The Relationship between Earnings and Stock Returns on the Market and Sector Levels

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ABSTRACT

This paper aims at examining the relationship between earnings and stock returns on a sample of firms listed in the Amman Stock Exchange (ASE). The study assumes that this relationship becomes stronger or weaker based on sector and industry classification. Results show that the relationship between earnings and stock returns is stronger in the banking sector and weaker in the manufacturing sector. The results also show that as the percentage of accruals increase in earnings, the relationship becomes weaker. Furthermore, the results show that the investors understand the components of earnings suggesting that they understand the accounting practices relative to each sector.

Keywords: Accruals, Operating Cash Flows, Financial Market, Stock Prices.

INTRODUCTION

The relationship between earnings and stock prices has gained wide attention in accounting and finance literature. The importance of this relationship rises from the need to explain the mechanism of financial markets. Indeed it is important to understand the major influences on stock prices in order to reach a better model to forecast prices for investment purposes. However, the main argument in many studies is that stock prices follow a random walk, and cannot be simply predicted based on merely earnings. These studies tried to explain stock prices by examining other factors that relate to both the macro and micro economic environment. Other studies have found that there is a correlation between earnings and prices, but because accounting earnings are announced relatively late, the market has already formed an assessment about the value of the company. In other words, earnings suffer from lagging problems.

In this paper, the argument is that earnings are an important explanatory variable in explaining the changes in stock prices. More importantly, the computation of the earnings figure is more relevant than the figure itself. For example, pharmaceutical firms report losses due to high investments in RandD but the market prices their stock favorably in expectation of future profits. Therefore, the market understands the reason of reporting losses for specific type of firms, and chooses to ignore the negative earnings because investment decisions (e.g. RandD) in these firms are usually translated into higher sales in the future (Joos and Plesko, 2005).

Additionally, markets do understand the different industries that companies work within. These industries are a group of companies that share similar operations and generally are considered competitors. Companies in the same group usually apply similar accounting methods to measure their performance (i.e. earnings). Therefore, similar measures will produce similar perspectives of performance. Based on that, the expectation is there will be different levels of correlations or relationships between earnings and stock returns according to the industry.

This study is applied on a sample of companies listed in the Amman Stock Exchange (ASE). The companies are selected from three main industries (sectors): the banking sector, the services sector and the manufacturing sector. The relationship between earnings and stock returns are examined on the market level and on the sector level. The data obtained from this sample covers the period from 2001 to 2009.

This study aims at answering the following questions:
1. What is the type of the relationship between earnings and stock returns for listed firms in the ASE on the...
2. Does the relationship between earnings and returns for listed firms in the ASE change based on sector and industry classification?

3. Do the accounting practices in each sector for listed firms in the ASE changes the relationship between earnings and returns?

**Literature Review**

Previous studies examined the relationship between the earnings number and stock prices in order to reach a better understanding about the variation in prices and how the market reacts to earnings.

A large group of studies examined the information content of the earnings by decomposing earnings into its main components: the cash flow and the accrual component (Sloan 1996; Xu and Lacina 2009; Ahmed et al. 2006). These studies found that the accrual component is less persistent than the cash flow component. For example, Sloan (1996) examined the nature of the information contained in the cash flow and accrual components of earnings and to which extent this information is reflected in stock prices. The results show that although the accrual component is less persistent than the cash flow component, investors do not distinguish clearly between these two components of earnings. Thus, investors systematically understate future earnings growths for firms with low accruals and overstate future earnings growth for firms with high accruals.

However, other studies have shown that investors can discriminate between the different levels of the accrual and cash flow component of earnings. Additionally, both accruals and cash flows relate to business cycles and type of industry, making both of them positive predictors of returns (Hirshleifer et al. 2009; Dechow et al. 2008).

Other group of studies investigated the correlation between earnings and stock returns by examining the *Earnings Response Coefficient* (ERC) and the *coefficient of determination* ($R^2$) (Dhaliwal et al. 2005; Liu and Thomas 2000; Shroff, 1995). The ERC is measured as the resulting slope ($\beta$) from regressing returns on earnings. These studies showed that stock prices are determined not only by earnings but also by other sources of information about future earnings. These other factors could relate to the computation of earnings (e.g. accounting choices) or to management policy.

The magnitude of the ERC and the level of $R^2$ are used to make comparisons of the value relevance of earnings across firms. For example, Liu and Thomas (2000) found that high (low) ERC’s could be observed because the correlation between earnings and future period earnings is high (low), and high (low) values of $R^2$ could be observed because that correlation is fairly homogenous (heterogeneous) within the sample. An interesting result in their study suggested that firms reporting losses in prior period do not exhibit lower ERC or $R^2$, which indicates the importance of other factors which play an important role in determining the correlation between earnings and returns.

Another reason underlying the poor correlation between earnings and prices is the quality of earnings. Accounting earnings are shaped by economic factors and the degree of matching success. In the economic relationship between expenses and revenues, expenses are advanced in order to earn revenues, thus any mismatched expenses act as noise to this relationship. As a result, poor matching decreases the contemporaneous correlation between revenues and expenses leading to more volatility in earnings. The more mismatching occurs, the more increases in the negative autocorrelation in earnings changes and the less persistent earnings becomes. Over time, the contemporaneous correlation between revenues and expenses has substantially decreased, while the correlation between current earnings and past or future expenses has increased (Dichev and Tang, 2008). Another explanation for the low $R^2$ in the earnings/returns model is that there is no serious attempt being made to question the quality of reported earnings numbers prior to correlating them with returns (Dechow et al. 2010).

A number of studies examined the role of accruals and cash flows in explaining stock prices for listed firms in the ASE. Most of these studies found a strong relationship between accruals and stock prices and a weak relationship between cash flows and stock prices. Although a few studies included listed firms from the service industry in the sample of the study, most of them however were based on a sample of manufacturing firms. The common result between all these studies is that accruals are superior to cash flows in explaining stock prices in manufacturing firms. Therefore, these results underline the importance of accounting earnings and provide evidence that investors in the ASE can differentiate between the components of earnings (Abed Al-Jalil, 2012; Salemand Khasharmeh, 2007; Hamdan et al. 2008; Shbaitahand Abu Nassar, 2005).
However, previous studies did not take into consideration the different sectors or industries that firms operate within and the accounting practices in each one, and how this impacts the relationship between accounting earnings and stock prices. Previous studies highlighted the presence of other unobserved factors that affect the correlation between earnings and stock prices but did not place any serious effort to study these factors. Other studies questioned the quality of earnings and the method in which earnings are computed. The quality of earnings is mostly related to manipulating earnings, which is not the focus of this paper.

The computation of earnings relate to the accounting methods applied in the firm such as the depreciation method or the inventory evaluation method. The adoption of one method over the other is highly related to the sector or industry in which the firm operates in. For example, technological firms may adopt an accelerated depreciation method whereas manufacturing firms adopt more fixed depreciation methods. Therefore, the industry in which the firm operates has an important role in determining the accounting method used, and as a result the earnings figure produced has different correlation features based on the sector.

In this paper, some of the issues raised above are examined to reach a better understanding of the relationship between earnings and stock returns. More specifically, the paper focuses on how this relationship is shaped based on the different sectors or industries and how the accounting practices in these sectors produce an earnings figure that is different from other sectors based on the accounting methods applied. Thus, the focus of this paper is the correlation between earnings and stock returns taking into consideration the different industries.

Hypothesis Development

This paper examines the correlation between earnings and returns in the Amman Stock Exchange (ASE). More specifically, the paper focuses on how much of the variation in stock prices can be explained by accounting earnings. The study applies a simple regression model that only includes reported earnings and contemporaneous stock returns, assuming that other factors such as economic factors, act as noise to the model.

The model is applied on the entire sample (market level) to examine the Earnings Response Coefficient (ERC), which is the resulting slope from regressing returns on earnings, and the coefficient of determination ($R^2$). This will be used as a reference point and standard score for further comparison tests. Therefore, the first hypothesis to be tested is:

$H1$: there is a weak relationship between contemporaneous stock returns and earnings on the market level.

The second step is splitting the main sample into three subsamples: the banking sector, the manufacturing sector and the service sector. The model is applied on each subsample, and the resulting ERCs and $R^2$ of each model is compared. The underlying reason of this test is to examine the relationship between earnings and returns in each sector, because accounting practices in banks are different from those in manufacturing firms or service firms. Thus, the first hypothesis will be extended into three testable hypotheses:

$H1a$: there is a weak relationship between contemporaneous stock returns and earnings in the banking sector.

$H1b$: there is a weak relationship between contemporaneous stock returns and earnings in the manufacturing sector.

$H1c$: there is a weak relationship between contemporaneous stock returns and earnings in the service sector.

After that, earnings will be decomposed into its basic components; the cash component and the accrual component, in order to determine which component is explaining the most of the variation in returns. Consequently, the first model is extended to include both components. Therefore, returns will be regressed on both components of earnings as a second model. The reason of this test is to examine the market’s ability to discriminate between the two components of earnings. The extended model is thereby applied on the market level to test the following hypothesis:

$H2$: there is a stronger relationship between contemporaneous stock returns and accruals than the relationship with cash flows on the market level.

In the following step, the extended model is applied on the three subsamples to examine the relationship between stock returns with accruals and cash flows based on each sector. The assumption here is firms that rely more on accrual accounting (e.g. manufacturing firms) will produce an earnings figure that contains a higher level of accruals and a lower level of cash flows. Conversely, firms that use less accrual accounting will produce an earnings figure with a higher level of cash
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flows. Based on that, if the market weighs each component accordingly, then accruals are expected to explain returns more than cash flows in firms that rely on accrual accounting. On the other hand, cash flows will explain returns more than accruals in firms that rely less on accrual accounting. The second hypothesis will be extended into three testable hypotheses:

\textit{H2a}: there is a stronger relationship between contemporaneous stock returns and accruals than the relationship with cash flows in the banking sector.

\textit{H2b}: there is a stronger relationship between contemporaneous stock returns and accruals than the relationship with cash flows in the manufacturing sector.

\textit{H2c}: there is a stronger relationship between contemporaneous stock returns and accruals than the relationship with cash flows in the service sector.

Sample, Data and Measurement of Variables

The sample of this paper contains companies listed in the Amman Stock Exchange (ASE) with available data from 2001 to 2009. The selection criterion is to include firms in the sample with available data from three main sectors: the banking sector, which includes all banks where its main operations focuses mainly on providing loans. The manufacturing sector: including firms that focus its operations on conversion of raw materials into finished goods and selling them in domestic and international markets. And finally, the service sector, which includes firms that focus its operations on providing all other services, other than financial services. Insurance firms are excluded because their accounting practices are quite similar to banks since both are considered companies that provide financial services.

Firms with missing observations are dropped from the sample. The total sample contains 872 firm-year observations arranged in cross sectional format. The following table shows a general description of the sample.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Description of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Banking firms</td>
</tr>
<tr>
<td>Number of firms</td>
<td>16</td>
</tr>
<tr>
<td>Number of firm-year observations from 2001 - 2009</td>
<td>128</td>
</tr>
</tbody>
</table>

*Firms with missing observations are dropped from the sample

Variables included in the model are measured as the following: Earnings (E) is net income after taxes. Cash flows (CFO) is operating cash flows. Stock returns (R) is measured as the difference between stock prices in period (t) and stock prices in period (t-1) divided by stock prices in period (t-1):

\[ R_{it} = \frac{P_t - P_{t-1}}{P_{t-1}} \]

Stock prices are taken as reported at the end of March since the fiscal year for all listed firms in the (ASE) ends by December. By this time, all available information reported in the financial statements will be imbedded in stock prices.

Accruals (ACC) are measured as the difference between Earnings (E) and operating cash flows (CFO), since \( E = \text{Accruals} + \text{Operating Cash Flows} \), then:

\[ ACC_{it} = E_{it} - CFO_{it} \]

The main model to test the first hypothesis is:

\[ R_{it} = \alpha + \beta E_{it} + \epsilon \]

Where:

- \( R_{it} \): stock returns for firm \( i \) at period \( t \).
- \( E_{it} \): earnings for firm \( i \) at period \( t \).
- \( A_{t-1} \): total assets for firm \( i \) at period \( t-1 \), used to scale variables to reduce heteroskedasticity.
- \( \beta \): is the slope coefficient and represents the Earnings Response Coefficient.

The extended model to test the second hypothesis will contain the two components of earnings:

\[ R_{it} = \alpha + \beta \frac{E_{it}}{A_{t-1}} + \gamma \frac{CFO_{it}}{A_{t-1}} + \epsilon \]

Where:

- \( R_{it} \): stock returns for firm \( i \) at period \( t \).
- \( ACC_{it} \): is accruals for firm \( i \) at period \( t \).
CFO\textsubscript{it} is operating cash flows for firm \textit{i} at period \textit{t}.

A\textsubscript{it} is total assets for firm \textit{i} at period (\textit{t}-1), used to scale variables to reduce heteroskedasticity.

### Results and Analysis

The following table provides descriptive statistics of the main variables used for the three sectors of the sample.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Banks</th>
<th>Manufacturing</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>( R \textsubscript{it} )</td>
<td>0.252</td>
<td>0.1645</td>
<td>0.209</td>
</tr>
<tr>
<td>( E \textsubscript{it} )</td>
<td>0.0034</td>
<td>0.004</td>
<td>0.018</td>
</tr>
<tr>
<td>( CFO \textsubscript{it} )</td>
<td>0.0143</td>
<td>-0.003</td>
<td>0.0216</td>
</tr>
<tr>
<td>( ACC \textsubscript{it} )</td>
<td>-0.109</td>
<td>0.007</td>
<td>-0.004</td>
</tr>
</tbody>
</table>

A: total assets for firm \textit{i} at period (\textit{t}-1), used to scale variables to reduce heteroskedasticity.

\( R \textsubscript{it} \): is stock returns for firm \textit{i} at period \textit{t}.
\( E \textsubscript{it} \): is earnings for firm \textit{i} at period \textit{t}.
\( ACC \textsubscript{it} \): is accruals for firm \textit{i} at period \textit{t}.
\( CFO \textsubscript{it} \): is operating cash flows for firm \textit{i} at period \textit{t}.

The highest mean score for returns (\( R \textsubscript{it} \)) is in the banking sector, but with more dispersion. This indicates higher volatility in this sector, thus higher risk. Earnings (\( E \textsubscript{it} \)) is highest in the service sector with the highest CFO. This is an indication that the computation of earnings relies more on cash than on accruals, suggesting that most revenues are cash; similar results are obtained for the banking sector. On the other hand, the accrual component in the manufacturing sector is much higher than the cash component, which in fact is negative, suggesting that manufacturing firms rely more on accrual accounting.

These results shed some light on the expected results from testing the hypothesis. The expectation is that the accrual component will be higher than the cash component in the manufacturing sector. However, as table (1) shows, accruals are used less in the banking and service sectors.

#### Tests of H1

The first hypothesis relates to examining the contemporaneous relationship between stock returns and earnings on the market level. The model is applied on the whole sample which includes the three main sectors. The model is applied on the whole sample is to examine to which extent returns are explained by change in earnings. Results are shown in table 3.

#### Table 3

| \( R \textsubscript{it} \) | 2.35 |
| \( E \textsubscript{it} \) | 0.0034 |
| \( A \textsubscript{i,t-1} \) | 0.0128 |
| \( ACC \textsubscript{it} \) | -0.003 |
| \( CFO \textsubscript{it} \) | 0.149 |
| \( ERC \) | 0.172 |
| \( t \)-value | 2.35 |
| \( R \textsuperscript{2} \) | 7.66% |

\( R \textsubscript{it} \): stock returns for firm \textit{i} at period \textit{t}.
\( E \textsubscript{it} \): earnings for firm \textit{i} at period \textit{t}.
\( ACC \textsubscript{it} \): is accruals for firm \textit{i} at period \textit{t}.
\( CFO \textsubscript{it} \): is operating cash flows for firm \textit{i} at period \textit{t}.

The results in table (3) show that the Earnings Response Coefficient (ERC) is (2.35) and statistically significant at a 1% significance level (p-value 0.000); however, the \( R \textsuperscript{2} \) is (7%), which is very low. This
indicates that although earnings explain returns to some
degree, it is not the only explanatory factor. Hence, the
null H1 is accepted that there is a weak relationship
between contemporaneous stock returns and earnings on
the market level. The low R² is not disturbing because
cross sectional tests usually produces low values of R².
These results indicate a weak relationship between
earnings and returns on the market level, which means
that although earnings is an important explanatory
variable for returns it is not the only variable. Other
factors contribute to explanation of stock returns such as
economic factors, management policy, and political

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factors; these factors are beyond the scope of this study.

The next step is splitting the sample into three main
sectors. The model applied to test H1 is applied on each
sector in order to compare the resulting ERC and R² for
each subsample; these tests are related to H1a, H1b, and
H1c. This will show how change in earnings explains
stock returns in each sector. In other words, the earnings
figure in each industry has different attributes that make it
distinctive with different explanatory power based on the
accounting practices used in that industry. Results are
displayed in table 4.

<table>
<thead>
<tr>
<th>Table 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results for Regressing Earnings on Returns on the Sector level</td>
</tr>
<tr>
<td>(Tests for H1a; H1b; H1c)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Banks</th>
<th>Services</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC</td>
<td>35.10</td>
<td>2.47</td>
<td>2.09</td>
</tr>
<tr>
<td>t-value</td>
<td>(4.45)***</td>
<td>(5.45)***</td>
<td>(6.74)***</td>
</tr>
<tr>
<td>R²</td>
<td>13.56%</td>
<td>9.83%</td>
<td>8.96%</td>
</tr>
</tbody>
</table>

R_it: is stock returns for firm i at period t.
ACC_it: is accruals for firm i at period t.
CFO_it: is operating cash flows for firm i at period t.
A_i,t-1 is total assets for firm i at period (t-1), used to scale variables to reduce heteroskedasticity.

**t values at 1% significance level.

The results show that the ERC in the banking sector is
the highest (35.1) and with the highest R² (13.56%). The
ERC and the R² in the service sector are (2.47) and
(9.8%) respectively. The scores in the manufacturing
sector are the lowest among the three sectors (ERC 2.09,
R² 8.9%). ERC is statistically significant in three sectors.
These results indicate that change in earnings explain
returns more in banks than in the other two sectors and is
more relevant to contemporaneous stock returns. Thus,
the null H1a is rejected, and results show that there is a
stronger relationship between contemporaneous stock
returns and earnings in banks, whereas the null H1b and
H1c are accepted showing a weaker relationship between
contemporaneous stock returns and earnings in both the
manufacturing and services sectors.

The ERC values displayed in table (4) are all
significant at a 1% significance level, which indicates the
relevance of earnings in explaining stock returns.
However, the comparison between these scores among
the three sectors is used to denote the presence of a
stronger or a weaker relationship. The underlying
assumption in this paper is that there is a relationship
between earnings and returns, and results in table (4)
shows the strength or the weakness of this relationship
based on comparison between sectors.

These results raise the following question: does the
earnings figure, formed by the accounting practices in a
particular sector, indicate more relevant and reliable
accounting information compared to other sectors? The
answer to this question can be obtained through testing
the second hypothesis.

**Tests of H2**

In this section, earnings are decomposed into its main
components; accruals and operating cash flows. The main
model of this study is extended through the
decomposition of earnings into accruals and operating
cash flows. Similar to the tests of the first hypothesis, this
extended model (model 2) is applied on the whole
sample. The underlying reasoning of this test is to
determine which component of earnings is explaining returns the most. In other words, is the market relying more on one component than the other in order to explain stock returns.

### Table 5
Results for Regressing Accruals and Operating Cash Flows on Returns on the Market Level

<table>
<thead>
<tr>
<th></th>
<th>ACC</th>
<th>CFO</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
<td>2.21</td>
<td>2.57</td>
<td>7.66%</td>
</tr>
<tr>
<td>$t$-value</td>
<td>(7.47)**</td>
<td>(8.46)**</td>
<td></td>
</tr>
</tbody>
</table>

$R_t$: is stock returns for firm $i$ at period $t$.  
$ACC_{it}$: is accruals for firm $i$ at period $t$.  
$CFO_{it}$: is operating cash flows for firm $i$ at period $t$.  
$A_{i,t-1}$ is total assets for firm $i$ at period $(t-1)$, used to scale variables to reduce heteroskedasticity.  
** $t$ values at 1% significance level.

The results show that both components are statistically significant (at 1% significance level), and the $R^2$ remains the same as in table (3). The coefficient for cash flows is higher than accruals (2.57 compared to 2.21). This indicates that investors put higher weight on the cash flow component more than on the accrual component. Based on the results, the null hypothesis ($H2$) is rejected and the alternative is accepted that the market reacts more to the cash component than to the accrual component. This indicates that, on the market level, investors consider the cash component of earnings contains more relevant information to explain stock returns.

### Table 6
Results for Regressing Accruals and Operating Cash Flows on Returns on the Sector Level

<table>
<thead>
<tr>
<th></th>
<th>ACC</th>
<th>CFO</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks</td>
<td>28.95</td>
<td>32.46</td>
<td>31.62%</td>
</tr>
<tr>
<td>Services</td>
<td>2.44</td>
<td>2.49</td>
<td>9.85%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2.12</td>
<td>1.96</td>
<td>9.09%</td>
</tr>
</tbody>
</table>

$R_t$: is stock returns for firm $i$ at period $t$.  
$ACC_{it}$: is accruals for firm $i$ at period $t$.  
$CFO_{it}$: is operating cash flows for firm $i$ at period $t$.  
$A_{i,t-1}$ is total assets for firm $i$ at period $(t-1)$, used to scale variables to reduce heteroskedasticity.  
** $t$ values at 1% significance level.

The results show that both components in three sectors are statistically significant at a 1% significance level. The $R^2$ is highest in banks and lowest in manufacturing firms. The cash flow component is higher than the accrual component in the banking and service sectors. On the other hand, the accrual component is...
higher than the cash component in the manufacturing sector. This shows that because accruals are used widely in the accounting practices of manufacturing firms, the market reacts more to the accrual component because of its information content.

The cash component in banking firms contains more relevant information because accruals are used less or only for specific items (e.g. provisions for loan losses). Based on the results, the null hypothesis for banks and service firms (H2a and H2b) are rejected in favor to the alternative hypothesis. In other words, there is a stronger relationship between contemporaneous stock returns and cash flows than with the relationship with accruals in the banking and service sectors. The null hypothesis (H2c) is accepted in the manufacturing sector showing a stronger relationship between contemporaneous stock returns and accruals.

The interesting issue the results show here is that as the coefficient of operating cash flows gets higher (i.e. the percentage of cash in earnings), the higher ERC and R² becomes. In the banking sector, ERC is 35.10 and R² is 13.56% (see table 4), and with cross comparison with results in table (6), the operating cash flows are noticed to be higher than accruals. Similarly, in the service sector ERC is 2.47 and R² is 9.83% and operating cash flows is higher than accruals. On the other hand, ERC and R² is the lowest in the manufacturing sector, where accruals are higher than operating cash flows.

The results suggest that the market is successfully discriminating between the two components and attaching a higher value to the cash component of earnings; since the operating or business cycles are shorter in banks and service firms, operating cash flows becomes a better predictor of stock prices. These findings are consistent with Dechow et al. (2008) and Hirshleifer et al. (2009). Both studies find that investors have the ability to distinguish between different levels of accruals and cash flows and based on type of industry or business cycle. Additionally, Liu and Thomas (2000) find that the higher the ERC, the higher the correlation between earnings and returns; and higher R² scores indicates that this correlation is homogenous within the sample. Based on that, the correlation between earnings and returns is higher and more homogenous in the banking sector compared to the other two sectors.

In the manufacturing sector, the accruals are better associated with stock prices because of the length of the operating cycle. Accruals mitigate matching problems between revenues and expenses. Thus, accruals become more informative than cash flows in this sector. This is additional evidence that investors understand the components of earnings and how the type of industry affects the business cycle and the accounting practices in any sector. These results are consistent with Dechow (1994), where her results show that investors understand the effect of special business practices on the relationship between earnings and returns.

**CONCLUSION**

This study aims at examining the relationship between earnings and stock prices for listed companies in the *Amman Stock Exchange*. The earnings figure is the summary result of the company’s performance during a period of time. The computation of earnings is affected mainly by the accounting practices. On the other hand, stock prices are the market’s evaluation of the company at a period of time. Among many other factors, stock prices are affected primarily by earnings.

The results are obtained by applying a simple regression model to examine the relationship between earnings and stock returns on the market level. Results show a relationship (although weak) between earnings and returns when applying the model on the whole sample without discriminating between the different classifications of firms based on type of industry. However, when applying the model on each sector results show that the relationship between earnings and stock returns varies. The strongest relationship is in the banking industry and becomes weaker when moving to the service industry and to the manufacturing industry. These results suggest that the earnings figure has different explanatory power based on the type of industry.

The paper also examines the relationship between the components of earnings and stock returns. On the market level, results show that the market weighing the cash component of earnings more than the accrual component. This indicates that although accruals mitigate timing and matching problems, investors rely more on the cash component to assess companies’ performance. Furthermore, when examining the relationship based on type of industries, results become more interesting. In the banking and service sectors, the cash component carries a higher weight than accruals, whereas in the manufacturing sector accruals have a higher weight than cash flows.
These results suggest that the market is successfully discriminating between the two components of earnings. This also might suggest that investors understand the distinctive characteristics of each sector and recognize that firms have different accounting practices based on their industry classification. The different accounting practices of each sector produces an earnings figure that contains more or less of each component (cash flows vs. accruals), and the market is pricing them accordingly. The results show that as the cash component percentage increase in earnings, the Earnings Response Coefficient (ERC) and the $R^2$ becomes higher.

The results of this paper can be regarded as an extension for results obtained from other studies on the ASE. But in this paper, the sample was extended to include firms from three different industries, whereas previous papers focused mainly on manufacturing companies. Therefore, the results of this paper provide a more comprehensive inspection of the relationship between the components of earnings and stock prices based on sector and industry classification.

Suggested future research could look into the time horizon of the market and whether investors are short sighted since they replace more emphasis on the cash component of earnings. Additionally, research can focus on management manipulation in accruals and even in cash flows to determine whether earnings are being distorted by managers’ discretion.

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العلاقة بين صافي الدخل وعوائد الأسهم في عينة من الشركات المدرجة في سوق عمان المالي

طارق مشوقة

ملخص

تهدف هذه الدراسة إلى اختبار العلاقة بين صافي الدخل وعوائد الأسهم في عينة من الشركات المدرجة في سوق عمان المالي. تتوقع الدراسة أن هذه العلاقة تصبح قوية أو ضعيفة بناءً على تصنيف القطاع. أظهرت النتائج أن العلاقة بين صافي الدخل وعوائد الأسهم أكثر قوة في قطاع البنوك بينما هي أضعف في قطاع الشركات الصناعية. كما أظهرت النتائج أنه مع ازدياد نسبة المستحقيات تصبح هذه العلاقة أضعف. علاوة على ذلك تبين النتائج أن المستثمرين يفهمون مكونات صافي الدخل مما يشير إلى أنهم يدركون الممارسات المحاسبية الخاصة لكل قطاع.

الكلمات الدالة: المستحقيات، التدفقات النقدية التشغيلية، السوق المالي، أسعار الأسهم.

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