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A Survey of the Effects of Capital-In-Flow Strategies on the Stock Output of Companies Accepted in Tehran's Stock Exchange Market

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I. Introduction

Investment is viewed as a development factor in current century. It, in fact, brings in capital for people and directs it towards economy-building divisions and sectors according to investors' orientation – based on risk and output. Investment is directed towards industries with higher interests and lower risks. And this, eventually, results in optimum resource allocation. In today's world, countries – especially developing countries – face multiple threats, and to resolve their economic problems, they need to find appropriate strategies to make a better use of facilities and the assets available. Therefore, an important job is to develop and expand investments.

Investment is the premise of financial management discussions and all sorts of activities require capital. Capital includes all financial resources used by a company and thus financial management determines a framework for relationship between the capital and the company. Capital holds a high position in organizational processes and is, hence, considered as one of the five vital resources for organization survival and persistence.

Due to the great importance of capital in organizational processes, its management is of utmost importance. Capital-in-flow generally includes a great deal of capital in companies, especially small ones. Further, capital management based on supply chain elements management mechanism is of great value. For a given company, capital-in-flow is the amount of total sums invested in the current assets. Similarly, the capital-in-flow management includes determination Due to the great importance of capital in organizational processes, its management is of utmost importance. Capital-in-flow generally includes a great deal of capital in companies, especially small ones. Further, capital management based on supply chain elements management mechanism is of great value. For a given company, capital-in-flow is the amount of total sums invested in the current assets. Similarly, the capital-in-flow management includes determination of the volume and combination of the resources and capital-in-flow expenditures such that it increases the stockholders' equity.

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II. Literature Review

Lazaridis and Trifonidis (2006), Teruel and Solano (2007) as well as Ran Chieu and Wang (2006) studied the effects of capital-in-flow management on profitability and stock output. They drew on cash conversion cycle to evaluate capital management and profitability ratios such as operational profit, gross operational profit, the assets' output and the stockholders' equity output. The study results showed that there was a significantly negative relationship between cash conversion cycle and profit-making. It was further found that capital-in-flow management had a great impact on the companies' profitability; managers' influence on the process was for the sake of stockholders and finally profitability would grow with a reduction in cash conversion cycle (Lazaridis & Tryfonidis, 2006).

Lambrix and Singhvi (1979) applied capital-in-flow cycle to manage capital-in-flow and found that capital investment should be optimized and that cash flow could be optimized by reducing the time span between the physical flow of raw material and the final product sale – this simply means managing the product inventory.

Copeland and Khoury (1980) used CAPM to expand the trust expansion theory. They found that trust should be expanded on the condition that the expected rate of the trust return be more than or equal to the market return rate. Also, they used CAPM for the determination of the required return rate to expand the trust. In the literature, the interest rate has been labeled as the index for the required cost evaluation for retaining the product inventory. This factor has been elaborated on in studies by Hilton (1976) and Irwin (1981).

Agrawal (1983) studied the capital-in-flow based on a sample extracted from 34 manufacturing companies in ten industries from 1966 to 1967 and 1976 to 1977. With the use of techniques such as ratio analysis, questionnaire and personal interview, Agrawal concluded that although capital-in-flow, for every single rupee sold, signifies interest reduction in consecutive years, an appropriate perspective can still be observed for investment reduction in almost all investment parts of capital-in-flow.

Gupta (1987) determined the investment determining factors in Aluminum production public corporations. Verma (1989) evaluated capital-in-flow management in Iron & steel industries by taking samples from selected units in private and public corporations between 1978 79 and 1985-86. Using ratio analysis techniques, growth rate and linear regression analysis, the study concluded that private corporations in comparison to public corporations had better performance on the capital-in-flow management.

Porters (2004) and Filebelk (2007) carried out a number of studies on the relationship between capital-in-flow and cash adequacy. The results indicated that there was a significant relationship between cash conversion cycle and cash adequacy, on the one hand, and the market value of the company, on the other. The results also showed that reduction in cash conversion cycle is a key factor in increasing the profitability and accordingly growth in the company market value.

Shewin Bacher (2006) studied financial funding strategies. He considered two financial funding strategies, conservative and perky, in his studies. In conservative strategy, business entities postpone the main operation until they are supplied with sufficient cash. In contrast, in perky strategy, despite limited resources and even before financial supply by external resources, business entities do some parts of the main projects. So, strategy selection process is effective in the project choice.

Ramor and Pahor (2000) studied the existence of non-linear relationship between financial proportions and the excess output rate. They used the U.S. and Japan markets as their research sample. At first, they selected their samples from ten American companies, and five Japanese ones, in 1995 from ten different industries. They tabulated the results in a table with the rows and columns given to industries and countries. They later calculated financial ratios for the above samples and regarded the excess output rate as the dependent variable. Regression and non-regression relationships were computed between dependent and independent variables. The results indicated a mostly nonlinear relationship between the excess output rate and financial ratios. Based on the study, the current ratio and the instantaneous ratio of the companies' behavior, known as the reimbursement ability, were more or less the same. Moreover, a relationship was found between the excess output rate and these ratios – of course, the relationship type in each country is independent of others.

Lazaridis and Tryfonidis (2006) in their research studied the relationship between profitability and capital in-flow management in 131 companies in Athena Security Market (ASE), between 2001 and 2004.

The objective of the research was to evaluate the relationship between profitability and cash conversion cycle. The results showed that there was a significant relationship between profitability (net operational profit) and cash conversion cycle. Managers can create a good deal of profit with appropriate management of cash conversion cycle in an optimum level from its constituent elements (i.e. receivable accounts, payable accounts and merchandise inventory).

Amry Asramy (2001) dealt with the profit information contents, operational cash flow and capital-in-flow. In this study, 198 companies in the Stock Market were evaluated. This research was done based on the census method and statistical procedures like regression, R2 coefficient, correlation coefficient, r, and variance analysis (ANOVA) were taken advantage of. The results show that (a) the profit before the unexpected items and capital-in-flow stemmed from the individual operations of each are important factors in changes in current proportions. But, cash flow from the operations in current proportions changes are not determining factors, and (b) each of the three accounting variables plays roles in the instantaneous ratios changes.

III. Hypotheses

The main hypothesis: There is a meaningful relationship between practicing various policies for capital-in-flow management and stock output in different manufacturing industries.

The main hypothesis can be expressed through three separate sub-hypotheses:

1. There is a significant relationship between the exertion of conservative capital-in-flow management policies and stock output in different manufacturing industries.
2. There is a significant relationship between the exertion of moderate capital-in-flow management policies and stock output in various manufacturing industries.
3. There is a significant relationship between the exertion of perky capital-in-flow management policies and stock output in various manufacturing industries.

IV. Methodology

The current study is a practical one and the design used is evaluative-heuristic. Linear regression

and correlation were used to test the hypotheses. The hypotheses were codified with the use of comparative inference and were tested by deductive researches. Statistical tests used to analyze the data included correlation analysis (Pierson correlation test) and variance analysis (ANOVA).

V. Participants and Samples of the Study

The study population comprised all the companies accepted in Tehran Stock Exchange Market. Their financial information had been qualified according to the following terms and conditions between 1383 and 1389:

From the above population, the study sample was drawn according to the following conditions:

1. Companies accepted in the Stock Exchange Market before 2004.
2. The end of the financial year for them is 29th of Esfand (March 20th).
3. They have not changed their financial year during the study period.
4. The data needed from those companies for the test is available.
5. During the study period no operational cease more than 30 days has happened.

According to the above terms, 777 company years were chosen as the test sample. To undertake the study, the statistical sample was selected from companies accepted in Tehran Exchange Market. To determine the statistical sample, and to reduce the estimation error, screening method was used.

VI. Variables and Models

Stock output: The discrepancy per share in the end of the financial year and the price of every share at the beginning of the financial year plus the adjustments stemmed from the stock gains (including interest, reward shares, etc.) divided by the stock prices at the beginning of the financial period.

Current ratio: The ratio between the current assets and the current debts is called current ratio. Instantaneous (quick) ratio: Instantaneous assets divided by current debts.

Debts ratio: Total amount of the debts divided by total amount of the assets. The ratio of the debts to the total stockholder equities: This ratio is acquired by the total debts divided by the total amount of the stockholders equities.

VII. The Study Method

In this study, to test the three sub-hypotheses of the main hypothesis:

1. We calculate the current and instantaneous debts, and debts to stockholders shares ratios for the companies-years.
2. We calculate the aforementioned ratios averages per industries-years in item 1 above.
3. We compare every companies-years with every industries-years based on the following areas, every ratio related to every company-year is categorized in each of the areas higher than, around or lower than industry (Mikaeeli & Ebne Shahr Ashub, 2000):

- Higher: More than average, with the difference more than 25% of the standard deviation from the average.
- Around: More than or less than average, with a difference less than 25% of the standard deviation from the average
- Lower: Lower than average, with a difference more than 25% of the standard deviation from the average.

Based on the results obtained from this section we can speculate, from the four calculated financial ratios, three modes (higher, around, lower) for every company-year, therefore every company-year is divided into four parts (ratios).

4. Based on the predetermined strategies, we classify every company-year into one of the three categories, 'perky', 'moderate', and 'conservative'.
5. Using uni-direction and bi-direction variance analysis and LSD chase test – these tests show the differences between groups in the multi-comparison of the variables (ANOVA) – and based on the statistical methods used, we test the significance of the averages' differences. In the variance analysis, output is the dependent variable and strategy type (generally and based on the industry) is the dependent (operative) variable.

VIII. Testing the Hypothesis

In the present study, to express the observed amounts of the dependent variable, F and ANOVA tests were used. For the ANOVA test, the F significant level is compared with the significant level of 5% and if the F is lower than 5% the null hypothesis, linearity of the relationship between the dependent variable and independent variable, is confirmed.

In the present study, the significance of the average differences between various strategies was tested using four methods TOKI, CHEF, LSD, and BENFRONI. If the differences observed are meaningful, it can be concluded that the two strategies are significantly different.

Data analysis:

Table 1 shows average scores, standard deviation, maximum, minimum and median for the regression model variables. The following table shows the correlation coefficient among the study variables with the use of Pierson and Spearman. In each box Table 2, the upper digit indicates the Spearman correlation coefficient whereas the digit below indicates

the significance level. In this study, the KS test was used to check for the normality of the data. The results showed that all the variables applied were normal. Then, the expected tests were performed the results of which were Table 3.

a) *Findings related to the relationship between the implementation of various strategies of cash-in-flow management and stock output in different manufacturing industries*

To test the study hypothesis, firstly the sample companies were classified into four categories (perky, moderate, conservative and unknown). Later, significance of the averages differences in various industries were assessed with the application of statistical tests. With the use of four popular and well known tests (TOKI, CHEF, LSD, and BENFRONI), the significance level of the averages differences in different industries were evaluated.

Within these four methods, perky and moderate strategies were observed to be significantly different. The significant difference between moderate and perky strategies was rejected based on this method. Also, unknown strategies did not have any significant relationship with other strategies. The obtained results from the four main tests of ANOVA could be summarized Table 4.

With the use of the maximum and minimum scores obtained in the ANOVA table, the following results can be inferred:

- There is a significant relationship between conservative and perky strategies. The difference observed shows that conservative strategy creates higher output in comparison to the perky strategy.
- There is a significant difference between moderate and perky strategies. The difference observed shows that moderate strategy creates higher output in comparison to perky strategy.
- There is a significant difference between unknown and perky strategies. The difference shows that unknown strategy creates higher output in comparison to perky strategy.
- Based on the results of ANOVA, the perky strategy output is more than that of the moderate strategy, and also the perky strategy output is more than those of conservative and unknown strategies. It could be concluded that perky strategy has the highest output among all other strategies studied.

Table 4 provides a summary of the significant differences observed for different industries. Digits denoting a significant difference also accompany a negative sign. The blank boxes show that no significant difference was observed.

IX. Concluding Remarks

Based on the results of data analysis, from among the capital-in-flow strategies inspected, the effect of perky strategy was found to be significantly different from the effect of other capital-in-flow strategies, that is, the difference observed was statistically significant. No significant difference was observed between other capital-in-flow strategies. Further, the highest significant difference among the outputs was observed in metal equipment, medical-metal products, drugs and other nonmetal minerals industries.

References Références Referencias

1. Agarwal, H. (1983). Efficiency of working capital and corporate profitability. *Financial Practice and Education*, 8(2), 37-45.
2. Copeland, E. & Khoury, T. (1980). A theory of credit extensions with default risk and systematic risk. The Engineering Economist: *A Journal Devoted to the Problems of Capital Investment*, 26(1), 35-52.
3. Filebelk, H. (2007). Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting*, 30(3-4), 573-588.
4. Gupta, O. (1987). Working capital management in public enterprises. *Financial Management in Public*, 11(3), 85-97
5. Hassanpour, Shiva. 2007. " Impact of Working Capital Strategies on Stock Return" , *A Master' s Thesis, Shahid Beheshti University*.
6. Jeff Schein. 2009." The Cash Conversion Cycle", *www. companyworkshop. Com* Lambrix, R. J. & Singhvi, S. S. (1979). Preapproval audits of capital projects. *Harvard Business Review*, 62(6), 12-14.
7. Lazaridis, I. & Tryfonidis, D. (2006). The relationship between working capital management and profitability of listed companies in the Athens Stock. *Journal of Financial Management and Analysis*, 19(I), 26-35.
8. Ramor, M. D. & Pahor, M. (2001). Testing nonlinear relationship between excess rate of return on equity and financial ratio. *Social Science Research*, 3, 86-105
9. Schwinenb Schwienbacher, Armin, 2006, "A theoretical analysis of optimal financing strategies for different types of capital constrained entrepreneurs", *Journal of business venturing*, 22(6), 753-781
10. Teruel, P. & Solano, P. (2007). Effects of working capital management on SME profitability. *Intl. J. Managerial Finance*, 3, 164-177.
11. Verma, H. L. (1996). Management of working capital. *New Delhi: Deep & Deep Publications*. X(3), 647–655.

Table 1 : Descriptive statistics for the regression model variables at the beginning of the period assets.

row	variable	1	2	3	4	5
1	return		-0.073* 0.041	0.063 0.078	0.379** 0.000	-0.517** 0.000
2	AR	-0.090* 0.012		0.043 0.231	0.473** 0.000	0.517 0.000
3	INV	0.082* 0.023	-0.012 0.734		0.786** 0.000	0.649** 0.000
4	AP	0.414** 0.000	0.473** 0.000	0.781** 0.000		0.546 0.000
5	CCC	-0.546 0.000	0.517** 0.000	0.643** 0.000	0.534** 0.000	

Table 2 : Tabulation of the Pierson and Spearman correlation coefficient (The lower digit in each box shows the significance level.)

Row	variable	1	2	3	4	5
1	Return		-0.073 0.041	0.0630 .078	.379 0.000	-.517 0.000
2	AR	-0.090 0.012		0.043 .231	.473 0.000	.517 0.000
3	INV	0.082 0.023	-0.012 .734		.786 0.000	.649 0.000
4	AP	.414 0.000	.473 0.000	.781 0.000		.546 0.000
5	CCC	-.546 0.000	.517 0.000	.643 0.000	.534 0.000	

Table 3 : The results of the four tests

Strategy(I)	Strategy(J)	TUKEY HSD	SCHEFF	LSD	Bonferroni
conservative	Moderate				
	Unknown				
	Perky	*	*	*	*
Moderate	Conservative				
	Unknown				
	Perky	*	*	*	*
Unknown	Conservative				
	Moderate				
	Perky	*	*	*	*
Perky	Conservative	*	*	*	*
	Moderate	*	*	*	*
	Unknown	*	*	*	*

Table 4 : Significant differences observed for different industries.

	Machinery and equipments	Other nonmetal minerals	Metal products	Essential metals	Automobile and spare parts	Medicine	Chemical	Lime gypsum cement	Ceramic and tile
Machinery and equipments		12.5	130.0				10.6	12.1	12.3
Other nonmetal minerals	-12.5			-5.8	-6.4	-13.4			
Metal products	-130.0				-6.9	-13.9			
Essential metals		5.8				-7.6			
Automobile and spare parts		6.4	6.9			-6.9		6.2	
Medicine		13.4	13.9	7.6	6.9		11.5	13.2	13.2
Chemical	-10.6					-11.5			
Lime gypsum cement	-12.3				-6.2	-13.2			
Ceramic and tile	-12.3					-13.2			