






# “Impact of earnings components on future profitability of banking and insurance companies in Jordan”

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# IMPACT OF EARNINGS COMPONENTS ON FUTURE PROFITABILITY OF BANKING AND INSURANCE COMPANIES IN JORDAN

## Abstract

This study aimed to examine the impact of a firm's total accruals and operating cash flows on future profitability (one-year-ahead ROA) using a static model on unbalanced panel data for all the (15) banks and (18) insurance companies listed on the Amman Stock Exchange from 2002 to 2019. The final sample of the study, for analysis, consisted of 280 observations taken from the banking sector and 410 observations from the insurance sector. The pooled sample of banks' observations showed no significant impact of a firm's total accruals and operating cash flows on one-year-ahead ROA. This result is consistent with previous studies' results, which are still under debate, especially in developed countries. The investors of the Jordanian banks are not counting on the accrual earnings components, which are affected by the different estimation procedures of GAAP and managerial discretion. The pooled sample of the insurance companies' observations showed a significant impact of a firm's total accruals and operating cash flows on one-year-ahead ROA. The result showed a higher variable value of a firm's operating cash flow than the firm's total accruals for the pooled sample of insurance companies. This result indicates a more incrementally negative relation between the growth in operating assets and a one-year-ahead ROA in addition to the probable impact of the lower rate of economic profits and the conservative bias in accounting.

## Keywords

total accruals, operating cash flows, earning components, future ROA, emerging markets

## JEL Classification

M40, M41, M42, G22, G22

## INTRODUCTION

During the past few decades, many studies have attempted to understand accrual and cash flow effects on future earnings. Financial analysts use accrual and cash flow components to predict future earnings (Ou & Penman, 1989; Sloan, 1996). Accruals are defined in most academic research (Sloan, 1996) as the change in non-cash working capital less depreciation expense. However, Richardson et al. (2005, p. 445) have debated that "this definition of accruals omits many accruals and deferrals relating to non-current operating assets, non-current operating liabilities, non-cash financial assets, and financial liabilities." Consequently, Richardson et al. (2005, p. 445) define accrual as "the difference between accrual earnings and cash earnings."

In his study, Sloan (1996) tested the differential persistence of the current profitability components to explain future profitability. He revealed that the persistence of the operating accruals was less than the persistence of the operating cash flows for the earnings performance of the next year. The finding of Sloan's (1996) study was extended by several recent studies that adopted total accruals' components accord-

ing to the suggestion that profitability affected by operating cash flows is more sustained in the next period compared to profitability that is affected by either the operating accruals or the non-operating accruals (Fairfield et al., 2003a, 2003b; Collins & Hribar, 2000; Xie, 2001). Barth et al. (1999) indicated that accruals are more influenced by the estimation procedures of GAAP and managerial discretion, therefore, it is expected that accruals and cash flows have different abnormal earnings forecast ability.

In terms of their business structures, accounts, and the estimating techniques of GAAP (Generally Accepted Accounting Principles) and management discretion, banks and insurance companies represent two distinct financial industries. Compared to banks, insurance companies have greater discretion when evaluating policyholder reserves. Insurance companies estimate the amount of reserves required to pay future claims using actuarial methods, and these projections can be affected by management assumptions. The assessment of policyholder reserves for insurance companies may have an effect on the time and amount of premium payments and claim settlements, which may have an influence on accruals and operating cash flows. On the other hand, since they are based on actual customer balances, banks often have fewer restrictions when estimating deposits. Therefore, it is anticipated that these variations will have an impact on the future profitability of both insurance and banking companies.

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## 1. LITERATURE REVIEW AND HYPOTHESES

A wide accumulation of research investigated the earnings information contents by focusing on the main earnings components: the accruals and cash flow components (Fairfield et al., 2003a, 2003b; Mashoka, 2013; Oei et al., 2008; Omidian et al., 2016; Richardson et al., 2005; Sloan, 1996). The vast majority of these studies concluded that the accruals components are less persistent than the cash flow components (Ball et al., 2020; Gu et al., 2018; Guo et al., 2017; Hanauer & Lauterbach, 2019; Huang & Shu, 2014; Larson et al., 2018; Omidian et al., 2016).

Huang and Shu (2014) examine whether the public-listing age affects future operating performance in the Chinese context. Moreover, they investigate whether accounting accruals components influence this impact. They found that public-listing age has an incremental adverse effect on future operating performance, and accruals components play a role in post-issue underperformance. In a similar study, Omidian et al. (2016) investigated whether accounting accruals and earning management influence the impact of public-listing age on future operating performance in the Iranian context. They revealed that, on average, public-listing age and accruals directly affect future operating earnings and that earning management indirectly affects performance.

Accruals indicate earnings management and low financial reporting quality (Dechow et al., 2010). For example, Ugwunta and Ugwuanyi (2019) examine the relationship between accounting conservatism and firm performance in the Nigerian context using data from firms' annual financial statements. Their findings suggest that accounting conservatism positively affects firm performance. They indicate the low financial reporting quality of the Nigerian context and recommend the firms in the selected context to report credible and free information and bias. Jiang (2007) found that, in a fiscal year, accrued earnings for poor-performance stocks are less persistent in forecasting subsequent earnings than accrued earnings for moderated-performance stocks. In addition, Jiang (2007) found that a hedging strategy based on accruals gains higher abnormal earnings following bad-news years.

Many researchers have visited this association; for example, Fairfield et al. (2003a, 2003b) report that the more moderate persistence of accruals relative to cash earning should not be understood as an indication of earnings management, instead, as an indication that accruals are more highly associated with one-year ahead total assets than are cash flows. Beneish and Vargus (2002) report that the accrual mispricing observed in prior studies (e.g., Sloan, 1996) is because of the mispricing of earnings-increasing accruals.

Hirshleifer et al. (2009) investigated whether the firm-level accruals-stock returns association spreads over the whole stock market. In contrast to previous firm-level results, they found that aggregated accruals are significant positive time-series indicators of aggregated stock returns.

In contradiction to the prior studies on the accruals and cash flow components, some researchers provide empirical evidence that these components are not of significant importance when predicting future profitability or stock return. Pirveli (2020) revealed that a current year's earnings persist within the following year's earnings at a range of less than 25%, while the dependence on the current earnings allows predicting the following year's earnings at a range of less than 20%. Gonçalves et al. (2020) revealed that the investors are not counting on the accrual earnings' components and that accruals are unreliable predictors of future shares returns.

Many prior empirical studies that have dealt with firms' financial indicators have concluded that an association of two or more financial indicators might be observed in different forms when examined in multiple contexts. Huang and Shu (2014) classified their study's sample into eleven sectors and examined the association between accruals, public-listing age, and future operating performance among different sectors. Their study shows mixed results; for example, in the agricultural sector, the public-listing age positively affects future return on net operating assets (RNOA), while this impact is inverted for the construction sectors. Mashoka (2013) examined the association between earnings and stock returns. Mashoka (2013) found that the association between earnings and stock returns is greater in the banking sector and lower in the manufacturing sector. They also noted that the association becomes weaker as the portion of accruals increases in earnings.

The correlation between accrual components and future earnings and returns is called accrual anomaly (Dang & Tran, 2019). Ball et al. (2016) indicate that accruals are important in predicting future profitability to the limit that even cash-based operating profitability incorporates accruals in forecasting the cross-section of average returns. Different studies have investigated the rela-

tionship between accruals and the ability to predict profitability (future profitability) in the U.S stock market, U.K but few in developing countries (i.e., LaFond, 2005; Leippold & Lohre, 2012; Kim et al., 2015). These studies indicated that accruals play a significant role in predicting future profitability. The relationship between accruals components and future profitability has long proved to negatively affect future earnings and returns (Dang & Tran, 2019). Companies with high accruals and operating cash flow have lower returns than those with lower accruals and operating cash flow (Sloan, 1996; Dang & Tran, 2019). Gray et al. (2018) found that the relationship between stock returns, total accruals, and net operating asset is negative.

However, Gray et al. (2018) believe that accruals and net operating assets are important components in providing useful and unique information to predict future returns, which might indicate a potentially positive impact on future profitability. Dang and Tran (2019) argue that the negative impact of accrual components on firm future profitability is still debated, particularly in developed countries, including the U.K. Pincus et al. (2007) found that the correlation between accrual components and future profitability is positive in which accruals produce high rates of returns in some specific country contexts. They found that accruals anomaly varies based on the country context. LaFond (2005) similarly found that accruals positively affect the rate of returns in large capital markets in specific countries. Leippold and Lohre (2012) also found a significant positive relationship between accruals' components and the rate of return. However, they justify the positive relationship as anomalous due to mispricing issues.

Richardson et al. (2006) indicate that investors highly value firms with high accruals due to their impact on future profitability. Dechow and Dichev (2002) found a positive relationship between the quality of accruals and income sustainability, which indicates that low cumulative earnings make firms unstable. Along the same line, Richardson et al. (2005) report that reliable accruals lead to high-income sustainability. Fairfield et al. (2003ab) argue that accrual is a fundamental component of profit and growth. They believe that working capital accruals, long-term accruals and total ac-

accruals significantly affect net operating assets and asset growth. Fairfield et al. (2003ab) found a strong association between accruals components and growth (future profitability). Wu and Fargher (2007) found that the accrual components related to changes in asset turnover are less persistent compared to the cash flow components of earnings in profitable firms in Australia. Gray et al. (2018) suggest that the net operating asset significantly modifies the accrual effects. They indicate that accruals significantly affect returns with a high net operating asset, whereas the accrual effects do not exist for returns with low net operating assets.

The banking sector in Jordan plays a vital role in the country's economy, serving as a key intermediary between savers and borrowers. Jordan's banking industry consists of a mix of domestic and foreign banks, offering a wide range of financial services to individuals, businesses, and the government (Abuzayed, 2012). The sector has witnessed significant growth and stability over the years, supported by a sound regulatory framework and prudent risk management practices. Research on the banking sector in Jordan has explored various aspects, including financial performance, risk management, and the impact of macroeconomic factors on bank profitability (Taha et al., 2023). However, limited attention has been given to studying the specific earnings components and their relationship with future profitability, which makes this study significant in contributing to the existing literature (Dahmash et al., 2021).

The insurance industry in Jordan has experienced steady growth and development, providing a range of insurance products and services to individuals and businesses. Insurance companies in Jordan operate under the supervision and regulation of the Insurance Commission, ensuring compliance with legal and financial requirements (AL-Rjoub, 2019). The sector encompasses various types of insurance, including life, property, health, and motor insurance. Despite the importance of the insurance industry in Jordan, research on the earnings components and their influence on the future profitability of insurance companies remains relatively scarce. Therefore, investigating the impact of earnings components on the profitability of insurance companies in Jordan can provide valuable insights for industry practitioners, policymakers,

and researchers, aiding in strategic decision-making and enhancing the overall performance of the sector (Ananzeh et al., 2022; Ananzeh et al., 2021).

Based on the reviewed prior research, this paper adds another understanding of the impact of total accruals and operating cash flows on the future profitability of the banks and insurance companies in the long run for emerging market countries like Jordan. This study covers all the Jordanian banks and insurance companies listed on the Amman Stock Exchange from 2002 to 2019. Thus, the following hypotheses are put forward:

*H1: There is a positive impact of total accruals and operating cash flows on the level of the future firm return on assets of Jordanian banks.*

*H1a: There is a positive impact of total accruals on the level of the future firm return on total assets of Jordanian banks.*

*H1b: There is a positive impact of operating cash flows on the level of the future firm return on total assets of Jordanian banks.*

*H2: There is a positive impact of total accruals and operating cash flows on the level of the future firm return on total assets of Jordanian insurance companies.*

*H2a: There is a positive impact of total accruals on the level of the future firm return on total assets of Jordanian insurance companies.*

*H2b: There is a positive impact of operating cash flows on the level of the future firm return on total assets of Jordanian insurance companies.*

## 2. METHODOLOGY

The study's sample covered all banks and insurance companies listed on the Amman Stock Exchange from 2002 to 2019. All the required data for the study were extracted from the companies' and Amman Stock Exchange websites. The sample period was chosen according to the availability of the required data.

The initial sample of the banks started with 682 observations, and the initial sample of the insurance companies started with 449 observations. However, according to the selection process, the final sample became 280 observations for banks, and 410 for insurance companies. The final total sample is 690 observations.

**Table 1.** Selected sample

Sector	Banks	Insurance
Years	2002–2019	2002–2019
The initial number of company	286	449
Companies with delisted, unavailable or missing data	6	39
Final sample company	208	410

*Note:* Factors (variables) of this study and their measurement are as follows: *Return on total assets* ( $ROA_{t+1}$ ).

Some previous studies in the same area tested the differential persistence of accruals and cash flows as independent variables and used future profitability as a dependent variable, which was a one-year-ahead operating income divided by one-year-ahead total assets (Sloan, 1996; Fairfield et al., 2003ab). The return on total assets variable (ROA) is widely used in accounting research to measure a firm's preset operating performance, analyzing its profitability and quantifying its financial performance. The return on total assets variable (ROA) controls any differences in the financial structure across firms, and because of the changes in the asset state, as well as the changes in the generated profits of the firms, the return on total assets ratio can show significant differences when it used for analyses through time (Bettis & Mahajan, 1985; Habib & Victor, 1991; Robin & Wiersema, 1995; Belkaoui, 1996). Fairfield et al. (2003ab) state that there is a "question whether the differential persistence of current operating accruals and cash flows is due to their differential relations to growth in invested capital, rather than to the reversal of current operating accruals into one-year-ahead earnings". Accordingly, this study will adopt the return on total assets variable ( $ROA_{t+1}$ ), which is measured as the firm's next year's net income after tax divided by its current year-end total assets.

## 2.1. Total accruals and operating cash flows

Total earnings value ( $TEarn_t$ ) contains the two components of total accruals ( $TAccr_t$ ) and operating cash flows ( $OCF_t$ ):

$$TEarn_t = TAccr_t + OCF_t. \quad (1)$$

Richardson et al. (2005) developed a new definition of total accruals compared to its classical definition by adding the non-current operating accruals and financial accruals, so this new definition includes the firm's operating, investing and financing activities. Therefore, total accruals component ( $TAccr_t$ ) of total earnings for the current year-end ( $t$ ) ( $TEarn_t$ ) is defined as the difference between total earnings for the current year-end ( $t$ ) ( $TEarn_t$ ) and operating cash flow for the current year-end ( $t$ ) ( $OCF_t$ ):

$$TAccr_t = TEarn_t - OCF_t. \quad (2)$$

Following the work of Sloan (1996) and Richardson et al. (2005), total earnings value ( $TEarn_t$ ) is defined as a firm's operating income after depreciation. This procedure excludes all non-recurrent items such as extraordinary items, discontinued operations, special items and non-operating income, taxes, and interest expenses.

The operating cash flow or the cash flow from operating for the current year end ( $t$ ) ( $OCF_t$ ) represents the other component of the total earnings ( $TEarn_t$ ). Therefore, the operating cash flow for the current year-end ( $t$ ) ( $OCF_t$ ) is defined as the difference between total earnings for the current year-end ( $t$ ) ( $TEarn_t$ ) and total accruals for the current year-end ( $t$ ) ( $TAccr_t$ ):

$$OCF_t = TEarn_t - TAccr_t. \quad (3)$$

Many studies in the same area tested the differential persistence of accruals and cash flows as independent variables and future or current earnings as a dependent variable. These studies use dependent and independent variables deflated by a measure of contemporaneous invested capital (mainly total assets) as a deflator to reduce any heteroscedasticity. Accordingly, this paper follows these previous studies by using total assets for the current year-end ( $t$ ) ( $TA_t$ ) as a deflator for the three variables of total earnings ( $TEarn_t$ ), total accruals ( $TAccr_t$ ) and operating cash flow ( $OCF_t$ ) of the above equation (2) (Sloan, 1996; Xie, 2001; Richardson et al., 2001; Fairfield et al., 2003ab).

$$\frac{TAccr_t}{TA_t} = \frac{TEarn_t}{TA_t} - \frac{OCF_t}{TA_t}. \quad (4)$$

Operating cash flow deflated by total assets for the current year-end ( $t$ ) ( $OCF_t / TA_t$ ) is defined as the difference between total earnings for the current year-end ( $t$ ) deflated by total assets for the current year-end ( $t$ ) ( $TEarn_t / TA_t$ ) and total accruals deflated by total assets for the current year-end ( $t$ ). Total accruals ( $TAccr_t / TA_t$ ) is also deflated by total assets for the current year-end ( $t$ ), and it is defined as above (Omidian et al., 2016; Huang & Shu, 2014; Mashoka, 2013; Huang & Lin, 2007; Trejo-Pech et al., 2006; Teoh & Wong, 1998).

$$\frac{OCF_t}{TA_t} = \frac{TEarn_t}{TA_t} - \frac{TAccr_t}{TA_t} \tag{5}$$

To simplify, the above equation (5) can be rewritten as follows:

$$DOCF_t = DTEarn_t - DTAccr_t, \tag{6}$$

where ( $DOCF_t$ ) = Operating cash flow for the current year-end ( $t$ ) deflated by total assets for the year-end ( $t$ ); ( $DTEarn_t$ ) = Total earnings for the current year-end ( $t$ ) deflated by total assets for the current year-end ( $t$ ); ( $DTAccr_t$ ) = Total accruals for the current year-end  $t$  deflated by total assets for the current year-end ( $t$ ).

### 2.2. The model of the study

In this study, the future profitability ( $ROA_{t+1}$ ) will be a function of the two variables of the total accruals ( $DTAccr_t$ ) variable and the operations cash flow ( $DOCF_t$ ) variable. The panels data method was adopted for the model of the study because it minimized any possible collinearity between the two independent variables of the study and increased the degrees of freedom.

The regression equation of the study model is as follows:

$$ROA_{t+1} = \beta_{0t} + \beta_1 DTAccr_t + \beta_2 DOCF_t + \epsilon t, \tag{7}$$

where ( $ROA_{t+1}$ ) is the next year firm's net income after tax divided by the current year-end total assets. ( $DTAccr_t$ ) is total accruals for the current year-end  $t$  deflated by total assets for the current year-end ( $t$ ). ( $DOCF_t$ ) is the operating cash flow deflated by total assets for the current year-end ( $t$ ). ( $\beta_{0t}$ ) is the slope of the model. ( $\epsilon t$ ) is the error term.

## 3. RESULTS

Table 2 shows summary statistics for the pooled sample of banks,  $N = 280$ . Data in Table 2 reveals that the mean of the future profitability ( $ROA_{t+1}$ ) equals 1.468. The standard deviation value of 0.968 indicated a rational distribution of values for the sample companies' future profitability ( $ROA_{t+1}$ ) variable. The future profitability ( $ROA_{t+1}$ ) variable ranges from  $-0.211$  to  $7.844$ . Table 2 shows a very low mean value for the total accruals ( $DTAccr_t$ ) variable, which is equal to  $0.003$  and ranges from  $-0.239$  to  $0.774$ . The operating cash flow ( $DOCF_t$ ) variable mean is also low and equal to  $0.019$ , ranging from  $-0.790$  to  $0.258$ .

Table 2 also shows the summary statistics of the insurance pooled sample  $N = 410$ . Table 2 reveals that the mean of the future profitability ( $ROA_{t+1}$ ) equals  $2.280$ . The standard deviation value of  $10.250$  indicated various values for the future profitability ( $ROA_{t+1}$ ) variable. The future profitability ( $ROA_{t+1}$ ) variable ranges from the very low value of  $-72.936$  to the moderate value of  $54.037$ . Table 2 shows a low mean value for the insurance companies' total accruals ( $DTAccr_t$ ) variable, which equals  $-0.014$ , indicating a decrease in income by these total accruals. The variable ranges from  $-0.894$  to  $0.315$ . The operating cash flow ( $DOCF_t$ ) variable mean is much lower and equal to  $0.034$ , ranging from  $-0.747$  to  $0.404$ .

**Table 2.** Descriptive analysis (2002–2019)

Sample of Banks					
N = 280					
Variable	Mean	Median	Std. dev	Min	Max
$ROA_{t+1}$	1.468	1.439	0.968	-0.211	7.844
$DTAccr_t$	0.003	0.011	0.072	-0.239	0.774
$DOCF_t$	0.019	0.026	0.083	-0.790	0.258
The insurance sample					
N = 410					
Variable	Mean	Median	Std. dev	Min	Max
$ROA_{t+1}$	2.280	2.802	10.250	-72.936	54.037
$DTAccr_t$	-0.015	-0.014	0.115	-0.894	0.702
$DOCF_t$	0.034	0.041	0.106	-0.747	0.404

Note: \* ( $ROA_{t+1}$ ) is the next year firm's net income after tax divided by its current year-end total assets. ( $DTAccr_t$ ) is total accruals for the current year-end ( $t$ ) deflated by total assets for the current year-end ( $t$ ). ( $DOCF_t$ ) is the operating cash flow for the current year-end ( $t$ ) deflated by total assets for the current year-end ( $t$ ).

An analysis of multicollinearity between the total accruals ( $DTAccr_t$ ) variable and the operations cash flow ( $DOCF_t$ ) variable using the variance inflation factor (VIF) test was done for the banks pooled sample and insurance pooled sample. The test value was equal to 3.753 for the banks pooled sample and 1.449 for the insurance pooled sample, as shown in Table 3. According to Myers (1990), there is no concern if the (VIP) test is less than 10, so this test result means that there is no multicollinearity problem between the two independent variables of the study for two pooled samples.

**Table 3.** Multicollinearity test results

Pooled Sample	Banks	Insurance
Variance inflation factor value	3.753	1.449

The Hausman test was used to choose between the fixed effect estimator model and the random effect estimator model, which is more appropriate for the model of this study. The results indicated that this model should use the random effect estimator model. Table 4 shows Hausman’s test results for the two pooled samples.

**Table 4.** Hausman test

Hausman test summary results	Chi-square statistic	Chi-square degrees of freedom	Probability
Banks pooled sample	0	2	1
Insurance pooled sample	0	2	1

The model equation (7) above was estimated by pooling all the data of the banks and the insurance sectors.

Table 5 presents the regression analysis results of the model estimation equation (7) for the banks and insurance pooled samples. This paper follows (White, 1980) by using unbalanced panel regression analysis, which is corrected for the potential heteroscedasticity.

**Table 5.** Regression analysis results

Pooled Sample	Banks	Insurance
Years	(2002–2019)	(2002–2019)
Observations No	082	410
Constant C	1.457	0.879
t-statistic	30.614	0.466

Pooled Sample	Banks	Insurance
p-value	0.000	0.144
$DTAccr_t$	0.245	33.463
t-statistic	0.226	2.765
p-value	0.821	0.006
$DOCF_t$	0.542	56.181
t-statistic	0.774	4.715
p-value	0.440	0.000
R Sq	0.446	0.288
Adj R Sq	0.410	0.237
F-statistic	12.401	5.714
Prob F-statistic	0.000	0.000

Note: \* ( $ROA_{t+1}$ ) is the next year firm’s net income after tax divided by its current year-end total assets.  $DTAccr_t$  is total accruals for the current year-end ( $t$ ) deflated by total assets for the current year-end ( $t$ ).  $DOCF_t$  is the operating cash flow for the current year-end ( $t$ ) deflated by total assets for the current year-end ( $t$ ).

## 4. RESULTS

Table 5 shows that a firm’s future profitability ( $ROA_{t+1}$ ) is not affected by the firm’s total accruals ( $DTAccr_t$ ) and the firm’s operating cash flow ( $DOCF_t$ ) for the banks’ pooled sample. This result looks close to the argument of Dang and Tran (2019), who revealed that the relationship between accrual components and future profitability has long proved to have a negative impact on future earnings and returns and that the negative impact of accrual components on firm future profitability is still debated, particularly in developed countries. This result is also similar to Gray et al. (2018), who found that the relationship between stock returns and each of total accruals and net operating asset is negative. Further, Fairfield et al. (2003ab) showed a negative effect for both the accrual components and the cash flows from operations with a one-year-ahead ROA. This is also consistent with Pirveli (2020) and Gonçalves et al. (2020), who argued that the accruals and cash flow components are not of significant importance and not reliable predictors when predicting future profitability or stock return, and investors are not counting on the accrual earnings’ components. Barth et al. (1999) indicate that since accruals are more influenced by the estimation procedures of GAAP and managerial discretion, it is expected that accruals and cash flows have different abnormal earnings forecast ability. The regression analysis for the banks pooled sample shown a moderate (Adjusted R2) value of 41% for the model caused mainly by other factors. Accordingly, the first main null hy-



pothesis (*H1*) is rejected because there is no positive impact of total accruals and operating cash flows on the level of the future firm return on assets of Jordanian banks. Likewise, the first and second sub-null hypotheses are rejected for the same reason.

Table 5 shows that a firm's future profitability ( $ROA_{t+1}$ ) of the insurance companies' pooled sample is positively affected by a firm's total accruals ( $DTAccr_t$ ). This is consistent with previous studies (e.g., LaFond, 2005; Pincus et al., 2007; Leippold & Lohre, 2012), which found a significant positive relationship between accruals' components and the rate of return and suggested that the important role of the accrual components is due to mispricing issue. The regression analysis of the insurance companies' pooled sample revealed a lower value of the firm's total accruals ( $DTAccr_t$ ) variable equal to 33.463 compared to the significant variable of the firm's operating cash flow ( $DOCF_t$ ) of 56.181. This result is consistent with the finding of Sloan's (1996) study, which showed that the persistence of the operating accruals was less than the persistence of the operating cash flows for the earnings performance of the next year. This is also consistent with several recent studies that adopted total accrual components according to the suggestion that the profitability affected by operating cash flows is more sustained in the next period compared to profitability that is affected by either operating accruals or non-operating accruals (Ball et al., 2020; Gu et al., 2018; Guo et al., 2017; Hanauer & Lauterbach, 2019; Huang & Shu, 2014;

Larson et al., 2018; Omidian et al., 2016). Based on this result, the first sub-null hypothesis (*H1a*) is accepted because total accruals positively affect the level of the future firm return on assets of insurance companies.

The regression analysis of the pooled insurance companies showed that a firm's operating cash flow ( $DOCF_t$ ) positively affects the firm's future profitability ( $ROA_{t+1}$ ). This result is consistent with previous studies (e.g., Fairfield et al., 2003ab; Collins and Hribar, 2000; Xie, 2001). This is also consistent with Fairfield et al. (2003ab), who suggested that the relative lower persistence of accruals compared to cash flows, as shown by Sloan (1996), is an indication of a more incrementally negative relationship between the growth in operating assets and a one-year-ahead ROA. They also indicated that this relative lower persistence of accruals mostly results from the lower rate of economic profits or conservative bias in accounting. Accordingly, the second sub-null hypothesis (*H1b*) is accepted because the operating cash flow positively affects the level of the future firm's return on assets of the insurance companies.

Table 5 shows a moderate predictability value (Adjusted R2) of 23.7% for the model. This is consistent with Pirveli (2020), who revealed that a current year's earnings persist within the following year's earnings at a range of less than 25%, while the dependence on the current earnings allows predicting the following year's earnings at a range of less than 20%.

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## CONCLUSION

This study aimed to investigate the impact of a firm's total accruals and operating cash flow on (one-year-ahead ROA) using a static model on unbalanced panel data for all the banks and insurance companies listed on the Amman Stock Exchange from 2002 to 2019.

The pooled sample of banks showed no significant effect of a firm's total accruals and operating cash flows on one-year-ahead ROA. This result is similar to previous studies' results, which are still under debate, especially, in developed countries, and perhaps the investors of the Jordanian banks are not counting on the accrual earnings' components, and these accrual earnings' components are affected by the different estimation procedures of GAAP and managerial discretion.

However, the pooled sample of insurance companies showed a significant effect of a firm's total accruals and operating cash flows on a one-year-ahead ROA. The results showed a higher variable value of a firm's operating cash flow than the firm's total accruals for the pooled sample of insurance companies.

This result indicates a more incrementally negative relationship between the growth in operating assets and a one-year-ahead ROA, in addition to the probable effect of the lower rate of economic profits and the conservative bias in accounting.

According to the study findings, some recommendations emerge. Accruals and cash flow components are not always considered reliable predictors when predicting future profitability because investors might not be counting on the accrual earnings components in addition to GAAP estimation procedures and probable managerial discretion. Further research may include examining a firm's total accruals and operating cash flows against more than a year's worth of ROI for other types of companies.

## AUTHOR CONTRIBUTIONS

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