

Evidence of Short-Term Contrarian Effect in Abu Dhabi Firms

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Abstract

This paper examines the existence of short-term contrarian profits in the Abu Dhabi securities exchanges (ADX) for the period of January 2005 through May 2015. This paper provides strong evidence of short-term contrarian profits. The results of this paper present statistically and economically significant profits in the Abu Dhabi stock market over all formation periods. The short-term contrarian strategy used in this paper produces significant average returns of 2.34

Index terms— short-term, contrarian profits, abudhabi securities exchange (ADX), three-factor model.

Introduction he short-term contrarian studies at the level of Arabic market returns have not been as extensively studied as have developed market returns.

Particularly, yet short-term contrarian Abu Dhabi firmlevel studies are not addressed. Moreover, Abu Dhabi firm-level research may provide information about the operations of equity markets that cannot be easily observed in developed market returns. This paper employs Abu Dhabi firms' returns to examine aspect of return predictability. Motivated by the work of Ghar aibeh (2015) which find strong evidence of a short-term contrarian profits at the level of Kuwait firms. By employing the same approach followed by the Chang, McLeavey and Rhee's (1995) methodology, the current study aims to examine whether there is existence of the short-term contrarian at the level of the Abu Dhabi securities exchange (ADX).

The results proposed in the current paper have important policy implications. They provide clear evidence of short-term contrarian effect in the ADX. Investors can, therefore, earn abnormal return by utilizing from this anomaly effect. Second, the identification of an inter-firm short-term contrarian effect in this paper presents that the three-factor model can explain the short-term contrarian profits in the ADX. Finally, this study suggests that further research into this area at the level of the Arabic markets may increase our understanding of the behavior of equity markets.

The rest of the paper is organized as follows. Section 2 offers the relevant literature. The data and methodology used in this paper is explained in Section 3. Section 4 analyzes the findings for both raw and risk adjusted returns then conducts sub-period analyses of the short-term contrarian strategy to examine the robustness of the results. Section 5 concludes the paper.

1 II.

2 Literature Review

Short-term contrarian is an investment pattern in opposition to general market trends by purchasing weakly performing assets and then selling when they perform satisfactorily. A contrarian investor believes the traders who think the market is climbing when they are entirely invested and have no further financial ability to invest in the financial market. At this point, the market reaches its peak; when investors expect a decline, they have already sold out, at which point the market can only climb.

This research is part of a growing literature that investigates short-term contrarian. For instance, in addition to Hameed and Mian (2013), there are a number of enormous research efforts on refining the strategy of short-term contrarian by subtracting out profits that are likely made by fundamental data of market behavior rather than liquidity trades.

Hameed and Mian (2013) re-examine the shortterm reversal phenomenon using stocks grouped by same industries. They illustrate that contrarian strategies within the industries give a significantly greater return about 1.5 percent a month. The study concludes that there is no relationship between adjustments of standard risk and the return reversals. Additionally, the results reveal that there is no relationship between January effect and the intra-industry reversal. This is due to the industry sorting increases the contrarian monthly returns for the months of February. Other studies, like Pastor and Stambaugh (2003), Subrahmanyam (2005), Avramov, Chordia and Goyal (2006) and Da, Liu, and Schaumburg (2013) refine the strategy by through December by a significant 0.43 percent.

In the short term and intermediate term, the conclusions are mixed. For example, Kang, Liu and Ni (2002) suggest that there is existence of a short-term (1, 2, 4, 8, and 12 weeks) contrarian effect and a statistically significant momentum effect in the intermediate term (12, 16, 20, and 26 weeks). Liu and Qin (2007) state that there is presence of a momentum effect with the horizons less than 12 months. In addition, the weekly data stated by Gutierrez and Kelley (2008) suggests different forms of medium-term momentum in the U.S. There are also studies concluding no contrarian influence in the short term or in the intermediate term Yang and Chen (2004) and Liu and Qin (2007).

Identifying stocks (and times) where liquidity shocks are expected to be especially strong. Pastor and Stambaugh (2003) use a monthly liquidity measure based on order flow to study if market wide liquidity has influence on pricing common stocks. The researchers suggest that volatility in aggregate liquidity positively affect the expected stock returns. The study finds that liquidity negatively affects the return reversals from 1966 to 1999. The result of the study concludes that firm size has positive relationship with liquidity and negative relationship with aggregate liquidity. Subrahmanyam (2005) employs a model including both behavioral effects and risk-aversion related inventory phenomena to examine the short horizon reversals. The researcher uses the mid-point quote minimizes concerns about bid-ask bounce to measure returns. The study finds that financial market agents play important role in monthly reversals. Avramov, Chordia and Goyal (2006) find a significant relationship between short-term contrarian and decrease in stock liquidity. They confirm that reversal in weekly and monthly stock returns. These have high turnover and low liquidity, which generate high negative serial correlation to the loser stocks. Avramov et al. (2006) find that the highest abnormal returns before accounting for transaction cost resulted in lack of liquidity.

Da and Gao (2010) suggest that price pressure when institutional investors sell these stocks create negative returns. In contrast, our empirical analysis assumes that institutions are informed liquidity providers, and examines shocks to liquidity provision that occur as a result of unanticipated exits by these informed institutions. Hameed and Kusnadi (2002), and Chui, Titman and Wei (2010) state that Taiwanese stocks have a poor momentum. However, Pan and Xu (2011) find the existence of a momentum effect in weekly returns and a contrarian effect in monthly returns. In addition, Wang, Wang and Liu (2016) find that Taiwan stocks have significant short-term momentum.

3 III.

4 Data and Methodology

The firms data used in the current study are the monthly returns, firm size (ME), and the firm book-to-market ratio (BM) for 65 Abu Dhabi firms. This study employs the monthly returns of the all listed firms in ADX. All data is downloaded from Data stream. The sample period is from January 2005 to May 2015. The study begins from January 2005 because the database has a less comprehensive coverage of Abu Dhabi stocks prior to January 2005. For the market index, the monthly returns of the market are the monthly returns of the United Arab Emirate (UAE) market of Morgan Stanley Capital International (MSCI) Abu Dhabi Index downloaded from Data stream.

Table 1 details firm summary statistics over the period January 2005 to May 2015 for the 65 Abu Dhabi firms, showing the monthly average return, standard deviation, Kurtosis, and Skewness for each firm. Table 1 reports large differences in the average and standard deviation of returns. Eshraq Properties, Intl. Fish Frmg. Holding, Emirates Driving, Waha Capital, Nat. Corp. For TSM & Healths and First Gulf holding have the largest monthly averages (over 2% per month), while Dana has the lowest average at -1.09. The 65 Abu Dhabi firms have an average monthly return of 0.68% and an average standard deviation of 13.80%.

In the short-term contrarian strategy, the investor buys a portfolio of short-term losers and sells a portfolio of short-term winners. The success of such a strategy is based on the stocks in the portfolios being ready to reverse their short-term past performances. The short-term contrarian strategy is described as follows. The 63 Dubai firms are ranked at the beginning of each month based on their most recent past J-month returns. For a given J, the short-term loser portfolio (SL) contains the 10% of firms with the lowest past J-month returns, while the short-term winner portfolio (SW) contains the 10% of firms with the highest past J-month returns... This procedure means that out of the total of 65 Abu Dhabi firms, the short-term loser (SL) and shortterm winner (SW) portfolios of the short-term contrarian strategy each contain 6 firms. The short-term contrarian strategy (SL-SW) buys short-term and sells short-term winners. The current study expects that this strategy will provide larger profits and stronger evidence of shortterm return contrarian effect among firms.

All portfolios in the short-term contrarian strategy are held for a K-month holding period, where $K = 3, 6,$

9 or 12 months. The current study applies Lo and Mackinlay's (1990) overlapping portfolio approach for the holding period returns of all strategies to avoid overlapping returns, and to increase test power. For expositional convenience, the six-month holding period case ($K = 6$) will be the main focus of this study comments about the empirical results in the next section.

Table 1 reports the descriptive statistics for 65 Abu Dhabi firms. The first column is the abbreviated firm names. This is followed by the average monthly percent returns, the standard deviation of monthly percent returns, the Kurtosis and Skewtize of each firm over the period January 2005 to May 2015. IV.

5 Results

This section analyses the results for the shortterm contrarian strategy in terms of raw and riskadjusted results. The current study then conducts subperiod analyses of the short-term contrarian strategy to examine the robustness of the results.

6 a) Short-term contrarian results

Table 2 reports results for the short (SW), long (SL), and long-short (SL-SW) short-term contrarian portfolios for several (J, K) groupings. Table 2 contains the results for formation period lengths of J = 3, 6, 9, and 12 months. Table 2, in columns 3 through 6, provides the equal-weighted average monthly portfolio returns for K-month holding periods (K = 3, 6, 9 and 12 months). This table reports the average monthly holding period returns in percentages of the short, long and long minus short portfolios of the short-term contrarian strategy. Portfolios are formed as follows: portfolios at the beginning of each month t are ranked based on their past J-month formation period returns for J = 3, 6, 9 and 12 months. The short-term loser equal-weighted portfolio (SL) contains the 10% of portfolios with the lowest returns, and the short-term winner equalweighted portfolio (SW) contains the 10% of portfolios with the largest returns. The strategy SL-SW buys the short-term loser portfolio and sells the short-term winner portfolio to be held for K = 3, 6, 9 or 12 months. The tstatistics are based on the Newey-West (1987) correction for autocorrelation up to lag 11. The short-term contrarian results in Table 2 indicate that the strategy profits (SL-SW) are statistically significant over all K-month holding periods if J = 3 month, as well as over one and three months holding periods if J = 6, 9 and 12 months formation period. For example, for the 3-months formation period (K=6) case, the difference between the average monthly returns of the SL portfolio and the SW portfolio is 1.58% per month (t-stat 2.24), which is statistically significant.

On the other hand, the results in Table 2 show weakly significant over six and twelve months holding period if J = 6, 9 and 12 months formation period. For the 6-month formation period case with a six-month holding period (K= 6), for example, short-term losers generate an average of 1.45% per month whereas short-term winners produce an average of -0.34 % per month over the same period. The resulting SL-SW difference of 1.79% per month is weakly significant (t-stat 1.84). Although the short-term contrarian profits are weakly significant and sometimes insignificant, they are still economically large. Therefore, the holding period returns in Table 2 provide evidence of a short-term return reversal effect at the firm level.

7 b) Risk adjustments

To determine whether the short-term contrarian strategy could be considered a reward for bearing risk, the profits of this strategy is risk-adjusted using the Fama-French three-factor model. The three-factor regression model comprises of the market factor, a small minus big factor, and a value minus growth factor: α (or simply alpha) refers to the risk-adjusted abnormal returns of the portfolios over the assessment period. If alpha is statistically significantly different from zero, then this is clear evidence of abnormal profits. Table 3 reports the estimated regression coefficients of the three-factor model and the corresponding White-corrected t-values for the long, short and long-short portfolios for the pure contrarian (J = 6) with six-month holding periods (K = 6). Column 2-3 reports the monthly alphas of the three-factor model, while the last column lists the adjusted R².
p m t p p p t HML h SMB s R R ? ? ? + + + + = Global Journal

The alpha of the short-term contrarian longshort SL -SW portfolio in Table 3 is small (0.007% per month) and insignificant (t-stat 0.71). Interestingly, both the long and the short portfolios have significant alphas at the 5% level. In summary, the short-term contrarian results in Table reveal that there is short-term contrarian in firm returns that can be explained by the Fama-French three-factor model. This table reports the three-factor regression results for the monthly returns of the short-term contrarian portfolios for J = 6 and K = 6. These portfolios are described in Table 2 + + + + =

Where R_{pt} is the portfolio's return, R_{mt} is the return on the market, SMB_t is the Fama-French size factor, and HML_t is the Fama-French book-to-market factor. The t-statistics presented in parentheses are corrected for heteroskedasticity using White's (1980) test. The post-formation behavior of the short-term contrarian strategy's profits is also illustrated in Figure 1. Figure 1 depicts the post-formation cumulative returns of the short-term contrarian SL-SW using nonoverlapping portfolios ($K = 1$) for the 5 years (60 months) following the end of the formation period. For short-term contrarian strategy depicted, it is evident that the reversals of short-term performance show no signs of slowing down by the end of the first 60 post-formation months.

This graph presents the cumulative returns of the short-term contrarian strategy (SL-SW for the 60 months following the end of the formation period.

8 c) Sub period analysis

As a robustness check, the performance of the short-term contrarian strategy was divided in two sub-periods. This division will be examined as follows. The first sub-period extends from August 2005 to June 2010 and the second sub-period covers the period from July 2010 to May 2015. These sub-periods divide the sample into approximately equal halves (after accounting for the 60 months used for the initial 6-month formation periods).

Table 4 details the first sub-period profitability of the short-term contrarian strategy in Panel A and the second sub-period profitability of the short-term contrarian strategy in Panel B. Panel A of Table 4 shows that the short-term contrarian strategy in the first subperiod provides large profits in all holding periods. For example, with a six-month holding period ($K = 6$) the short-term contrarian strategy earns a first sub-period profit of 1.45% per month (t-stat 0.96). In the second sub-period, the short-term contrarian strategy produces also large profits for any K holding periods. For example, with a six-month holding period ($K = 6$) the short-term contrarian strategy generates a second subperiod profit of 1.83% per month (t-stat 1.42).). Although the first and second sub-period short-term contrarian results are statistically insignificant for all K -months holding periods except of $K=1$ and 3 in the second sub-period, the magnitudes of these unadjusted results are still economically large, ranging from 2.46% per month to 0.46% per month.

This table presents in Panel A the average monthly holding period returns in percentages for the first sub period of short-term contrarian portfolios ($J = 6, K = 6$) for the period August 2005 to June 2010, while Panel B reports the second sub period of the average monthly holding period returns in percentages for shortterm contrarian portfolios ($J = 6, K = 6$) for the period July 2010 to May 2015. The way these portfolios are formed is described in Table 2 (for the short-term contrarian strategy). Holding period t-statistics are simple t-statistics.

9 Concludes

The existing literature has extensively examined the short-term contrarian effect at the level of the developed markets, but only few studies have addressed the short-term contrarian effect at the level of emerging markets, especially in ADX. In this paper, we examine whether there is a short-term contrarian effect in ADX. Using monthly returns data of all listed firms in the ADX over the period January 2005 to May 2015, we finds evidence of short-term contrarian profits in the ADX. The current study suggests that investors can earn abnormal return by selling short-term winner stocks and buying short-term loser stocks. The short-term contrarian profits can be explained by three-factor model.

In general, the findings of this paper provide clear evidence of stock market imperfection, Therefore, Investors can earn abnormal return by utilizing the shortterm contrarian anomaly. Typically, since the short selling strategy is not widely used in the Abu Dhabi stock market, investors may employ a trading strategy consisting of buying and selling the short-term loser and short-term winner stocks, respectively.

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Firm Names	Av.%	S.D.%	Kurt	Skew	
ESHRAQ PROPERTIES	7.10	39	17.80	3.75	
INTL.FISH FRMG.HLDG.	3.01	33	39.44	5.45	
EMIRATES DRIVING	2.22	16	7.45	1.97	
WAHA CAPITAL	2.13	16	3.45	0.42	
NAT.CORP.FOR TSM.& HTLS.	2.11	16	6.28	1.95	
FIRST GULF BANK	2.04	11	1.96	0.38	
ARKAN BUILDING MATERIALS	1.91	22	12.92	2.80	
AL WATHBA INSURANCE CO.	1.85	17	30.74	4.35	2016
GULF MEDICAL PROJECTS ABU	1.69 1.57	16	16.75	2.98 2.18	Year
DHABI ISLAMIC BANK		14	11.24		
ABU DHABI NAT.TAKAFUL	1.52	22	62.59	7.05	
NAT.BK.OF RAS AL-KHAIMAH	1.43	14	18.19	2.25	
RAS AL-KHAIMAH NAT.IN. AGTHIA	1.43 1.42	13	81.87 9.08	8.59 1.53	Volume
GROUP NATIONAL BK.OF ABU	1.37 1.31	12	1.79 7.16	0.40 1.72	XVI
DHABI COMMERCIAL BANK INTL.	1.19 0.94	11	1.88 1.30	0.76 0.11	Is-
ABU DHABI COML.BANK UNION	0.92 0.88	17	16.01 7.02	2.93 1.94	sue
NATIONAL BANK FUJAIRAH	0.87	12	2.38	0.49	IX
BUILDING INDS. ABU DHABI SHIP		12			Ver-
BLDG. NAT.BANK OF FUJAIRAH		19			sion
		18			I
		12			
NAT.MARINE DREDGING CO.	0.82	13	7.79	1.72	()
					C
UNITED ARAB BANK NB.OF UMM AL-	0.80 0.78	9 11	2.45 4.36	1.03 1.21	Global
QAIWAIN GULF PHARM.INDUSTRIES	0.75 0.72	8 16	1.19 2.13	0.05 0.53	Jour-
FOODCO HOLDING EMIRATES TELE-	0.68 0.56	11	32.54 1.29	4.14 0.21	nal
COM. RAS AL KHAIMAH CERAMICS	0.55 0.53	11	4.12 -0.15	-0.30	of
INVEST BANK NATIONAL TAKAFUL	0.51 0.42	12	7.21 4.03	0.65 1.64	Man-
COMPANY ABU DHABI AVIATION	0.37 0.34	15	0.70 2.25	1.32 0.32	age-
ABU DHABI NATIONAL HTLS. ALDAR	0.28 0.28	13	5.54 45.80	1.01 0.81	ment
PROPERTIES SOROUH REAL ESTATE	0.24 0.24	14	1.54 12.33	-4.61	and
AL DHAFRA INSURANCE UNITED IN-		15		0.03 2.92	Busi-
INSURANCE RAS AL KHAIMAH WHITE		15 8			ness
CMT.& CON.MATS. METHAQ TAKA-		5 9			Re-
FUL IN.CO.		23			search
UNION INSURANCE	0.24	11	1.40	0.06	
GULF CEMENT	0.19	15	3.73	1.24	
BANK OF SHARJAH	0.17	9	2.38	0.24	
ABU DHABI NATIONAL IN.	0.15	9	2.05	0.16	
SHARJAH ISLAMIC BANK	0.14	11	3.19	0.22	

Figure 1: Table 1 :

2

		K = 1	K = 3	K = 6	K = 9	K = 12
3	SW	-0.57%	-0.56%	-0.17%	-0.06%	0.09%
		(-0.7)	(-0.85)	(-0.27)	(-0.09)	(0.14)
	SL	2.04%	1.32%	1.41%	1.30%	1.23%
		(2.26)	(1.65)	(1.84)	(1.59)	(1.53)
	SL-	2.61%	1.89%	1.58%	1.35%	1.15%
	SW					
		(2.29)	(2.26)	(2.24)	(2.09)	(2.05)

Figure 2: Table 2 :

R	pt	?	p	?	p	R	mt	s	p	SMB	t	h	p	HML	t
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Figure 3:

3

		Three-factor model			
	?	Rm b ?	Rf b	smlbb	hmlAdj 2 R
SW	0.995	0.323	-0.027	-0.026	24.2%
	(17.50)	(5.43)	(-0.43)	(-0.41)	
SL	1.002	0.470	-0.296	-0.278	36.8%
	(16.92)	(5.35)	(-3.24)	(-2.93)	
SW-	0.007	0.147	-0.270	-0.252	12.9%
SL					
	(0.71)	(1.50)	(-2.65)	(-2.38)	

Figure 4: Table 3 :

4

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6 Holding Period Returns $K = 6$ Panel A: First Sub Period From 1/8/2005 to 1/6/2010 (60 observations)

(0.81) (0.70) (0.64)

6 SL-SW Panel B: Second Sub Period From 1/7/2010 to 1/5/2015 (60 observations) 2.46% 1.52% 1.45% (1

Figure 5: Table 4 :

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