THE IMPACT OF FINANCIAL DEEPENING ON ECONOMIC GROWTH: EMPIRICAL EVIDENCE FROM YEMEN (1994-2018)

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ABSTRACT

This study attempted to investigate the impact of financial deepening on economic growth in the Yemeni So. The multiple regression model is adopted, where data is collected from the world bank, Yemen's central bank, and the central statistical organization for 1994-2018. The study used the independent variable, the financial deepening captured by credit to the private sector, grants, Remittances, and foreign direct investment, while the dependent variable gross domestic product is used to measure the economic growth. The results revealed a significant impact of financial deepening on the economic growth in Yemen.

Comment [d2]: A brief justification on the need for this study should be stated.

Comment [d3]: Researcher(s)'s recommendation should included in the abstract

Keywords: financial deepening, economic growth, multiple regression, Yemen.

JEL Classification: O11,O47,G21,E01.

INTRODUCTION:

Economic growth includes processes that ensure high-income rates for individuals and enterprises by relying on the economic impact of supply and demand in the local market, resulting in an increase in income and improving the level of income of individuals. Provide all basic needs to suit all people's economic capacity and reduce the deficit ratios in the financial budget. It supports and supports the balance of payments by developing economic plans that contribute to improving the State's economic stability.

Financial deepening refers to increased provision of financial services and improved access to different socioeconomic groups, which can impact the economic conditions of both individuals and communities. It can have the effect of increasing liquidity. since the war of Yemeni unity in 1994, The unstable economic and political conditions followed by high unemployment and inflation, till the 2011 revolution.

Comment [d4]: Source(s)

Finally, the Yemeni crisis and the latest civil war are going on now. On the other hand, the world is concerned with economic and financial changes and the role of financial deepening in improving economic performance, represented by the banking sector and the management of domestic and foreign funding sources. Therefore, we deal with this paper the impact of foreign financing represented by Credit to the private sector, foreign direct investment, foreign financial aid, and remittances on economic growth.

PROBLEM STATEMENT:

Inflation, unemployment, budget deficit, declining foreign reserves, scarcity of economic resources and low non-oil sector productivity, almost complete halt of the oil sector in the current period, which dominated the Yemeni economy during the previous period, and a difference in the results of previous studies in different countries on the effect of financial deepening that leads to unclear results of investigating the impact of financial deepening on economic growth. So this study seeks to investigate the impact of financial deepening on economic growth in Yemen.

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RESEARCH OBJECTIVE

To determine the impact of financial deepening on economic growth in Yemen

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RESEARCH HYPOTHESES

There is a significant impact of financial deepening on economic growth in Yemen

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RESEARCH METHODOLOGY:

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for study and to test the hypothesis, the study used data from 1994 to 2018 collected from the Central Bank of Yemen's reports, the Central Statistical Organization, the Ministry of Planning and International Cooperation of Yemen, and the World Bank data. Using a multiple regression analysis.

STUDY VARIABLES:

Digital indicators are accurate economic growth measures and financial deepening, so the measurement has been done through the following measures in this study.

DEPENDENT VARIABLE:

Economic growth: this study used the most important indicator of economic health is the real GDP which is the more accurate figure of economic growth considering the changes in the price level of the market value of all goods and services produced in the country in a particular period.

INDEPENDENT VARIABLE:

1- Credit to the private sector: credit granted to the private sector by the banking sector, excluding credit granted to the government and independent government institutions. This is evidence of the significant role banks play in the process of economic growth.

2- Foreign direct investment: The market value of net foreign capital flows destined to own assets Productivity in the local economy. Direct investment refers to equity flows of direct investment in the reporting economy. It is the sum of equity capital, earnings reinvestment, and other capital. Direct investment is a type of cross-border investment in which a resident of one economy has control or a significant degree of influence over the management of a resident of another economy.

3- Grants. Excluding technical cooperation (balance of payments, at current US dollar rates), Grants are defined as legally binding commitments that impose a specific value on funds available for disbursement without repayment requirements. Data are expressed in current US dollars.

4- Remittances: Workers' remittances, according to the International Monetary Fund on the basis that they are current remittances they comprise goods and financial assets from migrants and workers residing outside the country for one year or more to person.

REVIEW OF LITERATURE:

Carr and Pentecost. (2000) studied the causal relationship between financial development and economic growth in Turkey. Five alternatives to the alternative financial development and application of Granger's causality tests were developed using the VECM methodology. The results showed that the causal trend between financial development and economic growth is sensitive to agent selection for financial development. However, when bank deposits, private credit, and domestic credit ratios were used instead to express financial development, they found growth to be the driver of financial development.

Ndebbio (2004) determined the range of financial assets that can adequately approximate financial depths, the FD was represented by two variables, the degree of financial intermediation / development (M2 / Y) and the growth rate per capita with fine cash balances (GPRMB). The broad currency (M2) was also used as the numerator for both variables. Accurate funds can be increased balances. Financial intermediation / development can positively affect output growth if undertaken.

Comment [d9]: No research tool

Apergis et al. (2007). examined the long-term relationship between financial development and economic growth using plate integration techniques and the co-incorporation of a dynamic heterogeneous board composed of 15 OECD countries and 50 non-OECD countries during the period 1975-2000. . The results found that there is one long-term equilibrium relationship between financial deepening, economic growth and a set of control variables. Moreover, the evidence points to a two-way causal relationship between financial deepening and growth.

Ang (2007). The contribution of financial development in Malaysia, during the period from 1996 to 2003, was studied, and the results showed that the total output and its determinants are complemented together in the long term. The results also indicated that financial development, stocks of private capital and the workforce positively affect economic development, while public capital accumulation appeared to limit productive expansion in the long run.

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Nzuta & Okerek (2009). They studied financial deepening and economic development for 22 years of data in Nigeria. The two-stage least squares analytical framework was used in the analysis. A trend analysis was performed in the study. The study found that the financial depth index has been low in Nigeria over the years. They also found that the nine explanatory variables, as a whole, were valid and had a statistical relationship to financial depth. But four variables are; Lending rates, financial savings ratio, checks / GDP ratio, and bank deposit / GDP, ratio had a significant relationship with financial deepening.

Karahan Wilgur (2011). They studied the relationship between financial development and economic growth in literature. Based on the theory of financial deepening from the perspective of the liquidity ratio in Turkey from 1980 to 2010. The experimental results indicated a two-way relationship between financial deepening and economic growth in the Turkish economy.

Johannes et al. (2011) studied the relationship between financial development and economic growth using time series data from 1970-2005 in Cameroon. Johansen was used to analyze the mutual complementarity and various financial development measures, and they found that financial development has a positive effect on long-term economic growth through the effective collection and allocation of financial resources. They also found a long-term causal relationship that extends from financial development to economic growth.

Onwumere et al. (2012). They dealt with the effect of financial deepening in Nigeria on economic growth for the period (1992-2008), using variables such as broad money velocity, diversification of money stocks, economic volatility, market capitalization, market liquidity as factors for financial deepening and the growth rate of GDP growth. The study found that broad monetary speed, and market liquidity boost growth. Economic diversification in Nigeria while stock diversification, economic volatility and market capitalization was not during the period studied.

Torruam et al. (2013). The study investigated the causal relationship between financial deepening and economic growth in Nigeria from 1990-2011. The Johanssen approach to co-integration was used to test the long-term relationship between variables. The results indicated the existence of a common complementary relationship between the variables, as there was a one-way causal relationship extending from economic growth to financial deepening. The study found that financial deepening has an impact on economic growth in Nigeria.

Pakang (2015). It sought to investigate the effects of financial deepening on economic growth in the Egyptian sector from 2000 to 2013 in Kenya. The results revealed that the liabilities and liquid credits extended to the private sector, the assets of the Central Commercial Bank, and commercial bank deposits have positive effects. And statistically significant to GDP.

Gezer (2018). Addressing the causal relationship between financial deepening and economic growth of fourteen upper middle-income countries 1987-2015, where the results indicated that countries could be classified according to the following supply and demand leadership approach with evidence of a two-way causal relationship in some countries.

DATA ANALYSIS AND INTERPRETATION

For doing the analysis and interpretation of the multiple regression test of VIF has been done for testing the multicollinearity, so the result of the VIF shows highly multicollinearity of money supply and bank assets with an independent variable which affect the other variables VIF, so according to Gareth, et al (2013), VIF > 5 or VIF > 10 is problematic which removed from the regression

DESCRIPTIVE STATISTICS

Descriptive statistics is a concise description of a large collection of data or a collection of methods used to facilitate the description of the data's primary characteristics. Thus, the descriptive statistics for the study variables are as below.

Table 1. Descriptive Statistics

		Credit to private sector	Grants	Remittances	Foreign direct investment	Gross domestic product
N	Valid	25	25	25	25	25
	Missing	0	0	0	0	0
Mean		257584.6520	456140400.0000	2508749219.00	39373907.3748	289129720000.00
Median		266118.6000	185340000.0000	1425909390.00	-60100000.00	287345000000.00
Std. Deviation		179239.46047	537491662.14835	1830230202.511	487616146.68520	58655941168.620
Minimum		16683.10	52340000.00	1047294118.00	-561000000.00	188887000000.00
Maximum		523236.70	1947800000.00	6815000000.00	1554630000.00	389968000000.00

Source: data processing result

Based in the table1. The mean of the study variables for Credit to the private sector is 257584.65, where the Minimum value was 16683.10and the Maximum value is 523236.70so the standard deviation is 179239.46. the Grants mean is 456140400 where the Minimum value was 52340000, and the Maximum value is 1947800000so the standard deviation is 537491662.15. the Remittances mean is 2508749219, where the Minimum value was 1047294118, and the maximum value is 1047294118, so the standard deviation is 1830230202.51. the Foreign direct investment mean is 39373907.37where the Minimum value was 561000000and the Maximum value is 1554630000so the standard deviation is 487616146.69. the Gross domestic product mean is 289129720000where the Minimum value was 188887000000 and the maximum value is 389968000000, so the standard deviation is 58655941168.62

Table 2. Correlations

		Credit to private sector	Grants	Foreign direct investment	Remittances	Gross domestic product
Credit to private sector	r	1	.633**	.110	.720**	.735**
	p		.001	.602	.000	.000
Grants	r	.633**	1	-.289	.689**	.188
	p	.001		.161	.000	.369

Foreign direct investment	r	.110	-.289	1	-.299	.346
	p	.602	.161		.146	.090
Remittances	r	.720**	.689**	-.299	1	.171
	p	.000	.000	.146		.414
Gross domestic product	r	.735**	.188	.346	.171	1
	p	.000	.369	.090	.414	
**. Correlation is significant at the 0.01 level						

Source: data processing result

The previous table shows the correlation matrix between the regression variables, where the positive correlation coefficient between Gross domestic product and other variables is significant with all variables except grants and foreign direct investment. The credit to private sector correlation value is 0.73 with a significantly less than 0.05. the remittance with a correlation value of 0.17 and the non-significant value more than 0.05. Furthermore, the positive correlation coefficient between Gross domestic product and grants and foreign direct investment is non-significant with a correlation value of grants 0.18 and significant value more than 0.05, and the foreign direct investment with a correlation value of 0.34 and the significance is 0.09. For the independents variables correlation, the highest correlation was between money supply and other independent variables, which caused multicollinearity and the lowest correlation was between foreign direct investment and other independents variables.

Table 3. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics
		B	Std. Error	Beta			VIF
1	(Constant)	239542858359.769	9769216915.814		24.520	.000	
	Credit to private sector	458607.733	53108.125	1.401	8.635	.000	3.209
	Grants	-26.811	14.875	-.246	-1.802	.087	2.264
	Remittances	-22.284	5.157	-.695	-4.321	.000	3.156
	Foreign direct investment	-10.408	13.752	-.087	-.757	.458	1.593

a. Dependent Variable: Gross domestic product

Table 3. This reveals that the beta coefficient for Credit to the private sector is positive value 1.40 and significant at a 5% significance level. In contrast, the beta coefficient for Remittances and Foreign direct investment is negative value -0.96,-0.87 respectively, and non-significant at 5% level

of significance, where beta coefficient for Grants is negative value -0.246, and significant at 5% level of significance.

The regression shows the correlation coefficient between the independent and dependent variables, where the R value is 0.967 with the value of the R square of 0.935 and the value of adjusted R square of 0.911, meaning that the independent variables explain 91% of the variance in the gross domestic product. Clarifies the significance of regression, and we note that the value is 0.000 and therefore, we accept the hypothesis, which is significant regression, and therefore, there is an effect of the independent variables on the dependent variable.

Discussions and conclusion

The study sought to verify the impact of financial depth on economic growth in Yemen, so the study found a relationship between financial deepening and economic growth consistent with the study of Gezer (2018)., Karahan Wilgur (2011). Johannes et al. (2011) and Apergis et al. (2007). at all the study concluded that financial depth affects economic growth in Yemen, where the study was consistent with the previous study such as Torruam et al. (2013). where Onwumere et al. (2012). Found Diversification in their result Nzuta & Okerek (2009). Only four variables are significant, as we had after removed the high multicollinearity variables as the results of the study on the level of financial depth variables and the impact of each variable on a single value, the study differed from previous studies the fluctuation of the level of effect and relationship

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