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Abstract
Purpose - This article aims to present a new strategy of portfolio selection. **Design/methodology/approach-** After having made a comparative survey of different strategies of portfolio selection adopted by portfolio managers in Tunisia, we propose a new strategy, which we call weighted overreaction strategy. This strategy consists in over-weighting the stocks having bad performances in the past.
Findings - The new proposed strategy turned out to be more performing than size, PER and overreaction strategies in the Tunisian stock market via a mean equality test. Those who adopt it should create a loser portfolio and should sell it at a later period (12 months) and generate average annual returns of 241.75 %.
Research limitations/implications - This result deserves generalization to other stock markets. As the Tunisian stock market is marked by its looseness and low capitalization, applying this strategy over similar or more developed market would open the way for research aiming to define other strategies and to select the best one for each market. Indeed, it should investigate investors' behaviour which is certainly not the same in each stock market and outline the specific strategy for each market.
Practical implications - The weighted overreaction strategy generated a considerable gain compared to other portfolios.
Originality/value - The new proposed strategy turned out to be more performing than the other ones.

Key words: Assets pricing anomalies, portfolio selection, efficiency, performance, momentum strategies, overreaction.
JEL classification: G11, G12, G14, G19.
Paper type: Research paper

1. Introduction

Stock market inefficiencies and anomalies have been noticed by several authors dealing with stock market profits, and have been reported in numerous empirical studies. These gave birth to a number of strategies that would allow for abnormal profit-making, while also taking into account the related incurred risk.

Studying the French stock market, Girerd-Potin (1992) finds out that low-capitalised or low-PER firms obtain unexpected positive returns, while highly-capitalized or high-PER firms yield unexpected negative returns. Avramov and Chordia (2006) invoke macroeconomic factors as causing those types of anomalies. Pastor and Stambaugh (2003) and Sadka (2006) suggest different cash risk levels. De Bondt and Thaler (1985) invoke the phenomenon of stock market

overreaction; i.e. stocks which had recorded low market returns in the past would later register above average returns and the opposite is true for stocks with excellent market returns.

The overreaction strategy, founded on multi-periodic autocorrelations, consists in purchasing loser stocks as measured by their cumulative returns and in selling those generating the best market performances (winners). Then, portfolio managers should reverse these operations after a holding period that approximates portfolios creation deadlines. The negative cumulated returns make loser portfolios become winners and the opposite holds true for the winners. Arbitration portfolio-related earnings, defined as the difference between the losing and winning portfolios, remain consequently positive.

The overreaction notion is not a new one. Keynes (1936) and Wiliams (1938) are the first to mention. However, the major overreaction studies are conducted on the American stock market. As for the European stock markets, we can mention the overreaction studies of Alonso and Rubio (1990) and Muga and Santamari'a (2007) in Spain, Vermaelen and Vestringe (1986) in Belgium, Clare and Thomas (1995) in the United Kingdom, Maï (1995) and Simon (2003) in France. Others similar studies are made by Da Costa (1994) in Brazil, Chang, McLeavy and Rhee (1995) in Japan, Leung and Li (1998) and Otchere and Chan (2003) in Hong Kong, Gaunt (2000) in Australia, De Bondt and Thaler (1985, 1987), Zarowin (1990) and Yulong et al (2005) in the United States and Trabelsi (2009) in Tunisia. These different abnormal returns-generating strategies make investors very confused on the adoption of the strategy that really works.

In this article, we first present the relevant empirical studies and the criticisms made against them. Second, we review the methodology adopted and the results obtained on the Tunisian stock market. Finally, we report on a comparative survey of these strategies with the aim of defining the best strategy for the Tunisian stock market and propose the strategy which is proved to be the best compared to the other strategies.

2. The empirical tests of strategies aimed to explore size, PER and overreaction anomalies

2.1 PER and size effects and the link between them

In order to examine size effects, Ibbotson (1984) classified all NYSE-listed stocks according to their stock market capitalisation on December 31st 1925. A portfolio containing stocks located at the fifth quintile (the smallest in size) was formed. In this portfolio, the weight of each set of stocks was proportional to its capitalisation. The portfolio was kept for a 5 year-holding period. The same portfolio creation procedure was used in December 31st 1930 and continued until December 31st 1983. On average, small-sized firms' portfolios outperformed the S&P index by 0.48 % monthly and by 5.79 a year. The first had higher performance over the S&P index in 51.7 % of the cases. This difference was shown to be statistically significant.

Goodman and Peavy (1983) and Dowen and Bauman (1986) find out that selecting stocks according to the criteria of size and PER yielded abnormal positive returns, considered higher compared to returns based on adopting a strategy based on only one of the above criteria.

In France, Hamon, Jaquillat and Derbel (1991) report on a strong negative correlation between size and PER. According to them, PER effect is but a manifestation of size effect. Size anomaly was in itself an effect of a cash-strapped market.

2.2 The overreaction effect

Using the monthly return rates of all NYSE-listed stocks between 1926 and 1982, De Bondt and Thaler created two portfolios. The first consists of the 35 best-performing stocks during a 5-year period labelled the formation period (the performance was measured with the cumulated rates of the market returns excess). The second consists of the 35 least-performing stocks during the same formation period. During the 3 years following the formation period, called the testing period, loser portfolios outperformed the index by an average of 19, 6 %, while the winning stocks were outperformed by the index at a 5% in average. Fama and French (1987) suggest that mean-readjusted variable risk incentives could be the cause of such a phenomenon,

although the authors admit that their results are consistent with De Bondt and Thaler's. De Bondt and Thaler's results (1985), mainly the existence of an overreaction phenomenon, were confirmed by Zarowin (1990) in the U.S market and by Maî (1995) in the French market. This state of affairs was due to controlling for the size effect, the difference of eventual risk between the losing and winning portfolios in addition to the January effect at the same time.

Another explanation of the overreaction effect is forwarded by Conrad and Kaul (1993): the bid-ask effects. Using a simple equation, the bid-ask bounce and applying Roll's hypotheses, particularly the symmetrical distribution of prices around price balance, Conrad and Kaul (1993) find out that returns are biased and overestimated. This positive bias does not depend on detention length and it is measured in terms of the bid-ask effect square. However, this latter value is strongly associated with capitalisation and with the level of market rate as suggested by Hamon and Jaquillat (1992). This discriminating bias remains positive in so far as the loser portfolios (respectively winning) are composed of low-capitalised stocks (respectively strong). The immediate consequence, as suggested by Maî (1995), is an incitation to develop strategies based on long term overreaction. In fact, it shows that the bias of a purchasing and a selling strategy after 12-month detention period is 12 times lower than a strategy adopted each month during a 12-month period.

It is these variable results which inspired us to apply these various tests on the Tunisian stock market during the course of developing portfolio selection strategies which take into consideration these anomalies.

3. Application of Size, PER and overreaction strategies on the Tunisian data (Test methodology and results)

Our work consists in studying size, the PER and the overreaction strategies in the Tunisian stock market. This choice is dictated by the behaviour of Tunisian portfolios managers. Indeed, the Tunisian stock market is relatively recent. Stock exchange activity has been possible only during the last fifteen years with the reforms made in the stock market. Before this period, only banks operated on the stock market and the activity was almost scanty. The choice of the strategies is mostly dependent on the behaviour of the investors. Indeed, investors choose stocks according to the PER, the firm size or the past performance of the stocks.

3.1 Data and portfolio formation

The data used in this study are the stocks listed on the Tunis Stock Exchange (TSE). Only the stocks which are listed during a one-year period are retained for this survey. The survey period ranges from January 1st 1997 to December 31st 2005.

For the PER effect, only the firms which have December 31 as a closure date are retained for this survey. To control for the problems related to abnormality, autocorrelation, heteroscedasticity and to asynchronic data-related bias, we will be using daily profits means. The index retained is that of the TSE. The risk-less rate is the monthly average rate of the inter-banks monetary market on a day to day basis.

The number of selected stocks varies according to years and is between 30 and 46 (see Table 1). Calculating earnings is set on the TSE stock price data base. Ratios are adjusted according to dividends and capital modifications.

	1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
TSE index	455.64	464.56	810.24	1424.91	1060.72	782.93	939.78	974.82	1 142.46
Market Capitalisation in MD	3966	3892	2632	2452	2665	2 842	2 976	3 085	3 840
Number of stocks	30	34	40	40	42	46	45	44	45

Table 1 (source : TSE)

The criterion for size is market capitalisation which is defined as the ratio of the number of the firm's ordinary stocks by the average annual rate, which we judge as more representative than the December 31st annual closing rate. As such and although practitioners often use it as a reference, the closing rate does not reflect the situation of the whole year. The computed

capitalisation determines the category of the firm's size for the following year. To assess PER, the average annual rate of the share is divided by its net returns during the previous year. Computing earnings is done on a daily basis for each share. Then, we set the portfolio's net earnings as the average returns of the stocks constituting it. The portfolios are the result of an active investment strategy, since in each date t, portfolio structure is reviewed.

3.2 Size effect

To study size effect, our methodology consists in computing market capitalisation average and placing the stocks into two extreme portfolios. The first, noted by P_1, is composed of stocks of firms having a below-average market capitalisation. The second, noted by P_2, is of those firms having an above-average market capitalisation. Since the number of listed firms is not stable during the period 1997-2004 and varies according to years, our choice is made on the formation of portfolios containing only the ten extreme stocks.

Each portfolio is analysed at a later time, which is in our study a one-year period, In other words, during the period 1998-2005. Twelve months later, the same portfolios are noted P_{112} and P_{212} respectively. Excess returns of each portfolio is set by the respective difference noted $\Delta P_1 = P_{112} - P_1$ for portfolio P_1 and $\Delta P_2 = P_{212} - P_2$ for portfolio P_2.

As for size strategy, we notice that annual average returns of small firms' portfolios during the period 1997-2004 is (-89.5) % while that of large firms is 2.5 % (Table 2).

The results show that the existence of size anomaly is slightly advantageous to those who use it to create and to later sell portfolios. In fact, over an average period of one year, we are able to show that those who adopt it generate losses rather than gains. This can be explained by the fact that within the Tunisian stock market the highly-capitalized firms are banks. However, these banks keep some degrees of safety for the investor. Indeed, before the 1990s, Tunisian citizens deposit their money in the form of savings or treasury bonds. Consequently, a climate of trust is progressively established between banks and their clients.

This assumption supposes that the result is established statistically, yet this is not the case. Indeed, the excess return ΔP_1 as well as ΔP_2 must be statistically different from zero. However, a mean equality test at a zero (Table 2) shows that t-statistic values are lower than 1.96, i.e. the usual level of significance at 5% which is 52.99% for P_1 and 88.67% for P_2. In this case, we reject this strategy.

Size strategy			
Mean annual return		Mean annual return after a period	
	1997-2004	**1998-2005**	
P_1 (low)	1.6875		
P_2 (high)	0.18		
P_{112}		0.7925	
P_{212}		0.205	
Excess return		T-statistic	
		Value	Probability
ΔP_1	-0.895	-0.660767	0.5299
ΔP_2	0.025	0.147709	0.8867

Table 2

3.3 PER Effect

As for the study of the PER effect, our methodology consists in computing the PER median and placing the stocks in two extreme portfolios. The first is composed of stocks of low PER firms. The second is constituted of stocks of high PER firms. Likewise, given the number of listed firms is not stable during the period 1997-2004 and varies according to years, our choice is made on the formation of portfolios containing only the ten extreme stocks.

The methodology is the same like the one used for size strategy except that P_1 will represent low PER portfolios and P_2 will represent high PER portfolios. In the case of a PER strategy, we notice that average annual returns of low PER portfolios during the period 1997-2004 is (-112) % whereas that of high PER portfolios is (-50.25) % (Table 3).

PER strategy			
Mean annual return		Mean annual return after a period	
	1997-2004	**1998-2005**	
P_1 (low)	1.955		
P_2 (high)	0.88		
P_{112}		0.835	
P_{212}		0.3775	
Excess return		T-statistic	
		Value	Probability
ΔP_1	-1.12	-0.822892	0.4377
ΔP_2	-0.5025	-0.608655	0.5620

Table 3

Likewise, this strategy is not significant, since excess returns during the period 1997-2004 is negative. However, the adoption of a strategy based on PER effects seems not to be profitable. The statistical tests confirm the rejection of this strategy. Indeed, by analogy with what we made for the size strategy, a mean equality test shows (Table 3) that t-statistic values are lower than 1.96: the usual level of significance at 5% which is 43.77% for P_1 and 56.2% for P_2. However, it is noticed that the choice of high PER stocks is more powerful than low PER stocks. This is not surprising in the Tunisian context. Indeed, low PER firms are ill reputed and consequently shareholders will be regretful in the event of bad results.

3.4 Overreaction effect

In order to compare the different strategies, we opted for the same period 1997-2004. The formation period is of one year. Average daily returns of all stocks during a year are computed and cumulated within t = -11 and t = 0. The stocks are then classified according to the increasing order of cumulative returns following the formula below:

$$RC_{i,t,m} = \sum_{h=t-m+1}^{t} R_{i,h} \qquad \textbf{[1]}$$

where t: the formation date in months
m: portfolio duration in months

In order to study the performance of these portfolios, we compute excess returns over the period following their formation. Rate of abnormal and excess returns of a share i, with k months after portfolio formation in t, following an estimated period of m length, is determined as the following:

$$RA_{i,t,m,k} = R_{i,t+k-1} - R_{m,t+k-1} \qquad \textbf{[2]}$$

Portfolio performances are appreciated starting from their cumulative abnormal returns noted as $RAC_{i,\,t,\,m,\,k}$ and estimated by:

$$RAC_{i,t,m,k} = \sum_{j=1}^{k} RA_{i,t,m,j} \qquad \textbf{[3]}$$

Portfolio returns are thus obtained by adding together individual returns and, as a consequence, average cumulative abnormal returns are set by:

$$RACM_{j,m,k} = \frac{1}{N_m} \sum_{t=1}^{N_m} RAC_{j,t,m,k} \quad [4]$$

with j = P or G

The overreaction hypothesis predicts a reversal of positions with losing categories, noted P, become winners and noted G, and vice versa in the following way:

$$RACM_{G,m,k} < 0 \text{ et } RACM_{P,m,k} > 0,$$

This implies that:

$$RACM_{P,m,k} - RACM_{G,m,k} > 0 \quad [5]$$

During the period 1997-2004 we created two portfolios. We labeled the first one 'loser' and it includes the least performing cumulative stocks. We labeled the second one 'winner' and it includes the best performing cumulative stocks. Returns of these portfolios are then computed for the period t = 1 to t = 12. In order to compare the overreaction strategy with the other preceding strategies, we have retained the same portfolio formation hypothesis. In this section, P_1 represents the loser portfolio while P_2 represents the winner one.

Our results show that average annual returns cumulated by the loser portfolio during the period 1997-2004 is 148 % while that of the winner portfolio is (-297.5) % (Table 4).

Table 4 shows that during the period 1997-2004 $\Delta P_1 \rangle 0$ and $\Delta P_2 \langle 0$, showing thus that one year later portfolio P_1 returns increased in contrast to portfolio P_2 whose returns decreased. It shows that the adoption of such a strategy requires the choice of a portfolio constituted of stocks having the lowest cumulative returns in the past and its selling in a later period.

Overreaction strategy			
Mean annual return		Mean annual return after a period	
	1997-2004	**1998-2005**	
P_1 (low)	-0.7125		
P_2 (high)	3.4525		
P_{112}		0.7675	
P_{212}		0.4775	
Excess return		T-statistic	
		Value	Probability
ΔP_1	1.48	2.272959	0.0572
ΔP_2	-2.975	-2.148841	0.0687

Table 4

Contrary to what has been established for size and PER strategies, results of this strategy are confirmed statistically. Indeed, a mean equality test (table 4) shows that for a level of 5.72% significance we can accept a strategy which consists in detaining a loser portfolio and selling it in a later period (12 months) while achieving annual average returns of 148% during the period 1997-2004. Worth noting is that if the results are established statistically for the detention of a winner portfolio (the level is 6.87%), the investor has no interest adopting such a strategy since losses are valued at (–297.5) % (the mean annual returns during the period 1997-2004).

4. Analysis of results and optimization of position detention strategies (Strategy Comparison)

After having presented in section 3 the performance of size, PER and overreaction strategies, we will carry out a mean equality test in order to define the best strategy for the Tunisian stock market.

4.1 Comparison of size, PER and overreaction strategies via the mean equality test

Several authors and in particular Girerd-Potin (1992) used the dominance stochastic test to compare portfolios or strategies. In our case, we will choose a test of mean equality because of the limited period of study.

In the case of our study, the tests will be carried out on the strategies two by two. The empirical distributions of the strategies are made up by means of the 8 mean annual returns each year during the period 1998-2005. This period constitutes the observation period after having formed the portfolios over the period 1997-2004. Our choice is focused on the most significant strategies. For the effect size, we considered the strategy which consists in investing in highly-capitalized market stocks (S_1). As for the PER effect, we chose the strategy based on the portfolios created by means of high PER stocks (S_2). Finally, we took the loser portfolios to attest for overreaction strategy (S_3).

The results of table 5 testify on the rejection of the null hypothesis linking size and overreaction strategies on the one hand, and PER and overreaction strategies, on the other hand.

Mean equality test		
	Value	Probability
(S_1, S_2)	-0.658165	0.5315
(S_1, S_3)	2.433789	0.0452
(S_2, S_3)	3.107298	0.0171

Table 5

As a conclusion, we might confirm that the overreaction strategy is more performing than the other ones (Table 2, 3 and 4). Nevertheless, the use of these strategies bespeaks investors' tendency to divide their funds across portfolios on a quasi-probable basis, which does not do justice to reality. Indeed, we notice that in Tunisia, investors tend to take into consideration the last performance of the share. Against such behaviour, we will propose a new strategy that we call "weighted overreaction strategy" where investment in the different stocks is made according to a weight proportional to the past performances of a share.

4.2 Weighted overreaction strategy

This strategy will be based on Conrad, Hameed and Niden's (1994) methodology. These authors suggest the necessity to invest in all stocks with a weight proportional to their past performances. The methodology is as follows:

$$w_{i,t,k} = \frac{R_{i,t-k}}{\sum_{i=1}^{N} R_{i,t-k}} \qquad \textbf{[6]}$$

where $w_{i,t,k}$ represents the proportion of stock *i* in a portfolio at date *t*, according to past performances in *k*, where as *N* represents the number of stocks in a portfolio.

Their methodology consists in creating two portfolios, a loser and a winner. In each period t, a stock belonging to the winner portfolio (subsequently loser) if $R_{i,t-k} \rangle 0$ ($R_{i,t-k} \langle 0$) or $R_{i,t-k}$ corresponds to the returns of a stock i during period t-k.

The authors' approach assumes more dynamic reactions from the part of investors, since creation and comparison periods often alternate and often considered as a transition period. Accordingly, it is sufficient to set k=1 in formula [6]. Thus, we obtain the following:

$$w_{it} = \frac{R_{i,t-1}}{\sum_{i=1}^{N} R_{i,t-1}} \qquad \textbf{[7]}$$

where w_{it} represents the proportion of a stock i in a portfolio at date t while N represents the number of stocks making up the portfolio.

However, the choice of such weight poses some problems for emerging countries, where the number of listed firms is relatively small. In fact, focusing our study on average daily returns, we notice that only 6 stocks in 1999 have negative returns. Consequently, the formation of a loser portfolio composed of ten stocks is not possible.

A second inconvenient of this approach lies at the level of diversification. In fact, our hypothesis is to choose portfolios containing ten stocks during the period 1997-2004 so that the portfolio is well diversified. However, as Table 6 shows, we cannot meet the portfolio size requirements since we do not have enough stocks with negative returns (P_1) or with positive returns (P_2).

Portfolios size															
1997		**1998**		**1999**		**2000**		**2001**		**2002**		**2003**		**2004**	
P_1	P_2	P_1	P_2	P_1	P_2	P_1	P_2	P_1	P_2	P_1	P_2	P_1	P_2	P_1	P_2
10	10	10	10	6	10	10	8	10	10	10	10	10	10	10	10

Table 6

4.2.1 Methodology

In the preceding section, we concluded that the overreaction strategy is the best for the Tunisian stock market. Our idea consists in introducing a weight proportional to past performances to the different selected stocks. In a first stage, the portfolios were created according to the increasing past cumulative returns (equation [1]), using the overreaction strategy methodology. The second stage consists in assigning each stock a weight proportional to its past performance.

However, a portfolio selected according to the overreaction methodology may include stocks with negative and positive performances. In order to overcome this problem, we would like to define weighting in the following way:

$R_{i,t-k}$ is noted as the returns of a stock i at period t-k.

The rule consists in investing in all stocks with a weight $w_{i,t,k}$ set as:

$$w_{i,t,k} = \frac{|R_{i,t-k}|}{\sum_{i=1}^{N} |R_{i,t-k}|} \qquad \textbf{[8]}$$

where $w_{i,t,k}$ represents the proportion of a stock i in a portfolio at date t, according to past performances of k order, while N represents the number of stocks constituting the portfolio.

The use of the absolute value avoids us the choice of a portfolio including only stocks with positive or negative returns as suggested by Conrad, Hameed and Niden (1994). As the overreaction principle states, stocks having had bad past performances would generate above-average performances and the opposite holds true for stocks with good past performances. Accordingly, we classified weights following an increasing order and then assigned the largest weighting to a stock having a bad past performance. The same is repeated all along till we reach the smallest weighting which will be assigned to a share having the best past performance.

4.2.2 Tunisian stock market study

In order to compare the results of this strategy to the previous ones and particularly those of the contrarian strategy which turned out to be the best, we opted for the same period 1997-2004. The formation period is one year. The average daily returns of all stocks are computed and cumulated within t = -11 and t = 0. The stocks' cumulative returns are then classified in an increasing fashion.

During the period 1997-2004, we formed two portfolios. The first, which is labeled loser, noted by P_1, consists of the ten stocks with the lowest cumulative returns. The second one, which is labeled, winner, noted by P_2, is composed of the ten stocks with the highest cumulative returns. Portfolios returns are then computed within period t = 1 to t = 12.

Table 7 shows that the loser portfolio generated mean annual returns of 241.75% throughout the period 1997-2004 while the winner portfolio recorded a loss of 38.75%.

On the other hand, as table 7 shows, there is a reversal of positions one year later analogous to an overreaction strategy effect. Indeed, it is shown that $\Delta P_1 \rangle 0$ and $\Delta P_2 \langle 0$ during the period 1997-2004, showing that one year later portfolio P_1 returns increased in contrast to those of portfolio P_2 which decreased.

Weighted overreaction strategy			
Mean annual return		Mean annual return after a period	
	1997-2004	**1998-2005**	
P_1 (low)	-1.7125		
P_2 (high)	0.8675		
P_{112}		0.705	
P_{212}		0.48	
Excess return		T-statistic	
		Value	Probability
ΔP_1	2.4175	2.937013	0.0218
ΔP_2	-0.3875	-1.355276	0.2174

Table 7

The mean equality test (Table 7) shows that for a significance level of 2.18% (for ΔP_1), we can accept the strategy which consists in creating a loser portfolio and in selling it at a later period (12 months), generating average annual returns of 241.75%.

Using the same methodology adopted in section 4.1, we notice that the weighted overreaction strategy (S_4) outperforms all the other strategies (Table 8). Indeed, except for the test of size and PER strategies which are not significant, the others tests confirm the rejection of the null hypothesis. The tables 2, 3, 4 and 7 confirm our observation.

Mean equality test		
	Value	Probability
(S_1, S_2)	-0.658165	0.5315
(S_1, S_3)	2.433789	0.0452
(S_1, S_4)	2.808947	0.0262
(S_2, S_3)	3.107298	0.0171
(S_2, S_4)	3.636550	0.0083
(S_3, S_4)	2.762191	0.0280

Table 8

We were able then to define a new strategy which takes into account stocks' past performances. This strategy turned out to be the best on the Tunisian market among those adopted by the investors. Indeed, those who adopt it should create a loser portfolio and should sell it at a later period (12 months) and generate mean annual returns of 241.75 %.

5. Conclusion

Most studies within the financial literature are based on the assumption that markets are efficient and investors are rational; yet there are several authors who show that if a market exhibits either an overreaction phenomenon or a high PER effect, then significant substantial returns can be earned by using simple strategies. It is this inefficiency which generated abnormal profit situations and which led us, through this study, to define the best strategy that could work

in the Tunisian stock market and from which we can generate profits. In this article, we have presented the different strategies which allowed investors to have such abnormal returns.

We have shown that in the Tunisian stock market, those who choose the PER strategy should automatically form their portfolios with stocks having high PER values. This is in contrast with results of other markets where firms with low PER values accumulate abnormal positive returns. This contradiction can be explained through regret theory. In fact, the firms with low PER values, which make up the case of this study, will have a bad reputation, presenting a high degree of exposure to regret. Those who manage them are mostly exposed to regret in case of bad performances. We also showed that those who opt for size strategy should create portfolios using stocks of highly-capitalized firms. These results are not in conformity with other relevant results. Worth noting is that in Tunisia highly-capitalized firms are banks which present a degree of security to investors.

As a third step, we presented the overreaction strategy. This strategy, which is based on abnormal profit performances, revealed its advantages. In fact, we showed that loser portfolios composed of stocks with low cumulative returns generated considerable gains compared to winner portfolios of stocks with high cumulative returns.

In conclusion and after having made a comparative survey of these strategies, we have proposed a new strategy, which we called the "weighted overreaction strategy". This strategy consists in over-weighting the stocks having bad performances in the past. Thus, the profits will be considerable at a later period with the inversion of the situation due to the overreaction effect. This strategy turned out to be more performing than the other ones. This result deserves being generalized over other stock markets, because the Tunisian stock market is marked by its looseness and low capitalisation and it opens the way for research aiming to define other strategies and to select the best one related to every market. Indeed, it should investigate investors' behaviour which is certainly not the same in each stock market and outline the specific strategy for each market.

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