The Impact of Indirect Credit Facilities on the Net Profits of Jordanian Commercial Banks (2005-2014)

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Abstract

We explore the impact of documentary credits and banks guarantees on the banks net profit from 2005 to 2014.We combine secondary sources which were represented in the reports and bulletins issued by the Central Bank of Jordan, the Jordanian association of banks. We found that documentary credits are significantly and positively affect the net profit in commercial banks, which shows the growing need for documentary credits as an easy and available means that greatly contributes to the speed of inter-trade exchange between Jordan and other countries in the world. On the other hand, we found that bank guarantees affect the net profit in commercial banks in a direct noticeable way, the reason for this is due to the increasing need to bank guarantees issuance, especially in: either the first is what is required by government bids or the private sector, while the second is related to foreign trade.

Keywords: Documentary credits, Bank guarantees, Net profit

1. Introduction

Banks play an important role in supporting national economy; it can be as an intermediary between surplus and deficit units (Salehi, 2008).It is regarded as an investment mechanism that might be employed as a key saving tool for individuals and companies, since it offers services for all clients, diversified investment opportunities, for that reason, banks considered the main nerve for all economic sectors(Peschka,2011).

In recent decades, the banking services of commercial banks have developed, as they have developed beyond their classical purpose that includes: accepting deposits and making loans to generate new jobs that were called non-classical banks jobs (Moe, 2015). The significance of the classical jobs of commercial banks have been increased, due to the relative interests they achieve for banks by increasing the return for commercial banks (Bindseil, 2004).

The most important aspect of commercial banks' is the credit facilities, it represent a one-third of the worldwide commercial bank assets volume. However a modern type of facilities lately named indirect credit facilities or the so-called off-budget items has enlarged significance in them due to their advantages for both customers of the bank and the commercial bank (John Hawkins & Dubravko Mihaljek, 2000). A large literature of studies related to this area is proposed (Hanifa et al, 2015; Dhal, 2003)

Banking sector plays a significant role in all countries economies, especially in Jordan economy. It represents an essential sector in the economy. According to that, different studies and researches concentrate and investigate the banking positions through the time and yearly as well. We try in this study to analyze some of the factors that might be useful in determining the financial performance for Jordanian banking sector during 2005– 2014. Our study represents continuity for many previous studies about the banking sector performance in Jordan.

Broadcasting debts approaches with its possess risks; funding risk, interest risk and foreign exchange risk. A serious appraisal of banks trend in the precedent has recommended that credit risks related with asset portfolio effects the majority of banks to be concerned (Basel Committee on Banking Supervision, 2006). The Committee moreover prepared argued that credit risks are no more in completed to debts, but expanded to other financial mechanisms and other dealings with other banks. Unsuccessful banks are no more censured for deprived transactions; non-performing loans are always the main reason when banks fail and that to some level can as well be connected to macroeconomic troubles in an economy. The capability of a bank to create profit and settle in operation relies on how it can create adequate room to evade risks, but the majority prominently, be talented to respond in a positive way to loses from non-performing loans (Bobakovia, 2003).

Documentary Credit can be defined as a mechanism of payment in which a bank obligates itself, to be as a client (the importer), to pay to the exporter during a permanent time, the price determined for goods and services aligned with the exporter delivery of earlier settled and submissive documents that prove the value and delivery of the goods and services. However, it is employed once the business deal quantities are extremely high or once one party has worries about the morals or solvency of the other. Documentary credit grants safety for the two parties the exporter and the importer.

The seller who is the exporter in this case takes delivery of an progress guarantee of fees ahead donation of listed documents in the contract, and the importer who is a buyer is guaranteed that the bank will not give the money if not the seller has presented all the documents severely obeying with the documentary credit. The credit praiseworthiness of the buyer is alternated by the warranty of a bank.

A bank guarantee can be defined as when the institution that lends money undertakes to wrap a failure if a borrower failures to disburse on a loan. The assurance allows a corporation purchase what it otherwise could not, serving business enlargement and encouraging capitalist action. However, there are diverse types of bank guarantees, including direct and indirect kinds. Bank classically employs direct type in foreign or domestic business, initiated directly to the recipient. Direct kinds be relevant once a bank's security does not depend on the continuation, legality, and enforceability of the major commitment.

Even though there is widespread verification on the association among the advancement of financial variables and the factual economy, we immobile be short of straight confirmation on the picky instruments through which financial shocks broadcast to the factual economy. This study aimed to declare the consequence role of documentary credits and guarantees in Jordanian commercial banks, and their impact on the profitability of these banks. The study also aimed to clarify the definition of documentary credits and guarantees in order to explain the discriminatory characteristics for both of them. Finally, the study aimed to come up with a set of recommendations based on Study results regarding documentary credits and guarantees.

The population of the study consists of Jordanian commercial banks in Jordan that licensed by the central bank of Jordan. While the sample of the banks includes (Cairo Amman bank, Jordan Kuwait bank, housing bank, Jordan national bank, bank of Jordan).The period of this study extended from 2005 to 2014, for ten years. It covered the Jordanian commercial banks licensed by the central bank of Jordan. Only the net profit was taken as representative of the profitability. The variables of the study are net profit as a dependent variable, and documentary credit, guarantee credit as independent variables.

2. Literature review

There are many risks connected with the activities of the banking sector of every economy. The majority widespread ones are stated as credit risk, interest rate risk, market risk, liquidity risk, and earning risk. Banks still, give more awareness to credit risk, and market risks. Because granting debts is one of the major resources through which banks create revenue. However, the mainly banks have 50-70% of their value in debts so credit risk is extremely significant matter to them. The strength of the banking sector in any economy is considered via how banks are capable to efficiently supervise credit risks. Anyway, Credit risk is also tied to how good or bad the assets of a bank are. How good or bad a bank's assets are dependent on non-current receivables and its loan profitability as well (Baral, 2005).

Osama Abdul-Rahman's (2015) concluded that there are two groups of external influences that affect banking services: competition between banks and financial institutions, government regulations and laws related to banking activity, the efforts of bank branches and representative offices that concern with development and innovation, the level of technological development, and internal influences: the organizational and administrative climate of the bank, the efforts of research and development in the bank, efforts to stimulate innovation in the bank. Finally, the study found that, all the previous factors affect the development of the banking service and meet the renewed needs of banking customers through the provision of new and developed banking services.

Fayrouz (2016) studied the Impact of Extra-Budgetary Items on the Profitability of Jordanian commercial banks. The fundamental aim of this study is to identify the impact of extra-budgetary items on a number of profitability variables in Jordanian commercial banks. A statistical analysis was used to study this impact, the results showed the non-existence of a relationship between the off-balance sheet items and the profitability of commercial banks during the period of the study.

Abu Musa (2016) investigated the effect of banking service quality on profitability and customer satisfaction in Jordanian banks, a comparative study between the Housing Bank and the Islamic Bank of Jordan." This study aimed to identify the level of quality of banking service actually provided by the Housing Bank and the Islamic Bank. On the other hand, this study tried to identify the level of customer satisfaction and the degree of their loyalty to their banks, as this study aimed to link the relationship between the quality of the provided banking service and the increase in profitability in which it represented by the rate of return on investment.

The conclusion of this study showed that there is no relationship between service quality and customer satisfaction, the quality of the actually services provided and profitability, customer satisfaction and profitability. Naji (2017) studied the Measure of the commercial banking services quality Obtained in Jordan as a field study. He concluded that, the quality level of banking services provided by commercial banks is approximately low compared to the level of quality that the customers expect.

However, he recommended the necessity for the bank management to adopt programs in order to develop and improve the quality level of what the services provide, especially with the increase in competition in the banking market, and the emergence of service quality as a competitive advantage in the market.

A study (Angbazo, 2017) employed the annual reports of a US banks with different sizes to test the hypothesis that adopt the idea that, banks bear loan risks more than other banks, which also bear a higher interest rate risk that increase the interest margin. The evidence was consistent with the assumption that interest rate margin is reflected by default risk and interest rate risk. Consequently, there is an evidence that the net interest margin is positively correlated with capital and mandatory reserves that do not contain interest rate and management quality, and is negatively linked with liquidity and there are varying effects of both default risk and interest rate risk depending on the size of the bank. For example, the risk of non-payment is positively linked to the interest rate margin in money center banks, while there is no significant correlation between interest rate risk and interest rate margin in these banks, and so for the banks of different sizes, this discrepancy in the impact of interest rate risk could explain the great interest by large banks in short-term assets, and the ease of hedging against interest rate risk by using futures contracts and other off-balance sheet items.

On the other hand, the study discussed in the second section interest rate sensitivity, as it tests the hypothesis that the change in interest rate and portfolio risk In-budget assets are not related to off-balance sheet items. By testing the hypothesis, the zero effect of off-balance sheet items on the net interest margin was negated. This evidence is consistent with the fact that, off-balance sheet items improve profitability since they allow the bank to engage in activities that are impossible for it if it relies on capital financing or deposits. Lastly, the data proved a significant relationship between interest rate risk, liquidity risk and off-balance sheet items.

Assessing the performance of Islamic banks and some evidence from the Middle East. The study examined the determinants of Islamic banks’ performance across eight Middle Eastern countries between 1993 and 1998. A variety of internal and external banking characteristics were used to predict profitability and efficiency. In general, his analysis of determinants of Islamic bank profitability confirmed the previous findings. Controlling for macroeconomic environment, financial market structure, and taxation, the results indicated that high leverage and large loans to asset ratios led to higher profitability. The results also indicated that foreign-owned banks are more profitable than their domestic counterparts. Everything remaining equal, there was evidence that implicit and explicit taxes affect the bank performance measures negatively. Furthermore, favorable macroeconomic conditions impact performance measures positively. The results also showed that stock markets are complementary to bank financing (Bashir, 2011).

Hosna, et al. (2009) studied banking sector in Sweden, for the 2000 to 2008 financial year, discovered a positive correlation among credit risk and profitability. Kithinji (2010), carried out a research to evaluate the effect of credit risk on profitability employing banking sector in Kanya. The outcomes revealed in a disinterested effect from credit risk on profitability. Four years later, another researcher in Kenya, Akonga'a (2014), performed a research employing data collected in the period extended from 2008 to 2013 on forty four commercial banks in Kenya to discover the impact of financial risk administration on the performance of banking sector in the country. The study employed return on assets (ROA) as a determination of financial performance and non-performing loans as a assessment of financial risk. The outcomes discovered that financial risk had considerable effect on the financial performance of banking sector.

Consequently, Abiola & Olausi (2014), as well carried out a simulation study in Nigeria to assess the effect of credit risk on the performance of banks in the country. They sample contained 7 commercial banks, employing their 2005 to 2011 financial data for the research. They picked return on equity and return on assets as performance, non-performing loans and capital adequacy ratio as credit risk pointers. The outcomes revealed the same as the study initiated in Kenya; credit risk had a considerable effect on profitability of commercial banks.

3. Problem of the study

The process of developing commercial banks operations is one of the key points in order to reach higher levels of risk-return trade off at an acceptable level of risk(Thorne & Charlotte du Toit, 2009).One of the most important things that have been added to the operations of the banking system is the extra-budgetary items that included documentary credits (Richard Allen and Dimitar Radev, 2010). This study tries to identify the impact of the documentary credits and guarantees on the commercial banks profitability. The study problem can be summarized as the following:

What is the impact of documentary credits on the net profit of commercial banks?
What is the impact of bank guarantees on the net profit of commercial banks?

4. Importance of the study

The importance of this study can be shown from two main points: the significance of both documentary credits and guarantees, and the consequence of commercial banks. As a result, the importance of the study can be clarified through the following points:

1- The importance of the role that commercial banks play in the local economy
2- Commercial banks search for alternative investments to those they have
3- Return obtained from documentary credits and guarantees
4-The importance of letters of credit and guarantees for commercial bank clients

5. Data sources and methodology

Secondary sources which were represented in the reports and bulletins issued by the Central Bank, the Jordanian Association of Banks and the Amman stock exchange, university theses, and refereed scientific research published to serve the completion of the study**.**

We checked regression equations that use two predictor variables. The notation for a raw score regression equation to predict the score on a quantitative Y outcome variable from scores on two X variables is as follows:

$$\boldsymbol{Y = b_0 + b_1 X_1 + b_2 X_2}$$

A regression analysis that consists of more than one interpreter variable can present answer to numerous diverse types of questions. Firstly, we be able to do an omnibus test to appraise how well scores on Y can be forecasted when we employ the entire set of forecaster variables $X_1 and X_2$). Secondly, as a summarize to a significant generally regression analysis, we know how toappraise how much variance is calculatedindividually by each individual forecaster variable when other forecaster variables are statistically restricted, that is what percentage of the variance in Y is individuallyexpected by X_1 when X_2 is statistically restricted).We be capable ofcreatejudgments to assess whether the X_1 is further or fewerrobustly predictive of Y than the X_2 predictor variable; however, such comparisons must be made with caution, since the sizes of regression slope coefficients can be artifactually powered by diversities in the range, reliability, distribution shape, and other features of the X_1 and X_2 predictors (Montgomery, Peck, and Vinning, 2012).

A multiple regression that consists of X_1 and X_2as forecasters employs similar methods to statistically control for other variables when assessing the individual contribution of each predictor variable. A regression analysis that employs X_1 and X_2 as forecasters of Y presents information about how X_1 is associated to Yeven asscheming for X_2 and, on the contrary, how X2 is associated to Y even asscheming for X_1.

Numerous conclusions are probable when two variables are employed as forecasters in a multiple regression. The overall regression analysis can either be significant or not significant, and each forecaster variable may or may not formulate a statistically significant unique contribution. The appraisal of the donation of an individual forecaster variable scheming for another variable can guide to the termination that a forecaster affords valuable information even when another variable is statistically restricted or, on the contrary, that a forecaster turns out to be non-significant when another variable is statistically restricted.

In other words, when we comprise two predictor variables in a regression, we occasionally pick single or further of the forecaster variables since we assume that they could be cause no less than valuable forecasters of Y. Anyway, sometimes antagonist forecaster variables are contained in a regression for the reason that they are associatedwith, perplexed with a principal dependent variable; in some cases, researchers wish to display that an antagonist variable totally report for the noticeable correlation among the principal variable of significance and Y even as in other cases,researchers wish to prove that antagonist variables do not totally report for anycorrelation of the principal forecaster variable with the $Y as\ an$ outcome variable. Every so often, when we choose X_2as an unchanged variable can be employed to partial out resources of error measure in another X_1 forecaster variable.The variable X_2might also be incorporated as a forecaster since the researcher expects that the X_2variable might repress the association ofanother X_1as a forecaster variable with the Youtcome variable.

The assumptions of the study are as the following:

1- The first hypothesis: There is no statistically significant impact at the level ($\alpha \leq 0.05$) for documentary credits on net profit in Jordanian commercial banks in the period (2005-2014).
2- The second hypothesis: There is no statistically significant impact at the ($\alpha \leq 0.05$) level of guarantees on the net profit in Jordanian commercial banks in the period (2005-2014).)

We employed SPSS and Eviews software to analyze the gathered data, we found the averages, standard deviations related to the variables (documentary credit, guarantee credit, and net profit), then we tested the hypotheses according to the time series data related to the variables of the study.

6. The impact of documentary credits and guarantees on net profit in commercial banks:

6.1. Results and conclusion

This section includes a detailed presentation of the statistical analysis of the study results, which aims to identify the impact of documentary credits and guarantees on the net profit in commercial banks in the period (2005-2014), and these results were presented based on the assumptions of the study.
6.1.1. Mean and standard deviation

Table 1: Mean and Standard Deviation

Variable	Mean	Standard Deviation
Documentary	167080035.94	0.223
Guarantee	206141313.36	6.03
Net Profit	44974037.84	76.56

Table (1) showed that the arithmetic mean which is frequently used to identify the central position of the distribution of a group of datais equal to (206141313.36), (167080035.94) for the independent variables: guarantee, documentary respectively. In other words, all of the data set concentrates around this value. While the mean of net profit as a dependent variable is about 44974037.84. On the other hand, the correlation coefficient between documentary credits and guarantees on net profit can be shown in Table (2).

6.1.2. Correlation Coefficient

Table 2: Correlation Coefficient

Independent Variables	Net profit correlation	Statistical significance
Documentary Credits	0.807	0.000
Guarantees	0.826	0.000

Correlation declares the power of a association among two variables and is stated numerically by the correlation coefficient. The correlation coefficient's standards range stuck between0 and 1.0. A perfect positive correlation means that the correlation coefficient is precisely 1. This means that as one variable moves, either up or down, the other variable shifts in lockstep, in the similar track. A perfect negative correlation implies that two variables move in opposite directions, while a zero correlation means that, there isn't any linear association at all.
It is very clear according to this table, that the correlation coefficients between documentary credits and guarantees on net profit ranged between (0.807.826-0), which is a positive relationship, which indicates the existence of a positive correlation for each of the letters of credit and guarantees on the net profit.
Now we will test the first hypothesis of the study, which said that, there is no relationship between documentary credits and net profit in Jordanian commercial banks in the period (2005-2014) at the significance level of $\alpha \leq 0.05$).
To test this hypothesis, a simple linear regression analysis was used to reveal the impact of documentary credits on net profit.

Table 3: Simple Regression, impact of documentary credits on net profit

Independent Variable	t	Sig t	B	R	R seq	f	Sig f
Documentary Credit	9.47	0.00	0.115	0.807	0.65	89.6	0.00

Table (3) showed that the value of (f) is (89.686) with significance level (000.0), the value of (R) is (0.807), which represents the correlation coefficient of the overall model, and the value of squared R (0.65) represents the ratio interpretation of the independent variable on The dependent variable, there exist a relationship between documentary credits and net profit, Therefore we can reject the first hypothesis and accepts the alternative hypothesis to become as follows: There is an effect at the level of statistical significance ($\alpha \leq 0.05$) of documentary credits on net profit in Jordanian commercial banks in the period (2005-2014).

The second hypothesis of this study assumes that there is no relationship between the guarantees and the net profit in Jordanian commercial banks in the period (2005-2014 at the significance level of ($\alpha \leq 0.05$).

To test this hypothesis, a simple linear regression analysis was used to reveal the effect of guarantees on net profit, see Table (4).

Table 4: Simple Regression, impact of guarantee on net profit

Independent Variable	t	Sig t	B	R	R seq	f	Sig f
Guarantee	10.1	0.00	0.126	0.826	0.68	103	0.00

Table (4) showed that the value of (f) is (103.015) and in with significance level (000.0), the value of (R) is (0.826), which represents the correlation coefficient of the overall model, and the value of (squared R) (0.68) represents the ratio of interpretation of all independent variables on the dependent variable, which indicates the existence of a relationship between guarantees and net profit, and therefore we can reject the second null hypothesis of the study and accepts the alternative hypothesis to become as follows: There is a relationship at the level of statistical significance ($\alpha \leq 0.05$) between guarantees and net profit in Jordanian commercial banks in the period (2005-2014).
The study found out several results: documentary credits are significantly and positively affect the net profit in commercial banks, which shows the growing need for documentary credits as an easy and available means that greatly contributes to the speed of inter-trade exchange between Jordan and other countries in the world.
Bank guarantees affect the net profit in commercial banks in a direct noticeable way, the reason for this is due to the increasing need to bank guarantees issuance, especially in: either the first is what is required by government bids or the private sector, while the second is related to foreign trade.

7. Recommendations

Commercial banks could expand investment in documentary credits and bank guarantees due to the growth need for them in the public and private sectors and the huge revenues they generate for traditional banks. Commercial banks could take hedging strategy when investing in documentary credits and guarantees against the default risk due to the varieties of parties and banks, especially in documentary credits, and pay attention to guarantees to be requested from the customer, in order to avoid risks arising from default risk. Further studies that look at the long-term steadiness of banks which take on credit risk is thus recommended to facilitate providing banks an approaching on the trade-offs among profitability and long-term stability.

Banks should make decisions on the allocation of resources to asset agreements, in this case, a bank must take in consideration the level of risks to the assets, demonstrated as the general rate of its return and the price of the asset demonstrated as an interest income. In other words, bank assets are sited in comparatively autonomous financial markets. The prices of those assets are affected by the powers of supply and demand. In an ordinary banking surroundings ,where the approach of capital exchange in the long term fundamentally equilibriums out the stage of profitability of individual assets, and the association among the construction of assets and the subsequent profitability of a bank is fewer predetermined. Profitability is relying more on a bank's capability to reduce risk in asset actions and to guarantee a connection among assets and liabilities. The environment of the economy in which bank assets are sited in converting economic environment is dissimilar from that of a typical economies. The outcome of this is a comparatively a large variation in the price of collective asset collections. This implies that mainly in converting economies the formation of banking assets considerably affects the profitability of commercial banks.

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