

"

"

\*

.2001 1989

:

)

(

( )

(Matching)

(Timing)

( )

(Timing)

\*

2004/1/19

.2004/7/29

(Dechow, 1994)

( )

(Accruals)

-

-

(Watts and Zimmerman, (Holthausen and Leftwich, 1983) 1986)

(Discretionary

Accruals)

(Accruals)

.1

(Ball and Brown, 1968)

-

-

:

.1

.2

Accounting

(Beaver and Dukes, 1972)

Accruals

(Ball and Brown, 1968)

(Beaver and Dukes, 1972)

-

-

-

(Arnold et al., 1991) (Ball and )  
(Bowen et al., 1986) ((Beaver and Dukes, 1972) Brown, 1968)

(Board and Day, 1989) 2  
(Ali and Pope, 1995)  
(Board and Day, 1989)

(Ali, 1994)  
(Incremental  
Information Content)  
(Clubb, (Patel and  
1995) Kaplan, 1976)  
(Incremental Information  
Content)  
(Rayborn, 1986)

(Wilson , 1986, 1987) (Rayburn, 1986) (Bowen et al., 1987)  
(Bernard and Stober, 1989)  
(Board and Day, 1989) 1987 3

(Arnold et al., 1991)

(Ali,  
(Ali and Pope, 1995) 1994)  
(Dechow, 1994) (1973 1972)  
(Board and Day, 1989)

( )  
(Accruals)

(Dechow, 1994)

(Dechow, 1994)

(1999)

(Biddle et al., 1995)

.1994-1985

.(1994-1985)

(1987-1985)

1987 95

(1995)

(FASB)

(1999)

:

.1

.2

.3

(2000 )

(1998)

45 1998 - 1988

.1994 - 1985

(1987-1985)

.(1994-1985)

:

(2001)

46

1984

.1998

(Christie, 1987)

)

(2001

5

:(EPS)

:

(EPS)

6

%10

(Change in Working

-

:Capital, ΔWC)

(2002 )

=

14

-

+

.2000-1993

(Cash

-

:Flow from Operations, CFO)

)

(2002

:

+

=

-

(Market-based Accounting Research-) Net Cash Flow, ) -  
:(ΔNCF

(Aggregate Accruals, -  
:AA)

:

=

:(Stock Return, SR) -

(Sloan, 1992)

t  
.<sup>8</sup> (t+1)  
(Monthly

Stock Return, MSR)

$$MSR_{i,t} = \frac{P_{i,t} - P_{i,t-1}}{P_{i,t-1}} \dots (1)$$

:P

:i

:t

:t-1

.2001 1989

9

(1)

45 2001

3

20

11

$$SR_{i,t} = \left( \prod_{t=1}^{12} 1 + MSR_{i,t} \right) - 1 \dots (2)$$

.1

(Adjusted Stock Return, -

.2

:ASR)

.3

.4

(CFO

(EPS)

$$A SR_{i,t} = SR_{i,t} - \text{Market Return}$$

and NCF)

466

(ASR)

320

( / )

146

( )

(Accounting Accruals) (2)  
 (EPS)  
 (ΔWC)  
 (NCF) (CFO)  
 (ASR)

/ (Matching)

.(Timing)

(2)

0.078 (EPS)

.0.0715

0.0936  
 0.0025 (NCF)

0.1223

(CFO)

.0.0002

:

:(Ha)

0.0066

0.0141

(Long-term Accruals)

(R<sub>t</sub>)

C<sub>t</sub> t

P t

(P)

t

t

.(t+1)

t

:

10

$$R_t = C_t (1 - P) + C_{t-1} * P \quad \dots (3)$$

$$R_t = C_t \quad C_t = C_{t-1} \quad (3)$$

$$ASR = a + bx_{it} + e_{it}$$

$$ASR \quad R_t \quad C_t \neq C_{t-1} \quad (3)$$

$$R_t - C_t = P (C_{t-1} - C_t) \quad \dots (4)$$

(CFO)

(NCF)

(3)

NCF CFO EPS

(3)

(%21.63)

(R<sup>2</sup>)

%8.02 (CFO)

%0.14 (NCF)

:(Ha)

CFO

.NCF

(NCF)

(Ha)

.<sup>12</sup>

<sup>11</sup>%10

%10

.%90





.%10

%10

13

13

12

(4)

(3)

.(2001 – 1989)

(Dechow, 1994)

(Charitoo, 1997)

.2001 – 1989

(6)

Young

(6)

.(7)

13

11

8 %10

.(7)

.(Dechow, 1994)

15

(8)

Young

Adj. R<sup>2</sup>  
%13.89

%11.10

.Z

Adj. R<sup>2</sup>

%

%27.83

Young

Z

Z

0.21

0.82

Z

4.28

Z

0.0001

16

17

(Dechow, 1994)

(Dechow, 1994)

3

5

(1)

%85	%33	17	%31	20	
%76	%67	34	%69	45	
%78	%100	51	%100	65	

(2)

\*.( )

(453 )							
	75		( ) 50		25		
0.74	0.1355	0.1365	0.0715	0.0780	0.0129	0.63-	EPS
0.68	0.0582	0.1641	0.0066	0.0141	0.430-	1.00-	ΔWC
1.19	0.2088	0.204	0.0936	0.1223	0.0154	0.50-	CFO
0.34	0.0231	0.0889	0.0002	0.0025	0.021-	0.33-	NCF
1.571	0.0906	0.3142	0.1059-	0.0507-	0.243-	0.862-	ASR
(312 )							
	75		( ) 50		25		
0.74	0.1410	0.1423	0.0752	0.0812	0.0133	0.63-	EPS
0.68	0.0741	0.1792	0.0151	0.0222	0.046-	1.00-	ΔWC
1.19	0.2031	0.2040	0.0994	0.1121	0.0109	0.48-	CFO
0.33	0.0192	0.0825	0.0001	0.0034-	0.020-	0.33-	NCF
1.5712	0.0715	0.3109	0.1054-	0.0617-	0.260-	0.863-	ASR
(141 )							
	75		( ) 50		25		
0.51	0.1148	0.1229	0.0577	0.0708	0.0079	0.36-	EPS
0.51	0.0325	0.1232	0.0014	0.0038-	0.037-	0.54-	ΔWC
0.98	0.2368	0.2029	0.0876	0.1446	0.0254	0.50-	CFO
0.34	0.0362	0.1009	0.0011	0.015612	0.022-	0.27-	NCF
1.4948	0.0994	0.3214	0.1074-	0.0263-	0.202-	0.662-	ASR

%0.5

%0.5

%1

\*

453

(Outliers)

466

(3)  
(EPS)

(453 )			
NCF	CFO	EPS	
0.05-	0.10-	0.13-	
0.21	0.44	1.07	
(0.20)	(0.0001)	(0.0001)	(P Value)
%0.14	%8.02	%21.63	Adj. R <sup>2</sup>
(312 )			
NCF	CFO	EPS	
0.06-	0.11-	0.15-	
0.27	0.45	1.15	
(0.21)	(0.0001)	(0.001)	(P Value)
%0.18	%8.42	%27.50	Adj. R <sup>2</sup>
(141 )			
NCF	CFO	EPS	
0.03-	0.08-	0.09-	
0.09-	0.41	0.87	
(0.73)	(0.002)	(0.0001)	(P Value)
	%6.09	%10.50	Adj. R <sup>2</sup>

## (4)

\* . Young

(453 )			
Z	Z Young		
0.00015	3.6	CFO	EPS
0.0001	4.6	NCF	EPS
0.006	2.5	NCF	CFO
(312 )			
Z	Z Young		
0.006	2.5	CFO	EPS
0.0006	3.2	NCF	EPS
0.09	1.34	NCF	CFO
(141 )			
Z	Z Young		
0.358	0.36	CFO	EPS
0.298	0.52	NCF	EPS
0.32	0.46	NCF	CFO

. %10

\*



(6)

NCF		CFO					
(P Value)	R <sup>2</sup>	(P Value)	R <sup>2</sup>	(P Value)	R <sup>2</sup>		
0.31 0.68		0.75 0.02	%27	1.05 0.0004	%60	15	1989
0.08 0.84		0.04 0.86		0.50 0.02	%16	27	1990
0.30 0.77		0.95 0.04	%12	1.70 0.06	%9.5	28	1991
0.25 0.72		0.17 0.57		1.40 0.03	%14	29	1992
1.60 0.02	%13	0.56 0.01	%15	2.20 0.0001	%57	35	1993
0.15- 0.66		0.50 0.08	%5	1.70 0.009	%24	39	1994
0.04- 0.91		0.18 0.33		1.07 0.0075	%15	40	1995
0.15- 0.67		0.17 0.18	%1.8	1.30 0.0001	%45	44	1996
0.38- 0.43		0.45 0.04	%7.8	1.50 0.0015	%19	46	1997
0.02 0.96		0.03 0.87		0.64 0.02	%9.7	44	1998
0.64 0.21	%4	0.56 0.02	%11	0.52 0.10	%4	41	1999
0.25- 0.46		0.21 0.17	%3	0.40 0.03	%11	34	2000
1.10 0.19	%2.6	0.63 0.06	%8.6	2.30 0.0001	%42	31	2001
						453	

(7)

Young

NCF-CFO		NCF-EPS		CFO - EPS		
P - Value	Z	P - Value	Z	P - Value	Z	
0.04	1.76	0.02	1.94	<b>0.08</b>	<b>1.40</b>	1989
0.49	0.02-	0.05	1.60	0.06	1.57	1990
0.19	0.85	0.21	0.81	0.36	0.36-	1991
0.42	0.18	0.09	1.30	0.09	1.35	1992
0.44	0.14	0.03	1.80	0.02	2.10	1993
0.15	1.04	0.05	1.67	0.06	1.58	1994
0.31	0.49	0.09	1.32	0.11	1.24	1995
0.30	0.52	0.0023	2.83	0.0028	2.77	1996
0.20	0.85	0.09	1.32	0.013	1.11	1997
0.47	0.07	0.11	1.22	0.11	1.21	1998
0.19	0.85	0.39	0.27	0.22	0.77-	1999
0.29	0.57	0.02	1.99	0.16	0.99	2000
0.25	0.66	0.06	1.57	0.05	1.64	2001

(8)

146 :				
P- Value	Z	NCF	EPS	
0.21	0.82	0.17-	-0.19	
		2.00	1.84	
		<b>%11.1</b>	<b>%13.89</b>	Adj. R <sup>2</sup>
156 :				
P - Value	Z	NCF	EPS	
0.0001	4.14	0.08-	0.14-	
		0.69	0.83	
		<b>%03.06</b>	<b>%9.64</b>	Adj. R <sup>2</sup>
151 :				
Value-P	Z	NCF	EPS	
0.0001	4.28	0.05	0.07-	
		0.09	0.96	
		<b>%</b>	<b>%27.83</b>	Adj. R <sup>2</sup>





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## **Accounting Earnings and Cash Flows as a Measure of Performance in Business "An Applied Study on Amman Stock Exchange"**

*M.F Shbaitah, and M.H. Abu Nassar\**

### **ABSTRACT**

This study attempts to compare accrual basis and cash basis via establishing an accrual basis model and two models for the cash basis. Furthermore, this study examines the role of accounting accruals on the ability of earnings to measure company performance. Based on Efficient Market Hypothesis (EMH), this study considers accrual and cash flow models as competing performance measures to reflect company performance.

A representative sample of Jordanian companies from the industrial and the service sectors, listed on Amman Stock Exchange, is used over the period 1989 – 2001.

Empirical results show that the accrual model outperforms the cash flow models. Several sensitivity analyses (like year by year and time series) have been conducted to check the robustness of the above results. This study shows also that the aggregate accounting accruals improve the ability of earnings to reflect company performance.

**KEYWORDS:** Stock Returns, Accounting Accruals, Accrual Basis, Cash Basis, Company Performance.

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