THE IMPACT OF FINANCIAL DEVELOPMENT ON EXPORTS EVIDENCE FROM JORDAN

Dr. Ibrahim Khrais[1]

[1]Associate Professor, Department of Economics, Zarka University, Zarqa, Jordan

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ABSTRACT

Agrowing number of empirical studies have documented the importance of financial development for the ability of firms to export to foreign markets. These effects arise from the intermediation role provided by financial institutions. The main goal of the present study is to address the impact of financial Development indicators on export of Jordan. This study used deductive approach through the development of the assumptions and premises relating to both economic growth represented by export of goods and services as dependent variable, and financial development represented by 4 variables that affect export of goods and services such as: Domestic Credit, Lending Interest Rate, Stocks Traded, and The Real Interest Rate as independent variables. Inductive Approach also used through the extrapolation of the data for the study variables. According to the results of multiple linear regressions the study found that financial development has an impact on export of goods and devices.

KEY WORDS: *financial development, export of goods and services, Jordan.*

INTRODUCTION

Since the early of the last century, various economic studies have documented the role of the financial sector in economy especially across various European countries and USA. Studies attempt to address whether economic growth enhances the process of financial intermediation. Meltzer (1998) refers to an early study of Bagehot (1873) who argued that financial intermediation was critical for the rapid industrialization of England in the early nineteenth century and stressed the importance of financial intermediation in pooling funds, which were sufficiently large to fund risky and large-scale projects.

These effects arise from the intermediation role provided by financial institutions. Levine (2004) indicates five following fundamental functions of financial intermediaries which give rise to these effects:

1. Producing information ex ante about possible investments and allocating capital. Before choosing where to invest one need to have a lot of information, first of all in order to evaluate an investment project, what means that there are large costs associated with this process? An individual investor may not have money and time as well as ability to collect process and compare information on many different projects, managers and market conditions. Thus high information costs may prevent capital from flowing to its highest value use. Financial intermediaries, especially such as banks and investment funds, which want this information and collect it also on behalf of many individual investors, may reduce the costs of acquiring and processing information and thus improve resource allocation and increase investments. On the basis of analysis of collected

information a capital flows to the most profitable investment projects, so it is optimally allocated what we can observe on developed stock markets.

2. Monitoring investments and exerting corporate governance after providing finance. Corporate governance is a key problem for understanding the role of financial factors influencing economic growth. First of all equity and debt holders influence managers to maximize firm value what in turn will improve the efficiency of allocation of the firm's resources. This means that savers will get higher returns and they will invest more willingly in investment projects, i.e. production and innovations. The corporate governance helps to ensure that investors obtain revenues properly reflecting the firm's performance and it creates the right incentives for the managers who wanted to gather or borrow capital to perform well. In terms of economic growth some models point out that well-functioning financial intermediaries influence the growth by developing corporate governance as was reported by Singh (1997) .

3. Facilitating the trading, diversification and management of risk. Levine (2004) distinguishes here three questions: cross-sectional risk diversification, inter temporal risk sharing, and liquidity risk. Investing in an individual project is more risky than investing in a wide range of projects. Financial market may mitigate the risks connected with different investment projects (e.g. firms, branches, regions, countries) since financial intermediaries (banks, mutual funds, stock exchanges) create tools that facilitate the trading, pooling and diversifying risk. Because individual savers generally dislike risk, financial intermediaries enable them to choose more risky projects with higher expected returns. Thus, financial market by easing risk diversification tends to induce an investment portfolio shift toward higher returns. This means that financial market can affect long-run economic growth by changing allocation of resources Yartey(2008). Besides cross-sectional risk diversification, financial markets may improve inter temporal risk sharing. They can help to diversify some kinds of risk across generation which cannot be diversified at a particular point in time. The third type of risk mentioned above is liquidity risk. This type of risk is connected with uncertainties associated with converting assets into a medium of exchange. The standard relation between liquidity and economic growth comes from the fact that some

investment projects bringing the relatively higher returns require a long-run commitment of capital, whereas most savers prefer their savings to be available earlier or to move them into another investment. This means that savers want their savings to be liquid.

4. Mobilizing and pooling savings. This function of financial system is perhaps the most obvious and important one. The financial system enables savers to store money in secure places and allows this money to be allocated in productive projects, i.e. to lend this money individuals or enterprises to finance investments, what further encourages capital accumulation and promotes private sector development. According to Levine (2004) mobilizing savings involves (a) overcoming the transaction costs associated with collecting savings from different individuals and (b) overcoming the informational asymmetries associated with making savers feel comfortable in relinquishing control of their savings. Financial systems being more and more effective at mobilizing the savings of individuals can profoundly affect economic growth by increasing savings, exploiting economy of scale and overcoming investment indivisibilities. The better savings mobilization the better capital allocation, what further accelerates economic growth.

5. Ben Naceur, Ghazouani and Omran (2007) stated that the financial system facilitates transactions in the economy, both physically by providing the mechanisms to make and receive payments, and by reducing information costs. So by delivering financial intermediation in this way, the financial system influences the diminishing of transaction costs and easing the trading of goods and services between households and economic units. By this the financial system enables greater specialization which in turn raises productivity gains, what further allows more technological innovations and growth. The relations between exchange, specialization and innovations were modeled by Greenwood and Smith (1996). They say that more specialization require more transactions and since each transaction is costly, financial arrangements that diminish transaction costs will facilitate greater specialization. In this way markets that promote exchange encourage productivity gains which in turn affect financial market development.

The Role of Financial Development in Economic Growth (Exports): Literature Survey:-

Given the availability of a wide research that has evaluated the relationship between financial development and economic growth, we will confine our review in this section to the more relevant and recent literature.

A growing number of empirical studies have documented the importance of financial development (henceforth, FD) for the ability of firms to export to foreign markets. Namely, FD has a positive effect on the levels of exports (Beck, 2002, 2003; Manova, 2013; Svaleryd and Vlachos, 2005), while negative (but short-lived) effect on growth rates of exports (Besede_s et al., 2014). These papers used the models with horizontal product differentiation, in which firms in countries with easier access to credit have lower costs of borrowing, which allows them to set lower prices and thus be more successful in exporting. In the models with endogenous quality choice, on the other hand, cheaper credit might also induce quality upgrading, which has been shown to be another important factor for successful exporting, especially for the developing countries (see, e.g., Brooks, 2006; Iacovone and Javorcik, 2008; Verhoogen, 2008).

Since higher quality typically demands higher cost of production, FD potentially has two opposing effects on costs and export prices: negative due to the cost-reducing (henceforth,CA) effect and positive due to the quality-adjustment (henceforth, QA) e_ect.1 The literature finds mixed evidence on how FD affects export prices. For example, Phillips and Sertsios (2013) argue that less financially constrained firms produce higher quality products and therefore charge a higher price. Fan et al. (2015) predict theoretically and confirm empirically that the QA effect dominates the CA effect and thus export prices increase for the firms which have easier access to credit, while Secchi et al. (2014) show that financially constrained Italian exporters charge higher prices than unconstrained firms within the same product-destination market, whereas this positive effect is weaker for vertically differentiated products.

Especially a lot of empirical studies about relationship between financial development and economic growth have been made since the beginning of 1990s of 20th century. The works by R. Levine and his co-workers, such as R. King, N. Loayza, T. Beck, S. Schmukler and S. Zervos, are particularly well known. For example King and Levine (1993a), using data for 77 countries over the period of 1960–1989, found a strong positive relation between the different indicators of financial development

(expressed as: (1) the size of financial intermediaries, (2) the ratio of bank credit divided by bank credit plus central bank domestic assets and (3) the credit to private enterprises divided by GDP) and economic growth. Taking into account the three alternative indicators of economic growth, namely: (1) the average rate of real per capita GDP growth, (2) the average rate of growth in the capital stock per person, and (3) total productivity growth, as an endogenous variable in an econometric model they showed that a country that augmented the size of financial intermediaries in the economy from the mean of the slowest growing 25% of countries to the mean of the fastest growing 25% of countries would have raised its per capita growth rate by almost 1% a year. They also proved that the relationship between the initial level of financial development and economic growth was economically sufficient. However they did not consider the mutual relationship between those two quantities. They only explained the potentially long-term economic growth implied by changes in financial development factors. Another study, e.g. by Levine, Loayza and Beck (2000), also confirmed that financial development exerted a large positive impact on economic growth.

Other researchers have examined the mutual relations between financial development and economic growth, among other things also the problem of causality between those two quantities. For instance Calderon and Liu (2003), using data for 109 countries over the period of 1960–1994 and econometric models, stated that there was bi-directional causal relationship between financial development and economic growth.

METHODOLOGY OF THE STUDY

The study uses deductive approach through the development of the assumptions and premises relating to both economic growth represented by export of goods and services as dependent variable, and financial development represented by 4 variables that affect export of goods and services such as: Domestic Credit, Lending Interest Rate, Stocks Traded, and The Real Interest Rate as independent variables. Inductive Approach also used through the extrapolation of the data for the study variables. Then the statistical method (SPSS) through multiple regression equation used to measure the impact of the independent variables on the dependent variable.

Data used:-

Macroeconomic aggregates data for the period 2000-2015 constant prices for analysis of export performance of Jordan's economy was used in this study in addition to indicators of financial development (Domestic Credit, Lending Interest Rate, Stocks Traded,

and The Real Interest Rate). This data is was collected from World Development Indicators, the World Bank Group.

HYPOTHESES

The main goal of the present study is to address the impact of financial Development indicators on export of Jordan. For this purpose, the four following hypotheses are stated and tested as below:

H0:	The financial development has no impact on the export of goods and services (Jordan case)
H0-1:	The Domestic Credit has no impact on the export of goods and services (Jordan case)
H0-2:	The Lending Interest Rate (%) has no impact on the export of goods and services
H0-3:	The Stocks Traded, Total Value has no impact on the export of goods and services
H0-4:	The Real Interest Rate (%) has no impact on the export of goods and services

RESULTS AND DISCUSSION

Table (1) descriptive statistics for the study variables

variables	Min value	Max value	mean	sd
Domestic Credit	78.80	114.30	100.54	12.64
Lending Interest Rate (%)	7.60	11.80	9.18	1.06
Stocks Traded , Total Value	5.90	189.20	51.70	57.26
Real Interest Rate (%)	-9.00	12.30	4.21	5.18
export (goods and services)	5,763,915,448	16,404,929,577	10,582,254,852	3,966,820,582

+ (rounded to the nearest dinar)

Table (1) shows the results of descriptive statistics pertaining to the financial development on the export of goods and devices through the period (2000 - 2014). The domestic credit ranged between (78.80) and (114.30) with a mean of (100.54), the Lending Interest Rate (%) ranged between (7.60) and (11.80) with a mean of (9.18), the StocksTraded , Total Value had ranged between (5.90) and (189.20) and achieved a mean of (51.70), the Real Interest Rate (%) ranged between (- 9.00) and (12.30) and satisfied a mean of (4.21).

The export variable (goods and services)had ranged between (5,763,915,448) and (16,404,929,577) and satisfied a mean of (10,582,254,852).

Table (2) skewness and multi co linearity test for the independent variables

variables	skewness	VIF	Tolerance
Domestic Credit	-0.64	2.656	.377
Lending Interest Rate (%)	1.25	2.636	.379
Stocks Traded , Total Value	1.34	1.631	.613
Real Interest Rate (%)	-1.03	1.953	.512
export (goods and services)	0.03		

The skweness values provided in table () were ranging between (0.03) for the export variable (goods and services) and (1.34) for the Stocks Traded, Total Value, these values suggest a closeness to the normal distribution as the values underlay the acceptable rang of skewed variable (-3 to +3) and some studies suggest the range to be between (- 1 to +1)

The values of VIF falls in the desired range of accepted values (less than 10, some suggest less than 5, others suggest less than 4) even using the most constraint range (4) suggesting that the multi co linearity problemamong the independent variables actually does not affect the results of multiple regression as it reflects that the correlation among the independent variables are considered not to be high. The tolerance is defined as the reciprocal of the VIF such that it values is considered to be good if it is above (0.20 or 0.25 others say 0.10) enhancing the idea of weak multi co linearity

Testing the hypothesis:-
- The main hypothesis
Ho: The financial development has no impact on the export of goods and services (Jordan case).

Multiple linear regressions were used to test the main hypothesis. The results are included in table (3).

Table (3) multiple linear regression for testing the impact of financial development on the export of goods and devices

Financial ratios	r	R²	F	Sig(f)	β (+)	t	Sig(t)	Decision
Domestic Credit					283,804,724	5.836	0.000	
Lending Interest Rate (%)					198,065,362	0.344	0.738	
Stocks Traded , Total Value	0.954	0.910	25.13	0.000*	-45,774,570	-5.439	0.000	reject
Real Interest Rate (%)					-226,552,349	-2.224	0.050	

+ (rounded to the nearest dinar, * (significant at 0.05 levels)

According to the results of multiple linear regressions the financial development has an impact on export of goods and devices. The f value (25.13) was significant because the related p value (0.000) was statistically significant (< 0.05).

The value of R² expresses the prediction strength of the dependent variable using the independent variable it was found to be (91.0 %) and this value also may be viewed as the variation percentage in the dependent variable that can be accounted for the independent variable.As a result the null hypothesis is rejected and the alternative one is accepted

H0-1: The Domestic Credit has no impact on the export of goods and services (Jordan case)

Referring to table (3) the beta coefficient reflects the impact value of The Domestic Credit in the prediction model. It was (283,804,724) and significantly contributes to the export of goods and devices as the probability of t statistics was (0.000) d" 0.05. The t statistics tests the linearity importance of the beta coefficient obtained for the independent variableas a result the null hypothesis is rejected and the alternative one is accepted.

H0-2: The Lending Interest Rate (%) has no impact on the export of goods and services

Referring to table (3) the beta coefficient reflects the impact value of The Lending Interest Rate (%) in the prediction model. It was (198,065,362) and did not significantly contributes to the export of goods and devices as the probability of t statistics was (0.738) > 0.05. The t statistics tests the linearity importance of the beta coefficient obtained for the independent variable. As a result the null hypothesis is accepted and the alternative one is rejected

H0-3: The Stocks Traded, Total Value has no impact on the export of goods and services

Referring to table (3) the beta coefficient reflects the impact value of The Stocks Traded, Total Value the prediction model. It was (-45,774,570) and significantly contributes to the export of goods and devices as the probability of t statistics was (0.000) d" 0.05. The t statistics tests the linearity importance of beta coefficient obtained for the independent variable. As a result the

null hypothesis is rejected and the alternative one is accepted

H0-4: The Real Interest Rate (%) has no impact on the export of goods and services

Referring to table (3) the beta coefficient reflects the impact value of The Real Interest Rate (%) the prediction model. It was (-226,552,349) and significantly contributes to the export of goods and devices as the probability of t statistics was (0.050) d" 0.05. The t statistics tests the linearity importance of the beta coefficient obtained for the independent variable. As a result the null hypothesis is rejected and the alternative one is accepted

CONCLUSION

The main goal of the present study is to address the impact of financial Development indicators on export of Jordan. Economic growth represented by export of goods and services as dependent variable, and financial development represented by 4 variables that affect export of goods and services such as: Domestic Credit, Lending Interest Rate, Stocks Traded, and The Real Interest Rate as independent variables. According to the results of multiple linear regressions the financial development has an impact on export of goods and devices. In details the results show that The Domestic Credit, The Stocks Traded, and The Real Interest Ratesignificantly contribute to the export of goods and devices. While The Lending Interest Ratedid not significantly contributes to the export of goods and devices.

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