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The effect of Free Cash Flow on the Companies' Financial Polices: Evidence from Jordan

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Abstract: This study aims to examine the effect of the free cash flows (FCF) on the financial polices (the financial leverage and the dividends) of the Jordanian industrial companies which are listed in Amman Stock Exchange (ASE), which are 58 companies. The study is performed by surveying the financial reports of these companies which are disclosed in ASE. The study uses regression to analysis the data and to examine the study's hypotheses.

The study reveals that there is a significant negative effect of FCF on financial leverage, while there is insignificant effect of FCF on dividends.

The study recommends the accounting professional members to agree on one definition of FCF to help researches and to make the comparison between companies easy, the companies to disclose in their reports as the requirements of IFRS 1, and to ask these companies to disclose FCF in their financial reports.

Key words: free cash flow, leverage, dividend.

INTRODUCTION

Free cash flow is used to pay dividends, to repay debt and interest payable to creditors or lenders, to repurchase the company's shares, to purchase new investments and to purchase new assets. Some time the increase of these flows may not be in benefit of the company, especially when managers fail to use these flows to increase the owners' wealth, after that the conflict between the owners' interests and managers' interests may be appeared, and the agency problems appear and .

Because of the importance of free cash flow analysis, many countries start to ask companies to do this analysis and enclose it in their financial reports, such as in the United States.

The studies that investigated the relationship between FCF and the financial indicators increased in developed countries, but such studies came late in undeveloped countries that need these kinds of studies.

The management of the company which has allegiance to its enterprise trays to enhance the company's position, chooses the productive investments, increases the owner's equity, pays the company's debts without liquidating assets, pays declared dividends, if it has FCF. So it should analysis the relationships between FCF and the financial ratios, because it gives an integrated picture of the company, helps in evaluating the company's performance accurately.

This study examined the effect on free cash flow on the financial leverage and dividend payout in the Jordanian industrial companies which is listed on Amman Financial Market, based on the data available for these companies in this market.

THE STUDY PROBLEM

A lot of industrial companies in Jordan are profitable units, this is followed by emergence of surplus cash flows, but a few of them announced a dividend regularly, this will effect on numbers of the investors, who like to invest in them, hence, this study try to answer the following questions:

Question 1: Is there a statistically significant effect of the free cash flows on the financial leverage of the Jordanian industrial companies listed in the ASM?

Question 2: Is there a statistically significant effect of free cash flows on the dividend of the Jordanian industrial companies listed on the ASM?

THE IMPORTANCE OF THE STUDY AND ITS OBJECTIVES

The study aims to track the impact of free cash flow on the financial leverage and the dividends payout, as a first study in this field in Jordan. The study aims to answer questions the study and testing of hypotheses.

THE STUDY HYPOTHESES

The study aims to test following hypotheses:

H01: There is no statistically significant of free cash flows on the financial leverage in the Jordanian industrial companies listed in ASM.

H02: There is no statistically significant of free cash flows on the dividends payout of the Jordanian industrial companies listed in ASM.

THE STUDY LIMITATIONS

After surveying the previous studies in the study's field and collecting the study's data, researcher faced the following limitations:

- The number of industrial companies is not enough to help researcher to achieve better result
- The difficulty of obtaining the financial data directly from the companies.

LITERATURE REVIEW

There are a lot of FCF definitions. Utami and Inanga (2011) defines FCF as it is the net income minus changes in fixed and changes of assets in net working capital divided by total assets. Wu (2004) defines it as the operating income before depreciation minus interest, tax and preferred shares dividends divided by the book value of assets. Chu (2011) defines FCF as an operating income before depreciation minus income tax expense, interest expense and expenses of investment. Wang (2010) defines FCF as the flows from operating activities minus income tax, interest and dividend of preferred shares divided by the net sales. J Khan *et al.* (2012) define FCF as an operating income before depreciation divided by total assets.

FCF can be used to pay debts (Griffin *et al.*, 2010, Fleming *et al.* 2005), or to pay declared dividends (Mollah *et al.*, 2000, DeAngelo *et al.*, 2004, and Amidu and Abor 2006), these dividends become payable after the announcement date (Oded 2009). Sometimes managers do not tend to pay dividends whether is a lot of free cash flow (Chen *et al.*, 2011) because they tend to invest these flows in unproductive projects (Abor and Bokin 2010), or in unacceptable projects by the owners (Cardoso, *et al.*, 2014). But if these flows are used to purchase shares of multinational companies, the control of foreign shareholders and agencies make the control on FCF more effective, this will achieve control on the managers' behavior and ensure that their actions are acceptable by the owners (Coffee 2002, Cheng *et al.*, 2014, Zhou *et al.*, 2011). This action will increase the possibility of the use of FCF in productive investment opportunities (Richardson 2006). The company can use FCF in purchasing its shares back (Kapavicius and Yu 2012), and therefore the FCF analysis and the study of its impact on a lot of variables become important issues (Rezaei and Jafari 2015), and if it easy to FCF predict, this will help in making investment decisions which are more optimistic.

The financial leverage represents the company's use of debt to increase the return on equity as a substitute of increasing the capital, (Friedlob, G.T. and Schleifer, L. F. 2003).

Company may distribute part of its profits to shareholders as dividends in cash or in the form of shares, cash dividends, investors and shareholders usually interest with declaring dividend by the company. Company should take in to account the availability of retained earnings and cash to pay the when it decided to distribute dividends. But if the company take a decision to distribute dividends from the additional capital, the dividends in this case is called liquidation dividend (Weygant *et al.*, 2012).

There are many studies investigate the effect of FCF on financial leverage and dividends payout such as the study of Tijjani and Sani (2015) who examined the impact of FCF on dividend policy in the oil and gas Nigerian companies depending on the annual reports of the samples that have been studied during the period (2003- 2014), and they found that there is a positive impact of FCF on dividends policy. Rezaei and Jafari (2015) examined the relationship between financial leverage and the following variables: FCF, investments, profitability, the percentage of Tobin's Q, liquidity ratio, tangible assets and cash dividends, depending on the financial data of 91 company listed in the Iranian capital market during the period (2009- 2013), and they found that there is a statistically significant negative relationship between FCF and the other variables. Sindhu (2014) examined the impact of FCF on dividend payout, depending on the financial data of 30 Spinning company listed in Pakistan's financial market during the period (2000 – 2009), and he found that there is a non statistically significant effect of FCF on dividends payout. Cheng *et al.*, (2014) examined the impact of FCF on the growth opportunities and dividend payout, depending on the financial statements of 1105 Chinese companies during the period (2003-2011), and they found that the is

a positive statistically significant effect of FCF on dividends payout. Parsian and Koloukhi (2013) examined the impact of FCF and profitability on dividend payout, depending on financial data of 102 Iranian's companies during the period (2005- 2010), and they found that there is a statistically significant effect of FCF and profitability on dividends payout. Utami and Inanga (2011) examined the relationship between the Agency cost of FCF, dividends, and the financial leverage, depending on a sample of Indonesian companies during the period (1994 – 2007), and they found that there is a statistically significant effect of FCF on dividends, and non- statistically significant effect on the financial leverage. Finally, Adelegan (2003) examined the effect of FCF on the changes in dividends depending on the financial data of 63 companies listed in the Nigerian financial market during the period (1984 – 1997), and he found that there is a statistically significant effect of FCF on dividends.

A review of the previous studies appears that there is a statistically significant effect of FCF on dividends payout in the studies of Adelegan (2003), Parsian and Koloukhi (2013), Cheng *et al.*, (2014), and Utami and Inanga (2011), and non statistically significant effect of FCF on dividends payout in the studies of Tijjani and Sani (2016), Sindhu (2014), and non-statistically significant effect of FCF on financial leverage in the study of Utami and Inanga (2011).

THE STUDY METHODOLOGY

In the methodology researchers spoke about the study population, the study variables, how he measures them, the statistical techniques, the hypotheses test, and the results discussion.

THE STUDY POPULATION

The study population consists of the 58 industrial companies listed in the AFM. The study depends on the financial reports of these companies during the period (2005-2014).

THE STUDY VARIABLES

The study examines the effect of FCF (interdependent variable), on the financial leverage (dependant variable) and the dividends payout (dependant variable) that measure the financial policies of the company. was well controlled variable and control a company's size.

Table 2
Variables, variables' kinds, and Variables measurement

<i>Variables</i>	<i>Variable kind</i>	<i>Measure</i>	<i>Symbol</i>
Free cash Flow	dependant	$FCF \div \text{Total Assts}$	FCF
Financial Leverage	interdependent	$\text{Debts} \div \text{Total Assts}$	LEV
Dividends payout	interdependent	$\text{Dividends} \div \text{The Company's market value}$	DIV
The Company's Size	Control variable	Log assets	SIZE

To measure the free cash flow the model of Brigham and Ehrhardt, (2008) was used, which is represented by the following equation:

$$FCF_{i,t} = EBIT_{i,t} (1-T) + DE_{i,t} - \Delta WC_{i,t} - CAPEX_{i,t}$$

Where FCF represents free cash flow for the company i in the period t.

EBIT represents income before interest and taxes for the company i in the period t.

DE represents depreciation, Depletion, Amortization expenses of the company i in the period t.

ΔWC represents the change in the working capital of the company i in the period t and period t-1

CAPEX represents the Capital expenditures of the company i in the period t.

Financial leverage was measured by dividing total debts by the total assets, as in the studies of Hordar and Tehrani (2015) and Khan *et al.*, (2012). Dividend payout was measured by dividing dividends by the company's market value, as in the study of Utami and Inanga(2011). The company Size variable was measured by using the logarithm of the company's total assets.

STATISTICAL METHODS

In the study the averages and standard deviations were used to describe the variables characteristics, simple regression analysis was used and to test the studies hypotheses, and Kolmogorov – Smirnov technique to test the normal distribution of variables.

According to the descriptive statistics which was contained in Table No.3, the Standard deviations in the variables data of all companies were low, the biggest figure was associated with a standard deviation of the assets'and the least figure was associated with variable FCF.

Table 3
Variables' descriptive statistics

<i>Variables</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
FCF	58	-0.111	0.178	0.096	0.079
LEV	58	0.404	0.82	0.546	0.122
DIV	58	0.162	0.72	0.357	0.186
Size	58	9	10	9.7	0.483

To test the normal distribution of the study's variables, Kolmogorov – Smirnov test was used, Table 4 appears that the relative importance of variables of FCF, LEV, and DIV was greater than 0.05, this means that each of these variables had a normal distribution, while the companies' Size variable didn't distributed normal.

Table 4
The normal distribution of the variables

<i>Variables</i>	<i>Kolmogorov - Smirnov</i>	<i>Sig.</i>
LEV	0.196	0.200*
DIV	0.179	0.200*
FCF	0.25	0.076
SIZE	0.433	0

Hypothesis testing and analysis of results

To test the study’s hypotheses, simple regression analysis was used to examine the relationships between the different variables of the study

H02: There is no statistically significant effect of FCF on the financial leverage of the Jordanian industrial companies which were listed on the ASE.

To test this hypothesis, simple regression between FCF and the financial leverage has been used in accordance with the following model:

$$LEV_{it} = \beta_0 + \beta_1 * FCF_{it} + \beta_2 * SIZE_{it} + \varepsilon \tag{1}$$

Where LEV represents the financial leverage of the company i in period t, and FCF represents free cash flows of the company i in period t, and to avoid the disadvantages of depending on a single variable, a company’s size has been entered in the model and measured by Log assets, ε represents the standard error.

Table 5 appears the analysis of the relationship between FCF and LEV.

Table 5
The regression coefficients of the effect of FCF on Financial Leverage

Model		Unstandardized	Standardized	t	Sig. t	R	R2
		Coefficients	Coefficients				
		B	Beta				
1	(constant)	0.654		14.421			
	FCF	-1.122	-0.729	-3.014	0.0000.017	0.729 a	0.532

Dependent Variable: LEV.

Table 5 appears that the value of R2 (0.532), this means that a 53.2% of the total deviations in Leverage variable can be interpreted by the linear relationship in the model (1), and 46.8% was due to random factors didn’t included in the model, and any increase in FCF by one unit, LEV will be decreased by 0.468 units.

From table 5 we can conclude the model that appears the relationship between FCF and LEV (see model no. 2)

$$LEV = 0.654 - 1.122 \times FCF \tag{2}$$

Table 5 also appears that there is a statistically significant negative effect of FCF on LEV, because the value of p that accompanying with t statistics less than (0.05), so that the hypothesis H01 should be rejected, this means that there is a statistically significant effect of FCF on LEV.

H02: There is no statistically significant effect of FCF on dividend payout in the Jordanian industrial companies listed on the ASE.

To test this hypothesis simple regression between FCF and dividend payout has been used in accordance with the following model:

$$\text{DIV}_{i,t} = \beta_0 + \beta_1 \text{FCF}_{i,t} + \beta_2 \text{SIZE}_{i,t} + \varepsilon \quad 3$$

Where DIV represents dividends payout for the company *i* in period *t*, and to avoid the defects of depending on a single variable, a company's size is entered as a control variable and is measured by Log assets.

Table 6
The regression coefficients of the effect of FCF on Dividends payout

Model	Unstandardized	Standardized	<i>t</i>	Sig. <i>t</i>	R	R Square	FChange	Sig. F
	Coefficients	Coefficients						
	B	Beta						
1 (constant)	0.301		3.063	0.016	0.248 a	0.062	0.525	0.489
FCF	0.548	0.248	0.724	0.489				

Dependent Variable: Div.

Table 6 appears that the value of R² (0.062), this means 6.2% of the total deviations in dividends payout values can be explained by the linear relationship between the two variables, and 93.8% were due to random factors that didn't included in the model(see model 4).

$$\text{DIV} = 0.301 + 0.584 \times \text{FCF} \quad (4)$$

Table 6 also appears that there is a positive and statistically significant effect of FCF and dividends payout, because the value of *p* is greater than (0.05), so that the H₀ is accepted, and this means that there is no statistically significant effect of FCF on dividend payout in the Jordanian industrial companies listed in AFM.

CONCLUSIONS

It can be inferred, coming from a review of previous studies and the results of the current study:

1. The Financial Leverage is a financial instrument that helps in controlling the administration's use of FCF in preparing the dividend policy, borrowing policy and investment policy.
2. The effect of FCF on dividend payout depends on the level of growth, capital structure, and the size of the company, changes in economic policies (Adelegan, 2003).
3. The Results of the study shows that there is a statistically significant effect of FCF on the financial leverage in the Jordanian industrial companies. This result is consistent with the results of Razaei and Jafari (2013) study, and doesn't consistent with the studies of Utami and Inanga (2011), and Mustafa and Chae (2012).
4. the study shows that there is un statistically significant effect of FCF on dividends payout, this result is consistent with the results of the studies of Lincing, (2005), Tijjani and Sani (2016), and Sindhu (2014), and doesn't consistent with the results of the studies of Adelegan (2003), Parsian and Koloukhi (2013), Cheng *et al.*, (2014), and Utami and Inanga (2011).
5. The result of this study regarding the impact of FCF on dividends payout may not agree with the logic which says that if the company achieves an increase in FCF with profits, it should

announce dividend. This will increase investors' demand on its shares, and will increase its share price, and will increase the Owner's wealth, however, only 15 % from the Jordanian industrial companies did that, because agency problems.

RECOMMENDATIONS

In light of the previous findings, the study recommends the following:

1. Companies should focus on disclosure in accordance with the requirements of IAS 1.
2. The interested bodies of accounting should choose a particular definition of FCF to help users in calculating this important index, which results in decisions of building the leverage and dividend policy.

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