study crystallized about the extent impact of these risks on the interest margin and its impact on the returns accruing to owners and shareholders, the researcher adopted for achieving this study on the multiple regression analysis, the researcher treated this problem through using of techniques, tools and strategies that mitigate these risks to ensure the profit margin is acceptable, which reached this study to a positive impact between value of bank's revenues and techniques of risk mitigation, also the importance of maintaining the composition and quality of credit facilities with reduce risks within acceptable levels in order to maintain profit margins, while the study of Bahia (2008), entitled "factors affecting the degree of safety of commercial banks operating in Palestine" analytical study. Which aims to develop a standard model based on the financial analysis of the financial statements published by banks that standing on the extent of the influence for some factors as the degree of security in Palestinian banking system, in order to achieve high rates of return on assets and to achieve this purpose it had been selected (5) financial ratios for a sample of (12) licensed bank with PMA for the period (1997-2007), which came up with results that help departments of banks to improve their performance banking in terms of risk management, especially the interest rate risk (Interest Risk) (price fluctuations), and the risk of capital (Capital Risk) and credit risk (Credit Risk), the researcher believes that the problem of this study lies in the Net interest income (Net Interest Income) constitute (7-90%) of the total income in bank, where the interest rate risks are particularly significant rise in interest rates creates banks are risks that pay higher rates on their deposits compared with what you get from the revenues were used method of multiple regression analysis, also researcher addressed this problem by strategies derivatives after the formation of insurance cover, in order to reduce risk of bankruptcy, and through the conclusion of the swap contracts interest rates, whereby the place to swap fixed interest rate on loans at an interest rate variable, while the results showed an inverse relationship between the degree of safety of banks and bank,s risk of credit (CR) with a positive relationship between degree of banking safety and all of risks related to fluctuations in the interest rate (IR), and the rate of return on total assets (ROA), as well as in the study of Suhaila (2006), entitled "The impact of interest rate fluctuations on the performance of the institution." This study was carried as attempt to analyze and highlight the impact of fluctuations the interest rate on the organization performance by clarifying the various dangers that could be exposed to the institution as a result of changes in interest rates associated with various financing methods, the researcher try to study problem crystallize when exposed organization that relies on funding by borrowing from banks, researcher has adopted of regression analysis, the researcher addressed this problem lies in coverage media to protect against the risk of fluctuations in the interest rate, for each institution to choose the appropriate means, which allow them to adapt fluctuations in the interest rates, and that higher or lower interest rates have an impact on financial institutions represented by the costs borne by the commercial Bank, the results of this study showed that the current decisions and future of the institution affected by fluctuations in the interest rate and the interest rate affects the market value of shares for institution, either study waat (2004), entitled: "The banking risks and their impact on credit facilities for Jordanian commercial banks for period (1988-2002)." This study aims to analyze the impact of interest rate risk on credit facilities for commercial banks during the period (1988-2002), the researcher believes that the problem of this study lies in the extent to which the credit facilities provided by Jordanian commercial banks, through using multiple Linear Regression model, the researcher address this problem by improving the level of risk management in banks and through using of internal rating systems for credit risk and improve the methods of measuring the interest rate risk commensurate with the standards Basel Committee 2007, the results showed that there is a disparity in effect of interest rate risk on credit facilities , which is due to the difference in the credit policy from bank to another, and different management for each bank facing risks in banking business, in addition to the difference in size of the assets and liabilities from bank to another. And added study of Celebrity (2003), entitled: analysis of revenue sources of Jordanian commercial banks. Empirical Study. (1980-2000). "which aimed to measure the interest rate risk and volatility which adversely affect on interest income of commercial banks, the researcher believes that the problem of this study lies in comparison between the sensitivity of interest income to changes in assets returns with the sensitivity of the interest expense for changes in the interest cost to the litigants or which so-called gap of resources, and to identify and evaluate the changes in interest income with the changes that occur at market interest rates, also the researcher have adopted for the purposes of the analysis the study multiple regression method, and the researcher addressed this problem through get rid of fluctuations in interest rates by directing investment portfolio to short-term investments are less susceptible to fluctuations in interest rates, so the researcher the following results: the risk of interest rates increasing in case of non-availability of information system at commercial banks allows to stand on the rates of cost obligations and the rate of return on assets and determine how much the gap between assets and liabilities with the extent of sensitivity to changes in interest rates, while a study Ayman (2002), entitled: "The determinants of profitability in the Jordanian commercial banks.". where the study aimed to identify and measure the impact of various determinants of profitability in Jordanian commercial banks (leverage, the cost of deposits, liquidity, the size of banks, interest rate risk, and the capital risk), the study sample included of (Arab Bank, Bank of Jordan, and the Jordanian Kuwaiti Bank), so the researcher believes that the problem of this study lies in the monetary policy, the state of economic recession and low credit policy followed by the decline in employment of substantial financial resources to those banks and low profitability, the researcher adopted to analysis on multiple Linear Regression, so this study concluded that the impact of interest rate risk on the profitability of commercial banks which was very weak due to high interest rate spreads, the effect of capital risk on profitability for the Arab Bank and Bank of Jordan is very weak due to capital adequacy, but liquidity did not have an impact on profitability for each of the Arab Bank and Jordanian Kuwaiti Bank, with had a negative impact on profitability for Bank of Jordan, also size of bank affected on the profitability of commercial banks. On the other hand, study of the Ritz (2012), entitled: (How do you deal with commercial banks when prices instability funding). Which aimed to analyze the banking activities in the economy, the importance of the banking sector in the provision resources for investment which achieves revenue for banks, but financial and economic crises have had a significant impact on lenders and borrowers, especially fluctuations in the interest rate on lending and deposits that lead to lower interest margin, the problem of the study specific non-banks' ability to predict changes to interest rates on loans and deposits, what are the actions that can be taken by the central bank about the interest rates, the researcher used model (VAR) for the purposes of analyzing data statistically, the researcher addressed this problem by reducing the rates of loans to deposits and setting interest rates gyroscopic of loans and deposits to avoid the risk of fluctuations in interest rates and increased interest margin, so the results of this study cleared that the inability of banks to hedge because the large number of banking risks, in addition to high operational costs on both sides of the budget. Then came study of Roman and others (2010), entitled: (exposure interest rate risk on revenues of linear and non-linear in Spain). Which aimed to conduct a comprehensive analysis of impact for interest rate risk on all types of Spanish companies industries, especially the banking industry and its negative impact on the interest margin (yield), the problem of this study identified the extent which affected on the banking industry and their vulnerability to changes and fluctuations in interest rates , because they are more sensitive to interest rate others, they have been using the multi regression -methodology statistic in this study, the researchers treated this problem by hedging interest rate risk, and pointed out the results of this study indicated that the changes and fluctuations in the interest rate is not homogeneous, non-linear, non - identical for all industries and Spanish banking industry, thus its impact on the profit margin, either study Marinkovic and Radovic (2010), entitled: "The determinants of the interest margin in the banking sector of Serbia." The aim of this study was to analyze the interest margin and the determinants of the interest margin in the commercial banks, what importance of the interest margin in the banking sector which provides an indication about profitability of bank as well as the cost of deposits, the researchers reached that the risk of interest rates have a negative impact on the margins of bank interest, the researchers tested by used multiple regression, and treatment very accessible to the interest margin ideal through the design of an existing system to protect deposits along with building credit guarantees, and the study concluded that the results showed a positive relationship between profit margin and interest rate risk, a negative relationship with banking risks, also a positive relationship and but less correlated with credit risk, but not affected by interest margin for foreign banks when entering domestic banking sector. As well as the study of Saha et al (2009), entitled: (impact of interest rate risk on the interest margin of indian commercial banks)., This study aimed to clarify the impact of the volatility for interest rates on interest margin in Indian banks during the period (2002-2004) as the first study of its kind in the period for Basel II, the problem of this study indicated that interest rates rose and fell adversely affect on loans and size of interest which paid on deposits, the purposes of achieving the goal of the study was used and relyed on linear regression, the researchers found that the political and economic conditions, regulatory, and re-pricing of risk may losses greater than indicated by previous studies, because the loss was achieved up to 99% of a sample study for Indian banks. Then study William (2008), entitled "The risk of banks.". Which aimed to analyze the impact of interest rate risk on the commercial banks, the researcher believes that the problem of this study all banks share the same risks that negatively affect revenues (net interest margin) and the most important of interest rate risk, to achieve the goals and objectives of this study were researcher was adopted on the statistical tools to analyze the data through VAR, also addressed the researcher this problem by necessity directed banks to make long-term loans based on floating interest or changing to reduce the proportion of losses arising from changes in interest rates, also showed the result of this study that the matching of assets sensitive to reduce risk of interest rates, while study Omaatosh (2004), entitled: "Is the banking security official for tight cost of funding?". How can the characteristics of different economic variables and the decisions of the commercial banks that affect on degree of security banking, thus the decisions of commercial banks included in this study a sample of banks numbered (8000) Bank for more than (25) View quarterly during the study period (1997-2003), the researcher believes that the problem of this study lies in the changes and fluctuations in interest rates, which would affect the commercial banks by increasing the burden owed by banks and reducing interest margin, handles researcher this problem by relying on derivative contracts because of its positive impact in reducing the unit of external shocks to the policy of the banks, which contributes to facilitate the movement of cash in periods of shocks macroeconomic, also to achieve the objective of the study the researcher adopted methodology multiple Linear Regression to analyze data of the study, the study concluded in its results the existence of a correlation and direct correlation between the probability of bankruptcy of the bank and the decisions of the security banking, between the interest rate risk and the decisions of the security banking, when increasing the of interest rate price by 10% this would lead to a decrease in the gap of interest by 0.25%, which means

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

increasing the burden on the banks owed, thereby increasing safety banking decisions, also leads to a lack of significant fluctuations in the interest rate and credit margin on the decisions of the banking safety.

What distinguishes the study. This study focussed specifically on the agent causing which affecting to appear the resources gap and its impact on the banking sector, while previous studies have focused on factors affecting the financial market in general, it was all influential factor on the financial market deals with one study.

Data of the study: Society and the study sample: The study population consists of all commercial banks operating in the Hashemite Kingdom of Jordan, while including a sample study of eight Jordanian commercial banks (Bank of Jordan, the Jordan Kuwait Bank, the Housing Bank, Union Bank, the investment bank, the National Bank, Jordanian Commercial Bank, Cairo Amman,) for the period (1990-2011).

Sources of information and data collection: - Secondary sources: books and periodicals reports, theses and scientific journals, official reports and Web sites.

Primary sources: related to data that have been obtained from the annual reports, monthly bulletins of commercial banks, the websites of the study sample for commercial banks and the Central Bank, in addition to the data, which requires the researcher collected and analyzed during the study period.

Procedural definitions: the resources gap (Resources Gap): the difference between assets sensitive to interest rate with liabilities sensitive and the interest rate. And this gap can be measured as follows: *Gap = sensitive assets to interest rate - sensitive liabilities for interest rate.* interest margin (Interest Margin): the difference between the interest rate on deposits and the interest rate on the loans, which includes the banking risks and operational costs, tax expenses. The interest rate (Interest): the price of money capital or contrast to be used, also represents the price of swapping the present value with future value in return for lending, Debit Interest (Interest Expenses): the amount has paid by bank during the year on various types of accounts and deposits. Interest payable (Interest Income): the size of interest received to the interest paid. Interest rate risk = sensitive assets for Interest rate / Liabilities sensitive for interest rate to interest rate Where assets and liabilities are affected by fluctuations in interest rates. Sensitive assets to interest rate volatility with vulnerability and interest rate investments are in short-term securities (for the purpose of trafficking, and not for the purpose of retention), loans, advances and securities discounted short-term. Liabilities sensitive to interest rate volatility with vulnerability to interest rate and deposits are characterized by not limiting term such as: bank deposits, financial institutions, central banks and deposits, cash margins and customer deposits.

Study Methodology: this study has been rely on all of descriptive analytical method and curriculum standard in the presentation data and analyzed by using the program (spss) for statistical indicators and evaluated interpreted in conformity with the study through using simple linear regression .

Study Model: Model was built simple linear regression, which connects between the variables of the study. Variables of the study is as follows:

The independent variable (Independent Variable): and confined in the resource gap (Resources Gap).

The dependent variables (Dependent Variable) and are:

1. Interest Margin (Interest Margin).
2. Debit Interest(Interest Expenses)).
3. Interest payable (Interest Income)).

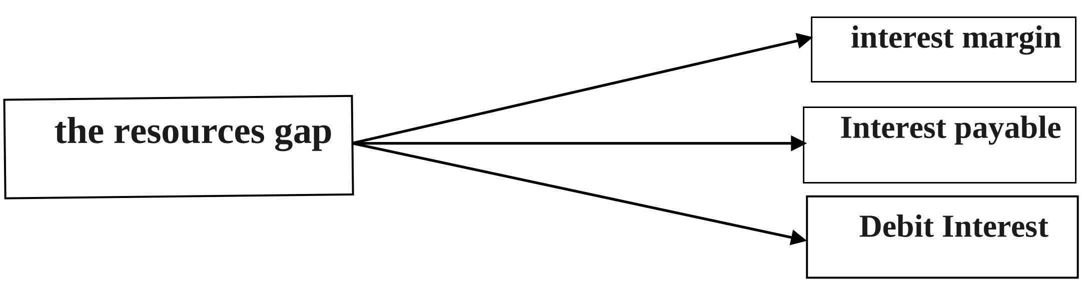


Figure 1 : Model study

Independent variable dependent variables

So based on previous studies, study of (Barbour, 2003), a study of (Ayman al, 2002), a study for (Roman, 2010), a study for (Sahaw et al, 2009) and study for (William, 2008) were building a model study as follows:

$$Mar = \alpha + \beta_1 \, R\,G + e \ldots..1$$

$$Exp. = \alpha + \beta_1$$

$$Inc. = \alpha + \beta_1 \, R\,G + e \ldots\ldots..3$$

Where is:

(R G): Resources Gap

Interest Margin:(Mar)

(Exp):Interest Expenses

(Inc):Interest Income

e: random error, which represents the change in the resource gap wildly as a result of other factors not included in the study model.

α: Fixed regression equation

$\beta_1 + \beta_2 + \beta_3$: regression equation, which reflects the change in the sensitivity of the resources gap due to the change in the dependent variables of the study, according to their ranking.

Method of data analysis Statistical Analysis: Data were analyzed using a variety of statistical tests, depending on the program (spss), through using of (Simple Linear Regression), and OLS) as well as using of correlation coefficients and descriptive statistical methods that showed the impact of variables of the study within time-series of financial statements.

Results of statistical analysis Descriptive statistics. The following table illustrated the results of descriptive statistics through using of statistical software (spss) during the period (2000-2011):

Table 1 : A summary of descriptive statistics results

Min.	Max.	Kurtosis	torsion	Standard deviation	Arthmetic mean	Variable
-79.160933	64.998636	1.722444	0.336172	49.421562	-11.899918	resources gap
0.4999549	33.229584	2.818884	-0.212977	9.086518	18.990842	Interest margin
9.198431	36.526744	1.679978	-0.252278	9.972689	24.530493	Debit interest
24.737085	63.154043	1.313841	0.049264	15.612344	43.521335	Inerest payable

Source: Prepared by the authors

Note from Table (1) as follows:

- the resources gap: The arithmetic mean of the variable resources gap (11,899918-), a negative value indicating a high sensitive liabilities, compared sensitive assets, while the value of the standard deviation (49.421562), which is high compared to the value in rural arithmetic.
- Interest Margin: The arithmetic mean of the variable interest margin (18.990842), which indicates the high profitability of Jordanian commercial banks through the awarding of loans return for the interest that payed on deposits, while the value of the standard deviation has reached (9, 086 518), this value is considered low.
- Debit Interest: The arithmetic mean of the variable debit Interest (24.530493), a positive value which indicates the amount of cost incurred by the Bank as a result of receiving a deposit, which used to fund investments in assets side, whereas the standard deviation was (9.972689).
- Interest Income: The arithmetic mean of the variable interest payable (43.521335), a positive value indicates the size of the interest received and other income derived from loans, advances, financial investments and commercial paper discounted, also for the standard deviation the valued (15.612344), This value is considered low.

Table 2 : The correlation between the variables of the study

Interest margin	Inerest payable	Debit interest	resources gap	
			1.000	resources gap
		1.000	0.66124	Debit interest
	1.000	0.836994	0.830439	Inerest payable
1.000	0.799565	0.340587	0.701121	Interest margin

Source: Prepared by the authors

Note from Table (2) as follows: • linked to variable resource gap of the highest power of correlation with interest income, which amounted to the power of correlation about (83%), the strength of correlation is positive and strong, that indicating the significant impact that can be caused by a change in the resources gap with respect to the change in the size of the interest received and income from loans, advances, financial investments and commercial paper discounted, for power of the correlation between the resources gap and interest margin amounted approximately (70%), the correlation is positive and strong, that indicating the significant impact that can be caused by a change in the resources gap with respect to the profitability of Jordanian commercial banks through the awarding of loans against the interest you pay on deposits in its possession As for the strength of the correlation between the variable resources gap with debit interest that amounted about (66%), also representing the correlation strength is positive and strong, but less powerful than the rest of the variables , which shows impact that can be caused by a change in the resources gap with respect to the cost by bank as a result of receiving deposits used to fund investments in assets side. • also the interest payable correlation is positive and strong with debit interest (83.6%), while the strength of the correlation between interest income and interest margin about (80%), and for variable interest margin has been correlated strongly and positive but it is weak with debit interest reached (34%).

IV. Test Hypotheses of the Study

First, the results of the first hypothesis

H01: No statistically significant effect of the resources gap in the Jordanian commercial banks on the interest margin for the period (2000-2011).

Table 3 : Test results normal distribution

Probability	Jarque- Bera	Variable
0.491582	1.420254	Interest margin

Source: Prepared by the authors

From table (3) the probabilityfor (Jarque- Bera test) for normal distribution has reached (.491582), that is not statistically significant, indicating that the data normally distributed.

Table 4 : The results of data smoothing Homoskedasticity test (interest margin)

Scaled explained SS	Obs*R-squared	F-statistic	Variable
0.7403	0.6665	0.7	Interest margin

Source: Prepared by the authors

From table (4) that the values of statistical significance to homogeneity test that relating to interest margin amounted to (0.7), (0.6665), (0.7403) for each of the F-statistic, R-squared, and Scaled explained SS, respectively, which values not statistically significant (greater than 5%), which indicates that there is no problem of data heterogeneity.

Table 5 : Results of test autocorrelation *

Obs*R-squared	F-statistic	Variable
0.3825	0.4975	Interest margin

Source: Prepared by the authors

Note from Table (5) that the values of the statistical significance of the autocorrelation test on interest margin amounted to (0.4975), (0.3825), each of the F-statistic, and R-squared, respectively, are non-statistically significant (greater than 5%), which indicates the absence of autocorrelation problem.

Table 6 : The results of regression analysis for the first hypothesis

Probability	t.test	Laboratories	Variable
0.0111	3.10941	0.128906	resources gap
0	10.14714	20524816	Fixid value
		0.491571	R^2

Source: Prepared by the authors

From table (6) the value of the R^2 between variables (resource gap and interest margin) amounted (49%), which indicates that the amount is explained by the independent variable (the resource gap) changes in the dependent variable (interest margin) is (49 %), and that there is a value (51%) other factors influenced on the dependent variable, as the value of probability (0.0111), which is value of a function for statistical significance level (α ≤ 5%), and therefore there is no statistically significant effect of the resources gap in Jordanian commercial banks on the interest margin for the period (2000-2011), so we can explain it financially by the change in bank's assets or obligations either rise or fall will lead to change size of profitability for Jordanian commercial banks through the awarding of loans return for the interest that you pay on deposits. Accordingly, we accept the alternative hypothesis for the third study, the regression equation can be written as follows:

Resource gap = 20524816+ 0.128906 × interest margin .And this result is consistent with a study (Roman, 2010) the existence of a negative impact to the

Second, the results of the second hypothesis test

H02: No statistically significant effect of the resources gap on the debit interest for Jordanian commercial banks for the period (2000-2011).

Table 7 : Test results normal distribution *

Probability	Jarque- Bera	Variable
0.789016	0.473936	debit interest

Source: Prepared by the authors

From Table (7) the value of probabilistic test (Jarque- Bera) for normal distribution has reached (.789016), a value that is not statistically significant, indicating that the data normally distributed.

Table 8 : The results of data smoothing Homoskedasticity test (debit interest)

Scaled explained SS	R-squared	F-statistic	Variable
0.381	0.1427	0.1706	debit interest

Source: Prepared by the authors

From table (8) the values of statistical significance to the homogeneity test to variable debit interest has reached (0.1706) (0.1427) (0.381) for each of the F-statistic, and R-squared, And Scaled explained SS, respectively, which is statistically significant values (greater than 5%), which indicates that there is no problem of heterogeneity of the data.

Table 9 : Autocorrelation test results *

R-squared	F-statistic	Variable
0.0462	0.0565	debit interest

Source: Prepared by the authors

From table (9) the values of the statistical significance of the autocorrelation test on debit interest (0.0565), (0.0462), each of the F-statistic, and R-squared, respectively, which are statistically significant (less than 5%), that indicates the existence of the autocorrelation problem . As a result and in order to address this problem to reach a more credible results it have been used Heteroskedasticity Autocorrelation Correction (HAC) in form of regression analysis (OLS), and Table 10 below shows the results of regression analysis for the second hypothesis.

Table 10 : The results of the regression analysis

Propability	t.test	element	Variable
0.0095	3.197083	0.13343	resources gap
0	9.979159	26118305	Fixed value
		0.437239	R^2

Source: Prepared by the authors

From table (10) the value of R^2 between the resources gap and debit interest amounted (43%), which indicates that the amount is explained by the independent variable (the resource gap) of changes in the dependent variable and that there is a value (57%) other factors influenced the dependent variable, also the value of probability (0.0095), which means thestatistical significance level (α ≤ 5%), therefore there is statistically significant effect of the resources gap in Jordanian commercial banks on debit interest for period (2000-2011), therefore accepted the alternative hypothesis of the first study, and the regression equation can be written as follows: Resources gap = 26118305 + 0.13343 ×debit Interest.

Third Tesults of the third the hypothesis test

H03: No statistically significant effect of the resources gap in the Jordanian commercial banks on the interest payable for the period (2000-2011).

Table 11 : Test results normal distribution

Probability	Jarque- Bera	Variable
0.616843	0.966281	Payable interest

Source: Prepared by the authors

From table (11) value of probabilistic test (Jarque- Bera) for normal distribution has reached (.616843), this value is not statistically significant, which indicating that the data normally distributed.

Table 12 : Results of the Homoskedasticity test data (payable interest)

Scaled explained SS	R-squared	F-statistic	Variable
0.5762	0.3549	0.4014	Payable interest

Source: Prepared by the authors

From table (12) values of statistical significance to homogeneity test of payable interest amounted (0.4014) (0.3549) (0.5762) for each of F-statistic, R-squared, and Scaled explained SS, respectively, which values not statistically significant (greater than 5%), which indicates that there is no problem of heterogeneity of data.

Table 13 : Autocorrelation test results

R-squared	F-statistic	Variable
0.8755	0.9142	Payable interest

Source: Prepared by the researchers

From table (13) values of the statistical significance for autocorrelation test on payable interest amounted (0.9142), (0.8755), for F-statistic, and R-squared, respectively, which are the values of non-statistically significant (greater than 5%), which indicates there is no autocorrelation problem.

Table 14 : Results of regression analysis for the third hypothesis

Probability	t.test	element	Variable
0.0008	4.713751	0.262337	resources gap
0	17.17733	46643122	Fixed value
		0.689628	R^2

Source: Prepared by the researchers

From table (14) the value of R^2 between resources gap and payable interest amounted (69%), which indicates that the amount that explained by the independent variable of changes in the (interest payable) is (69 %), that means there is (31%) other factors influenced the dependent variable, also value of the probability of (0.0008), which is is statistical significance at level ($\alpha \leq 5\%$), so there is statistically significant effect for the resource gap on the payable interest for period (2000-2011). Accordingly, we accept the alternative hypothesis for the study, the regression equation can be written as follows:

Resource gap = 46643122+ 0.262337 × credit interest

V. Conclusions

This study aimed to determine the impact of the resources gap on the interest margin and the study were used to test the regression model, and the results were as follows :

1. There is a negative impact to the resources gap in the Jordanian commercial banks on the interest margin, the low interest margin is achieved due to rise in interest rates, which leads to lower interest income on loans, high debit interest on deposits, which has a negative impact on the interest margin in Jordanian commercial banks, especially when you find the difference between interest income because it is the high debit interest on the interest income, which achieves a reduction or loss in net interest margin.
2. there is a negative impact to the resource gap in the Jordanian commercial banks on the debit interest, where the changes in interest rates decline an impact on lower costs of funding sources which affected on depositors by lower interest rates on their deposits, also when changing interest rates on investments (payable interest) at faster rate of change for interest rates on the financial resources that used to finance these investments, with

increased lending from commercial banks because the low value of sources for funds, which leading to increase profits for commercial banks.

3. there is a negative impact to the resource gap in the Jordanian commercial banks on credit interest, which means that changes in interest rates rose an impact and decline income from credit facilities, because the terms are normally short, also because the rate of paid interest on deposits and short-term of loans are sensitive to interest rates in the short term while the rate of interest earned on long-term liabilities creates risk interest rate, so the degree of risk of interest rates will rise, which causing banks to pay more for his opponents, when changing interest rates on financial resources (debit interest) rates faster than changes in interest rates on the investments that have been funded from these resources, they affect the flow of credit interest through the differences in the timing of the accrual rates for fixed and re-pricing of floating rates related assets and liabilities.

VI. Recommendations

According to the conclusions that have been reached through the theoretical framework for the study and from previous studies, also reached the reality of statistical analysis of the study was out for the following recommendations:

1. The commercial banks must be linked the interest margin with level of risk, and to identify those levels of risk which can be accepted, as well as to measure the gap and identify target them to reduce market risk and sudden changes in interest rates on loans and deposits, to diversify its investments in order to increase the interest margin.
2. The Jordanian commercial banks must operate well to reduce the interest payable, and in order to increase the employment of financial resources to achieve more profits, and improve the management of credit facilities so as to minimize risk of credit facilities.
3. The Jordanian commercial banks preferre that to attract deposits with low interest rates, in order to reduce the cost of deposits so as to avoid risk of sudden fluctuations in interest rates. Finally, the researcher recommends conducting more research on the resource gap and its impact on the interest margin using the ways and means of assessing interest rate risk and market sensitivity.

References Références Referencias

1. Bakri, (2002). international financial markets, the future House, Amman, Jordan .
2. Janabi, Hill. (2005), management of commercial banks and banking business, the first edition, Mafraq, Jordan.
3. Naimi, Adnan, Courier, Saadoun, peace, Osama, Shukairy, Moses, (2007) "Financial management theory and practice", Jordan, Oman, Dar Almaseera.
4. Hindy, Munir Ibrahim, (2003) modern thought in Risk Management, Alexandria, Egypt, facility knowledge, the first part.

Theses

1. Hamad, Alaa Mohammed Massoud, (2009), the impact of monetary policy on interest rates in Jordanian commercial banks, Master Thesis, Faculty of Business and Financial administration, Al al-Bayt University, Mafraq, Jordan..
2. Rashdan, Ayman Ahmed,(2002), the determinants of profitability in the Jordanian commercial banks, comparative study for selected banks (1985-1999), Unpublished MA Thesis, Faculty of Economics and Administrative Sciences, Al al-Bayt University, Mafraq, Jordan..
3. Zrman, Tawfiq, (2006), the effectiveness of the use of accounting and auditing in banking supervision, Master Thesis, Faculty of Economic Sciences, University Mentouri, Constantine, Algeria..
4. Sabah, gorgeous Mahmoud, (2008), factors affecting degree of safety of commercial banks operating in Palestine "analytical study", Master Thesis, Faculty of Commerce, Department of Business Administration, Islamic University, Gaza..
5. Osman, Mohammed Daoud, (2008), the impact attenuators credit risk on the value of banks, Empirical Study on the commercial banking sector of Jordan, Ph.D. thesis, Department of banks, the Arab Academy for Banking and Financial Sciences, Amman, Jordan.
6. Eknaan, Hatem, (2001), liquidity in the Jordanian commercial banks and their impact on profitability for the period 1985-1999, Unpublished MA Thesis, Faculty of Economics and Administrative Sciences, Al al-Bayt University, Mafraq, Jordan..
7. Omar, Muhammad Jamil, (2004), banking risks and their impact on the credit facilities for commercial banks for the period 1988-2002, Master Thesis, Faculty of Economics, University of Al al-Bayt, Jordan, retail.
8. Ghanem, Marwan, (2000), evaluate the financial performance of commercial banks of Jordan, unpublished Master Thesis, Al al-Bayt University, Mafraq, Jordan.
9. Farrah, Ahmed Nur al-Din,(2008), the analysis of the banking system evaluation (CAMELS) as a tool for the control of the banking sector (case study of the Bank of Palestine), Unpublished MA Thesis, Faculty of Commerce, the Islamic University, Gaza..
10. Suhaila, (2000), the impact of interest rate fluctuations on the performance of the institution, Master Thesis, Faculty of Economic Sciences and

Science Steering, Mentouri University of Constantine,Algeria.
11. Hathloul, (2003), famous Barbour, analysis of revenue sources Jordanian commercial banks Empirical Study for the years 1980-2000m, Master Thesis, Al al-Bayt University, Faculty of Economics and Administrative Sciences, Department of Banking and Finance.
12. Hample, George H. & Simonson, Donland G. & Alan B. Coleman, Bank Management: Text & Cases, 4th – ed.., John Wiley & Sons, New York, 1994.
13. Kohn, Meir Money, Banking & Financial Markets, Rinehort & Winston Pub, Chicago, USA, 1991.
14. Macdonald, Scott and Koch, Timoth W., Management of Banking, Courer Westford, MA, Sixth Edition, 2006.
15. Marinkovic, Srdjan and Radovic Ognjen, On The Determinants of Interest Margin in Transition Banking: the Case of Serbia, Managerial Finance, vol.36, issue 12, pages 1028-1042.2010.
16. Purnanandam, Amiyatosh, Is banking security responsible for tightening funding cost, University of Michigan – united states (August 3, 2004) No. 51 working papers series.
17. Ritz, R.A, How do Bank Respond to Increased Funding Uncertainty?, Paper provided by Faculty of Economics, University of Cambridge in its series, Cambridge working papers in Economics with number 1213 (2012).
18. Roman Ferrer, Cristobal Gonzalez, Gloria M. Soto, Linear and Nonlinear Interest rate exposure in Spain, Managerial Finance, vol. 36,p431-451, 2010.
19. Rose, Petar S.. Money and Capital Marker. IRWIN. Sidney. Australia. 5 Edition. 1994.
20. Saha, Asish, Subramanian, Basu Sanjay & Mishra ,Alok, Networth Exposure to Interest Rate Risk: An empirical Analysis of Indian Commercial Banks, European journal of operational Research, vol.193, issue 2, 2009, p 581-590.
21. Schroeck, Gerhard, Risk Management and Value Creation in Financial institutions, Wiley Finances, UAD. 2002.

This page is intentionally left blank

Global Journal of Management and Business Research:C Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

The Impact of Money Lending Institutions on Small and Medium Enterprises: A Case Study of Shalom Lending Enterprise

By Dr. Isaac Owusu - Dankwa & Allotey Nancy Adoley
Valley View University, Ghana

Abstract- Small and Medium enterprises are the promoters for economic growth in many economies and a key component for their success is the availability and provision of finance for their operations. The study examined the impact of money lending institutions on Small and Medium Enterprises (SMEs) in Ghana. Simple random sampling technique was employed in selecting 100 SMEs that constituted the sample size of the research. Structured questionnaire was designed to facilitate the acquisition of relevant data which was used for analysis. Descriptive statistics which involved simple tables were strategically applied in data presentations and analysis. The study revealed that significant number of SMEs benefitted from loans even though only few of them were capable enough to secure the required amount needed. Majority of SMEs accepted positive contributions of loans towards increasing their profits, stock and sales, thus placing them on a competitive ground.

Keywords: small and medium enterprises; microfinance institutions; lending.

GJMBR-C Classification: JEL Code: G20

THEIMPACTOFMONEYLENDINGINSTITUTIONSONSMALLANDMEDIUMENTERPRISESACASESTUDYOFSHALOMLENDINGENTERPRISE

Strictly as per the compliance and regulations of:

The Impact of Money Lending Institutions on Small and Medium Enterprises: A Case Study of Shalom Lending Enterprise

Dr. Isaac Owusu - Dankwa [α] & Allotey Nancy Adoley [σ]

Abstract - Small and Medium enterprises are the promoters for economic growth in many economies and a key component for their success is the availability and provision of finance for their operations. The study examined the impact of money lending institutions on Small and Medium Enterprises (SMEs) in Ghana. Simple random sampling technique was employed in selecting 100 SMEs that constituted the sample size of the research. Structured questionnaire was designed to facilitate the acquisition of relevant data which was used for analysis. Descriptive statistics which involved simple tables were strategically applied in data presentations and analysis. The study revealed that significant number of SMEs benefitted from loans even though only few of them were capable enough to secure the required amount needed. Majority of SMEs accepted positive contributions of loans towards increasing their profits, stock and sales, thus placing them on a competitive ground. The study recommended that money lending institutions should review their interest rate downwards and also increase the duration for repayments as this would support and improve the contribution of SMEs to the economic development of Ghana.

Keywords: small and medium enterprises; microfinance institutions; lending.

I. Introduction

The Ghanaian economy has a large proportion of businesses in the small-scale and self-employed group which collectively fall under the small and medium enterprises (SMEs). SMEs by their nature are unique in their financial requirements and these have not been adequately and properly addressed by the conventional banking system. With the emergence of Non-Bank Financial Institutions, including money lending institutions, it is envisaged that the financial needs of this segment of the market which has remained outside the traditional banking scope, would be addressed (Mensah 2009).According to Abor and Quartey (2010), a small firm is an independent business, managed by its owner or part owners and having a small market share. They identified three major characteristics of such forms of businesses: the independence of its management, the ownership structure composed of very few investors, and their area of operations being confined to their local surroundings.

SMEs account for majority of firms in an economy and a significant share of employment. Like many other countries, SMEs in Ghana have the tendency to serve as sources of livelihood to the poor, create employment opportunities, generate income and contribute immensely to economic growth. They have been the engine for economic development of several developed countries such as the United States of America and Japan (Hallberg, 2001). Frimpong (2013) noted that SMEs in Ghana "provide about 85 percent of manufacturing employment, account for 90 percent of existing businesses in the country, and contributed 49 percent to the country's GDP in 2012. They contribute to employment creation, provision of basic goods and services, and generation of export and tax revenues for national socio-economic development" (p.1). He continued that "SMEs contribute greatly to economic diversification, exports, social stability, and also serve as a feeder line for the corporations of the future as it is from among them that most Multi-national companies (MNCS) and large corporations emerge. As such, SMEs capacity development emerges as a key instrument in poverty reduction and sustainable economic development efforts" (p.1).

Mensah (2004) identified the unavailability of financing (both equity and debt) as the major handicap affecting the operation of the Small and Medium Enterprises (SMEs) sector. This he attributed to current investment laws prohibiting institutional investors from investing in private SMEs and the perceived high risk associated with such investment. Amoafo (2009) noted that although the dire need for financing especially among the poor has led to situations where property and other valuable materials have been used as collateral in the quest to secure finance, traditionally, the concept of helping the poor and SMEs has attracted attention from many a lending institution. Olawale and Obert (2010) argued that since small firms and enterprises do not receive funding from governments due to inadequate resources available to the government, SMEs are compelled to source for funds from private financial institutions at prevailing market rates, thereby affecting their expected impact on the society.

Against this background, this study was aimed at determining why SMEs seek for financial assistance, the reason for high default rate among SMEs and the impact of money lending on SMEs operations.

Author α σ : Valley View University. e-mail: iodankwa@yahoo.com

II. Literature Review

a) Definitions of Small and Medium Enterprises (SMEs)

There is no universally agreed definition of SME's even though many attempts have been made to present a workable and acceptable one. Gibson and van der Vaart (2008) bemoaned over the lack of an appropriate definition of an SME because there were varied ways of defining SMEs. SME's could be defined based on the number of employees, the value of assets held, the amount of level of turnover, or by a formula. They adopted the formula method and defined SME as "A formal enterprise with annual turnover in U.S. dollar terms, of between 10 and 1000 times of the mean per capita gross national income, at purchasing power parity, of the country in which it operates" (p.18). However, Arkoh (2013) identified a serious flaw in the above definition when applied to other parts of the world. He argued that most business in the developing world were reluctant to disclose turnover records making it difficult to classify them within the definition suggested by Gibson and van der Vart. He explained that in the Ghanaian context, the National Board for Small Scale Industries (N.B.S.S.I.) defined SME as an enterprise with turnover greater than $200,000 and not more than $5million equivalent.

According to Abor and Quartey (2010), a small firm is a self-regulating business, owned, controlled, and operated by either is full or part-time owners. These kind of firms do not have a large market share. Such business could be categorized into urban and rural enterprises; the former can be subdivided into organized and unorganized enterprises. Kayanula and Quartey (2000) noted that the organized types of SMEs mostly have paid employees with a registered office, whereas the unorganized category is mainly made up of artisans who work in open spaces, temporary wooden structures, or at home, and employ few or in some cases no salaried workers.

b) Contribution of SMEs to Economic Development

The contribution of SMEs to the development of any country, though usually underrated is very enormous. Kayanula and Quartey (2000) observed that SMEs activities enhanced economic growth through the judicious usage of scarce resources and improved local production. Through the provision of the needed products and services to both local and international clients, SMEs contribute immensely to a country's national product (Abor and Quartey2010).

Frimpong (2013) made the following observation:

> Small and medium enterprises contribute greatly to the development of any nation. They account for a large share of new jobs in countries which have demonstrated a strong employment record and are known as a primary driver for GDP growth in most countries. Empirical studies have shown that SMEs contribute over 55 percent of gross domestic product (GDP) and over 65 percent of total employment in high income countries and also have contributed immensely to the economic growth of emerging markets (p.1).

From the economic perspective, Advani (1997) noted that small and medium enterprises provide a number of benefits. These enterprises have been recognized as the engines driving the growth objectives of developing countries, thus, potential sources of employment and income in many developing countries.

According to Tau (2013), SMEs have contributed significantly to economic development in India, South Africa, and Ghana and should be accorded all the needed support. He acknowledged that SMEs in India contributed almost 45 percent of the country's total manufactured products and employed over 32 million people. Its share of the export market amounted to about 40%.The situation in South Africa was not much different because SMEs contributed about 20 percent to GDP, 45 percent of exports, employed over 60 million people, and create over 1.3 million jobs every year.

The situation in Ghana is no different from other nations as noted by Tau (2013):"SMEs in Ghana provide about 85 percent of manufacturing employment, account for 90 percent of existing businesses in the country, and contributed 49 percent to the country's GDP in 2012. They contribute to employment creation, provision of basic goods and services, and generation of export and tax revenues for national socio-economic development" (p.1). He observed further that "SMEs contribute greatly to economic diversification, exports, social stability, and also serve as a feeder line for the corporations of the future as it is from among them that most Multi-national companies (MNCS) and large corporations emerge. As such, SMEs capacity development emerges as a key instrument in poverty reduction and sustainable economic development efforts" (p.1).

Kayanula and Quartey (2000) added that SMEs also improved the efficiency of domestic markets and made productive use of scarce resources, thus facilitating long-term economic growth. Abor and Quartey (2010) expatiated on the fact that SMEs contributed to a country's national product by either manufacturing goods of value, or through the provision of services to both consumers and/or other enterprises. This included the provision of products and, to a lesser extent, services to foreign clients, thereby contributing to overall export performance.

c) Constraints to SMEs Development

In spite of the commendable contributions of SMEs, the sector still faces some challenges that seriously need to be addressed if its full potential was to be fully unleashed and tapped (Frimpong, 2013). Manzur, Quader and Abdullah (2008) noted that though

SMEs played a vital role, the sector facedvaried problems inhibiting it from achieving its intended goal of contributing towards the economic growth of a nation. Some of these problems included lack of raw materials, inadequate supply of power, landownership issues, lack of appropriate infrastructure, and inefficiency in the financial sector. Zaney (2013) added that SMEs had numerous inherent weaknesses that served as a serious constraint: lack of appropriate business, managerial, and accounting skills required for any successful business operation. Tau (2013) identified the following as the main glitches faced by SMEs in Ghana:

- Inadequate access to finance
- Inadequate market support in an increasingly competitive environment
- Poor accounting culture among entrepreneurs
- Non-existent R&D investment/Product Innovation
- Lack of entrepreneurial knowledge

Frimpong (2013) opined that the "full benefits of SMEs have not been realized in Ghana largely due to the difficulty SMEs have over the years experienced in accessing capital, lack of entrepreneurial skills, lack of access to high quality and affordable business development services, erratic power supply, lack of adequate technical and management support services and limited access to information on market opportunities" (p.1). In addition, Kayanula and Quartey (2000) observed that the lack of skills in the small and medium enterprises sector as a whole, despite the numerous institutions providing training and advisory services they have received, has become a serious impediment. Aryeetey et al (1994) noted that another major hurdle faced by SMEs was their inability to acquire the requisite technology and information needed for their work. In the case of Ghana, they affirmed that the cumbersome procedure for registering and commencing businesses were key issues often cited. For example, World Bank Doing Business Report (2014) indicated Ghana's rank among 189 countries was 67 as against the sub-Saharan average of 142 and South Africa's position of 41. This report "sheds light on how easy or difficult it is for a local entrepreneur to open and run a small to medium-size business when complying with relevant regulations" (p.4). Ghana's ranking in the doing business topics are shown below:

Table 1: How Ghana ranks on Doing Business topics

Doing Business Topics		Year 2014
1.	Starting a business	128
2.	Dealing with construction permits	159
3.	Getting electricity	85
4.	Registering property	49
5.	Getting credit	28
6.	Protecting investors	34
7.	Paying taxes	68
8.	Trading across borders	109
9.	Enforcing contracts	43
10.	Resolving insolvency	116

Source: The International Bank for Reconstruction and Development/The World Bank (2013)

Kayanula and Quartey (2000) indicated that the absence of antitrust legislation favored larger firms, while the lack of protection for property rights limited small and medium enterprises access to foreign technologies.

SMEs often have difficulty financing their growth and innovations due to their associated inherent risks. But without the necessary funding, they may never experience growth and contribute their quota to the development of the country. According to Cork and Nisxon (2000), poor management and accounting practices are hampering the ability of smaller enterprises to raise finance. This is coupled with the fact that small businesses are mostly owned by individuals whose personal lifestyle may have far reaching consequences on the activities and going concern of such businesses. Subsequently, some of these businesses are unstable and may not guarantee returns in the long run. Kauffmann (2005) identified the high rate of credit default among SMEs as a major difficulty in their quest to obtain financial assistance.

III. Methodology

The research was descriptive in nature and employed the survey method in assessing the impact of money lending institutions on small and medium enterprises. In order to effectively conduct a valid analysis in the presentation and analysis of the data collected on the research field, the researcher used descriptive statistics such as tables to depict the relevant data. The study utilized primary sources of data in which structured questionnaire were extensively used.

The purpose was to generate data about the opinion and perceptions of SMEs owners in relation to the effectiveness of money lending to the performance of their companies and in addition provide means of analyzing the likely impact of money lending on SMEs. To constitute sample size out of the population of the study, simple random sampling technique was used to select 100 Small and Medium Enterprises. The concept of simple random procedure allowed unbiased sampling and accorded the research work more scientific feature, thereby concretizing the validity of the research findings. Though all the companies were served with questionnaire even though only75 were retrieved. To assess the impact of money lending institutions on small and medium scale enterprises, (SMEs) the chi-square test was used

IV. Findings and Discussions

a) Determine why small and medium enterprises (SMEs) seek for financial assistance

The data gathered from the respondents as depicted in Table 2, indicated that majority of the SMEs needed financial assistance mainly to increase their working capital, which represents funds required for the day to day administration of the business. Lack of inadequate working capital would cripple the business and could result in liquidation. In addition, other reasons for which SMEs sought for financial assistance included the acquisition of assets, to settle existing debts, and as a means to securing raw materials.

Table 2 : Why SMEs seek for financial assistance

Reasons 1. For acquisition of assets	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Total
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
2. To settle debts						
Frequency	5	8	3	26	33	75
Percentage	6.67%	10.67%	4.00%	34.67%	44.00%	100.00%
3. To increase working capital						
Frequency	60	15	0	0	0	75
Percentage	80.00%	20.00%	0.00%	0.00%	0.00%	100.00%
4. To source raw materials						
Frequency	36	19	5	13	2	75
Percentage	48.00%	25.33%	6.67%	17.33%	2.67%	100.00%

These findings affirmed the assertion by Manzur et al (2008) that SMEs faced varied challenges associated with the day-to-day running of their business such as inadequate raw materials, energy and power, marketing skill, lack of transportation, and finance. However, the major hurdle they faced was securing adequate working capital to operate their businesses.

Table 3 : Disadvantage of taking a business loan

Disadvantages of taking a business loan 1. High cost of capital	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Total
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
2. High rate of default						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%

3. Risk of losing collateral used as security						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
4. Prioritizing inflows to settle debt						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
5. Cumbersome procedures						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
6. Reduction in loan amount requested						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%

Table 3 showed data regarding the disadvantages associated with securing financial help from the perspective of the SMEs. According to Quainoo (2011), most of these loans taken from banks for asset finance have higher interest rates because of the long term nature of repayment. For example some banks finance assets for up to a period of seven years. Thus the high interest rates and the cumbersomeness in procedures deter SMEs from applying for such loans. Even though a number of the respondents strongly agreed that assistance from money lending institutions were also cumbersome, they preferred borrowing from them than from the conventional banks.

Some of the respondent strongly disagreed that they sought for financial assistance for the purpose of settling other debts that had incurred. However, they were quick to point out that reduction in interest rates by some financial institutions compelled them to seek for better offers. They consequently used the newly acquired loans to pay off their existing loan balances and also pay off their creditors.

Cumbersome procedures was a disadvantage because according to the respondents, they fall on the financial institutions in times of emergency. Any delay resulting from such procedures had dire consequences such as losing their contracts which eventually affect their growth. In such times, there was an indication that all inflows had to be prioritized into settlement of the loan, so until that is achieved all other issues are put on hold.

There was also reduction in loan amount as one of the disadvantages. This according to respondents' occurred a lot since they were sometimes denied the amount requested and given something less after their applications have been scrutinized by the financial institutions. Such situations cause undue stress since the SMEs are left with no option than to seek for additional assistance and most at times at higher costs. This confirmed the conclusion by Frimpong (2013) that SMEs in Ghana have not always obtained the required amount of support from banks, financial institutions and other bigger corporate entities.

The risk of losing collateral was identified as a great disincentive to taking a business loan because of the high risk of default. SMEs only lost collateral in extreme cases because most relationship managers agree with their business clients to restructure the loan repayment to suit their current inflows. These findings agreed with Buatsi (2002) that with the existence of high interest rates, collateral requirements and the cumbersome processes have often been mentioned as the main impediments to SMEs' access to bank loans in Ghana.

Notwithstanding the obvious challenges in securing financial assistance, some identifiable advantages were associated with obtaining such needed help from MFIs. Respondents' perception of these advantages are shown in Table 4.

Table 4 : Advantages of Microfinance loans to SMEs

Advantages of Microfinance loans	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Total
1. Less risky						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
2. Relatively cheaper						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
3. Obtain other financial advice						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
4. No collateral required						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%
5. Best practices to use loan efficiently						
Frequency	26	41	2	4	2	75
Percentage	34.67%	54.67%	2.67%	5.33%	2.67%	100.00%

Financial assistance from MFIs were perceived to be less risky than those obtained from the conventional banks. This could be attributable to the relationship existing between the SMEs and the MFIs and the fact that in most instances collaterals were not required. Respondents also viewed loans secured from MFIs as being relatively cheaper. Although, MFIs charged higher interests for loans compared to conventional banks, SMEs still thought they were cheaper and this results from the ease with which such loans are secured. On the other hand, the perceived cheaper cost of the loans could be derived from lack of knowledge and understanding in the area of finance to compare actual cost of capital.

Obtaining of financial advice, mostly in interaction with account managers, was a major advantage. Such interaction led to a cordial interaction and the SMEs being advised on how to use the loans efficiently. These type of financial advice, on the other hand, could only be secured after the payment of huge sums of money as consultancy fees from financial advisors. Also, most of the MFIs do not require collateral in the granting of loans. For example, some grant loans based on the past records with respect to their cash flows and audited accounts. These findings showed that SMEs sought for financial assistance in order to grow and improve on their businesses and also limited some of the constraints that came their way. In so doing they preferred money lending institutions because their serves are affordable.

b) Why SMEs default in loan repayment

Respondents were asked to give their opinion on factors that made it difficult for SMEs to repay the financial help they had received (See Table 5).

Table 5 : SMEs Reasons for default of loans

	High Interest Rate		Delayed Payment by Debtors		Irregular Cash Flow		Reduction in Sales		Management Incompetnecy		Economic Changes		Natural Disasters	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Strongly Agree	53	71%	40	53%	35	47%	27	36%	9	12%	41	55%	43	57%
Agree	17	23%	30	40%	29	39%	34	45%	25	33%	27	36%	21	28%
Not Sure	1	1%	3	4%	7	9%	8	11%	24	32%	3	4%	7	9%

Disagree	4	5%	2	3%	4	5%	6	8%	12	16%	4	5%	3	4%
Strongly Disagree	0	0%	0	0%	0	0%		0%	5	7%	0	0%	1	1%
Total	75		75		75		75		75		75		75	

Most of the respondents agreed to the fact that the interest rate were too high. During the first half of the year 2014, the average interest rate on loan by MFIs was about 5% per month whilst the conventional banks' rate average about 30% per annum. Thus, SMEs were compelled to use a large proportion of their gains to pay their debt and its accumulated interest, and are left with little to support their business. Coupled with delayed payment by debtors, irregular cash flows, and reduction in sales, the level of loan default by SMEs has increased. This situation has arisen because SMEs are faced with a choice of either using their income to service their loans or meeting the demands of their customers which in the long term would increase earnings to service the loans in the future.

This affirmed the assertion by Frimpong (2013) that SMEs also suffer credit rationing from financial institutions due to their lack of reliable collateral or collateral mismatch between the type of asset held by SMEs and the type of assets required by banks for collateral. Even in cases where SMEs were granted these credit facilities, these are granted at comparatively high interest rate. When payments made by debtors are delayed, it also makes it difficult for them to repay their loans. Several respondents strongly agreed to irregular cash flow being the difficulty because when there is a reduction in sales, it also limits the rate at which cash flows into the business.

Management incompetency was also one of the factors that had contributed largely to the high rate of loan default. Management of SMEs have not been up to the required standards hence their inability to manage cash adequately, leading to difficulty in making repayments. The lack of accounting and management systems, inadequate internal controls, and a reliable organizational structure has been the basis for such managerial incompetency. Respondents also attributed the extent of loan default to unfavorable economic developments. Adverse situations like depreciation in the local currency, inflation, higher taxes on business and individual income, higher taxes on imported goods, rendered the local economy a difficult one in which to operate. Finally, natural disasters like flood and fire outbreak, which has devastated many of the market places where most SMEs operate has also contributed to the high rate of default as the SMEs lose their wares and they have to reinvest their savings or seek for loans to restart their businesses when such misfortunes occur.

c) Impact of money lending on SMEs operations

The study sought to determine the impact of loans on the operations of SMEs. Respondents were asked to indicate the extent to which they agreed or disagreed with the impact of loans on various aspects of their operations, namely, sales, profit, and stock levels. Data received was presented in Table 6.

Table 6 : The impact of money lending on SME operations

The degree to which the loans help the business with respect to overall firm performance	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Total
1. Increase in sales						
Frequency	52	22	0	1	0	75
Percentage	69.33%	29.33%	0.00%	1.33%	0.00%	100.00%
2. Increase in profit						
Frequency	56	13	4	2	0	75
Percentage	74.67%	17.33%	5.33%	2.67%	0.00%	100.00%
3. Increase in stock levels						
Frequency	56	14	5	0	0	75
Percentage	74.67%	18.67%	6.67%	0.00%	0.00%	100.00%

The findings indicated that loans helped overall firm performance in diverse ways. Most respondents opted for increase in profit, stock levels, and sales as their definition for importance of loan in improving the overall firm performance. The data depicted in Table 6 indicated the extent to which respondents viewed the importance of the various variables to their firms' performance. Most respondents opted for increase in profit and stock as their definition for importance of loan with respect to improvement in overall firm performance. This affirmed the finding by Watson (2006) that profitability is an important determinant of firm growth; through the use of retained earnings.

Table 7 : The negative impact of loans on the overall firm performance

What is the negative impact of the loan on the overall firm performance?	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Total
1. Mismatch of funds						
Frequency	8	18	36	13	0	75
Percentage	10.67%	24.00%	48.00%	17.33%	0.00%	100.00%
2. Undue pressure for repayment						
Frequency	37	18	1	18	1	75
Percentage	49.33%	24.00%	1.33%	24.00%	1.33%	100.00%
3. Loan default						
Frequency	37	12	13	13	0	75
Percentage	49.33%	16.00%	17.33%	17.33%	0.00%	100.00%
4. Affects cash flow for adequate reinvestment						
Frequency	36	21	9	9	0	75
Percentage	48.00%	28.00%	12.00%	12.00%	0.00%	100.00%
5. Limits expansion						
Frequency	38	13	8	15	1	75
Percentage	50.67%	17.33%	10.67%	20.00%	1.33%	100.00%

In determining the impact of loans on the operations of SMEs, the research sought to determine whether there were any negative impacts. Majority of the respondents admitted that they were not sure of any mismatch of funds, that is diverting loan granted into other ventures which originally was not the intended purpose, posing as a negative impact. However, the responses indicated that the various SMEs appreciated that pressure for repayment of the loan contracted, loan default, inadequate cash flows, and limited expansion were relevant negative impact that loans had on their operations (see Table 7).

d) Impact Analysis

The study concluded by examining the impact money lending institutions have had on SMEs in the area of profit, increase in sales and stock using the chi-square test. In Tables 8–10, a relative standard for accepting or rejecting the hypothesis was when $p > 0.05$. The p value is the probability that the deviation of the observed from that expected was due to chance alone (no other forces acting).

Table 8 : Impact of why SMEs seek financial assistance on Sales

	Value	Degree of Frequency (df)	Asymp. Sig. (2-sided)
Increase In Sales * Acquisition Of Assets	10.432[a]	8	0.236
Increase In Sales * Settle Debts	23.215a	8	0.003
Increase In Sales * Increase Working Capital	7.310a	2	0.026
Increase In Sales * Source Of Raw Materials	18.507a	8	0.018

In Table 8, it was observed that, 0.003, 0.026, 0.018 were all less than 0.05 which showed that there was a significant relationship between increasing sales through borrowing to settle debts, increase working capital and to source raw materials. Since 0.236 was greater than 0.05 it was observed that there is no significant relationship between increasing sales through borrowing to acquire assets.

Table 9 : Impact of reasons why SMEs seek financial assistance on profit

	Value	Degree of Frequency (df)	Asymp. Sig. (2-sided)
Increase In Profit * Acquisition Of Assets	44.338a	12	0.000
Increase In Profit * Settle Debts	26.901a	12	0.008
Increase In Profit * Increase Working Capital	5.100a	3	0.165
Increase In Profit * Source Of Raw Materials	25.603a	12	0.012

Table 9 indicated that, 0.000, 0.008, 0.012 were all less than 0.05 which showed that there was a significant relationship between increasing profit through borrowing to acquire assets, settle debts, and to source raw materials. Since 0.165 was greater than 0.05 it was observed that there was no significant relationship between increasing profit through borrowing to increase working capital.

Table 10 : Impact of Increase in stock levels on reasons why SMEs seek financial assistance

	Value	Degree of Frequency (df)	Asymp. Sig. (2-sided)
Increase In Stock Levels * Acquisition Of Assets	14.133a	8	0.078
Increase In Stock Levels * Settle Debts	22.949a	8	0.003
Increase In Stock Levels * Increase Working Capital	3.571a	2	0.168
Increase In Stock Levels * Source Of Raw Materials	29.921a	8	0.000

In Table 10 it was observed that, 0.003 and 0.000 were both, lesser than 0.05 which showed that there was a significant relationship between increasing stock level through borrowing to settle debts and to source raw materials. Since 0.078 and 0.168 were greater than 0.05, there was no significant relationship between increasing stock level and borrowing to acquire assets and increase working capital.

The chi-test analysis affirmed that there exist a positive impact on SMEs operations by financial assistance received from money lending institutions, thus affirming the conclusion by Robb and Robinson (2009) that the gains from leverage are significant, and that the use of debt increases the market value of a firm. There was no significant relationship between increasing sales and stock through borrowing to acquire assets but there was a significant relationship between increasing profitability through borrowing to acquire assets. This affirmed that it was possible for SMEs that sought financial assistance to acquire assets to experience an increase in profit rather than in sales and stock. Also, an increment inprofit, sales and stock were dependent on borrowing to settle debt which made the hypothesis a significant one. In like manner, the results of the Chi-Square test showed 0.018, 0.012 and 0.000 < 0.05 accepting the hypothesis for the relationship between SMEs who borrow to source raw materials and increase in sales, profit and stock to be significant.

Finally, the hypothesis was rejected the notion that increase in profit and stock was dependent on borrowing to increase working capital, but there was a significant relationship between borrowing to source raw materials and increase in sales. The chi-test analysis also confirmed that money lending institutions had a positive impact on SMEs.

V. Conclusion and Recommendations

Majority of small and medium scale enterprises obtain their external funds from money lending institutions when they are able to meet the appropriate requirements. However, most small and medium scale business obtained their startup capital from family and friends and personal savings. From the findings, it was concluded that majority of the small and medium scale enterprises agreed that loans from money lending institutions helped in the overall improvement of their performance, and have had a positive impact, even though much is still expected from them. Small and medium scale businesses are in genuine demand for finance to be able to compete with larger firms. The results of the chi-square analysis also confirmed a significant positive relationship between money lending institutions and Small and Medium Scale Enterprises (SMEs), that the use of debt by SMEs resulted in a positive influence.

Based on the research findings the following recommendations have been proposed by the researcher to resolve the problem associated with small and medium scale enterprises borrowing from money lending institutions.

- Cumbersome loan procedures - Frontline staff members who respond to loan enquiries should be well trained to be competent enough to answer all issues at once so that SMEs are not frustrated in their quest to secure financial help.
- Extension of loan repayment period -The duration for loan repayment must be extended to a period of six months, from the current four months, to facilitate easy and early repayment and to eliminate loan defaults and bad debts.

- Loan guarantors - It is recommended that guarantors are interviewed on their source of income and the relationship with the borrow (SME). This would benefit the money lending institutions in terms of loan recovery, since they would be assured that guarantors would be in the position to repay in case of default.
- Financial Services and Advice - SMEs should also seek and take advice from the financial institution on how to manage their cash flows effectively; this will motivate the money lending institution to give those loans easily without collateral. SMEs should have proper book keeping of their daily business activities so that they don't misuse funds meant for other purposes.
- Cost of loans/Interest on loans - SMEs are the engine of growth for developing economies like Ghana. Loans are usually one of the fastest means of acquiring credit for SMEs. This credit is what helps them in boosting their business and in effect economy growing as a result. Therefore the cost of such loans should be reviewed downwards to enable smooth repayment and increase in the demand for loans by SMEs to enable growth in their business which would impact positively on the economy as a whole.

References Références Referencias

1. Abor, J. and Quartey, P. (2010). *Issues in SME Development in Ghana and South Africa. International Research Journal of Finance and Economics,* 39 (2010), pp.222.
2. Advani, A. (1997). Industrial Clusters: *A Support System for Small and Medium-Sized Enterprises*, Private Sector Development, World Bank Occasional Paper No. 32, World Bank; Washington, DC.
3. Amoafo, O.S. (2009). *The Role of Banks in the Ghanaian Economy.* Website: http://blogs.moneygh.com/the-role-of-banls-in-the-ghanaian-economy/
4. Aryeetey, E. (1998). *Informal Finance for Private Sector Development in Africa,* Economic Rese-arch Papers No. 41, The African Development Bank, Abidjan.
5. Aryeetey, E., Baah-Nuakoh, A., Duggleby, T., Hettige, H. and Steel, W. F. (1994).*Supply and Demand for Finance of Small Scale Enterprises in Ghana.* World Bank Discussion Paper No. 251, Washington, DC.
6. Cook, P. and Nixson, F. (2000). *Finance and Small and Medium-Sized Enterprise Development.* Finance and Development Research Programme Working Paper Series, Paper No 14. IDPM: University of Manchester.
7. Frimpong, C.Y (2013). *Strengthening SMEs In Ghana*. Retrieved from www.modernghana.com /news/492395/1/strengthening-smes-in-ghana.html
8. Gibson, T. and van der Vaart, H.J. (2008). Defining SMEs: A Less Imperfect Way of Defining Small and Medium Enterprises in Developing Countries. Retrieved from www.brookings.edu/research/papers/2008/09/development-gibson
9. Hallberg, K. (2001). *A Market-Oriented Strategy for Small and Medium-Scale Enterprises.* Website http://webcache.googleusercontent.com/search?hl=en&q=cache:9lttzefdB5lJ:http://siteresources.worldbank.org/EXTEXPCOMNET/Resources/24635931213887855468/05_Incentive_for_SMEs.pdf+A+Market-Oriented+Strategy+for+Small+and+Medium-Scale+BY+Hallberg&ct=clnk
10. Kauffmann, C. (2005). *Financing SMEs in Africa.* Journal of Policy Insights, 20(7), pp.5-7.
11. Kayanula, D. and P. Quartey, (2000). *The Policy Environment for Promoting Small and Medium-Sized Enterprises in Ghana and Malawi*: Finance and Development Research Programme Working Paper Series, Paper No 15, IDPM: University of Manchester.
12. Manzur, Quader and Abdullah (2008), Constraints to SMEs: *A Rotated Factor Analysis Approach.* Working papers no. 2
13. Mensah M. M. (2009).*The Role and Challenges of Savings and Loans Companies in Ghana*, pp. iv.
14. Mensah, S. (2004). *A Review of SME Financing Schemes in Ghana.* International Journal of Business and Management Vol. 5, No. 12, pp. 198
15. Olawale, F. and Obert, M. (2010). *Does Debt Really Matter On the Profitability Of Small Firms? A Perspective on Small Manufacturing Firms in Bulawayo, Zimbabwe*. Website:http://www.academicjournals.org/ajbm/pdf/pdf2010/4Aug/Obert%20and%20Olawale. Pdf.
16. Robb, A. and Robinson, D.T. (2009). *The Capital Structure Decision of New Firms.* Website: http://papers.ssrn.com/so13/papers.cfm?abstract-id=1345895
17. Tau, M. (2013). *Empowering Small and Medium Enterprises (SMEs) for economic self-sufficiency in Ghana.* Retrieved from www.patapaa.com/2013/02/17/empowering-small-and-medium-enterprises-smes-for-economic-self-sufficiency-in-ghana/
18. The International Bank for Reconstruction and Development/The World Bank (2013). Doing Business 2014 Economy Profile: Ghana. Washington, DC, USA.
19. Watson, J. (2006). *External Funding and Firm Growth: Comparing Female- and Male-Controlled SMEs.* Journal of Venture Capital, 8(1), pp. 33–49.
20. Zaney, G.D. (2013, April 19). *Promoting the Development of Micro, Small and Medium-Scale Enterprises.* The Ghanaian Times; pp.8

Global Journal of Management and Business Research: C Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

The Impact of Macroeconomic Indicators on Stocks Returns for the Jordanian Insurance Companies during the Period (2000 - 2012)

By Saeed Ahmed Khaza'leh & Dr. Ghazi Abdul Majeed Alrguibat
Al al-Bayt University, Jordan

Abstract- This study aimed to investigate the impact of some macroeconomic indicators on stocks returns in the Jordanian insurance companies which listed in Amman Stock Exchange during the period (2000-2012). The study sample consisted of (16) insurance company, the analytical approach has been adopted through building a multiple linear regression model. The model of the study was analysed using a variety of statistical tests, including Pooled Model for the regression analysis, Random Effect model, and Fixed Effect model.

The results of the study indicated that there is a statistically significant effect for both inflation and the budget deficit, on the Jordanian insurance companies returns, while there was no statistically significant effect for the unemployment on the returns of these stocks. The study recommended a set of recommendations, the most important was that the Jordanian insurance companies must take into consideration all the factors that affect inflation.

Keywords: macroeconomic indicators, stock returns, jordanian insurance companies.

GJMBR-C Classification: JEL Code: F62, G22

THEIMPACTOFMACROECONOMICINDICATORSONSTOCKSRETURNSFORTHEJORDANIANINSURANCECOMPANIESDURINGTHEPERIOD20002012

Strictly as per the compliance and regulations of:

The Impact of Macroeconomic Indicators on Stocks Returns for the Jordanian Insurance Companies during the Period (2000 – 2012)

Saeed Ahmed Khaza'leh [α] & Dr. Ghazi Abdul Majeed Alrguibat [σ]

Abstract - This study aimed to investigate the impact of some macroeconomic indicators on stocks returns in the Jordanian insurance companies which listed in Amman Stock Exchange during the period (2000-2012). The study sample consisted of (16) insurance company, the analytical approach has been adopted through building a multiple linear regression model. The model of the study was analysed using a variety of statistical tests, including Pooled Model for the regression analysis, Random Effect model, and Fixed Effect model.

The results of the study indicated that there is a statistically significant effect for both inflation and the budget deficit, on the Jordanian insurance companies returns, while there was no statistically significant effect for the unemployment on the returns of these stocks. The study recommended a set of recommendations, the most important was that the Jordanian insurance companies must take into consideration all the factors that affect inflation.

Keywords: macroeconomic indicators, stock returns, jordanian insurance companies.

I. Introduction

There is an importance of financial markets appears through increasing of wealth, which attractive a lot of investors to trade in the markets in order to increase their wealth, also investor interested in this market to study and identify indicators that affecting on returns of shares, the most prominent of these indicators (inflation, unemployment and the budget deficit), and other economic indicators, which are caused some effects on various economic sectors, including the insurance sector. We have seen insurance companies changes and they have rapid developments at the local level, regional and global which make them vulnerable to different challenges, Openness global, easing regulatory, technology developments and customization are the most important current changes that directly affect on the insurance companies in the states of the region and the world. To meet insurance companies challenges. The service has to be adequate and appropriate. Arab markets desperately need to embrace the idea of insurance in order to keep up with the wheel of progress and development.

Author α σ: Department of Banking and Finance / Faculty of Business & Finance administration, Al al-Bayt University.

II. Problem of the Study

Companies in different economic sectors have a lot of risks, that would affect the financial performance has, whether these risks irregular relating to the company directly, such as fluctuations that occur in the production, or order on the external circumstances surrounding the company, such as economic factors. The economic risks a major systemic risks that affect fluctuations occurring in the red zone on the performance of joint stock companies in general, and insurance companies in particular, where the insurance companies in the market Alerdensouka small if compared to the rest of the economic sectors in the Amman Stock Exchange. Accordingly, we find that the problem of the study is the lack of clarity of the impact of some economic indicators on the revenue shares of insurance companies in Jordan.

The problem can be formulated through the study of the following questions:

What is the impact of some macroeconomic indicators on the revenue shares of insurance companies in the Amman Stock Exchange during the period 2000 - 2012?

It is this question of President branching sub-questions of the following:

1. What is the effect of inflation on the revenue shares of insurance companies in the Amman Stock Exchange during the period 2000 to 2012?
2. What is the impact of unemployment on the revenue shares of insurance companies in the Amman Stock Exchange during the period 2000 to 2012?
3. What is the impact of the budget deficit on the revenue shares of insurance companies in the Amman Stock Exchange during the period 2000 to 2012?

III. Objectives of the Study

The aim of this study was to investigate the impact of some macroeconomic indicators returns shares of insurance companies in the Amman Stock Exchange during the period 2000 - 2012, and by the objectives of the study, including the following:

1. Know the impact of inflation on returns shares of insurance companies in the Amman Stock Exchange during the period 2000-2012.

2. knowledge of the impact of unemployment on revenue shares of insurance companies in the Amman Stock Exchange during the period 2000-2012.
3. to know the impact of the budget deficit on the revenue shares of insurance companies in the Amman Stock Exchange during the period 2000-2012.

IV. Importance of the Study

The importance of the study because they are looking at the economic indicators that affect the revenue shares of insurance companies in the ASE, financial markets play an important role in the economic process of any state, and therefore it is important to look at the economic indicators that affect the revenue shares of insurance companies, and work to improve the sector insurance and increase its contribution to the market, because of its positive effect on raising the level of the local economy, and come to this study contribute to filling the vacuum in studies related to the insurance sector. And therefore it is necessary to know the economic indicators that affect the returns of the sector in order to focus on economic indicators that will impact positively on the size of the returns of the shares of insurance companies.

a) Hypotheses of the study

Ho: no statistically significant effect of inflation on shares revenue for insurance companies in Amman Stock Exchange during 2000-2012 .

Ho: no statistically significant effect of unemployment on shares revenue for insurance companies in Amman Stock Exchange during 2000-2012.

Ho: No statistically significant effect of the budget deficit on shares revenue for insurance companies in Amman Stock Exchange during 2000-2012.

V. Methodology of the Study

This study took method analytical approach by collecting annual data that required during (2000-2012) and analyzed them by using the following:

First: Financial Analysis. Where it was relying on the analysis method to conduct horizontal financial analysis of the study variables in order to follow the trend of change in the variables during the study period.

Second: Statistical Analysis. Which relying on statistical program E-views in order to test the hypotheses of the study, which was used the following statistical methods

1. Descriptive statistics of the arithmetic means, and the standard deviation.
2. Heterogeneity test data Heteroskedasticity: to make sure there is no problem.
3. Written test duplication Multi Collinearity Test: to make sure there is no duplication between the linear independent variables of the study.

VI. Study Population and Sample

The study population included all insurance companies, which their shares in Amman Stock Exchange (the 25 companies), the study sample was included (16) insurance company, Islamic insurance companies were excluded from the study sample Variables of the study: This study includes the following variables:

First, the independent variables, and economic indicators are:

1. Inflation
2. Unemployment
3. Budget deficit.

Second, the dependent variable, and returns the shares is the insurance companies, and Figure (1) illustrates this:

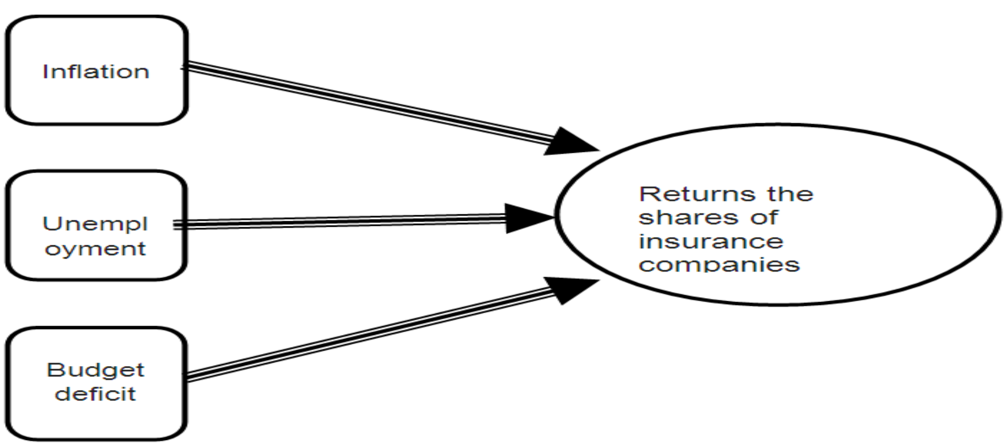


Figure (1)

Independent variables *dependent variable*

Figure 1 : The formulation of a mathematical model as:

Rt= B0+B1inft +B2UNPt + B3Deft + ei

Rt : Stock returns

Inf : Inflation

Unp : Unemployment

Def : The budget deficit

B : Parameters of the standard model

ei: Random error

VII. Definitions For the Study Variables

a) Inflation

An economic phenomenon when the price is rising (Joseph, 2008).

The inflation rate is measured as follows:

(the index number for current year prices - the index number for the past year prices)*100 /(the index number for the past year prices)

b) Unemployment

The number of people who are able to work and do not work, although they are looking for work in earnest (Abdel-Rahman, 2004), The unemployment rate is measured as follows:

Unemployment rate = ((number of unemployed) / (labor force)) x100

c) Budget

The information and data that show the value of public expenditures and revenues of the state, (Joseph, 2008),

d) Budget deficit

The increasing state expenditures to revenues (architecture, 2004), the measured ratio of the budget deficit equati :

The proportion of the budget deficit = (budget deficit) / (gross domestic product) x100%

e) Earnings per share ratio

Earnings per dinar during the specified period of time either monthly or yearly (Al-Zubaidi, 2004), Which expressed by ratio of net profit to number of shares.

f) Sources of data collection

The sources that relied upon this study : secondary sources, which include books, theses, official reports and sites (the Internet), and primary sources : the financial statements relating to the companies that have been obtained from the annual reports of the ASE and the Department of Statistics in addition to the General Budget Department.

VIII. Previous Studies

Study Saidi (2011) entitled: "Factors Affecting Earnings Market: An Empirical Study on the companies listed on the Palestine Securities Exchange," The aim of this study was to identify the factors that affecting on earnings per share in the market through the application for companies that listed in the Palestine Stock Exchange during the period (2006-2009), data were analyzed by using linear regression analysis that connects the variables of the study, which represented the independent variables: (success rate, percentage distributions to price, book value per share, earnings quality), while the dependent variables: (a yield of stock), study results indicated a positive relationship between the statistical significance of all: the success rate, the rate of distributions to the price, the quality of earnings, and earnings per share of the market.

Also study Balijbalh (2010) entitled: "The impact of inflation on equity returns: An Empirical Study of shares for a group of companies in Amman Stock Exchange during (1996-2006)," The aim of this study was to identify the impact of inflation on equity returns during the period (1996-2006), it has been collecting and analyzing data through correlation coefficients and linear regression analysis, study results showed that the existence of a correlation between inflation and moderate shares returns of insurance companies, also insurance companies are more sensitive to interest rate. While Yoseph Studying (2008) entitled: "identify factors that are affecting the return on equity in the Amman Stock Exchange," The aim of this study was to identify the internal and external factors that affect the return on equity in the Amman Stock Exchange during period 2000 - 2006, it has been using multiple linear regression, also data analysis has represented the independent variables to each of: (inflation, GDP, cost to income ratio, costs to assets, the size of the bank, loans, and liquidity ratio of liquid to total deposits), while the dependent variables are: (return on equity and return on assets, net interest margin), study results indicated that the presence of a statistically significant relationship between: (inflation, interest rates, number of employees, size of the capital) and equity returns, while it did not prove there was no statistically significant relationship between each of: (a deficit or surplus for balance of payments, the budget deficit, and GDP). In a study of Mady (2004), the determinants of return on investment in the Egyptian insurance companies. the purpose of this study was to design a quantitative model to reach a more influential economic variables on the rate of return on investment for each of the direct insurance companies operating in the Egyptian market during the period 1988-2002, He has been using multiple regression method to determine the most influential variables on the rate of return on investment at the Egyptian insurance companies, results indicated that there is a fluctuation in the rate of return on investment to the Egyptian insurance companies, between the rise and fall during the study period. Study Tangjitprom

(2012) entitled: The Review of Macroeconomic Factors and Stock Returns. the aim of this study was to find out the relationship between macroeconomic factors and the equity returns in Thailand, data analyzed using linear regression, which connects between the variables of the study, results showed a relationship with statistical significance between macroeconomic factors and stock returns in Thailand. While the study of Momani (2012) entitled:

Impact of Economic Factors on the Stock Prices at Amman Stock Market The aim of this study was to identify the impact of economic variables on the share prices for companies that listed in Amman Stock Exchange during the period (1992-2010), The study sample consisted of all listed companies in the insurance sector, the banking sector, the manufacturing sector, and the service sector, where it was collected the necessary data and build a model of linear regression analysis, the study results indicated the presence of statistically significant effect of both the interest rate and money supply on the stock prices of insurance companies listed in Amman Stock Exchange. In a study Epetimehin & Fatoki (2011) entitled: The Empirical Analysis of the Impact of Inflation on the Nigeria Insurance Industry. the aim of this study was to analyze the impact of inflation on the shares revenue for insurance companies in Nigeria during the period (2003-2007). To achieve the objective of the study. It relyed on descriptive analytical method through a comparison between inflation and returns of shares for insurance companies by using descriptive statistics, also study results indicated that the presence of a negative impact of inflation on shares returns for insurance companies in Nigeria. study Ajao & Oseymo (2010) entitled: The predictive content of some lending economic indicators on stock prices. The aim of this study is to predict the impact of economic indicators on stock prices in Nigeria, data were analyzed using simple linear regression model, which connects between the variables of the study, it has represented the independent variables (GDP, money supply, inflation, interest rate, price drainage, industrial output indicators, while the dependent variables represented stock prices), the results showed the presence of a great relationship between stock prices and economic indicators. then study Hagnal (2000) entitled: The Behavior of Inflation and Unemployment in the united states.

This study aimed to find out the relationship between unemployment and inflation in the United States, during the period 1960-2000, He has been using the style Stepwise multiple linear regression, he has found some results as the existence of a relationship is statistically significant at the impact of the unemployment rate and inflation for the current period, he has also been reached the decline in the unemployment rate was not a reason to explain the relationship between them.

IX. What Distinguishes the Current Study From Previous Studies

What distinguishes this study from the studies of previous Arab it is alone in dealing with the impact of some macroeconomic indicators on the shares revenue of insurance companies during the period between 2000 -2012, while dealt with previous studies that the impact of economic indicators on industrial sectors, companies and commercial banks have addressed this study, some of the indicators economic (such as inflation, budget deficit, unemployment) and its impact on stock returns in the insurance sector.

a) Statistical analysis .

This chapter reviews the practical side for the study, which will be dealt with financial and statistical methods that were used in the analysis, in addition to the presentation of the graphs for the variables of the study, and to test the hypotheses of the study, finally comparing the results reached by the results of previous studies.

b) The results of the financial analysis

Financial analysis was performed to study variables (the dependent and independent) which related to the Jordanian insurance companies during the study period (2000-2012), the results were as follows: To conduct a financial analysis of the data yields the average Jordanian insurance companies have been using horizontal analysis of the data during the period (2000-2012), where it was regarded as the year (2000) is the base year and the results were as follows:

Table1: Horizontal Analysis of the average returns

Year	Average of Return
2000	0.000
2001	-0.261
2002	0.791
2003	1.455
2004	3.493
2005	5.888

2006	-1.597
2007	-0.254
2008	-0.545
2009	-0.728
2010	-0.194
2011	-1.127
2012	-1.284

Table (1) shows us that the average returns of insurance companies .it has increased from (26.1-%) in 2001 to (79.1%) (145.5%) (349.3%), (588.8%) during the years 2002, 2003, 2004 and 2005, respectively, relative to the base year 2000., but in 2006, we find that there is a significant drop and a surprise in the average returns of insurance companies to become negative (159.7 -%), and increased the ratio gradually in 2007 to become (25.4 -%), but it remained negative, and resumed this ratio to decline to become (54.5 -%) (72.8%) in 2008 and 2009, respectively, then in 2010 rose to become (19.4 -%) but still negative, in 2011 and 2012 resumed this ratio to decline further to become (112.7 -%), and (128.4%), respectively, it may be attributed this decline to the average returns of insurance companies to decline in the demand for insurance services for the insurance market that was affected by the Jordanian economic crisis due to its small size compared with the rest of the financial sectors and other economic in Amman Stock Exchange.

c) *Financial Analysis Of Economic Data*

Table (2) horizontal analysis of economic data

Table 2: Horizontal analysis of economic data

Year	Budget deficit	unemployment	Inflation
2000	-	0.000	0.000
2001	0.000	20.000	1.571
2002	-0.086	20.857	1.571
2003	-0.229	19.714	1.286
2004	-0.229	16.857	3.857
2005	0.514	20.143	4.000
2006	0.200	19.000	8.000
2007	0.457	17.714	5.714
2008	-0.371	17.143	18.857
2009	1.486	17.429	-2.000
2010	0.543	16.857	6.143
2011	1.257	17.429	5.286
2012	1.343	16.429	5.857

Table 2. Shows us the following:

1. *Inflation:* Inflation rose relative to the base year 2000 (15.71%) in 2001 and 2002 to become (12.86%) (3.857%) (4.00%), and (8.00%) during the past 2003, 2004, 2005 and 2006, respectively, it has been indicating a high demand for a particular type of goods or services without the corresponding production covers the demand gap. In 2007, the inflation rate fell to (5.714%), to indicate a decline in demand for goods and services as a result of the decline in the purchasing power of consumers, or the low cash available due to the inability of the central bank to pump more money trading, This decrease may be the result for intense competition among manufacturers and producers of goods and services in their desire to increase the volume of sales to their products by reducing their prices, in 2008 the inflation rate rose significantly to become (18.857%), and attributed the cause of the increase to the affected Jordan by higher oil prices and do the lifting of fuel subsidies , then dropped a surprise to become negative (2.00 -%) in 2009, but during the years 2010.2011, and 2012 came back to become a positive value this rate (6.143%) (5.286%), and (5.857% respectively).
2. *Unemployment:* The unemployment rate rose relative to the base year 2000 (20.0%) in 2001, to (20.8857%) in 2002, which shows the increasing size of the unemployed in Jordan, in years 2003, and 2004, the rate fell to (19.714%), and (16.857%), respectively, which suggests increasing the size of

operating the National Jordanian labor. However, this rate has reverted to rise in 2005 to become (20.143%), then continued to fall from (19.0%) in 2006 to become (16.857%) in 2010, and remained this rate a close ratio even in 2001 and 2012.

3. *Budget deficit:* The highest value for the average budget deficit relative to the base year 2000 (14.86%) in 2009, this increasing may be as a result of high oil prices, while the lowest value for this rate was negative (37.1 -%) in 2008, that may indicated that the increased size of the costs relative to the size of the revenue.

X. Statistical Analysis and Hypothesis Testing

To test the hypotheses of the study, it was conducted statistical analysis of the study variables (the dependent and independent) for insurance companies related in Jordan during period (2000-2012), and the results were as follows:

It was relying on the annual reports of insurance companies, in addition to the annual reports of the Amman Stock Exchange, Department of Statistics, the General Budget Department, to collect data for the variables of the study, and Table. 3 below shows a summary of the results of descriptive statistics for the variables of the study, during the period (2000-2011).

Table 3 : Summary of descriptive statistic

Min. value	Max. value	Standard deviation	Arithmetic mean	Variable
-0.19	0.56	0.1740387	0.1198317	R
-0.7	13.9	3.456515	3.938462	Inf
0.7	15.3	3.563238	12.52308	Unp
-8.7	-2.2	2.186728	-4.925	Def

Source: prepared by the researcher based on the results of statistical analysis.

Table (3) shows us the following:

Returns (R): The average returns for insurance companies (12%) and a standard deviation of approximately (17.40%), this ratio has ranged between (-19%) and minimum (56%) max almost, this indicates that there is great variation in size of returns to insurance companies (the study sample), this discrepancy may be due to variation in the performance of the insurance companies and the disparity in their sizes.

Inflation (Inf): The inflation rate is about (8%) and a standard deviation of approximately (5.6%), this rate has ranged between (7.0 -%) and minimum (9%) max, this indicates that There is great variation in the rate of prices for goods and services, this disparity may be due to variation in the demand for goods and services, on the contrast of cash, along with the change in fuel prices.

Unemployment (Unp): Unemployment averaged about (12.5%) and a standard deviation of approximately (6.3%), this ratio has ranged between (7.0%) and minimum (5.3%) max, this indicates that there is great variation in level of unemployed individuals, this disparity may be due to variation in size of investment projects that need to labor or it may be a result of reliance on foreign workers because of low wages.

Budget deficit (Def): The average budget deficit (5 -%) and a standard deviation of approximately (8.6%), this ratio has ranged between (7.0 -%) and minimum (2.0 -%) max, this indicates that there is great variation in the level of budget, this disparity may be due to variation in the volume of exports and imports, and the size of subsidies and grants.

XI. Test Hypotheses

To test the hypotheses of the study, it was depending on Multi regression analysis to treat with the impact of Random Effect and Fixed Effect, in addition to conducting a series of tests to make sure that the health of the model results, which will be chosen and relied upon in hypothesis testing. The results were as follows:

First, test the heterogeneity of the data (Heteroskedasticity: To make sure there is no problem of heterogeneity of variance), Heteroskedasticity test was used by Breuch - Pagan to homogeneity of the residuum, and does this to test the null hypothesis which states that the variation errors variables are all equal, while it provides an alternative hypothesis that the variation of errors increases with the increasing value of the dependent variable, also increasing the value of the dependent variable lead to increase the value of error, which has been shown not to be a problem in the homogeneity of the data. Table (4) below shows the result of this test.

Table 4 : Heterogeneity of the test data

Value's Probability	Chi^2 Value
0.2741	1.305184

Source: prepared by the researcher

Through table (4) shows that the study model does not suffer from the problem of heterogeneity where it was not for the distribution of Chi-square distribution for any statistical significance, at level (5%), as the value of probability (0.2741), so accepted zero hypotheses that said error variance is homogeneous.

Second, to test MultiCollinearity. Test to make sure there is no duplication between the linear variables of the study, the test was used MultiCollinearity Test, and the results shown there is no duplication between linear variables used in the analysis.
The Table (5) below shows the results of this test:

Table 5 : Duplication test

Variable	VIF
Inf	2.03
Unp	0.0002
Def	5.37

Source: prepared by the researcher

From conditions to use linear regression analysis, there is no duplication in writing between the variables which used in the analysis, and depended on table (5) shows that the value of (VIF) for all variables of the study less than (10), which indicates the lack of duplication in linear between the variables of the study.

Third, Results of Regression Analysis:

After making sure there is no problem with the linear duplicity, and the homogeneity of data, it was analyzed the study data by using the synthesis model (Pooled Model) for regression analysis, along with using of Random Effect, and Fixed Effect, also used of Breuch - Pagan test that aim to comparison between the results of the model synthesis (Pooled model) for the regression analysis, and the results of model random Effect, has been using the test (Hausman Test) the aim to trade-off between test fixid random (Random effect) and test the (Fixed effect), so that if the value of ($\alpha \geq$ 5%) a form of least squares is normal (OLS) and better, but if the value of values ($\alpha \leq$ 5%) the random effect model (Random effect model) is better. The results were as follows in Table 6:

Table 6 : Test results Breuch – Pagan

Value's Probability	chi^2 Value
0.0006	10.59

Source: prepared by the researcher

Through Table (6) shows that the value of the previous probabilistic reached (0.0006), so it is accepted test results of random effect model (Random effect model), and rejected the results of the synthesis method (Pooled Model) for regression analysis.

Table 7 : Results of Hausman Test

Value's Probability	Chi^2 Value
1	0

Source: prepared by the researcher

Through Table (7) which shows us that the value of the probabilistic to test Hausman has amounted to (1) so it is not statistically significant ($\alpha \leq$ 5%), therefore the results of the random effect model (Random Effect Model) is the best.

Table 8 : Results of using regression analysis model (REM) and (FEM) *

FEM		REM		Variable
(β)	**(Sig.)**	**(β)**	**(Sig.)**	
-0.0133	0.0021***	-0.0133	0.0021***	In
0.005318	0.7218	0.005318	0.7217	Up
0.028671	0.0001***	0.028671	0.0001***	Def.
0.246664	0.296	0.246664	0.2967	**α**
0.295831		0.160726		R-Squared
0.000001***		0.000***		Value(a)to F test
(%10) *		**(%5)** **		**(%1)** ***

Source: prepared by the researcher.

Through Table (8) shows us the following:

1. *The results that related to the first hypothesis:* There is a negative effect of inflation is unacceptable statistically on shares returns for insurance companies in Amman Stock Exchange during period 2000-2102. There is a negative impact statistically significant for inflation on return of Jordanian insurance companies at level of significance (α ≤ 5%), where the value of significance to test of random (Random effect) (0,0021), it means that an increasing in the rate of inflation leads to lower return on the stock in the insurance companies. This may indicate that investors do not want to invest in financial assets in insurance companies in the event of rising prices and rising inflation, this result agreed with the study of Joseph (2008), and the study of Balijblah (2010), also agreed with the study Epetimehin & Fatoki (2011), which showed the presence of impact negative inflation on shares returns of insurance companies in Nigeria.
2. *Results related to the second hypothesis:* No effect of unemployment on revenue shares of insurance companies in Amman Stock Exchange during period 2000-2012. No statistically significant effect of unemployment on earnings in the Jordanian insurance companies at the level of significance (α ≤ 5%), as the value of significance to test the effect of random (Random effect) (0, 7217) this is not statistically significant. This may indicate that the demand for insurance services provided by insurance companies is not affected in case of low unemployment or high, which varied this result with the study (Joseph, 2008), that showed a statistically significant relationship between number of employees and equity returns in Amman Stock Exchange during period (2000-2006).
3. *Results related to the third hypothesis:* There is a positive effect of the budget deficit on the shares revenue of insurance companies in Amman Stock Exchange during period 2000-2012.There is a positive effect statistically significant for the budget deficit on the yield in the Jordanian insurance companies at level of significance (α ≤ 5%), as the value of significance to test of random (Random effect) (0, 0001), in sense that an increase in the budget deficit leads to increased yield on stock of insurance companies. It means that the shares returns of insurance companies affected by the value in the absence of the Jordanian government's ability to cover its expenses. This may indicate a trend toward government borrowing from the insurance sector, this result has differed with the study of Joseph (2008), which explained the lack of impact of the budget deficit on equity returns in Amman Stock Exchange during period (2000-2006).

XII. Results

This study aimed to identify the impact of some economic variables on Jordan Insurance companies' shares returns during the period (2000-2012), has been reached the following conclusions:

1. No negative impact of inflation on shares returns of insurance companies in Amman Stock Exchange during the period 2000-2012. The value of coefficient of inflation is about 1%, which meaning that an increasing in the inflation rate of (1%) lead to a decline in earnings per share for the insurance companies by (1%). This may indicate that investors care about the rise or fall in the price level in order to direct their investments in financial assets in insurance companies.
2. No effect of budget deficit on the shares revenue of insurance companies in Amman Stock Exchange during the period 2000 - 2012, the value of coefficient of budget deficit about 3%, which meaning that an increasing in budget deficit at a rate of (1%) lead to a decline in earnings per share for insurance companies by nearly 3%, may indicate a trend toward government borrowing from the insurance sector.
3. No shares returns on insurance companies in Amman Stock Exchange during the period 2000 - 2012, that has been attributed to demand for insurance services which provided by insurance companies in Jordan is not affected in the event of unemployment or low volume high.

XIII. Recommendations

Based on what has been reached from the results of the study recommends the following:

1. The requirement to ensure that Jordanian insurance companies attention for all factors affecting inflation in order to take appropriate action to reduce the increase.
2. The requirement to be concerned with the Jordanian insurance companies to follow up the state budget and work to provide a reduced lending interest rate in order to encourage the government to increase to borrow and take advantage of insurance services.
3. Conduct such a study, but through the addition of new economic variables, and the application on other economic sectors so that a comparison is made between the various sectors regarding the impact of economic variables on stock returns, and to identify whether there are statistically significant differences among them.
4. conduct such a study, but the application of Islamic insurance companies in Jordan, so that a comparison is made between them and the commercial insurance companies regarding the impact of economic variables on stock returns.

References Références Referencias

1. Al Shabib, (2009). *Investment and investment analysis,* Dar Yazouri for Publishing and Distribution, Amman, Jordan.
2. Al Shabib, (2010). *Portfolio management,* (1), Dar march for Publishing and Distribution, Amman, Jordan. .
3. Balijbalh, (2010). *The impact of inflation on equity returns, An Empirical Study of the a group shares of companies quoted in Amman Stock Exchange* for period (1996-2006). Message unpublished, Constantine, Algeria.
4. Bouhrod, Fethiye (2006). *Assess the quality of service in the national insurance companies in the Algerian market.* Unpublished MA Thesis, University Ferhat Abbas, Setif, Algeria.
5. Tamimi, (2004). *Investing in securities analysis and management,* (1), Dar march for publication, Amman, Jordan.
6. Jaafar, (2007). *Accounting systems in banks and insurance companies,* (1), Dar curriculum for Publishing and Distribution, Amman, Jordan
7. Hardan, (2009). *Investing Basics,* Dar future of publishing and distribution, Amman, Jordan.
8. Hassoun, (2005). *Emerging financial markets and their role in the development of the national economy,* the Journal of the University of October for Studies and Scientific Research, Science Series economic and legal 0.27 (1), the University of October, Latakia, Syria.
9. Hammad, (2005). *Financial control in the public sector,* Juhaynah for publication and distribution Amman, Jordan.
10. Hanafi, (2003), *the stock exchanges and financial institutions,* Dargamahaljdidh, Alexandria, Egypt.
11. Khalaf, Filaih (2006). *Cash markets,* (1), the world of modern books for publication Amman, Jordan.
12. General Budget Department, Amman, Jordan (2013). Mahmoud (2005). *Financial markets (institutions, securities, stock exchanges),* (i 1), Sunrise House for publication and distribution, Cairo Egypt.
13. Dairi, Muhammad (2004). *Correlation between inflation and unemployment in Jordan, a record Empirical Study 1967) -2001). Message unpublished, University of Jordan, Amman, Jordan.*
14. Ramadan, Ziad (2002). *Principles of real investment and financial,* Dar Wael for publication, Amman, Jordan.
15. Ramadan, Ziad, and Shammout, Marwan (2008). *Financial markets, the United Arab Company for Marketing & Supplies,* Cairo, Egypt
16. Al-Zubaidi, Mahmoud Hamza. (2004), *Advanced Financial Management,* Dar Warraq for publication and distribution, Oman, Jordan.
17. Alsjai, Mahmoud, (2006), *accounting in insurance companies,* modern library for publishing and distribution.
18. Shukri, Baha (2008). **Reinsurance,** the House of Culture Publishing, Amman Jordan.
19. Shawawrah, Faisal (2008). *Investing in the stock market (the theoretical foundations and scientific),* (1), Dar Wael for publication, Amman, Jordan.
20. Subuh, Mahmoud (2000). *Long-term financial management,* University House for Publishing and Distribution, Alexandria, Egypt.
21. Saidi, Ismail (2011). *Factors affecting the stock market returns, applied study on companies listed on the Palestine Securities Exchange,* an unpublished, Gaza, Palestine.
22. Abbas, Mahrza (2003). *The economics of public finance,* university publications, Algeria.
23. Abdel-Rahman, applies (2004). *Economic theory, macro and micro,* (2), University House Alexandria, Alexandria, Egypt.
24. Abdelkader, Mubarak (2001). *Principles of Insurance,* University Press Niles, Khartoum, Sudan.
25. Abdelkader, Metwally (2010). *Cash markets in a changing world,* (i 1), Dar thought Publishers & Distributors, Amman, Jordan.
26. Obeidi, Fadel (2012). *Investment environment, library Arab society,* Amman, Jordan.
27. Ajao, Meyawa and Oseyomo (2010). *The predictive content of some lending economic indicators on stock prices.* Journal Of Research In National Development, 8(1).
28. Antwi, S., Mills, E. and Zhao, X. (2013). *Impact of macroeconomic factors on economic growth in Ghana:* A co integration analysis. International Journal of Academic Research in Accounting, Finance and Management Sciences, 3(1).
29. Epetimehin, F., and Fatoki, O., (2011),*The Empirical Analysis of the Impact of Inflation on the Nigeria Insurance Industry, Journal of Emerging Trends in Economics and Management Sciences,* Vol. (2), No. (6), PP.454-460.
30. McConnll, G.R., Brue, S.L. & Macpherson, D.A. (2003). *Contemporary labor Economics,* (6^{th} ed.). New York: McGraw Hill.
31. Miller, R.L. (2001). *Economics Today,* New York: Addison Wesley.
32. Momani, G., (2012), "*Impact of Economic Factors on the Stock Prices at Amman Stock Market* (1992-2010)", *International Journal of Economics and Finance,* Vol. (4), No. (1), PP. 151-159.
33. San, O.T. (2013). *Factors affecting the profitability of Malaysian commercial banks.* African Journal of Business Management, 7(8), 649- 660.
34. Tangjitprom, N. (2012). *The Review of Macro-economic Factors and Stock Returns.* International Business Research, 5(8), 107-115.

This page is intentionally left blank

Global Journal of Management and Business Research: C
Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Roles and Determinants of Banking Concentration in Jordanian Commercial Banks Profitability

By Dr. Ghazi Abdul Majeed Alrgaibat
Al al-Bayt University, Jordan

Summary- This study aimed to measure the effect of concentration to achieve the banking goal in each of (deposits and loans) on the profitability of the Jordanian commercial banks, which have been measured by using ratio of profitability (ROE). The study was conducted on Jordanian commercial banks. Also the study covered period between 1993 to 2013. The researcher used in this study descriptive analytical method and used statistical program (E-VIEWS) also data were analyzed by using simple linear regression method to test hypotheses of the study. The results showed that there was no statistically significant effect of the concentration of each of the banking (deposits and loans) on the profitability of commercial banks in Jordan. The study recommended the demand of Jordanian commercial banks to diversify the services provided by them and to rely on efficient and effective management of its reliance on more concentration to get market share.

Keywords: concentration, deposits, loans, banks, Jordan.

GJMBR-C Classification: JEL Code: G21, E50

ROLESANDDETERMINANTSOFBANKINGCONCENTRATIONINJORDANIANCOMMERCIALBANKSPROFITABILITY

Strictly as per the compliance and regulations of:

Roles and Determinants of Banking Concentration in Jordanian Commercial Banks Profitability

Dr. Ghazi Abdul Majeed Alrgaibat

Summary- This study aimed to measure the effect of concentration to achieve the banking goal in each of (deposits and loans) on the profitability of the Jordanian commercial banks, which have been measured by using ratio of profitability (ROE). The study was conducted on Jordanian commercial banks. Also the study covered period between 1993 to 2013. The researcher used in this study descriptive analytical method and used statistical program (E-VIEWS) also data were analyzed by using simple linear regression method to test hypotheses of the study. The results showed that there was no statistically significant effect of the concentration of each of the banking (deposits and loans) on the profitability of commercial banks in Jordan. The study recommended the demand of Jordanian commercial banks to diversify the services provided by them and to rely on efficient and effective management of its reliance on more concentration to get market share.

Keywords: concentration, deposits, loans, banks, Jordan.

I. Introduction

The banking sector (banks) has the most important role in any country that poses a significant economic force in the State. Due to the developments in the countries and cutting-edge technology very quickly, banks are racing with times as far as possible upgraded, so the banking industry try to be able to achieve a significant economic force in the market, also with these developments o increase degree of competition in the banks so as to enter the openness markets and the possibility of entry of all financial markets, in turn to led a large number of banks conducting mergers among themselves and strengthen their positions globally competitive either by taking advantage of the size and economic power or by reducing the risk of banking operations and further expansion with growth. It is known that in the event concentration number of banks which leads to alliances and control in the banking industry, the imposition of price competitive leads to achieve high levels of performance which is influencing the interest rates on deposits and loans under the structures of interest rates floating that affecting on savings and investment. This gives us an insight on the status of banks in any state in terms of dominance and power in the market and its ability to compete and survive in the face of challenges, The Jordanian banks as part of the global banking system, it must deal with the world situation seriously and responsibility to prove its strength in the global market, so it had a total of incentives by the central bank for its mergers and dominance in the market, however, the competition Jordanian law may impose restrictions to prevent the emergence of a strong monopoly in the market and a negative impact on citizens and small businesses.

Author: Department of Banking and Finance - Faculty of Business and Finance Administration. Al al-Bayt University – Jordan.

II. Importance of the Study

The importance of the study stems from the importance of the banking sector and its role in economic growth and play a pivotal role of banks that influence in the money supply and the demand for it, also its interaction with monetary policy which it must followed by the central bank to arrange the banking activities, which affects the real sector of the economy. The importance of study appears from an effect of concentration of banking on the effectiveness of monetary policy, as it has many pros such as economic stability and reduce the banks risk, which increased by focusing high of negatives such as the lack of effective competition, as well as control of the Price. Also, this study conceders one of few studies in this area.

III. Objectives of the Study

The study aims mainly to arrive at the extent of effect for concentration of the Jordanian banking profitability by calculating the concentration ratio for the top three banks in the banking sector during period 1993-2013, which have been studied through the following:

1. To indicate the extent of the concentration effect of loans on banks' profitability during the study period
2. To indicate the extent of the concentration effect of deposits on banks' profitability during the study period.

IV. Problem of the Study

The problem with the study of concentration in the banking problem and the extent of the effect of concentration of loans and deposits in banks on the profitability of banks, this problem can be formulated through the study of the following questions.

1. Is an increase in the concentration of loans increases the profitability of the banks?
2. Is an increase in the concentration of deposits increases the profitability of the banks?

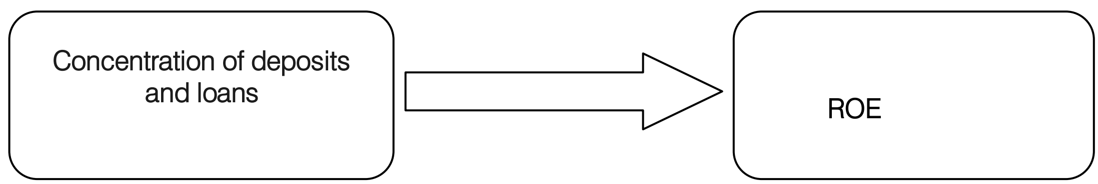
a) Hypotheses of the study

1. No statistically significant effect of banking concentration on profitability of loans for Jordanian commercial banks (1993_2012).
2. No statistically significant effect of banking concentration on the profitability of deposits in Jordanian commercial banks (1993_2012).

b) Variables of the study

1. Independent variables: concentration of deposits and loans.
2. Dependent variables: the profitability of the commercial banks represented by (ROE)

Form (1) Variables of the study



V. Methodology of the Study

It was used descriptive and analytical method, the researcher using descriptive in exposure to literature study and describe the phenomenon of the study, the analytical methodology was also used to test the hypotheses of the study through using statistical analysis software (E-VIEWS).

VI. Previous Studies

Study Awartani (1997), entitled "Following concentration in commercial banks on economic variables". This study dealt with subject of monopolistic concentration in the banking sector that aimed to show these concentrations on different economic variables, he had used of static and mobile metrics to measure the evolution of the structure for banking market in Jordan. Also he has been used of multiple regression analysis to determine the impact of concentration on the variables of economic performance and profitability, in particular, with estimating distributional effects, the result was loss in welfare as a result of all concentration. The results showed that big banks and the degree of competition in the sector is strong. The study also showed that banks in Jordan has been able to exploit the monopoly power to achieve higher profits. Study of Muhammad Mustafa (2002), entitled" Structure of the banking market and the performance of Jordanian Banks (1990-2001), the results showed support for both hypotheses in the Jordanian banking market, also the results showed the presence of effect for concentration in the banking market, on the other hand the results showed the existence of effect for variable banks efficiency in revenues This result was existence of concentration for evident in the Jordanian banking market through the influence of large banking institutions and control, in contrast, there are indications supporting the existence of efficiency in the banking market , the most important emergence of additional large size, and the solvency of banks, in addition to mergers and acquisitions witnessed by the Jordanian banking market.

Study Khryosh (2002) ,entitled "Factors affecting the profitability of Jordanian commercial banks "The study aimed to identify the factors affecting the profitability of Jordanian commercial banks for the period 1991-2000, and to achieve this goal the researcher collected data about banks that listed in Amman Stock Exchange and statistically analyzed the behavior of the dependent variable “profitability” of commercial banks and the independent variables “size of property, size of the bank as measured by assets, the total debt ratio, the proportion of cash surpluses and expenses of advertising and the age of the bank”. To achieve this model was built to measure the relationship between the independent variables and the dependent variable based on linear regression equation. The study found a total of results are as follows: a positive relationship statistically significant were differences between profitability of the commercial banks and the following factors: property rights, the debt ratio, the proportion of cash surpluses, cash expenses and advertising. Also the absence of a direct correlation statistically significant differences between profitability of the commercial banks , the total assets and the age of the bank, and finally the existence of a negative relationship between bank profitability and total assets. Study Fayoumi and Awad (2003), entitled ("The relationship between market concentration and the performance of Jordanian banks, An Empirical Study". Which aimed to examine the relationship between market concentration and performance in the Jordanian banking sector; where sample included 13 banks for the period from 1993 to 1999, they were using a regression model compound for all banks and all years, that measured market concentration of assets The performance measured by yield, CR for the three largest banks 3 on equity before taxes, also the study included a range of internal banks factors (expenses: salaries and wages , the proportion of equity to assets and liquidity of the bank) also a range of external economic factors as (interest rate, the growth of financial markets and the rate of inflation). The study results indicated a statistically significant relationship between return on equity and market concentration ratio, results also indicate that the size of bank was the most important factors that have affected on control of Jordanian banks in profitability during the study period. Study Ezzedine Alcor (2011), entitled "Impact of concentration and market share on the performance of Jordanian Commercial Banks" The aim of this study was to test the effect of concentration of assets, according to the model of the structure-conduct-performance, market share of deposits, according to the efficiency hypothesis for conventional in the performance of Jordanian commercial banks which measured by Return on Assets (ROA) The study sample included fourteen commercial banks for the period 1993 - 2006 , the implementation of the multi regression to test the hypotheses of the study, it was exclude the hypothesis of the alliance between the most banks concentrated, also the results do not provide support for the hypothesis of conventional efficiency, which states that more organizations efficiency check rates of high performance and get higher profitability. Which leads us to believe that the concentration market of commercial banks, mainly due to social factors and political, in addition to the advantage of early entry into the market, which contributed to a small number of banks to have a high market shares, however, and as a result legislation and laws that have worked to strengthen and raise the levels of competition, the most concentrated market power on the prices in Jordanian commercial banks. Study Hamdan, Shaheen and Anaswah (2011)) ("The relationship between market structure and profitability in the Jordanian and Palestinian" The aim of this study was to test the relationship between market structure and profitability for Jordanian and Palestinian banks, were represented sample of the study in all local banks operating during period 2005 - 2010, (the number (24) banks), that included the assumption of market power, these hypotheses were tested using multiple linear regression, through test the relationship between the profitability for banks and measurements of both concentration and market share. The results showed refute the hypothesis of the structure - conduct - performance in Jordanian banks, as well as the efficiency of conventional hypothesis, also the results of analysis showed general support for the hypothesis structure - conduct - performance which explained the relationship between market structure and profitability in Palestinian banks. The recommendation was essential for this study to decision makers in the banking system in Jordan and Palestine to expand operations in the liberalization of the market in order to reduce concentration and enhance the competitiveness. Mishan Aldvery study (2013), entitled "concentration effect on the profitability of the Kuwaiti commercial banks for the period (1996-2011). The study aimed to measure the effect of deposits and loans concentration on the profitability of Kuwaiti commercial banks .The researcher found that there was no statistically significant effect of the concentration on the profitability of the commercial banks in Kuwait. The researcher also recommended the demand to the attention of Kuwaiti banks managing to concept of efficiency and effectiveness more than concentration. Polius, T. and Samuel. W. study (2000), entitled "Banking Efficiency in the Eastern Caribbean Currency Union". That progress in implementation of the model (SCP) structure-conduct-performance and efficiency on the premise data (44) commercial banks in the Eastern Caribbean Union (ECCU) for the period 1990 - 1999. And a model study included some independent variables which represented in the proportion of operating expenses to average assets, the ratio of net interest income to average assets, the ratio of interest earned on loans to average loans, the ratio of administrative expenses to total expenditure and market share, The performance of banks expressed by return on assets. and results of the study supported the affected profitability for commercial banks performance; where the metrics that act on behalf of efficiency in the study model were variables are statistically significant in its relationship with the performance of banks as opposed to the variables that act on behalf of market power. Laderman study (2003), entitled "good news on twelfth district banking market concentration". The paper discussed the economic developments to the Fed in san Francisco that took place on the concentration of banking in the United States over the past 18 years through the division of the American banking market to 12 branches follow the Federal Reserve System. The paper raised the question of whether there is concentration in banking activity depending on the quality of the States, the different levels of economic activity, population growth and the amount of urbanization in these states. The researcher also discussed the total of other factors that affect the concentration of banks such as financial crises which occurred during the period of the eighties and an increasing in demand for banking services in the single market, compared with other markets. He also discussed factors of self-correction for the American market occurred as a result of concentration of banking so that the concentration theoretically lead to higher profits and thus tempted many investors to enter the market, which means necessarily attract a number of customers from other banks and thus reduce the market share of banks earlier. Logan study (2004), entitled "Banking Concentration In The UK" The aim of this study is to measure the concentration banking within a range of banking activities in the United Kingdom, where the study sample included a total of commercial banks in the United Kingdom accredited researcher on the data available in the database of the England Banks , he was wondering about the impact of the merger on the concentration of banking particular in United Kingdom and Europe through a big wave of mergers in the nineties of the last century, where the study was divided into five parts, the first part of the study focused on using of statistical data to determine the amount of concentration in banks while the second part of the study, the amount of concentration in loans and deposits in the small banks and changes amount of concentration in the banking business during the last 15 years, while taking third part of the study concentrated banking across various economic sectors, especially small banks compared to large banks. The study found a total of results where it appears that most of the deposits of non-financial private sector in the possession of a small number of banks in British banks while enjoying the largest share of deposits in the United Kingdom.

Al-Jarrah study (2010),entitled “The Relationship between Market Structure-Profit in Jordanian Banking Industry" Which aimed to test the relationship between market structure and profitability of Jordanian banks for the period 2001 - 2005 .The study results were supportive of the hypothesis structure - conduct - performance (SCP), hypothesis explained the relationship between market structure and profitability, and provided limited support for the efficiency hypothesis (MS), and then try the surgeon to provide support for the results of the previous study, so the study of competitiveness in the Jordanian banking sector during his studies, which showed that the market for Jordanian banks cannot be described competitive nor monopoly; In other words, the Jordanian banks operating in conditions of monopolistic competition; and then reap profits conditions similar to the conditions of monopolistic competition, also the study showed that large banks operating in competitive conditions higher of the circumstances in which they operate their counterparts from small banks. Ahmad study, (2012), study "Market Concentration and Profitability in Indian Banks: Does Size Matter in the Impact of Bad Loans and Bank Capital?" This study examined the raised market concentration and the determinants of profitability for the Indian banking sector for the period 2004-2011, he had usined of model behavior performance, traditional hypothesis that aimed of assessing the extent which performance of the bank market structure, also the study examined whether the effect of credit risk and capital adequacy on profitability linked to the size of banks or not, the results indicated that the concentration of the market has a positive effect on the performance of Indian banks, which indicates that the big banks still dominate the whole banking industry and earn higher profits than normal through the settings price non-competitive, also the study found that the size of the bank reduces the negative impact of bad loans on profitability.

a) Society and the Study Sample

The community and the study sample represents the Jordanian banking sector (Jordanian commercial banks), also includes the study period (1993-2012).

b) Methods of Data Collection

The researcher has been relying on data collection for this study on two main sources: Secondary Data: to determine the theoretical framework for this study were obtained through previous studies represented by Arab and foreign books , periodicals and articles related to the subject of study. The analysis of budgets and records of the banking sector through the statistical data posted on the Central Bank, Amman Stock Exchange Website. and Primary data: refers to people with experience and competence.

c) Operational Definitions of The Variables

To clarify the meaning of variables in the hypotheses of the study, it has been the definition of procedural variables as follows:

First, the dependent variable .The goal of any financial institution is to maximize the value of its stock and to achieve profits usually measured the ability of the institution to achieve profits as a whole lineage of so-called (profitability ratios). This is the lineage of the most important groups in the financial analysis ratios being confirms the results of the business, and profitability ratios measure the level of returns that achieved by the company in a given year compared to asset sales and capital. Profitability ratios are divided into a total of percentages are as follows:

Gross margin: This ratio is measured by dividing sales minus the cost of goods sold to sales. Operating Profit Margin: This ratio is measured by dividing operating profit (profit before interest and taxes), on sales. Net profit margin: this ratio is measured by dividing the net profit after tax and interest on sales. Earnings per share: measured by dividing the net profit after tax and interest on the number of shares. Return on Total Assets: measured by dividing the net profit after interest and taxes to total assets. Return on Equity: measured by dividing the net profit after interest and taxes on property rights. ratio of dividends per share: measured by dividing the dividend on the actual number of shares. The independent variable (concentration ratio) which Refers to what represents the proportion of the largest number of banks for the total market share that could take a larger share of three banks for the total market (CR3) or can take a greater proportion of four institutions (CR4) which indicate this percentage to the market shape, for example: when there is a single bank take the entire market share, it means that the (CR = 100%) and this is called a complete market monopoly. The concentration ratio of the banks are the percentage of market share for the largest banks in the banking sector.

$$CR_m = \sum_{i=1}^{n} Si \ :$$

Where:

CR_m : *The concentration ratio of the banking*

Si = market share of the facility and deposit for bank i

Thus:

– Concentration of deposits is measured by dividing the total deposits of the three largest banks in terms of liabilities to total deposits of the banking system.

– Concentration of loans is measured by dividing the total loans of the three largest banks in terms of assets on the total loans of the banking system.

Data analysis and hypothesis testing Methods of statistical analysis of the data: To test hypotheses program (Eviews 7) was used by the following statistical treatments: - Averages and standard deviations for each of the financial ratios for study during the period (1993-2012). - Use simple regression analysis (Linear Regression) to focus the impact of each of the loans and deposits on profitability.

View Results. This section contains analytical presentation of the results of the study, which aimed to identify the impact of the concentration on the banking profitability for Jordanian commercial banks (ROE) during the period 1993-2012, the results will be depending on the hypotheses of the study.

Table 1 : The arithmetic means

Year	Rank	Profitability	Rank	Deposites	Rank	Loans
1993	5	0.13	1	0.80	7	0.75
1994	4	0.14	7	0.77	11	0.73
1995	10	0.11	7	0.77	11	0.73
1996	2	0.15	5	0.78	10	0.74
1997	5	0.13	7	0.77	1	0.78
1998	15	0.08	2	0.79	2	0.77
1999	19	0.06	2	0.79	2	0.77
2000	20	0.04	2	0.79	2	0.77
2001	12	0.09	12	0.73	7	0.75
2002	15	0.08	7	0.77	5	0.76
2003	11	0.10	5	0.78	5	0.76
2004	5	0.13	7	0.77	5	0.75
2005	1	0.21	13	0.72	14	0.69
2006	2	0.15	13	0.72	14	0.69
2007	5	0.13	15	0.71	13	0.70
2008	9	0.12	17	0.69	16	0.68
2009	12	0.09	18	0.67	17	0.65
2010	12	0.09	18	0.67	18	0.63
2011	15	0.08	20	0.66	19	0.62
2012	15	0.08	16	0.70	20	0.61

In Table (1)

– The arithmetic mean concentration of loans in commercial banks of Jordan during the period (1993-2012) ranged between (0.61-0.78), where it was the highest concentration of loans in the year (1993), followed by years of (1998-2000), where (0.77), it was the lowest concentration of loans in the year (2012). The results also showed that there was a decrease in the volume of loans in the Jordanian commercial banks with advancing years and this is a positive indicator.

– The arithmetic mean concentration of deposits in commercial banks during the period (1993-2012) ranged between (0.66-0.80), where it was the highest concentration of deposits in year (1997), followed by years of (1998-2000), where (0.79), it was the lowest concentration of deposits in the year (2011). The results also showed that there was a

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

decrease in the volume of deposits in commercial banks and this negative index.

- The arithmetic mean concentration of profitability in the Jordanian commercial banks during the period (1993-2012) ranged between (0.04-0.21), where it was the highest concentration of profitability in the year (1997), followed by the years (1996.2006), where (0.15), it was the lowest concentration of profitability in year (2000). The results also showed that there is a fluctuation in size of profitability in the Jordanian commercial banks between rise and fall with the progress in past, especially the low level of profitability in recent years and this negative index.

Table 2 : Arithmetic means and Standard deviation

Variable	Standard deviation	Arithmetic means
Conc. Of Loans	0.06	0.72
Conc.of Dep.	0.05	0.74
ROE	0.04	0.11

Table : (2) Shown:

Table 2 is a summary of the results of the descriptive analysis of the study, where views can be seen from the table that the standard deviation of views concerning the dependent variable (profitability ROE) amounted to 0.04 while the independent variable (focusing deposits) 0.05, while the independent variable focus loans 0.06.

It is known that the greater the amount of the standard deviation of the greater dispersion of data about the middle of the arithmetic and if the size of the views down whenever the effect of outliers large, and therefore the impact on the value of the standard deviation, and statistical data used by the researcher to note that the size of the standard deviation reached its highest value in concentration of loans in the banks, and this shows the size difference of the lending process between the bank and the last while was less for focusing deposits, and explains the researcher that relatively to the degree of loyalty among depositors in banks are the biggest ones to borrowers who are trying mostly to get the best deals for the financing needs cash regardless of which bank they deal with him.

Table 3 : Skewness and kurtosis

(kurtosis)		(skewness)		Variable
Standard error	Value	Standard error	Value	
0.992	0.823-	0.512	0.721-	Conc. Of loan,s
0.992	1.143-	0.512	0.542-	Conc. Of deposites
0.992	1.264	0.512	0.715	(ROE)

Table (3): Shown:

- That the value of kurtosis (skewness) concentration of loans in commercial banks during the period 1993-2012 has reached to (0.721-) ,with standard error (0.512), while the value of torsion (kurtosis) (0.823-) ,with standard error (0.992).
- The value of kurtosis (skewness) concentration of deposits in Jordanian commercial banks during the period 1993-2012 has reached (0.542-) , with standard error (0.512), while the value of torsion (kurtosis) (1.143-) with standard error (0.992).
- The value of kurtosis (skewness) profitability (ROE) in the Jordanian commercial banks during the period 1993-2012 has reached (0.715) with standard error (0.512), while the value of torsion (kurtosis) (1.264) and standard error (0.992).

VII. Test Hypotheses Of the Study

There are two main hypotheses concentration of the impact of banks' deposits and loans focused on the performance:

a) The first hypothesis

H01: No statistically significant effect of concentration on the profitability of loans (ROE)of Jordanian commercial banks for period (1993-2012).

To examine this hypothesis, the correlation coefficient between the concentration of loans and profitability (ROE), the researcher used the simple regression analysis (Linear Regression) to detect the effect of concentration of loans on the profitability for Jordanian commercial banks (ROE) period (1993-2012), and the tables below illustrates this.

Table 4: Correlation coefficients

statistically significant	Correlation coefficients	Independent variable
0.27	0.06	Concentration of loans

Table (4) Shown that the correlation coefficient between the concentration of loans and profitability (ROE) in Jordanian commercial banks for period (1993_2012) has reached (0.062) in terms of the statistical (0.27), which is a very low value and not statistically significant, there is no correlation relationship between concentration of loans and profitability of commercial banks. Results of regression analysis through the following equation

$$ROE_t = 0.141675 - 0.044901\ \beta 1 + \varepsilon t$$

$$t\ (1.190328)\ (0.270960)$$

Table 5 : Regression analysis of the impact of loans focused on profitability (ROE)

Result	Sign. Of f	f	²R	B.	Sign. of t	t	Ind. Variable
Accept	0.073	2.069	0.004	0.044	0.789	0.271	Conc. of Deposites

The results of regression analysis as in table (5) Shown an acceptance the zero hypothesis, which means that there is no statistically significant effect of the concentration of loans on the profitability of Jordanian commercial banks (ROE) for period (1993_2012), also the results shown in the equation a negative relationship and statistically significant between concentration of loans and return on equity. The change in value of loans concentration contributes only by 0.004 of change in the revenues of banks and this percentage is very low, according to the coefficient of determination R2. This supports the results of a test for correlation coefficient, which showed a lack of correlation relationship between the concentration of loans and profitability index, this means that the banks do not operate in monopolistic environment that allows it to impose price, which contributes to impose also interest rates on high Loans and deposits, the most concentrated and pushed into high levels of profit and non-competitive. That means accepting the zero hypothesis and reject the alternative hypothesis that the concentration of any deposits in Jordan does not affect the profitability index during the study period, one can say that the concentration increases the profitability of commercial banks in case the banks' ability to lead the pricing banking services, loans and thus obtain the greatest benefit possible from its dominance , this is unlikely in the market for full competition and interference by the authorities concerned , also this is consistent with what came to study (Laderman, 2003).

b) The second hypothesis

H02: No statistically significant effect of the concentration on the profitability of deposits in Jordanian commercial banks for the period (1993_2012). To examine this hypothesis, the correlation coefficient between the concentration of deposits and profitability (ROE), research the used of simple regression analysis (Linear Regression) to detect the effect of concentration of deposits on Jordanian commercial banks earnings (ROE) for period (1993_2012), the table below illustrate this.

Table 6 : Correlation coefficients

Sign.	correlation coefficient	Indep. Variable
0.179	0.042	concentration of deposits

Table (6) shows that the correlation coefficient between the concentration of deposits and profitability (ROE) in Jordanian commercial banks for the period (1993_2012) has reached (0.042) in terms of the statistical (0.179), which is a very low value and not statistically significant, there is no correlation relationship between the concentration of deposits and profitability for commercial banks.

Results of regression analysis through the following equation

$$ROEt = 0.134953 - 0.034306\ \beta 1 + \varepsilon t$$

$$t\ (0.947886)\ (0.179035)$$

Table 7 : Regression analysis

Result	Sign. f	f	R^2	B	Sign. t	t	Indep.Variable
Acceptance	0.923	0.03	0.001	0.034	0.923	0.034	concentration of deposits

Table (7) Shown the results of the regression analysis that accepted the zero hypothesis, which means that there is no statistically significant effect for the concentration of deposits on (ROE) Jordanian

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

commercial banks earnings for the period (1993_2012), as shown by the equation, the existence of a negative relationship is statistically significant between deposits concentration and profitability. The change in value of deposits concentration contributes only by 0.001 of change in the revenues of banks, this percentage is very low, according to the coefficient of determination by R2. Even after adding some variables control remains the relationship is statistically significant very weak, and this supports the results of a test of the correlation coefficient, which showed a lack of correlation relationship between the concentration of deposits and profitability index in Jordan, and this is due as I mentioned earlier that banks in Jordan do not operate in monopolistic environment. The legislation and Jordanian laws played a major role in the interpretation of these results as they contribute to the promotion of competition in the banking market of Jordan, this is consistent with the study Ezzedine Alcor (2011).

In a study researcher Logan, 2004)) researcher stressed that although the concentration of bank loans was larger than concentration of deposits in commercial banks slightly British, however, that profitability was not affected by concentration during the 15-year study period. The study confirmed Mishan (2013), that there is no effect of the concentration of loans and deposits in Kuwaiti commercial banks.

VIII. Results

- The results indicate the presence of a high concentration ratio of the three largest banks in Jordan during the study period, and this shows that more than half of the banking business managed by a slice of big banks.
- The results showed that the concentration ratios tended to decrease with advancing years during the study period and this shows an increase in the banks' response to other segments of the threats resulting from the depth of the gaps between them and the major banks in the slides.
- The lack of effect for concentration of loans on the profitability (ROE) for Jordanian commercial banks (1993_2012), as a result of Jordanian banking legislation which works to increase competition and prevent monopoly by banks to the most concentrated.
- The lack of concentration effect on the profitability (ROE) by deposits for Jordanian commercial banks for the period (1993_2012). The researcher attributed this to Jordanian banking legislation which working to increase competition and prevent monopoly by the banks to the most concentrated.

IX. Recommendations

- Paying more attention on managing of the Jordanian commercial banks to be their resources more efficiently and effectively from its dependence concentration to get the market share to minimize operating expenses, such as ease of working to increase their profits.
- Take care of services diversification that provided by banks and the expansion of these services in order to serve the public and works to maintain the market share of banks.
- The requirement to study and constant follow-up by the Jordanian banks of the economy nature in order to increase growth and to take advantage of market trends to maintain its market share.
- The importance role of the central bank and relevant government agencies to help small banks to attract deposits and increase its credit.
- Further studies to identify the effect of concentration on the profitability.

References Références Referencias

1. Basil, Awartani (1997), "the impact of concentration in commercial banks on economic variables." Message unpublished, University of Jordan.
2. Siam, Walid and Khryosh, Hosni (2002), the factors affecting the profitability of commercial banks in Jordan.. King Abdulaziz University, Economics and Management, 16 (2).
3. Mohammed Mustafa. 2002, the structure of the banking market and the performance of Banks in Jordan (1990-2001), Central Bank of Jordan: Department of Research and Studies.
4. Nidal Fayoumi, and Shirin Awad.2003, the relationship between market concentration and the performance of banks in Jordan: An, Journal of Muta for Research and Studies, Volume 18, Issue 4, pp 241-258.
5. Azzedine Alcor.2011, the effect of concentration and market share in the performance of Jordanian commercial banks, Journal of Studies of Administrative Sciences, Volume 38, Issue 2, pp 399-4.
6. Shirin al-Hamdani, and Abdulkarim Bataineh (2012) "The relationship between financial dependence of competition and the economic growth rate in Jordan". Baghdad College of Economic Sciences, number (30).
7. Mohammed Anaswah, and Bahaa Awad.2013, the relationship between market structure and profitability of Saudi banks, Jordan Journal of Applied Sciences: Humanities Series, Volume 14, Issue 1, pp 65-78.
8. Study Mishan Aldvera Salem (2013), "the impact of the concentration on the profitability for the Kuwaiti commercial banks for the period (1996-2011) message. Unpublished, Al al-Bayt University.

9. Al-Jarrah (2010a). The Market Structure-Profit Relationship in Jordan's Banking Industry, Dirasat: Administrative Sciences, 37 (1), pp. 251–261.
10. F. Mashharawi & Kh. Al-Zu'bi (2009). The Determinants of Banks' Profitability: Evidence from the Jordanian Banking Sector (1992–2006), Jordan Journal of Business Administration, 5 (3), pp. 403–414.
11. Garcia, G., & Gustavo, J. "Does market power influence bank profits in Mexico? A study on market power and efficiency." Applied Financial Economics, vol. 22, no. 1 (2012).
12. Laderman, Liz (2003), "Good News on Twelfth District Banking Market Concentration", FRBSF ECONOMIC LETTER , Federal Reserve Bank of San Francisco, Number 2003-31, October 24, 2003.
13. Logan, Andrew (June 2004) "Banking Concentration In The UK", financial industry and regulation division. Bank of England, Financial Stability Review.
14. Md Mostak Ahamed, (2012)" Market Concentration and Profitability of Indian Banks: Does Size Matter in the Impact of Bad Loans and Bank Capital?", PhD Candidate, Queen Mary, University of London, School of Business and Management.
15. Mohildin (2001), on bank market structure and competition in egypt arab economic. Arab Economic journal, 10, 3-35.
16. Molyneux, p. and Forbes, w. (1995) 'market structure and performance in European banking. applied of economics , 27.
17. Polius, T. and Samuel. W. 2000. banking Efficiency in the Eastern Caribbean Currency Union: an Examination of the Structure-Conduct-Performance Parading and the efficiency Hypothesis, Money Affairs, 15 (1), 75-92.
18. Internet Sites
    www.cbj.gov.jo
    www.ase.com.jo

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

This page is intentionally left blank

Global Journal of Management and Business Research: C Finance
Volume 14 Issue 5 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Rule of Financial Market Success to Growth Gross Domestic Products

By Dr. Abdullah Ibrahim Nazal
Zarqa University, Jordan

Abstract- This search concentrates on rule of financial market success to growth domestic products which solve problems of increasing general budget deficit and increasing financial market dealing weakness. Searcher found that balancing between producers' fair return and supporters covering needs is the rule. Investors locally and internationally as shareholders, creditors, government, employee and customers can support producing locally in case products covers their different needs with suitable cost but success of supporting producer by financial market is limit as result to seller developing tools to transfer loss, government policies which affect on demand and supply and ignorance causing to get unusual return by speculations or to get other return as result to monopolize information to be costly. Searcher recommended balancing between powers welfares up to rule of financial market success to growth gross domestic products which help to solve depression.

Keywords: depression, financial market, gross domestic products, supporters and ignorance.

GJMBR-C Classification: JEL Code: G10

RULEOFFINANCIALMARKETSUCCESSTOGROWTHGROSSDOMESTICPRODUCTS

Strictly as per the compliance and regulations of:

Rule of Financial Market Success to Growth Gross Domestic Products

Dr. Abdullah Ibrahim Nazal

Abstract- This search concentrates on rule of financial market success to growth domestic products which solve problems of increasing general budget deficit and increasing financial market dealing weakness. Searcher found that balancing between producers' fair return and supporters covering needs is the rule. Investors locally and internationally as shareholders, creditors, government, employee and customers can support producing locally in case products covers their different needs with suitable cost but success of supporting producer by financial market is limit as result to seller developing tools to transfer loss, government policies which affect on demand and supply and ignorance causing to get unusual return by speculations or to get other return as result to monopolize information to be costly. Searcher recommended balancing between powers welfares up to rule of financial market success to growth gross domestic products which help to solve depression.

Keywords: depression, financial market, gross domestic products, supporters and ignorance.

I. Introduction

a) Background

Depression case leads to reduce producers. Producers transfer capital and human resource to other countries as result to escape from loosing. Some producers try to develop products to stay in market in spite of loosing but success of this strategy is limit by expect growth therefore length of depression will increase loss. Jordan as case study, faces decreasing of producing as result to loss about 6.2% of companies between 2008 and 2013. Its industry companies and agriculture companies are less than 30% of companies. Dealing in financial market gets in depression (Jordan center bank statically report, 2014). There are weaknesses of financial market to support companies. Deficit problem is increased and frequently. It was gotten in correction years ago (Ministry of planning, 1994).

Gross Domestic Producing is standard of economic growth but it is limit. In spite of bad result, Government can increase this standard by selling government assets to keep its reputation of its credit classification by show economic growth. Some economists consider government assets selling as assets inflation because there is no real investing return.

Author: Associate Professor, Department of Finance and Banking, Faculty of Economics and Administrative Sciences, Zarqa University, Jordan. e-mail: nazzalacademy@yahoo.com

It uses to increase gross domestic products in case of depression statistically (Manmohan, 2014).

b) The Problem

The problem comes as result to find way to solve long term depression case. Length of depression come as result to unsuccessful policies or delay solving problems. It depends on supply and demand equilibrium law by producers and there supporters in financial market to increase gross domestic products. Problem questions are as follow:

1. What are producer supporting factors to growth gross domestic products?
2. What is the rule of financial market success to growth gross domestic products?

c) The Important

This study helps to solve long term depression depending on local producing by cover producer supporters needs. It helps to restructure financial market to meet real producer needs and analyses increasing dealing costs in financial market which has been led by causing ignorance to get unusual return or to get other return as result to monopolize information.

d) The Objectives

This study aims to solve depression case by success financial market dealing to meet producer a suppliers needs to growth gross domestic products as follow:

1. To find producer supporting factors to growth domestic products.
2. To find rule of financial market success to growth gross domestic products.

e) Studies related to the search

Some studies explained government policies affection in market which lead to other changing in environment and establish other problem. (Will and Amana, 2011) explained that general budget management is affected by structural changing in the economic sector and time of needs. Budget strategy and its items adjustment also affected. Therefore it is leading to suggest a dynamic dialectic of control framework. Some studies explain relation between companies and suppliers to growth economic. (Chatterji, David and Micheal, 2009) found that poor social responsibility leads to sell outs of companies' shares which decrease companies financial performance. Some studies try to solve market problems by developing as (Pedro and Erwan, 2010) who found that financial development causes economic development by promoting investment and making allocation of resources more efficient also (Thomas, 2011) concentrated on developing. He found that financing tool investment tools and saving tools are responsible to make money staying. These studies are done in first world countries. It courage depending on self sufficient of producing which rule supply and demand law rather than government intervention. It has automatically ability to cause correction in crises while this study discusses third world countries which depends on import. Its companies cannot cover citizen needs. It needs covering by government.

(Ahmad, 2003) aimed to analysis general budget up to correcting economic policy. He found that reducing of current expenses and obligate price on essential products produced by local company and increase tax beside courage foreign companies was not succeeded to restructure using producing. Some searchers make rules to success as (Benjamine, Andrew and Randall, 2011) who explained that when there is marketing investing there is fact that buyer reject projects if they do not recognize its value as get return or reduce cost on other hand (Giammario, 2010) explained that if the plan is marketing internationally, the increase in international competition produce effects to reduces domestic profits and income.

II. Producer Supporting Factors to Growth Gross Domestic Products

Gross domestic products are growth by increasing producing products locally. It is standard to show country economic growth until it reach self sufficient then it become a international producer which export products. Some countries concentrate on costs. It prefers to import some products as result to cover local needs with suitable cost. This case is limited by costly locally producing. Other countries depend on type of strategy producing product as oil to import almost products to cover local needs. Some countries have real practically investing which courage producing. Its environment can get producers from other countries. Local companies can be supported locally as result to reduce import cost. It can reduce depending on monopolization exporter. Local companies get support from other local companies in case it reduces cost or complete sectors integration. It is important to produce products locally but it has conditions to success. Every producer comparing Risk, profitability and liquidity between locally producing cost and import cost. Choosing must be profitability with accepted risk. This comparing is different up to producer environment. There must be balancing between its weakness point, strength point, threat points and opportunity points. This balancing will lead to choose avoiding strategy to produce or accept with conditions or transferee risk of producing to other producer. Avoiding strategy shows that import is better as result to big risk and producer can not accept it while transfer risk of accept producing with condition mean producing will not be until there is possibility of transfer risk and apply conditions. See next table:

Table no (1) : Producing possibility up to producer risk management

Risk Types	producer risk management	Examples	Standards
Accepted risk	Producing product	Produce industry food	1- Profit in direct investment by increasing net profit after tax, reduce liabilities and increase assets value 2- Profit of speculation in financial market
Accepted risk partly	Producing product partly with hedge	Produce fruit industry food in fruit season	
Unaccepted risk with possibility to transfer risk to other producer	Transfer Producing product	Producer can transfer possibility of loose by: 1- General budget supporting by get grant 2- Other producer companies by marketing its products with commission or get products up to its quality to be sell with its label 3- Creditors undertaking loose 4- Shareholders undertaking loose 5- Employees undertaking loose 6- Insurance companies undertaking loose.	
Unaccepted risk	Avoid dealing with product	Change producing type or transfer capital to other country or clear and close business	-

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

a) Gross domestic products growth by product types

Producer risk management limits products types to be developed or to get economic sectors in integration, see next table:

Table no (2) : Affection of products types on local producing

products types	Affection on local producing
Row Material	It helps to make industry producing row material locally or export raw material
Industrial product	It helps to cover citizens needs by produce Industrial products or to produce in other economic sector in order to make integrations or export Industrial products
Old/Expire product	It helps to developing producing of old products to cover citizens' needs or to produce in other economic sector in order to make integrations or export old products to other countries as computer types. Old computers types can be sold in third world countries while it is old in first world countries.

Ex: industry food products depend on agriculture sector producing. Expired food products can be developed to cover sheep or cow feeding in order to cover citizen needs from milk and meat or to cover industry needs as make bags or clothes from caw skin or sheep wool. Some products become old and not get demand in local market but it has demand on international market as computer programs. Producing these products locally will be to export. This means producing support comes from other country needs also products producing supporting comes as result to products developing. Developing or Improving products has advantages, as increasing quality to be similar as competitor products or solving consumer problems which had with competitor products or giving unique benefit to consumer or establishing standards better than competitor (Rebecca and Kwaku, 2011:106).

Producer risk management limits products types, contracts types, producing supporter needs and type of country companies producing. These limits affect on Gross domestic products growth therefore producers are responsible on growth.

b) Gross domestic products growth by type of country companies producing

Globalization increase transferring between countries as result to link. Local companies can make integration of producing as result to transfer capital and humane sources besides using of land between many countries. It may prefer to produce out country to cover locally needs. Types of companies producing are show by next table:

Table no (3) : Type of country companies producing

Type of companies producing	Affection of producing type on standards	Resource Transferring
Locally producing by make all assets, debts and equities structures based on the domestic capital market	Gross domestic producing products growth	No Transferring
Locally producing and international producing as result to make branches to produce in other countries up to reduce costs of import	Gross domestic producing products growth and national producing products growth	Transferring partly up to needs in order to reduce cost of import
International producing done by nation companies to produce in other countries up to reduce costs of import	national producing products growth	Transferring in order to reduce cost of import

Some countries try to solve deficit problem by courage international companies' investment in its local market but these companies balance between managing risk of markets changes and market inflation. By having operations in many markets companies can control changes that occur in each market. Inflation risk in market comes as result to increase loan cost. Many loans have floating interest rates. Inflation will increase the interest rate on the loan as will as affect the exchange rate of the currency therefore bring international invest will not success in case of increasing inflation and changes (Lawrence, 2000).

c) Gross domestic products growth by producing supporters

Investors as shareholders, creditors, government, employee and customers can support producing locally in case products covers their different needs with suitable cost while speculators looking for unusual profit for short term up to expecting profit. See next table:

Global Journal of Management and Business Research (C) Volume XIV Issue V Version I Year 2014

Table no (4) : Affection of producing supporter needs on Gross domestic products

Producing supporter	Producing supporter needs
Shareholders as companies, government and citizens	Increase net profit after tax, reduce liabilities value, increase assets value, get reputation for social respect and get sales discounts as owner.
creditors	Get loan and interest rate in suitable time and suitable return
government	Cover citizens need in suitable cost, get tax, transfer government expenses to be cover by companies as insurance companies to cover car accidents risks
employee	To get salary, social respect, developing training, gifts and facilities to cover their expect risks
customers	To cover products in suitable place with suitable time and suitable cost
speculator	To get unusual profit in short time

If producer does not cover needs of producing supporter he will loss supporting to get financing or courage sales marketing or to get help in case of loss. Supporting producers can be in direct way as deal with companies direct product sales. Selling contracts show buyer getting products after buying its fees. By time selling contract become by selling rights of possibility of owning products as in future contract which will give product to buyer in future by promising. This promise gives buyer right to own product in future but not own product in currently time. Sell rights of possibility owning shows other affection on producing support. Demand can be measured by ordering to get product up to buying products and up to buying right of getting product up to promises. Selling rights of future owning will affect on future pricing to produce. Increasing of future contracts pricing will courage producer to increase producing. There are limits of positive effect on producing for sales contracts and its future contracts. These limits refer to real producing to cover real needs, see next figure:

Table no (5) : Affection of producer contract types on supporting producing

producer contract types	Buyer supporter	Positive Affections
Selling currently	1- To use product currently. 2- To store product up to needs or reduce risk of possibility increasing price in future. 3- to sell product as trader	It increases locally producing if product cover needs with suitable quality as expect
Future selling	1- To fixed cost of producing or trading by limit price in case of possibility increasing price risk. 2- To get unusual profit by speculation as result to possibility future increasing price.	It increases locally producing if the contract is real by give capital to producer currently to get products in future which courage producer to cover future demands but if producer sell products with future capital it will be not profitability until price cover default possibility of buyer to buy in time.

Future sales have suspect case. It may done as expected or not done as result to loss ability to deliver product as in war case or employees strike or increasing cost of producing which will affect negative on buyers as first buyer or right buyer to get product from the first buyer. Buyers are the looser.

III. Rule of Financial Market Success to Growth Gross Domestic Products

Financial market gives financial tools, investment tools and saving tools. These tools can support economic sectors up to needs because of many dealers and many choices. It helps to face depression case because it courage dealer. Many small investors and many small financers can build huge capital to finance economic sectors needs. It helps to liquid long term investing in days to get cash. Success financial market will get capital from local resources and from international resources. Rule of financial market success depend on fairly dealing. Dealer must understand affection of dealing ways as selling or hedging and standards to avoid loss by misunderstand. There must be rule to avoid ignorance and deceiving. This comes as result to follow big seller in case of buying but when big seller sell big amount prices there will be decreased as loose demand and lead to big loss to other.

Companies' details are important to investors as shareholders for long term but not for speculator who looks for unusual return in short term. Speculations make different between share value in market and real value. Speculation may reduce real price to reduce its reputation or increase real price to give false reputation. Some countries face pricing crises by face speculation but other countries try to courage speculations to increase financial market dealings as standard to its economic growth beside commissions of selling and buying will increased by speculators dealing which increase tax to finance general budget and helps to pull liquidity of cash dealing from market to real invest. It helps to reduce increasing of price as result to inflation. Investors can get usual return which shows in contract conditions from investing beside possibility to get unusual return up to expect increasing value in market. Ex: buying contract to get Iron amount by 2000000$ in sep/2014 to be sold in nov/2014 by 2100000$ seller will get 100000$ as usual return but in case of closing import iron by government, seller can get more return by monopolization which may lead to be sold by 5000000$ in order to get 3000000$ because of unusual return. Also seller may loss some cash in case seller sell iron by 900000$ or loss unexpected return as open import iron case which reduces price to be sold by 100000$.

Financial market affected negatively by dealer loosing. It leads to loose savings and transfer capitals to other countries. Players in financial market policies as financial policy can affect positively to increase returns or negatively to decrease return. Sellers can increase ignorance by developing financial tools and investing tools. It is important for financial manager to transfer loss. Some companies sell bonds of projects in spite of good fixed return as result to discovering default problems which lead to loose at the end of projects contract time therefore ignorance is useful for causer. It gives way to get new return in direct way or establish other organizations to as way to solve problems up to monopolize information. Ignorance increases dealer cost. They buy add cost to get information. Ignorance leads to establish new organizations as insurance companies to guarantee dealing in suspect cases of loss also establish organizations which give information as selling services. By time ignorance become problem to be solved which increase cost of financing and investing. Needing information has developed ways of getting data and analysis beside build information system to show all factors affect on dealing as collecting information from banks, courts, government, investors and families.

Rule of financial market success is limit by three major affections as follow:

1. Power of seller developing tools to transfer loss.
2. Power of government to success its policies by affects on demand and supply equilibrium law which make difficult to direct producing and pricing by producer.
3. Power of ignorance causing to get unusual return by speculations or to get other return as result to monopolize information to be costly.

Conflict between these power and market dealer is balanced up to leaders' welfare. As comparing between leaders, some financial market faces its crises by concentrates on real producing to make shares market value as shares real value regardless of speculation returns reducing. It prefers to make disclosure in economic to courage real investing than get tax from frequently of dealing. While some countries courage financial market dealings in ignorance environment to get tax from frequently speculation as transfer owning and from commissions on selling and buying beside tax on organizations return by selling monopolize information. Tax is enough to increase cost of dealing.

IV. Conclusions

There are many factors affect on local producers to growth gross domestic products. Producing possibility up to producer risk management is limited products types, contracts types, producing supporter needs, Type of country companies producing. Balancing between producers' fair return and supporters covering needs is the rule to growth gross domestic products. Investors locally and internationally as shareholders, creditors, government, employee and customers can support producing locally in case products covers their different needs with suitable cost but success of supporting producer to produce locally is limited by power of seller developing tools to transfer loss, power of government to success its policies which affect on demand and supply and power of ignorance causing to get unusual return by speculations or to get other return as result to monopolize information to be costly.

V. Recommendations

Practically there is need to balance between powers welfares up to the rule. The idea needs leaders' to courage local producing depending on producer benefits and their supplier benefits including governments. It directs economic up to supply and demand equilibrium law without ignorance cost. Therefore a government job is fairly protector against unfairness. It can share in producing but not as competitor to local companies.

References Références Referencias

1. Ahmad. M, (2003), Analyses study about general budget in Jordan up to economic correctly policy, Economic Horizons journal, U.A.E, 24 (94), pp94-97.

2. Benjamin. L, Andrew. P. L, Randall. W, (2011), Information and Liquidity, Journal of Money, Credit and Banking, Wiley Black well, Ohio State University, Vol.43, no.7, p356.
3. Central Bank of Jordan, Monthly statistical bulletin, Jordan, 50 (1), pp 84 and 104.
4. Chatterji. A, David. L and Micheal. W. Toffel, 2009, how well do social ratings Actually Measure corporate Social Responsibility? , Journal of Economics and Management Strategy, U.S.A, 18(1).
5. Giammario. I,(2010), International Competition and U.S. R&D Subside: A Quantitative welfare Analysis, , International Economic Review, Economic Department of University of Pennsylvania and the Osaka University Institute of Social and Economic Research Association, 51(4), p1152.
6. Lawrence. J, (2000), Principles of Managerial Finance, Wesley publishing company, ninth edition, U.S.A, pp 823, 824 and 835.
7. Manmohan. S, (2014), Manmohan Singh knows very little of the Indian economy, interview with sobha worrier, India. Rediff.com
8. Ministry of planning, (1994), Plan for economic and social development 1993-1997, Jordan, p111.
9. Pedro S. A and Erwan. Q, 2010, Limited Enforcement, Financial Intermediation, and Economic development: A Quantitative Assessment, International Economic Review, Economic Department of University of Pennsylvania and the Osaka University Institute of Social and Economic Research Association, U.S.A, 51(3), p785.
10. Rabecca. J.S and Kwaku. A.G, (2011), Product development Team stability and new Product advantage: the Role of Decision Marketing Processes, Journal of Marketing, American Marketing Association, U.S.A, 75(1), p 106.
11. Thomas H.W, Zieseme, 2011, "Saving finance emigration and worker remittances serve to make staying rather than migrating possible", international Economic Journal, UK, 25(3), p373.
12. Will. S and Amana. B, Interpreting the Dynamics of Public Sector Budgeting: A Dialectic of Control Approach, 2011, Financial Accountability and management in Government, Public Services and Charities, Black well publishing. U.S.A, 27(4), p433.

Global Journals Inc. (US) Guidelines Handbook 2014

www.GlobalJournals.org

FELLOW OF ASSOCIATION OF RESEARCH SOCIETY IN BUSINESS (FARSB)

Global Journals Incorporate (USA) is accredited by Open Association of Research Society (OARS), U.S.A and in turn, awards “FARSB” title to individuals. The 'FARSB' title is accorded to a selected professional after the approval of the Editor-in-Chief/Editorial Board Members/Dean.

- The “FARSB” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FARSB or William Walldroff, M.S., FARSB.

FARSB accrediting is an honor. It authenticates your research activities. After recognition as FARSB, you can add 'FARSB' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, and Visiting Card etc.

The following benefits can be availed by you only for next three years from the date of certification:

FARSB designated members are entitled to avail a 40% discount while publishing their research papers (of a single author) with Global Journals Incorporation (USA), if the same is accepted by Editorial Board/Peer Reviewers. If you are a main author or co-author in case of multiple authors, you will be entitled to avail discount of 10%.

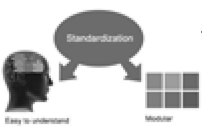
Once FARSB title is accorded, the Fellow is authorized to organize a symposium/seminar/conference on behalf of Global Journal Incorporation (USA).The Fellow can also participate in conference/seminar/symposium organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent.

You may join as member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer. In addition, it is also desirable that you should organize seminar/symposium/conference at least once.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time.This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

The FARSB can go through standards of OARS. You can also play vital role if you have any suggestions so that proper amendment can take place to improve the same for the benefit of entire research community.

As FARSB, you will be given a renowned, secure and free professional email address with 100 GB of space e.g. johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders,Auto-Responders, Email Delivery Route tracing, etc.



The FARSB will be eligible for a free application of standardization of their researches. Standardization of research will be subject to acceptability within stipulated norms as the next step after publishing in a journal. We shall depute a team of specialized research professionals who will render their services for elevating your researches to next higher level, which is worldwide open standardization.

The FARSB member can apply for grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A. Once you are designated as FARSB, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria. After certification of all your credentials by OARS, they will be published on your Fellow Profile link on website https://associationofresearch.org which will be helpful to upgrade the dignity.

The FARSB members can avail the benefits of free research podcasting in Global Research Radio with their research documents. After publishing the work, (including published elsewhere worldwide with proper authorization) you can upload your research paper with your recorded voice or you can utilize chargeable services of our professional RJs to record your paper in their voice on request.

The FARSB member also entitled to get the benefits of free research podcasting of their research documents through video clips. We can also streamline your conference videos and display your slides/ online slides and online research video clips at reasonable charges, on request.

The FARSB is eligible to earn from sales proceeds of his/her researches/reference/review Books or literature, while publishing with Global Journals. The FARSB can decide whether he/she would like to publish his/her research in a closed manner. In this case, whenever readers purchase that individual research paper for reading, maximum 60% of its profit earned as royalty by Global Journals, will be credited to his/her bank account. The entire entitled amount will be credited to his/her bank account exceeding limit of minimum fixed balance. There is no minimum time limit for collection. The FARSC member can decide its price and we can help in making the right decision.

The FARSB member is eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get remuneration of 15% of author fees, taken from the author of a respective paper. After reviewing 5 or more papers you can request to transfer the amount to your bank account.

MEMBER OF ASSOCIATION OF RESEARCH SOCIETY IN BUSINESS (MARSB)

The ' MARSB ' title is accorded to a selected professional after the approval of the Editor-in-Chief / Editorial Board Members/Dean.

The “MARSB” is a dignified ornament which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., MARSB or William Walldroff, M.S., MARSB.

MARSB accrediting is an honor. It authenticates your research activities. After becoming MARSB, you can add 'MARSB' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, Visiting Card and Name Plate etc.

The following benefitscan be availed by you only for next three years from the date of certification.

MARSB designated members are entitled to avail a 25% discount while publishing their research papers (of a single author) in Global Journals Inc., if the same is accepted by our Editorial Board and Peer Reviewers. If you are a main author or co-author of a group of authors, you will get discount of 10%.

As MARSB, you will be given a renowned, secure and free professional email address with 30 GB of space e.g. johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders,Auto-Responders, Email Delivery Route tracing, etc.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time.This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

The MARSB member can apply for approval, grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A.

Once you are designated as MARSB, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria.

It is mandatory to read all terms and conditions carefully.

Auxiliary Memberships

Institutional Fellow of Open Association of Research Society (USA)-OARS (USA)

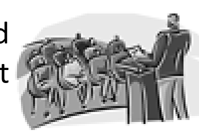
Global Journals Incorporation (USA) is accredited by Open Association of Research Society, U.S.A (OARS) and in turn, affiliates research institutions as "Institutional Fellow of Open Association of Research Society" (IFOARS).

The "FARSC" is a dignified title which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., FARSC or William Walldroff, M.S., FARSC.

The IFOARS institution is entitled to form a Board comprised of one Chairperson and three to five board members preferably from different streams. The Board will be recognized as "Institutional Board of Open Association of Research Society"-(IBOARS).

The Institute will be entitled to following benefits:

The IBOARS can initially review research papers of their institute and recommend them to publish with respective journal of Global Journals. It can also review the papers of other institutions after obtaining our consent. The second review will be done by peer reviewer of Global Journals Incorporation (USA)
The Board is at liberty to appoint a peer reviewer with the approval of chairperson after consulting us.
The author fees of such paper may be waived off up to 40%.



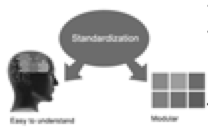
The Global Journals Incorporation (USA) at its discretion can also refer double blind peer reviewed paper at their end to the board for the verification and to get recommendation for final stage of acceptance of publication.

The IBOARS can organize symposium/seminar/conference in their country on behalf of Global Journals Incorporation (USA)-OARS (USA). The terms and conditions can be discussed separately.

The Board can also play vital role by exploring and giving valuable suggestions regarding the Standards of "Open Association of Research Society, U.S.A (OARS)" so that proper amendment can take place for the benefit of entire research community. We shall provide details of particular standard only on receipt of request from the Board.

The board members can also join us as Individual Fellow with 40% discount on total fees applicable to Individual Fellow. They will be entitled to avail all the benefits as declared. Please visit Individual Fellow-sub menu of GlobalJournals.org to have more relevant details.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.



After nomination of your institution as "Institutional Fellow" and constantly functioning successfully for one year, we can consider giving recognition to your institute to function as Regional/Zonal office on our behalf.
The board can also take up the additional allied activities for betterment after our consultation.

The following entitlements are applicable to individual Fellows:

Open Association of Research Society, U.S.A (OARS) By-laws states that an individual Fellow may use the designations as applicable, or the corresponding initials. The Credentials of individual Fellow and Associate designations signify that the individual has gained knowledge of the fundamental concepts. One is magnanimous and proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice.

Open Association of Research Society (US)/ Global Journals Incorporation (USA), as described in Corporate Statements, are educational, research publishing and professional membership organizations. Achieving our individual Fellow or Associate status is based mainly on meeting stated educational research requirements.

Disbursement of 40% Royalty earned through Global Journals : Researcher = 50%, Peer Reviewer = 37.50%, Institution = 12.50% E.g. Out of 40%, the 20% benefit should be passed on to researcher, 15 % benefit towards remuneration should be given to a reviewer and remaining 5% is to be retained by the institution.

We shall provide print version of 12 issues of any three journals [as per your requirement] out of our 38 journals worth $ 2376 USD.

Other:

The individual Fellow and Associate designations accredited by Open Association of Research Society (US) credentials signify guarantees following achievements:

- The professional accredited with Fellow honor, is entitled to various benefits viz. name, fame, honor, regular flow of income, secured bright future, social status etc.

- In addition to above, if one is single author, then entitled to 40% discount on publishing research paper and can get 10%discount if one is co-author or main author among group of authors.
- The Fellow can organize symposium/seminar/conference on behalf of Global Journals Incorporation (USA) and he/she can also attend the same organized by other institutes on behalf of Global Journals.
- The Fellow can become member of Editorial Board Member after completing 3yrs.
- The Fellow can earn 60% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.
- Fellow can also join as paid peer reviewer and earn 15% remuneration of author charges and can also get an opportunity to join as member of the Editorial Board of Global Journals Incorporation (USA)
- • This individual has learned the basic methods of applying those concepts and techniques to common challenging situations. This individual has further demonstrated an in–depth understanding of the application of suitable techniques to a particular area of research practice.

Note :

"

- In future, if the board feels the necessity to change any board member, the same can be done with the consent of the chairperson along with anyone board member without our approval.
- In case, the chairperson needs to be replaced then consent of 2/3rd board members are required and they are also required to jointly pass the resolution copy of which should be sent to us. In such case, it will be compulsory to obtain our approval before replacement.
- In case of "Difference of Opinion [if any]" among the Board members, our decision will be final and binding to everyone. "

Process of submission of Research Paper

The Area or field of specialization may or may not be of any category as mentioned in 'Scope of Journal' menu of the GlobalJournals.org website. There are 37 Research Journal categorized with Six parental Journals GJCST, GJMR, GJRE, GJMBR, GJSFR, GJHSS. For Authors should prefer the mentioned categories. There are three widely used systems UDC, DDC and LCC. The details are available as 'Knowledge Abstract' at Home page. The major advantage of this coding is that, the research work will be exposed to and shared with all over the world as we are being abstracted and indexed worldwide.

The paper should be in proper format. The format can be downloaded from first page of 'Author Guideline' Menu. The Author is expected to follow the general rules as mentioned in this menu. The paper should be written in MS-Word Format (*.DOC,*.DOCX).

The Author can submit the paper either online or offline. The authors should prefer online submission.Online Submission: There are three ways to submit your paper:

(A) (I) First, register yourself using top right corner of Home page then Login. If you are already registered, then login using your username and password.

(II) Choose corresponding Journal.

(III) Click 'Submit Manuscript'. Fill required information and Upload the paper.

(B) If you are using Internet Explorer, then Direct Submission through Homepage is also available.

(C) If these two are not convenient, and then email the paper directly to dean@globaljournals.org.

Offline Submission: Author can send the typed form of paper by Post. However, online submission should be preferred.

MANUSCRIPT STYLE INSTRUCTION **(Must be strictly followed)**

Page Size: 8.27" X 11'"

- Left Margin: 0.65
- Right Margin: 0.65
- Top Margin: 0.75
- Bottom Margin: 0.75
- Font type of all text should be Swis 721 Lt BT.
- Paper Title should be of Font Size 24 with one Column section.
- Author Name in Font Size of 11 with one column as of Title.
- Abstract Font size of 9 Bold, “Abstract” word in Italic Bold.
- Main Text: Font size 10 with justified two columns section
- Two Column with Equal Column with of 3.38 and Gaping of .2
- First Character must be three lines Drop capped.
- Paragraph before Spacing of 1 pt and After of 0 pt.
- Line Spacing of 1 pt
- Large Images must be in One Column
- Numbering of First Main Headings (Heading 1) must be in Roman Letters, Capital Letter, and Font Size of 10.
- Numbering of Second Main Headings (Heading 2) must be in Alphabets, Italic, and Font Size of 10.

You can use your own standard format also.
Author Guidelines:

1. General,

2. Ethical Guidelines,

3. Submission of Manuscripts,

4. Manuscript’s Category,

5. Structure and Format of Manuscript,

6. After Acceptance.

1. GENERAL

Before submitting your research paper, one is advised to go through the details as mentioned in following heads. It will be beneficial, while peer reviewer justify your paper for publication.

Scope

The Global Journals Inc. (US) welcome the submission of original paper, review paper, survey article relevant to the all the streams of Philosophy and knowledge. The Global Journals Inc. (US) is parental platform for Global Journal of Computer Science and Technology, Researches in Engineering, Medical Research, Science Frontier Research, Human Social Science, Management, and Business organization. The choice of specific field can be done otherwise as following in Abstracting and Indexing Page on this Website. As the all Global

Journals Inc. (US) are being abstracted and indexed (in process) by most of the reputed organizations. Topics of only narrow interest will not be accepted unless they have wider potential or consequences.

2. ETHICAL GUIDELINES

Authors should follow the ethical guidelines as mentioned below for publication of research paper and research activities.

Papers are accepted on strict understanding that the material in whole or in part has not been, nor is being, considered for publication elsewhere. If the paper once accepted by Global Journals Inc. (US) and Editorial Board, will become the copyright of the Global Journals Inc. (US).

Authorship: The authors and coauthors should have active contribution to conception design, analysis and interpretation of findings. They should critically review the contents and drafting of the paper. All should approve the final version of the paper before submission

The Global Journals Inc. (US) follows the definition of authorship set up by the Global Academy of Research and Development. According to the Global Academy of R&D authorship, criteria must be based on:

1) Substantial contributions to conception and acquisition of data, analysis and interpretation of the findings.

2) Drafting the paper and revising it critically regarding important academic content.

3) Final approval of the version of the paper to be published.

All authors should have been credited according to their appropriate contribution in research activity and preparing paper. Contributors who do not match the criteria as authors may be mentioned under Acknowledgement.

Acknowledgements: Contributors to the research other than authors credited should be mentioned under acknowledgement. The specifications of the source of funding for the research if appropriate can be included. Suppliers of resources may be mentioned along with address.

Appeal of Decision: The Editorial Board's decision on publication of the paper is final and cannot be appealed elsewhere.

Permissions: It is the author's responsibility to have prior permission if all or parts of earlier published illustrations are used in this paper.

Please mention proper reference and appropriate acknowledgements wherever expected.

If all or parts of previously published illustrations are used, permission must be taken from the copyright holder concerned. It is the author's responsibility to take these in writing.

Approval for reproduction/modification of any information (including figures and tables) published elsewhere must be obtained by the authors/copyright holders before submission of the manuscript. Contributors (Authors) are responsible for any copyright fee involved.

3. SUBMISSION OF MANUSCRIPTS

Manuscripts should be uploaded via this online submission page. The online submission is most efficient method for submission of papers, as it enables rapid distribution of manuscripts and consequently speeds up the review procedure. It also enables authors to know the status of their own manuscripts by emailing us. Complete instructions for submitting a paper is available below.

Manuscript submission is a systematic procedure and little preparation is required beyond having all parts of your manuscript in a given format and a computer with an Internet connection and a Web browser. Full help and instructions are provided on-screen. As an author, you will be prompted for login and manuscript details as Field of Paper and then to upload your manuscript file(s) according to the instructions.

To avoid postal delays, all transaction is preferred by e-mail. A finished manuscript submission is confirmed by e-mail immediately and your paper enters the editorial process with no postal delays. When a conclusion is made about the publication of your paper by our Editorial Board, revisions can be submitted online with the same procedure, with an occasion to view and respond to all comments.

Complete support for both authors and co-author is provided.

4. MANUSCRIPT'S CATEGORY

Based on potential and nature, the manuscript can be categorized under the following heads:

Original research paper: Such papers are reports of high-level significant original research work.

Review papers: These are concise, significant but helpful and decisive topics for young researchers.

Research articles: These are handled with small investigation and applications

Research letters: The letters are small and concise comments on previously published matters.

5.STRUCTURE AND FORMAT OF MANUSCRIPT

The recommended size of original research paper is less than seven thousand words, review papers fewer than seven thousands words also.Preparation of research paper or how to write research paper, are major hurdle, while writing manuscript. The research articles and research letters should be fewer than three thousand words, the structure original research paper; sometime review paper should be as follows:

Papers: These are reports of significant research (typically less than 7000 words equivalent, including tables, figures, references), and comprise:

(a)Title should be relevant and commensurate with the theme of the paper.

(b) A brief Summary, "Abstract" (less than 150 words) containing the major results and conclusions.

(c) Up to ten keywords, that precisely identifies the paper's subject, purpose, and focus.

(d) An Introduction, giving necessary background excluding subheadings; objectives must be clearly declared.

(e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition; sources of information must be given and numerical methods must be specified by reference, unless non-standard.

(f) Results should be presented concisely, by well-designed tables and/or figures; the same data may not be used in both; suitable statistical data should be given. All data must be obtained with attention to numerical detail in the planning stage. As reproduced design has been recognized to be important to experiments for a considerable time, the Editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned un-refereed;

(g) Discussion should cover the implications and consequences, not just recapitulating the results; conclusions should be summarizing.

(h) Brief Acknowledgements.

(i) References in the proper form.

Authors should very cautiously consider the preparation of papers to ensure that they communicate efficiently. Papers are much more likely to be accepted, if they are cautiously designed and laid out, contain few or no errors, are summarizing, and be conventional to the approach and instructions. They will in addition, be published with much less delays than those that require much technical and editorial correction.

The Editorial Board reserves the right to make literary corrections and to make suggestions to improve briefness.

It is vital, that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

Format

Language: The language of publication is UK English. Authors, for whom English is a second language, must have their manuscript efficiently edited by an English-speaking person before submission to make sure that, the English is of high excellence. It is preferable, that manuscripts should be professionally edited.

Standard Usage, Abbreviations, and Units: Spelling and hyphenation should be conventional to The Concise Oxford English Dictionary. Statistics and measurements should at all times be given in figures, e.g. 16 min, except for when the number begins a sentence. When the number does not refer to a unit of measurement it should be spelt in full unless, it is 160 or greater.

Abbreviations supposed to be used carefully. The abbreviated name or expression is supposed to be cited in full at first usage, followed by the conventional abbreviation in parentheses.

Metric SI units are supposed to generally be used excluding where they conflict with current practice or are confusing. For illustration, 1.4 l rather than 1.4 × 10-3 m3, or 4 mm somewhat than 4 × 10-3 m. Chemical formula and solutions must identify the form used, e.g. anhydrous or hydrated, and the concentration must be in clearly defined units. Common species names should be followed by underlines at the first mention. For following use the generic name should be constricted to a single letter, if it is clear.

Structure

All manuscripts submitted to Global Journals Inc. (US), ought to include:

Title: The title page must carry an instructive title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) wherever the work was carried out. The full postal address in addition with the e-mail address of related author must be given. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining and indexing.

Abstract, used in Original Papers and Reviews:

Optimizing Abstract for Search Engines

Many researchers searching for information online will use search engines such as Google, Yahoo or similar. By optimizing your paper for search engines, you will amplify the chance of someone finding it. This in turn will make it more likely to be viewed and/or cited in a further work. Global Journals Inc. (US) have compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Key Words

A major linchpin in research work for the writing research paper is the keyword search, which one will employ to find both library and Internet resources.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy and planning a list of possible keywords and phrases to try.

Search engines for most searches, use Boolean searching, which is somewhat different from Internet searches. The Boolean search uses "operators," words (and, or, not, and near) that enable you to expand or narrow your affords. Tips for research paper while preparing research paper are very helpful guideline of research paper.

Choice of key words is first tool of tips to write research paper. Research paper writing is an art.A few tips for deciding as strategically as possible about keyword search:

- One should start brainstorming lists of possible keywords before even begin searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in research paper?" Then consider synonyms for the important words.
- It may take the discovery of only one relevant paper to let steer in the right keyword direction because in most databases, the keywords under which a research paper is abstracted are listed with the paper.
- One should avoid outdated words.

Keywords are the key that opens a door to research work sources. Keyword searching is an art in which researcher's skills are bound to improve with experience and time.

Numerical Methods: Numerical methods used should be clear and, where appropriate, supported by references.

Acknowledgements: Please make these as concise as possible.

References

References follow the Harvard scheme of referencing. References in the text should cite the authors' names followed by the time of their publication, unless there are three or more authors when simply the first author's name is quoted followed by et al. unpublished work has to only be cited where necessary, and only in the text. Copies of references in press in other journals have to be supplied with submitted typescripts. It is necessary that all citations and references be carefully checked before submission, as mistakes or omissions will cause delays.

References to information on the World Wide Web can be given, but only if the information is available without charge to readers on an official site. Wikipedia and Similar websites are not allowed where anyone can change the information. Authors will be asked to make available electronic copies of the cited information for inclusion on the Global Journals Inc. (US) homepage at the judgment of the Editorial Board.

The Editorial Board and Global Journals Inc. (US) recommend that, citation of online-published papers and other material should be done via a DOI (digital object identifier). If an author cites anything, which does not have a DOI, they run the risk of the cited material not being noticeable.

The Editorial Board and Global Journals Inc. (US) recommend the use of a tool such as Reference Manager for reference management and formatting.

Tables, Figures and Figure Legends

Tables: Tables should be few in number, cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g. Table 4, a self-explanatory caption and be on a separate sheet. Vertical lines should not be used.

Figures: Figures are supposed to be submitted as separate files. Always take in a citation in the text for each figure using Arabic numbers, e.g. Fig. 4. Artwork must be submitted online in electronic form by e-mailing them.

Preparation of Electronic Figures for Publication

Even though low quality images are sufficient for review purposes, print publication requires high quality images to prevent the final product being blurred or fuzzy. Submit (or e-mail) EPS (line art) or TIFF (halftone/photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings) in relation to the imitation size. Please give the data for figures in black and white or submit a Color Work Agreement Form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution (at final image size) ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs) : >350 dpi; figures containing both halftone and line images: >650 dpi.

Color Charges: It is the rule of the Global Journals Inc. (US) for authors to pay the full cost for the reproduction of their color artwork. Hence, please note that, if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a color work agreement form before your paper can be published.

Figure Legends: Self-explanatory legends of all figures should be incorporated separately under the heading 'Legends to Figures'. In the full-text online edition of the journal, figure legends may possibly be truncated in abbreviated links to the full screen version. Therefore, the first 100 characters of any legend should notify the reader, about the key aspects of the figure.

6. AFTER ACCEPTANCE

Upon approval of a paper for publication, the manuscript will be forwarded to the dean, who is responsible for the publication of the Global Journals Inc. (US).

6.1 Proof Corrections

The corresponding author will receive an e-mail alert containing a link to a website or will be attached. A working e-mail address must therefore be provided for the related author.

Acrobat Reader will be required in order to read this file. This software can be downloaded

(Free of charge) from the following website:

www.adobe.com/products/acrobat/readstep2.html. This will facilitate the file to be opened, read on screen, and printed out in order for any corrections to be added. Further instructions will be sent with the proof.

Proofs must be returned to the dean at dean@globaljournals.org within three days of receipt.

As changes to proofs are costly, we inquire that you only correct typesetting errors. All illustrations are retained by the publisher. Please note that the authors are responsible for all statements made in their work, including changes made by the copy editor.

6.2 Early View of Global Journals Inc. (US) (Publication Prior to Print)

The Global Journals Inc. (US) are enclosed by our publishing's Early View service. Early View articles are complete full-text articles sent in advance of their publication. Early View articles are absolute and final. They have been completely reviewed, revised and edited for publication, and the authors' final corrections have been incorporated. Because they are in final form, no changes can be made after sending them. The nature of Early View articles means that they do not yet have volume, issue or page numbers, so Early View articles cannot be cited in the conventional way.

6.3 Author Services

Online production tracking is available for your article through Author Services. Author Services enables authors to track their article - once it has been accepted - through the production process to publication online and in print. Authors can check the status of their articles online and choose to receive automated e-mails at key stages of production. The authors will receive an e-mail with a unique link that enables them to register and have their article automatically added to the system. Please ensure that a complete e-mail address is provided when submitting the manuscript.

6.4 Author Material Archive Policy

Please note that if not specifically requested, publisher will dispose off hardcopy & electronic information submitted, after the two months of publication. If you require the return of any information submitted, please inform the Editorial Board or dean as soon as possible.

6.5 Offprint and Extra Copies

A PDF offprint of the online-published article will be provided free of charge to the related author, and may be distributed according to the Publisher's terms and conditions. Additional paper offprint may be ordered by emailing us at: editor@globaljournals.org .

You must strictly follow above Author Guidelines before submitting your paper or else we will not at all be responsible for any corrections in future in any of the way.

Before start writing a good quality Computer Science Research Paper, let us first understand what is Computer Science Research Paper? So, Computer Science Research Paper is the paper which is written by professionals or scientists who are associated to Computer Science and Information Technology, or doing research study in these areas. If you are novel to this field then you can consult about this field from your supervisor or guide.

TECHNIQUES FOR WRITING A GOOD QUALITY RESEARCH PAPER:

1. Choosing the topic: In most cases, the topic is searched by the interest of author but it can be also suggested by the guides. You can have several topics and then you can judge that in which topic or subject you are finding yourself most comfortable. This can be done by asking several questions to yourself, like Will I be able to carry our search in this area? Will I find all necessary recourses to accomplish the search? Will I be able to find all information in this field area? If the answer of these types of questions will be "Yes" then you can choose that topic. In most of the cases, you may have to conduct the surveys and have to visit several places because this field is related to Computer Science and Information Technology. Also, you may have to do a lot of work to find all rise and falls regarding the various data of that subject. Sometimes, detailed information plays a vital role, instead of short information.

2. Evaluators are human: First thing to remember that evaluators are also human being. They are not only meant for rejecting a paper. They are here to evaluate your paper. So, present your Best.

3. Think Like Evaluators: If you are in a confusion or getting demotivated that your paper will be accepted by evaluators or not, then think and try to evaluate your paper like an Evaluator. Try to understand that what an evaluator wants in your research paper and automatically you will have your answer.

4. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

5. Ask your Guides: If you are having any difficulty in your research, then do not hesitate to share your difficulty to your guide (if you have any). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work then ask the supervisor to help you with the alternative. He might also provide you the list of essential readings.

6. Use of computer is recommended: As you are doing research in the field of Computer Science, then this point is quite obvious.

7. Use right software: Always use good quality software packages. If you are not capable to judge good software then you can lose quality of your paper unknowingly. There are various software programs available to help you, which you can get through Internet.

8. Use the Internet for help: An excellent start for your paper can be by using the Google. It is an excellent search engine, where you can have your doubts resolved. You may also read some answers for the frequent question how to write my research paper or find model research paper. From the internet library you can download books. If you have all required books make important reading selecting and analyzing the specified information. Then put together research paper sketch out.

9. Use and get big pictures: Always use encyclopedias, Wikipedia to get pictures so that you can go into the depth.

10. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right! It is a good habit, which helps to not to lose your continuity. You should always use bookmarks while searching on Internet also, which will make your search easier.

11. Revise what you wrote: When you write anything, always read it, summarize it and then finalize it.

12. Make all efforts: Make all efforts to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in introduction, that what is the need of a particular research paper. Polish your work by good skill of writing and always give an evaluator, what he wants.

13. Have backups: When you are going to do any important thing like making research paper, you should always have backup copies of it either in your computer or in paper. This will help you to not to lose any of your important.

14. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several and unnecessary diagrams will degrade the quality of your paper by creating "hotchpotch." So always, try to make and include those diagrams, which are made by your own to improve readability and understandability of your paper.

15. Use of direct quotes: When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.

16. Use proper verb tense: Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

17. Never use online paper: If you are getting any paper on Internet, then never use it as your research paper because it might be possible that evaluator has already seen it or maybe it is outdated version.

18. Pick a good study spot: To do your research studies always try to pick a spot, which is quiet. Every spot is not for studies. Spot that suits you choose it and proceed further.

19. Know what you know: Always try to know, what you know by making objectives. Else, you will be confused and cannot achieve your target.

20. Use good quality grammar: Always use a good quality grammar and use words that will throw positive impact on evaluator. Use of good quality grammar does not mean to use tough words, that for each word the evaluator has to go through dictionary. Do not start sentence with a conjunction. Do not fragment sentences. Eliminate one-word sentences. Ignore passive voice. Do not ever use a big word when a diminutive one would suffice. Verbs have to be in agreement with their subjects. Prepositions are not expressions to finish sentences with. It is incorrect to ever divide an infinitive. Avoid clichés like the disease. Also, always shun irritating alliteration. Use language that is simple and straight forward. put together a neat summary.

21. Arrangement of information: Each section of the main body should start with an opening sentence and there should be a changeover at the end of the section. Give only valid and powerful arguments to your topic. You may also maintain your arguments with records.

22. Never start in last minute: Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

23. Multitasking in research is not good: Doing several things at the same time proves bad habit in case of research activity. Research is an area, where everything has a particular time slot. Divide your research work in parts and do particular part in particular time slot.

24. Never copy others' work: Never copy others' work and give it your name because if evaluator has seen it anywhere you will be in trouble.

25. Take proper rest and food: No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

26. Go for seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.

27. Refresh your mind after intervals: Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

28. Make colleagues: Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

30. Think and then print: When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

31. Adding unnecessary information: Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

32. Never oversimplify everything: To add material in your research paper, never go for oversimplification. This will definitely irritate the evaluator. Be more or less specific. Also too, by no means, ever use rhythmic redundancies. Contractions aren't essential and shouldn't be there used. Comparisons are as terrible as clichés. Give up ampersands and abbreviations, and so on. Remove commas, that are, not necessary. Parenthetical words however should be together with this in commas. Understatement is all the time the complete best way to put onward earth-shaking thoughts. Give a detailed literary review.

33. Report concluded results: Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

34. After conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print to the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects in your research.

Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
- Please note the criterion for grading the final paper by peer-reviewers.

Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of prior workings.

Writing a research paper is not an easy job no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record keeping are the only means to make straightforward the progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear

· Adhere to recommended page limits

Mistakes to evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

· Use standard writing style including articles ("a", "the," etc.)

· Keep on paying attention on the research topic of the paper

· Use paragraphs to split each significant point (excluding for the abstract)

· Align the primary line of each section

· Present your points in sound order

· Use present tense to report well accepted

· Use past tense to describe specific results

· Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives

· Shun use of extra pictures - include only those figures essential to presenting results

Title Page:

Choose a revealing title. It should be short. It should not have non-standard acronyms or abbreviations. It should not exceed two printed lines. It should include the name(s) and address (es) of all authors.

Abstract:

The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript--must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing references at this point.

An abstract is a brief distinct paragraph summary of finished work or work in development. In a minute or less a reviewer can be taught the foundation behind the study, common approach to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Yet, use comprehensive sentences and do not let go readability for briefness. You can maintain it succinct by phrasing sentences so that they provide more than lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study, with the subsequent elements in any summary. Try to maintain the initial two items to no more than one ruling each.

- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
- Exact spelling, clearness of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else

Introduction:

The **Introduction** should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable to comprehend and calculate the purpose of your study without having to submit to other works. The basis for the study should be offered. Give most important references but shun difficult to make a comprehensive appraisal of the topic. In the introduction, describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will have no attention in your result. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here. Following approach can create a valuable beginning:

- Explain the value (significance) of the study
- Shield the model - why did you employ this particular system or method? What is its compensation? You strength remark on its appropriateness from a abstract point of vision as well as point out sensible reasons for using it.
- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

Approach:

- Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done.
- Sort out your thoughts; manufacture one key point with every section. If you make the four points listed above, you will need a least of four paragraphs.

- Present surroundings information only as desirable in order hold up a situation. The reviewer does not desire to read the whole thing you know about a topic.
- Shape the theory/purpose specifically - do not take a broad view.
- As always, give awareness to spelling, simplicity and correctness of sentences and phrases.

Procedures (Methods and Materials):

This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text all particular resources and broad procedures, so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step by step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

Methods:

- Report the method (not particulars of each process that engaged the same methodology)
- Describe the method entirely
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

Approach:

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

What to keep away from

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently.You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.

Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report
- If you desire, you may place your figures and tables properly within the text of your results part.

Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
- Despite of position, each figure must be numbered one after the other and complete with subtitle
- In spite of position, each table must be titled, numbered one after the other and complete with heading
- All figure and table must be adequately complete that it could situate on its own, divide from text

Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

- Make a decision if each premise is supported, discarded, or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."
- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
- Submit to generally acknowledged facts and main beliefs in present tense.

Please carefully note down following rules and regulation before submitting your Research Paper to Global Journals Inc. (US):

Segment Draft and Final Research Paper: You have to strictly follow the template of research paper. If it is not done your paper may get rejected.

- The **major constraint** is that you must independently make all content, tables, graphs, and facts that are offered in the paper. You must write each part of the paper wholly on your own. The Peer-reviewers need to identify your own perceptive of the concepts in your own terms. NEVER extract straight from any foundation, and never rephrase someone else's analysis.
- Do not give permission to anyone else to "PROOFREAD" your manuscript.
- Methods to avoid Plagiarism is applied by us on every paper, if found guilty, you will be blacklisted by all of our collaborated research groups, your institution will be informed for this and strict legal actions will be taken immediately.)
- To guard yourself and others from possible illegal use please do not permit anyone right to use to your paper and files.

Criterion for Grading a Research Paper (Compilation) by Global Journals Inc. (US)

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals Inc. (US).

Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

Index

save our planet

Global Journal of Management and Business Research

Visit us on the Web at www.GlobalJournals.org | www.JournalofBusiness.Org
or email us at helpdesk@globaljournals.org

ISSN 9755853