Int. J. Nonlinear Anal. Appl. 14 (2023) 6, 85–97
ISSN: 2008-6822 (electronic)
http://dx.doi.org/10.22075/ijnaa.2022.27358.3573

The dominance of the contractum over the momentum and vice versa: Evidence from the Iranian capital market

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(Communicated by Javad Vahidi)

Abstract

This study is aimed at investigating the possibility of combining the ranking period and maintenance period of classical momentum and reverse strategies and evaluating the performance of portfolios resulting from hybrid strategies in comparison with classical strategies. For this purpose, using the information of 120 companies listed on the Tehran Stock Exchange in the period 2011 to 2019, the amount of excess return, the explanatory power of excess return by risk factors of the seven-factor model Fama and French and the explanatory power of future return by excess return of each strategy Combined and classical are evaluated and compared. The results show that contraratum (contractionary hybrid strategy), which is ranked as long-term as reverse strategies but maintained in the medium term like momentum strategies, performs better than momentum and reverse strategies. By controlling risk factors (Fama and French seven-factor model), contractionary, reverse and momentum investment strategies in the Iranian capital market are profitable. Finally, the results of the present study support the explanatory power and more predictive power of the excess yield of the contractionary strategy than the classical strategies for future returns. Therefore, the contribution of the present study is to provide evidence of the excess return and performance of the new hybrid strategy are much higher than the classic investment strategies proven in the Iranian capital market.

Keywords: Momentum Strategy, Reverse Strategy, Hybrid Strategy, Surplus Efficiency, Fama and French Seven-Factor Model
2020 MSC: 91B24, 91B26

1 Introduction

Every investor, upon entering the capital market, seeks to achieve and apply strategies that can win the market and gain additional returns. In contrast, the new financial theory and its core essence, the efficient market hypothesis, is the belief that the market cannot be conquered and the market returned above average. This paradigm claims that there is no trend in price and market efficiency and no additional profit can be made from market trends. The efficient market hypothesis has been challenged in many empirical studies under the influence of the rational decisions of investors. The results of these studies indicate the existence of irregularities that contradict the classical efficient and financial market hypothesis.

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Received: June 2022 *Accepted:* September 2022

Evidence suggests that some investors, in an effort to outperform the market, have implemented trading strategies that can apparently defeat the market [1] and, of course, no sign of declining popularity. There is no better market: Although countless trading strategies have been implemented by investors, montem and reverse strategies have grown and continue to grow over the years, largely due to their consistent and pervasive performance. And [26] as well as [35] highlight the popularity of the momentum strategy among institutional investors, while [36] state that momentum and reversal are two of the most important market anomalies. Nevertheless, the strong performance of montem and reverse strategies has been proven over time and in different geographical locations [4, 7, 15], 2007 (but two additional strategy groups can be created that combine the features of montem and inverse strategy. Classically, ranking and maintenance in the momentum strategy for the medium term is 3-12 months, while the stock is ranked and held in reverse strategies for the long term (2-5 years). Thus, in defining momentum and reverse strategies, it is possible to create two hybrid groups (a combination of new trading strategies based on different ranking and maintenance periods); [1]: Contractionary (called, it ranks stocks in the long run) like a reversal strategy (but keeps them in the medium term) like Montem strategy (the second category of strategy, which Momentrian 15 Rank stocks in the medium term (such as a momentum strategy (but keep them in the long run), such as a reverse strategy. Although the theoretical literature and study of previous studies related to montium and reverse strategies is relatively rich, there are very few studies on the simultaneous operation of both strategies and simultaneous strategies in periods with similar time horizons. Syntax that has not been explored in any of the studies in the country and has only been met by analogy with each strategy. In the field of external studies only 2 studies [1, 9] have examined the above topic. On the other hand, some of the investigators have previously claimed that the existence of market disputes is temporarily awaited, after a period of waiting between Burundi [33], resulting in Montom trading transactions and reversal of market disputes. In the end, this is one of the most important areas of the Momentum strategy and vice versa. P-Borden is mentioned at the source as an explanation for the phenomenon mentioned above; And [18] indicate that branded perforations do not necessarily imply a higher risk compared to perforated perforations, and therefore the origin of the perforation is higher than the permitted risk. Therefore, the present study aims to examine the existing space vacuum, with the formation of metformin on the strategies of Momentum, Reverse and Hybrid (Contratum or Momentary (from the period 2011 to 2019)), to examine whether these strategies work on different horizons of time. Which of the following strategies, by analogy, excels in performance and leads the manager to additional profits? Are each of the surpluses explained by one of the strategies, by the comprehensive risk model? One of the strategies, is it possible to predict future hits on different horizons? And if so, which strategy is more descriptive? The present study of documenting the implementation of hybrid investment strategies is repetitive, which could attract the attention of investors across the spectrum, as compared to the practice of these traditional strategies, due to the need to maintain long-term horizons and so on. Helps academic literature.

2 Principles of theory and research

The bazaar hypothesis Kara, in the seventies and eighties, gained the most dominance and sovereignty in financial conferences in the world. But trust and confidence in this hypothesis gradually and with the discovery against the rules of the stock market, inconsistent alignments with modern financial theories as well as observations of the financial bubble markets in the United States in 1987 and other realities of the Muslim 19 market fluctuated.

The acquisition of Mazd in the class of Momentum strategies and reversals in the context of market disparities can be considered as financial theories, as well as in the modeling of the assets of Sharp [34], Lintner [28] and Black [10]. In particular, it focuses on risk-taking. Specifically, there are pricing models, which have long been considered by academic think tanks to shape the risk and risk [17]. They say that buying stocks is mainly based on systematic risk. Due to the current volatility of the market, the segments observed in the middle of the stock market are not able to explain the potential risk models based on risk-taking [19]. They are only associated with the stock market in the past, which is considered as market disputes.

2.1 Momentum

Namanjari Momentum is known as Nahanjari Superior and the center of attention for the last few years [1]. Nearly (past) performers have had worse performances, whereas early writers like [2]. (possibly Bruce Momentum were emphasizing on the stock market, study [24, 25]. Add to that the importance. Since then, authors have found other evidence from Momentum in various countries [4, 6, 7, 14, 15, 16, 20, 22, 26, 27, 29, 31].

2.2 Reverse strategy

The reverse strategy is based on past buyers and past sellers. [11] define reversal in the sense of abnormal trading of past participant and past participant in the stock market. The stock has been performing poorly for the last 3 to 5 years. Also studied, other researchers including [9, 16] (as well as the existence and continuity of Nahanjari reversed, although [37] indicate that in the UK, long-term returns are mainly to the type of industry. The case of Fadaeinejad and his colleagues [16] (approximately in relation to Momentum and Reverse Strategy) approves. In relation to Reverse Strategy Benefit, there are many contradictions; they are profitable; other studies suggest that they are losing their strategies.

In addition, some researchers point out that the reverse strategies can be combined with the three factors of [5, 6, 18], (Reverse Size or Risk Systematic Papers Reversed Paper); [5, 14, 32] (or January effect) or [38] (explained. Although explanations for such irregularities have been presented, including logical explanations) based on risk (and speed, but sustainability and flexibility they also gauge).

From there, the portfolio of Momentum strategies for the medium term (3-12 months) and the reverse of the long-term strategy (2-5 years) can suggest two new groups of strategies: interaction "logic. Rankings are the reverse of long-term reverse strategies with the medium-term maintenance strategies of Momentum.

In Figure 1, four groups of research strategies [1] are proposed which can be extracted from the horizontal ranking and maintenance of stocks. It can be done in the medium term (like Momentum Strategies. (On the other hand, Momentum Strategies) Momentum (can be ranked in the medium term) Like Momentum Strategies (but in the long term) The reverse is presented (in the following related descriptions of each of the synthetic strategies, from the research of [1]).

2.3 Contractum (contraction strategy)

Contratum strategies are a combination of strategies that are categorized based on the long-term horizon, as well as the reverse strategy (but the horizontal time horizon monitoring is also the same as the Momentum Strategy, the mid-term strategy. There is also a reversal of performance in the medium term and, therefore, buying stocks that have been performing poorly in the past (long-term holders) and selling stocks that have performed well in the past (long-term performance). In retrospect, the latter creates unnatural openings in the intervening period [1].

[8] indicate that reverse strategies perform well in the medium term, and [12] find that reverse strategies on the horizon are too short, 1 month and the horizon too long, more profitable than 2 years or more. And while these reverse strategies work well in the medium term.

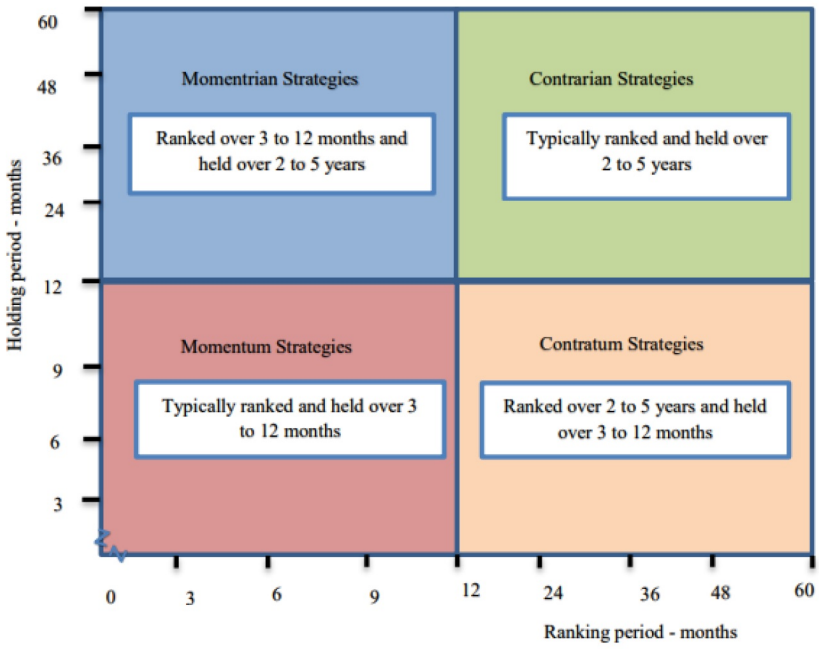

Figure 1: Matrix investment strategies based on momentum and reversal with a view to horizontal ranking and monitoring [1]

One logical reason for the profitability of contraction strategies is regret avoidance. According to the regret theory, people experience or anticipate regret and happiness when making a decision. Since the overreaction leads to long-term return of returns, which contributes to the profitability of inverse strategies in the long-term, investors who want to avoid the regret of not owning (selling) are likely to They expect that future long-term winners (losers) will soon be encouraged to buy (sell) past long-term losers (winners), and therefore stocks that were expected to win (lose) in the long-term future will become winners (losers) in the medium term; In other words, earlier than what the classic inverse strategy states [4].

Feeling regret can in the medium term, lead to increased demand (supply) for long term losers (winners). and, all things being equal, In the medium term, it can lead to an increase (decrease) in prices and returns for past long-term losers (winners), potentially contributing to the profitability of contratome strategies. Therefore, it is possible to buy (sell) mid-term long-term losers (winners) to avoid the regret of not owning (being deprived of) these expected future winners (losers). It can help the profitability of contratome strategies, or in other words, the profitability of reverse strategies in the medium term.

2.4 Momentary Strategy (Momentary)

Momentum strategies are a combination of momentary strategies, in which, the ranking of stocks and the selection of stocks is based on the medium-term horizon (as well as the Momentum Strategy (but with a long term observation) as well as the reverse strategy (Momentum Strategies). The persistent performance of the stock price exists over a long period of time and this implies that buying stocks that have performed well in the recent past has been a sell-off in the past. In the medium term (they create abnormal openings in the long term). Waiting for strategies to act momentarily worse than other strategies, as evidenced by strong evidence that persistence only lasts until mid-term [13]. However, the Momentary Strategy (Momentum), in comparison with other strategies, is far weaker.

3 Research hypotheses

Considering the reluctance and propensity to resist investor remorse, as described above [1], it is expected that combining strategies, especially contraction, will work well, so the first and third hypotheses are:

1. Excessive investment based on investment strategy is synthetic, positive and meaningful.
2. Risk Factors Can Explain Excessive Expansion of Strategies Explaining Synthesis and Classic Strategy.
3. Extra no-brainer from the synthetic and classic strategy, the next effect is significant.

4 Research Methodology

4.1 Type of study and research questions

The purpose of this research is to present answers to questions, test theories and theories in a specific field, in the category of applied research (research and development) and with the possibility of providing a descriptive description of a phenomenon, from a kind of experimental, descriptive and Therefore, attention to detail, inference and solution of the problem with the use of lesser quantities in the realm of lesser research.

4.2 Society and sample statistics

This research community includes a total of accepted companies on scholarships throughout the years 2011 to 2019. There is a time-consuming and difficult task in conducting these investigations and the formation of paramilitaries, and many companies do not engage in frequent and frequent transactions in different months, and the longer the duration of the investigation, the more likely it is to carry out this research, the sampling. It happens. Sample point of view using systematic deletion method and acceptance conditions prior to 2011, having all the information required, non-change of financial year during the review period, non-transactional period of more than 3 months and inactivity in banking area, holding Investment and credit institutions are selected. Considering the cases mentioned, a sample of 120 adult adults is involved in a 9-year research period.

4.3 Research Methodology

The direction of the momentum based on the Momentum strategy as well as the research of [1, 24, 25], the stock is assessed in 3 to 12 months, then the investment is done at intervals of one month, for 3 to 12 months. The future will be invested in stocks. The existence of a one-month ranking is prototypical to ensure that strategies under short-term reversal (weekly, monthly [23]) do not take effect.

The reversal of the strategy of reversal of the rating of stocks has taken place over the last 2 to 5 years. A one-year interval is also taken on the grounds that, according to [18], prior to the formation of the TFTU rankings, the continuation of the short-term, short-term, long-term return leads to long-term satisfaction. Since the reverse strategies are not under the influence of Momentum, 1 year has elapsed since the classification and formation of the TFOs.

The direction of the contralateral strategies (contraction synthesis), the ranking of stocks takes place 2 to 5 years ago, then one year later, the stock will be monitored for the next 3 to 12 months. And [1], using the method of using a combination of compound narib, which is a proclamation strategy of procurement and maintenance, is calculated. And there is a difference between opening and closing the bar in each strategy.

After the accumulation of monthly matches and also the calculations of the collective matches of three, twelve, twenty and four, si twenty, forty and eight and sixty months, action is taken to form the bases of the period based on the period J, watch it in the period k and calculation It happens in a period of time. These parameters are formed in the order in which the sample shares are initially classified according to the opening period J, then the sample is divided into five categories. In order to perform the tests and compare the strategies, the first class will be selected as the standard of the previous brands and will be monitored for the period k and at the end of this period will be determined for the expedition. At the same time, the last class is selected as the last selection of the players and for the period of K, and in this period, the selection of the players is determined

4.4 Research model

To show the risk in the implementation of strategies, using the model 7 operating [18] Extended portfolio of each category formed to examine each of the strategies, to open the excess market, the size of the company, the value of the company.

$$PF\ Ret_{it} = \alpha + \beta_1(Ret_{mkt} - RF) + \beta_2 SMB + \beta_3 HML + \beta_4 RMW + \beta_5 CMA + \beta_6 VOL + \beta_7 TUR + \varepsilon \qquad (4.1)$$

In the above equation: $PF\ Ret_{it}$ Exposure of surplus stocks formed in the period t, Ret_{mkt} Exposure of market stipulation) I compared the market index in the period t relative to the previous period (RF Explain the rate of interest without risk) Size (small size minus large (HML factor of value) compared to the official value of the market more minus (RMW interest rate) strong operating interest rates minus (CMA conservative investment) Conservative minus aggressive investment 46, VOL transaction volume (volume of transaction) minus (and TUR cash rate) is the rate of circulation above minus. It is memorized in every cycle.

Table 1: Profile structure based on the seven working formulas of [20] based on Matris 3×2

Agent breakpoint	**Factors**	**Factor components and how to form a portfolio**
Size [20]: Middle	Book size and value to market	$SMB_{\frac{B}{M}} = \frac{SH_{\frac{B}{M}} + SN_{\frac{B}{M}} + SL_{\frac{B}{M}}}{3} - \frac{BH_{\frac{B}{M}} + BN_{\frac{B}{M}} + BL_{\frac{B}{M}}}{3}$
	Size and profitability	$SMB_{RWM} = \frac{SR+SN+SW}{3} - (BR + BN + BW)/3$
	Size and investment	$SMB_{CMA} = \frac{SC+SN+SA}{3} - (BC + BN + BA)/3$
	Size and volume of transactions	$SMB_{VOL} = \frac{SH_{VOL}+SN_{VOL}+SL_{VOL}}{3} - \frac{BH_{VOL}+BN_{VOL}+BL_{VOL}}{3}$
	Size and liquidity	$SMB_{TUR} = \frac{SH_{TUR}+SN_{TUR}+SL_{TUR}}{3} - \frac{BH_{TUR}+BN_{TUR}+BL_{TUR}}{3}$
	SMB	$SMB = (SMB_{\frac{B}{M}} + SMB_{RWM} + SMB_{CMA} + SMB_{VOL} + SMB_{TUR})/5$

Market value to book [30]: 30% low, 40% medium and 30% high	HML	$HML = \frac{SH_{\frac{B}{M}} + BH_{\frac{B}{M}}}{2} - \frac{SL_{\frac{B}{M}} + BL_{\frac{B}{M}}}{2}$
Profitability [30]: 30% low, 40% medium and 30% high	RMW	$RMW = \frac{SR+BR}{2} - \frac{SW+BW}{2}$
Investment [30]: 30% low, 40% medium and 30% high	CMA	$CMA = \frac{SC+BC}{2} - \frac{SA+BA}{2}$
Trading volume [30]: 30% low, 40% medium and 30% high	VOL	$VOL = \frac{SH_{VOL}+BH_{VOL}}{2} - \frac{SL_{VOL}+BL_{VOL}}{2}$
Liquidity Rate [30]: 30% Low, 40% Medium and 30% high	TUR	$TUR = \frac{SH_{TUR}+BH_{TUR}}{2} - \frac{SL_{TUR}+BL_{TUR}}{2}$

It is obvious that in case the variables of the model (4.1), the extra portfolio of the corresponding variable (to be precisely explained, the amount of alpha) would be insignificant from the point of view of the source. Momentum and vice versa cannot be fully explained by the seven-factor model.

After calculation and analogy, open the prototypes in each of the Momentum strategies, reverse and syntactically. Finally, the direction of the test can be explained in more detail based on each of the strategies and analogy relative to the relative strategies, for the next set of modalities. The following applies:

$$Future\ Ret_{t+n} = \alpha + \beta_1 MOM \frac{and}{or} CON \frac{and}{or} HYB + \beta_2 LogMktCap + \beta_3 Beta + \beta_4 Market\ Return + \beta_5 Volatility + \varepsilon \tag{4.2}$$

The equivalent of the equation (4.2), the next hit; $Future\ Ret_{t+n}$ (in 1, 9 and 12 months) (MkCap [1]), Capital Markets (MktCap), Systematic Risk (Beta), [13] (Market Openings); It is worth mentioning that with a view to calculating the opening of each of the strategies described above, with the attention of using the next 3 months in the reverse strategy and also the next 6 months in the next Momentum strategy, 3 months and 6. The next month is deleted from Model (4.2).

5 Research findings

Evaluation of Strategies for Evaluation of Momentum Strategies, Reverse and Synthesized by Different Classification and Maintenance Periods, Shares Based on 3, 6, 9, 12, 24, 36, 48 and 60 Monthly Rating After an interval of 1 month or 1 year, as per case 50, the maintenance portfolio for 3, 6, 9, 12, 24, 36, 48 and 60 months will be examined. In total, 64 strategies 51 are divided into four groups according to which each group has 16 strategies. The results of the various strategies are presented in Table 2.

Table 2: Outcomes from the formation of yields from investment strategies with different ratings and oversight periods.

		Maintenance period							
		3	**6**	**9**	**12**	**24**	**36**	**48**	**60**
Ranking period		**Momentum strategy**				**Momentrian strategy**			
3	Winners	0.0132	0.0118	0.0114	0.0104	0.0078	0.0072	0.0066	0.006
	Losers	0.0096	0.0086	0.0079	0.0079	0.0079	0.0072	0.0069	0.0067
	Win-Los Portfolio	0.0032*	0.0028*	0.0021*	0.0021*	−0.0005*	−0.0005*	−0.0007	−0.0011*
6	Winners	0.0143	0.0128	0.0117	0.0101	0.0071	0.0068	0.0062	0.0056
	Losers	0.0083	0.0074	0.0075	0.008	0.0081	0.0072	0.007	0.0069
	Win-Los Portfolio	0.0056*	0.005*	0.0037*	0.0017*	−0.0013*	−0.0008*	−0.0013*	−0.0017*
9	Winners	0.0147	0.0125	0.0107	0.0092	0.0067	0.0065	0.0058	0.0054
	Losers	0.0078	0.0075	0.0082	0.0086	0.0081	0.0072	0.0073	0.0071

	Win-Los Portfolio	0.0065*	0.0046*	0.0021	0.0001	−0.0019*	−0.0011*	−0.0019*	−0.0022*
12	Winners	0.0133	0.011	0.0093	0.008	0.0063	0.0062	0.0055	0.0051
	Losers	0.0085	0.0089	0.0092	0.0092	0.0084	0.0074	0.0075	0.0073
	Win-Los Portfolio	0.0044*	0.0017*	−0.0003	−0.0016*	−0.0025*	−0.0016*	−0.0024*	−0.00062*
	Contratum strategy					**Contrarian strategy**			
24	Winners	0.012	0.0111	0.0104	0.0098	0.0085	0.0086	0.0082	0.0077
	Losers	0.0078	0.0073	0.0071	0.0071	0.0059	0.0054	0.0053	0.0052
	Win-Los Portfolio	0.0038*	0.0033*	0.0029*	0.0025*	0.0021*	0.0028*	0.0025*	0.0021*
36	Winners	0.0139	0.0121	0.0113	0.0106	0.0096	0.0091	0.0086	0.0081
	Losers	0.0078	0.0063	0.0059	0.0055	0.0057	0.0053	0.0046	0.0052
	Win-Los Portfolio	0.0057*	0.0054*	0.005*	0.0064*	0.0035*	0.0034*	0.0031*	0.0025*
48	Winners	0.0136	0.0123	0.0117	0.0111	0.0096	0.009	0.0086	0.0081
	Losers	0.0071	0.0062	0.0059	0.0057	0.0054	0.0048	0.0049	0.005
	Win-Los Portfolio	0.0061*	0.0058*	0.0054*	0.005*	0.0038	0.0038*	0.0033*	0.0026
60	Winners	0.0138	0.0125	0.0116	0.011	0.0096	0.0092	0.0086	0.008
	Losers	0.0068	0.0057	0.0049	0.0049	0.0047	0.0046	0.0049	0.0048
	Win-Los Portfolio	0.0066*	0.0064*	0.006*	0.0064*	0.0044*	0.0041*	0.0033	0.0028*

As shown in Table 2, most strategies perform well with respect to portfolio returns, except for a limited number of cases, all of which are significant at the 5% error level, plus two groups of long-term ranking strategies (contraratum and reverse strategies). (Compared to the other two strategies, they perform better and have more positive returns. For example, contractionary strategies) Contratum, which ranks stocks based on returns over the past 60 months, waives 1 year and then Holding in the medium term (ie, 3, 6, 9, and 12 months) produces a portfolio (a losing portfolio minus a winning portfolio), which yields about 0.6.5% per day, while the reverse strategy is that stocks in the last 60 months, ranking and keeping them for a long time, they have a return of about 0.4%.

In fact, the best strategy is a contractionary strategy that ranks stocks in the last 60 months, rejects a year, and invests in stocks for 3 months (ie, the 3.12×60 strategy). Strategies that are ranked and maintained in the medium term (3 to 12 months) also have good performance, which in most cases is a positive portfolio return, while the strategy Medium-term rankings that are maintained in the long run) (ie, momentary strategies (do not provide interesting results in terms of efficiency)) either have low returns or have significant negative returns, in fact, it seems that Twelve months later, as losers begin to move, momentum strategies lose speed. As a result, all momentum strategies that actually maintain momentum ratings in the long run show a negative or low portfolio return, thus momentary strategies are the worst investment strategies and therefore Subsequent calculations are discarded.

According to the results, the first hypothesis is confirmed at the level of contracture strategy (contractile (but not at the level of momentum strategy). And French to evaluate the performance of portfolios based on contraratum, momentum and inverse strategies using the risk factors determined in the seven-factor model of [20], Equation (4.1) fits. Model fits results 1 in the table 3 shown:

Table 3: Results of fitting the seven - factor regression model of Fama and French on the surplus returns of each investment strategy.

Momentum Strategy: $6 \times 1 \times 6$	**Winners (P1)**	**Losers (P5)**	**Win-lose Portfolio**
$(Ret_{MKT} - RF)$	0.8420*	0.6447*	0.1873
t-statistic	(15.9)	(18.72)	(1.18)

SML	0.0653	0.0910*	−0.0457
t-statistic	(1.03)	(10.76)	(−0.80)
HML	0.0302	0.0834*	−0.0532
t-statistic	(0.59)	(1.97)	(−0.83)
RMW	−0.1048	0.2024	−0.0542
t-statistic	(−0.81)	(0.45)	(−0.85)
CMA	0.0507	−0.0219	0.0725
t-statistic	(0.86)	(−0.45)	(0.99)
VOL	0.0439	0.0771*	−0.033*
t-statistic	(1.28)	(2.73)	−(1.78)
TUR	0.0665*	0.0855*	−0.0190
t-statistic	(2.08)	(3.23)	(−0.47)
Alpha	0.0039*	−0.0021*	0.0054*
t-statistic	(2.88)	(−2.49)	(4.11)
Adjusted R^2	0.5325	0.6558	0.0126
F-statistic	22.59*	18.75*	14.32*
Contrarian Strategy: $36 \times 12 \times 36$			
$(Ret_{MKT} - RF)$	0.8563*	0.5078*	−0.3484*
t-statistic	(21.55)	(11.93)	(−6.72)
SML	−0.0022	−0.0105	−0.0083
t-statistic	(−0.21)	(−0.96)	(−0.63)
HML	0.0069	−0.0051	−0.0120
t-statistic	(0.52)	(−0.36)	(−0.69)
RMW	−0.0266*	−0.0061	0.0205
t-statistic	(−2.05)	(−0.44)	(1.21)
CMA	−0.1041	−0.0246	−0.0305
t-statistic	(−0.67)	(−0.88)	(−0.12)
VOL	0.0173	−0.2088	−0.4161
t-statistic	(0.98)	(−0.85)	(−1.25)
TUR	−0.4033	−0.7023	−0.809
t-statistic	(−1.39)	(−1.77)	(−0.21)
Alpha	−0.0101*	0.0109*	0.0227*
t-statistic	(−6.83)	(2.87)	(7.59)

Adjusted R^2	0.4325	0.4360	0.1277
F-statistic	20.28*	25.92*	18.32*
Contratum Strategy: $60 \times 12 \times 3$			
$(Ret_{MKT} - RF)$	0.6581*	0.5156*	−0.3825*
t-statistic	(18.64)	(9.30)	(−3.84)
SML	0.0701*	0.1451*	0.0750
t-statistic	(1.89)	(3.17)	(1.38)
HML	0.1099*	0.1298*	0.0422
t-statistic	(2.07)	(4.15)	(0.88)
RMW	0.0804	−0.1025	−0.1501
t-statistic	(1.12)	(−1.04)	(−0.98)
CMA	−0.1309	0.1082	0.1501*
t-statistic	(−0.95)	(1.09)	(2.39)
VOL	0.564*	0.14*	0.836*
t-statistic	(1.69)	(3.16)	(1.68)
TUR	0.0902*	0.0225*	0.1323*
t-statistic	(2.97)	(5.53)	(2.93)
Alpha	−0.0105	0.0209*	0.0029*
t-statistic	(−0.64)	(4.06)	(3.55)
Adjusted R^2	0.596	0.481	0.105
F-statistic	38.09*	24.19*	18.91*

As the results in Table 3 (show the surplus efficiency due to momentum, reverse and contraratum) contractile strategies are not fully explained by the Fama and French seven-factor model because at the 95% confidence level, alpha regression in terms of There is a statistically significant difference from zero, although in terms of quantity, the width of the origin (alpha) in the hybrid contraratum strategy is far less than the other two strategies; Contradicts the results of [18], which explain the surplus return resulting from this strategy by the three-factor model. Strategies do not. .5 3 Evaluation of future return forecasting power by investment strategies to evaluate future return forecasting power (one month, 9 months and 12 months) by the excess return of each of the momentum strategies $6 \times 1 \times 6$, inverse 36% 36 12 and contractile (contractile $(60 \times 12 \times 3)$) and their comparison with each other, the degree of correlation of these variables with future returns according to the model (4.2) is investigated.

Table 4 shows the results of fitting regression models:

Table 4: Results of model 2fit for each strategy separately and in combination

	Future returns (by month)								
Variables	**1**	**9**	**12**	**1**	**9**	**12**	**1**	**9**	**12**
Momentum strategy	0.009*	0.0524*	0.0303*	–	–	–	–	–	–
t-statistic	(4.92)	(5.47)	(3.14)	–	–	–	–	–	–

Contrarian strategy	–	–	–	−0.002*	0.0109*	−0.012*	–	–	–
t-statistic	–	–	–	(−3.82)	(−3.53)	(−3.12)	–	–	–
Contratum strategy	–	–	–	–	–	–	−0.0009*	0.0095*	−0.0104*
t-statistic	–	–	–	–	–	–	(−4.31)	(2.85)	(−13.23)
Log MktCap	0.0019*	−0.0212*	−0.0297*	0.0007	−0.0249*	−0.0353*	0.0006	−0.0334*	−0.0482*
Beta	0.0026	−0.0287*	−0.0366*	0.0016	−0.0589*	−0.0828*	−0.0008	−0.0233*	−0.03*
Market Return	0.9291*	0.9368*	0.9587*	0.8967*	0.8831*	0.8747*	0.8702*	0.8534*	0.8758*
Volatility	−0.0038	0.0094*	0.004*	0.0028	0.0086*	0.0082*	0.0057	0.0023*	0.0033*
α	−0.021	0.243*	0.659*	0.0124	0.537*	0.82*	0.007	0.689*	0.950*
Adjusted R^2	0.512	0.0192	0.145	0.658	0.151	0.231	0.624	0.282	0.213
F-statistic	22.35	12.94	17.53	18.92	25.04	17.35	21.24	23.02	16.87
Momentum strategy	−0.003	−0.0409*	−0.0469*	–	–	–	–	–	–
t-statistic	(−1.02)	(−1.82)	(−1.72)	–	–	–	–	–	–
Contrarian strategy	−0.005*	−0.041*	0.0596*	–	–	–	–	–	–
t-statistic	(−2.25)	(4.23)	(7.95)	–	–	–	–	–	–
Contratum strategy	0.0017	−0.0262*	−0.0359*	–	–	–	–	–	–
t-statistic	(0.98)	(−6.87)	(−6.08)	–	–	–	–	–	–
Log MktCap	0.0009	−0.0264*	−0.0396*	–	–	–	–	–	–
Beta	−0.0042	−0.0197	−0.025	–	–	–	–	–	–
Market Return	0.8673*	0.8299*	0.8387*	–	–	–	–	–	–
Volatility	0.0027	0.0017*	0.0026*	–	–	–	–	–	–
α	0.042	0.851*	0.942*	–	–	–	–	–	–
Adjusted R^2	0.627	0.159	0.186	–	–	–	–	–	–
F-statistic	28.32	15.35	12.87	–	–	–	–	–	–

The results in Table 4 (show that momentum strategy returns), past 6 months (inverse), past 36 months (and contraratum), past 60 months, play an important role in explaining future returns, even after controlling for effects from other variables. As expected, momentum returns over the past 6 months (based on the concept of continuity of returns are positively correlated with returns over the next 1 month, 9 months, and 12 months) at the 5% error level. This indicates that momentum returns can be Predict Medium-Term Returns For reverse and contraction strategies, it is expected that there will be a negative relationship between past returns and future returns, based on the concept of return returns [20]. In this regard, the return of the inverse and contractionary strategy has a significant negative relationship with the future return on all horizons (at the level of 5% error). The importance of the coefficients of these variables shows that these variables are important in explaining future returns.

By proving that the return variable of each strategy explains the future return alone and with importance, in

the next step, the relative prediction of the strategies in explaining the future return is examined. Therefore, again the model (4.2) which includes the returns of three strategies in the same regression model, the results of which are presented in Table 4.

As the results show, the inverse return variable, unlike the momentum and contraratum return variables, can predict the return of the next month. This result is not unexpected and is sometimes consistent with the empirical findings of a short-term return on return [23]. The contraratome return variable, in explaining the return of the next 9 months and 12 months, is superior to the return of both the momentum and the reverse strategy. The coefficients of the momentum and inverse variables are either negligible or contrary to their predicted symptoms in the 9-month and 12-month return regression Are the future. Based on these findings, it can be stated that the contraction strategy (contraratum) is superior to both the reverse strategy and the momentum strategy in predicting future returns. In the regression model, many control variables also have significant coefficients. They have the expected symptoms. In general, past returns play an important role and the contractile strategy performs well in predicting future returns.

6 Discussion and Conclusion

In the present study, the possibility of combining momentum and inverse strategies to form hybrid strategies and evaluate them was investigated and analyzed. For this purpose, using the data of companies listed on the Tehran Stock Exchange between 2011 and 2019, the possibility of obtaining excess returns using the two classic strategies of momentum and reverse and their combined strategies (contractor and momentum), calculated and with The results indicate that momentum, reverse and contraction strategies (contraratum) can lead to excess returns, while returns based on contraction strategies perform better.

The results also show that even after risk control (Fama and French seven-factor model), contractionary, reverse and momentum investment strategies in the Iranian capital market are profitable. In other words, the additional returns resulting from these strategies do not explain the potential for risk and explain it using the Fama and French seven-factor model. Finally, the results of the present study support the explanatory power and greater predictive power of contraction strategy surplus returns than classical strategies for future returns.

Explaining the above results, it can be stated that since the meta-reaction of investors leads to a return on returns, reverse strategies can work well in the long run; However, investors' willingness to avoid regretting not owning (selling (long-term future winners) losers) encourages investors to buy, sell (losers) winners (long-term past), to make a profit Contraction strategies help and enable investors to make a profit by implementing reverse strategies in the medium term, which is why contractionary strategies work well not only in the medium but also in the long run because The long-term position will include future winners and the short-term position will include future losers. As a result, the benefits of contractionary strategies are not expected to be reversed, as investors are expected to implement reverse strategies in the medium term to avoid regretting the action.

Thus, investment strategies that rank stocks as reverse strategies but in the medium term, such as momentum strategies (i.e., contractionary strategies), also perform well. The results show that investment strategies A repeatable combination that ranks stocks like reverse strategies over the past 24 to 60 months, pauses for 1 year, and holds stocks like momentum strategies over the next 3 to 12 months, compared to classic momentum strategies And reverse have better performance.

The results of the present study, in accordance with the results of [3, 4, 5, 6, 7, 15, 26] and contrary to the findings of [21] obviously. This strategy is suggested by investors and portfolio managers to achieve higher returns; also, if the policy of capital market observers is based on increasing efficiency and reducing the possibility of obtaining excess returns, naturally improve the information efficiency platform to reduce the effect of bias. Shareholder behavior is suggested as an overreaction.

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