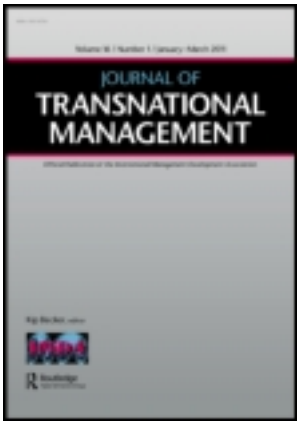

Journal of Transnational Management
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/wtnm20

Factors Affecting Stock Prices in the UAE Financial Markets

Hussein A. Hassan Al-Tamimi [a], Ali Abdulla Alwan [a] & A. A. Abdel Rahman [a]
[a] University of Sharjah, Sharjah, United Arab Emirates
Published online: 11 Mar 2011.

To cite this article: Hussein A. Hassan Al-Tamimi, Ali Abdulla Alwan & A. A. Abdel Rahman (2011) Factors Affecting Stock Prices in the UAE Financial Markets, Journal of Transnational Management, 16:1, 3-19, DOI: 10.1080/15475778.2011.549441

To link to this article: http://dx.doi.org/10.1080/15475778.2011.549441

Journal of Transnational Management, 16:3–19, 2011

ISSN: 1547-5778 print/1547-5786 online
DOI: 10.1080/15475778.2011.549441

Routledge
Taylor & Francis Group

Factors Affecting Stock Prices in the UAE Financial Markets

HUSSEIN A. HASSAN AL-TAMIMI,
ALI ABDULLA ALWAN, and A. A. ABDEL RAHMAN
University of Sharjah, Sharjah, United Arab Emirates

The stock market in the United Arab Emirates (UAE) is one of the emerging markets. It needs to be developed to operate efficiently and effectively in a competitive stock market environment. The current study represents an attempt to investigate the main factors determining stock prices in the UAE stock markets. The data of our study covers the period from 1990 to 2005. The sample consists of 17 companies based on the availability of the data for that period. The regression model was run for the UAE financial markets sample with five independent variables after dropping oil price and dividend per share because of multicollinearity problems. The findings of this study are consistent with most previous studies. Results indicate a strong and positive impact of EPS (earnings per share) on the UAE stock prices. The estimated coefficients of money supply and GDP were, as expected, positive but statistically insignificant. Moreover, the estimated coefficients of consumer price index and interest rate were as expected, negative and statistically significant at the 1% level in the case of consumer price index, but statistically insignificant in the case of interest rate.

KEYWORDS *earnings per share, financial markets, stock price*

Received May 2009; revised October 2010; accepted December 2010.

Address correspondence to Hussein A. Hassan Al-Tamimi, University of Sharjah, P.O. Box 27272, Sharjah, United Arab Emirates. E-mail: hussein@sharjah.ac.ae

INTRODUCTION

The stock market has become an essential market, playing a vital role in economic prosperity that fosters capital formation and sustains economic growth. Stock markets are more than a place to trade securities; they operate as a facilitator between savers and users of capital by means of pooling funds, sharing risks, and transferring wealth. Stock markets are essential for economic growth as they ensure the flow of resources to the most productive investment opportunities.

Stock prices change in stock markets on a daily basis. Moreover, during certain times of the year, it is easy to notice that stock prices appreciate every morning, and this may take place many times in one day for some stocks. This means that stock prices are determined by supply and demand forces. There is no foolproof system that indicates the exact movement of stock prices. However, the factors behind increases or decreases in the demand and/or supply of a particular stock could include company fundamentals, external factors, and market behavior.

Company fundamental factors influencing stock prices might include performance of the company, a change in board of directors, appointment of new management, and the creation of new assets, dividends, earnings, etc. External factors might include government rules and regulations, inflation, and other economic conditions, investor behavior, market conditions, money supply, competition, uncontrolled natural or environmental circumstances directly affecting the production of the company, strikes, etc. Moreover, the behavior of market participants could be an important influencing factor of stock price.

Molodovsky (1995) discussed dividends as the hard core of stock value. The importance of dividends was originally emphasized in the work of Williams (1938). He states that the value of any asset equals the present value of all cash flows of the asset. Therefore, the current price of share of common stock is presented as follows:

$$P_o = D_1/(1+k) + D_2/(1+k)^2 + \cdots\cdots + D_n/(1+k)^n$$

Where
P_o = the current stock price
D = the expected cash dividend,
n = the expected year in which the dividend payment is expected
k = the required rate of return (discount rate)

This dividend discount model (DDM) is difficult to apply in practical terms, particularly over long horizons for firms that do not pay significant

dividends. Alternative forms of stock prices valuation have emerged, such as the discounted cash flow (DCF) model, with the goal of improved practical implementation. This model is the most commonly used because of its direct link to the finance theories of Modigliani and Miller (1958). DCF analysis uses future free cash flow projections, cash flow available for distribution to a defined set of capital providers after all operating and investing needs of the firm are met, and discounts them (most often using the weighted average cost of capital [WACC]) to arrive at a present value:

$$P_o = CF_1/(1 + r) + CF_2/(1 + r)^2 + \cdots\cdots + CF_n/(1 + r)^n$$

Where
CF = cash flow
r = discount rate (WACC)

As far as the effect of inflation and interst rate on stock price is concerned, an increase in expected inflation rate is likely to lead to economic tightening policies that would have negative effect upon stock prices according to Maysami and Koh (2000). In addition, in the cash flow valuation model, a rise in the rate of inflation increases the nominal risk free rate and raises the dicount rate. According to DeFina (1991), the cash flows do not rise at the same rate as inflation, and the rise in discount rate leads to lower stock prices. On the other hand, changes in both short-term and long-term interest rates are expected to affect the discount rate in the the same direction via their effect on the nominal risk-free rate as Mukherjee and Naka (1995) point out. Further, an increase in the rate of interest raises the opportunity cost of holding cash and is likely to lead to a substitution effect between stocks and other interest-bearing securities (Maysami & Koh, 2000). The current study attempts to investigate the most influencing factors of UAE stock markets.

LITERATURE REVIEW

A large number of empirical studies have been conducted about the determinants of stock prices. In this section, some of these studies will be reviewed. However, most of these studies dealt with stock markets of developed countries, whereas there has been no such study carried out about the UAE financial markets.

Factors affecting stock prices have been studied from different points of view. Several researchers examined the relationships between stock prices and selected factors that could be either internal or external. The results show

a variety of findings depending on the scope of the study. Some of those factors could be common for all stock markets. However, it is difficult to generalize the results due to the various conditions that surround each stock market environment. Each market has, for example, its own rules and regulations, country of location, type of investors, and other factors that provide the basis of its uniqueness.

Some studies have concluded that company fundamentals such as earning and valuation multiple are major factors that affect stock prices. Others indicated that inflation, economic conditions, investor behavior, the behavior of the market and liquidity are the most influencing factors of stock prices. In addition, the effect of interrelated factors has been covered in some other studies. The following three sections deal with three types of studies. The first section is devoted to reviewing studies emphasizing internal factors (i.e, company fundamentals). The second section deals with studies emphasizing external factors. The third section discusses studies that have not emphasized internal or external factors.

COMPANIES' FUNDAMENTALS

In general, companies' fundamentals such as earning per share, dividend per share, book values, and other factors that reflect companies' performance are considered internal factors in this study. It is well known that the most important internal factors are earnings per share (EPS) and dividends per share (DPS).

Hartono (2004) examines the effect of a sequence of positive and negative dividend and earning information on stock prices. Data for this study were collected from Center for Research in Security Prices (CRSP) tapes in the United States from 1979 to 1993. Results show that the positive recent earning information has significant relation with stock prices when it follows negative dividend information, and the negative recent earning information has significant relation with stock prices when it follows positive dividend information. On the other hand, the recent positive dividend information has significant relation with stock prices when it follows negative earning information while the recent negative dividend information does not have significant relation with stock prices when it follows positive earning. This study shows short-term reaction of stock prices to the earning and dividend information and does not reflect long-run dynamic relation.

Lee (2006) employs two types of aggregate index data: annual Dow Jones industrial average (DJIA) index data for the sample period 1920–1999, and annual Standard and Poor's (S&P) 400 industrial index data for the sample period 1946–1999. The study finds that investors overreact to nonfundamental information but underreact initially to fundamental

information (dividend, book value, and earning), with no significant reversal associated with fundamental information in the long run. The study also finds that the residual income model provides a better valuation than the dividend discount model.

Docking and Koch (2005) in their study to assess investor reaction to dividend increase or decrease show that dividend change announcements elicit a greater change in stock price when the nature of the news (good or bad) goes against the grain of the recent market direction during volatile times. First, announcements to raise dividends tend to elicit a greater increase in stock price when market returns have been normal or down and more volatile. However, this tendency lacks statistical significance. Second, announcements to lower dividends elicit a significantly greater decrease in stock price when market returns have been up and more volatile.

Al-Qenae, Carmen, and Wearing (2002) made an important contribution by investigating the effect of earnings and other macroeconomic variables on the stock prices of Kuwait Stock Exchange during the period 1981–1997. The macroeconomic variables examined are gross national product (GNP), interest rate, and inflation. The study found a significant and higher sensitivity of the estimated earning response coefficient (ERC) with the leading period returns. Moreover, both inflation and interest rate have negative and statistically significant coefficients in almost all cases on stock prices while GNP has a positive effect but it is only significant in a certain (high) return measure interval. This study supports the idea that investors in KSE are able to anticipate earnings and suggests that the KSE market exhibits some features of semi-strong efficiency (i.e., a scenario in which stock prices incorporate all publicly available information).

EXTERNAL FACTORS

As previously noted, gross domestic product, consumer prices, money supply, interest rate, and oil prices are the most important external factors. The empirical study undertaken by Ralph and Eriki (2001) on the Nigerian Stock Market examining the relation between stock prices and inflation provides a strong support for the proposition that inflation exerts a significant negative influence on the behavior of the stock prices. Moreover, the study shows that stock prices are also strongly driven by the level of economic activity measured by GDP, interest rate, money stock, and financial deregulation. On the other hand, the findings of the study show that oil price volatility has no significant effect on stock prices.

Zhao (1999) studied the relationships among inflation, output (industrial production) and stock prices in the Chinese economy. The study employs monthly values covering the period from January 1993 to March 1998. The results indicate a significant and negative relation between stock prices

and inflation. The findings also indicate that output growth negatively and significantly affect stock prices.

Dimitrios Tsoukalas (2003) examines the relationships between stock prices and macroeconomic factors in the emerging Cypriot equity market. In this study, the author has used the vector autoregressive model (VAR). The macroeconomic factors examined in this study, which covers the period from 1975 to 1998, are exchange rate, industrial production, money supply, and consumer prices.

The results of the study indicate a strong relationship between stock prices and those macroeconomic factors. According to the author, the strong relationship between stock prices and exchange rate should not be surprising, since the Cypriot economy depends for most part on services such as tourism and off-shore banking. He also notes that the relationships between stock prices and industrial production, money supply, and consumer prices reflect macroeconomic policies implemented by Cypriot monetary and fiscal authorities.

Ibrahim (2003) applies cointegration and VAR modeling to evaluate the long-term relationship and dynamic interactions between Malaysian Equity Market, various economic variables, and major equity markets in the United States and Japan. The macroeconomic variables used are real output, aggregate price level, money supply, and exchange rate. The study yielded two main findings: first, the Malaysian stock price index is positively related to money supply, consumer price index, and industrial production. Second, it is negatively linked to the movement of exchange rates.

Mukherjee and Naka (1995) investigate the relation between Tokyo stock prices and six macroeconomic variables using a vector error correction model (VECM). Their study covered 240 monthly observations for each variable in the period from January 1971 to December 1990. The results of the study show that the relationship between Tokyo stock prices, the exchange rate, money supply, and industrial production is positive, whereas the relationship between Tokyo stock prices and inflation and interest rates is mixed.

Chaudhuri and Smiles (2004) test the long run relationship between stock prices and changes in real macroeconomic activity in the Australian stock market in the period from 1960 to 1998. The real macroeconomic activities include real GDP, real private consumption, real money, and real oil price. The results of their study indicate that long-run relationships exist between stock prices and real macroeconomic activity. The study also found that foreign stock markets such as the American and New Zealand market significantly affect the Australian stock return movement.

In order to test the informational efficiency of the Malaysian stock market, Ibrahim (1999) investigates the dynamic interaction between stock prices and seven macroeconomic variables covering the period

from 1977 to 1996. The author used cointegration and the Granger causality test. The macroeconomic variables include the industrial production, consumer prices, M1, M2, credit aggregates, foreign reserves, and exchange rates. The results strongly suggest informational inefficiency of the Malaysian market. In other words, there is cointegration between the stock prices and these macroeconomic variables. The study demonstrates that stock price movements anticipate variation in the industrial production, money supply, and the exchange rate while they react to the deviations from long run paths of consumer prices, credit aggregates, and foreign reserves.

Maysami and Koh (2000) examine the dynamic relations between macroeconomic variables and Singapore stock markets using the vector error correction model. The macroeconomic variables are exchange rate, long- and short-term interest rates, inflation, money supply, domestic exports, and industrial production. The data were seasonally adjusted and cover the period from 1988 to 1995. The study shows that inflation, money supply growth, change in short- and long-term interest rates, and variation in exchange rates do form a co-integrating relation with the changes in Singapore's stock market levels. This study also examined the association between the American and Japanese stock markets and the Singapore stock market. Results show that the three markets are highly co-integrated.

Hammoudeh and Aleisa (2004) have studied the relationships among Gulf Cooperation Council (GCC) stock markets and NYMEX oil future prices for a period from 1994 to 2001 as the oil exports largely determine foreign earnings and governments' budget revenues and expenditures. Thus, they are the primary determinants of aggregate demand that influence corporate output and domestic price level, which eventually impact corporate earning and stock prices. The result found that the index of the UAE stock market represents the country with the next highest link along with Bahrain after the Saudi Arabia market.

In the light of the preceding review of the literature, it can be concluded that in most cases strong stock prices-earning relations exist while no robust long-term stock prices-dividend relation is found. A negative relation between prices and long-term interest rates has been reported, whereas positive relations exist with the short-term interest rates. The indicators of the level of real economic activity such as GDP, industrial production, and gross national product (GNP) are most likely to have a positive relation with stock prices. By the same token, money supply appears to have a positive relation as well. Stock prices appear to move inversely with inflation through a negative relation. However, the relation between oil prices and stock prices is not significant. Overall, stock prices are affected by economic and financial fundamentals and macroeconomic variables in most cases.

DATA AND METHODOLOGY

This section is devoted to an exposition of three methodological aspects of this study, namely research hypotheses, the empirical model, and sampling and data collection.

Research Hypotheses

In the light of the literature review, the following hypotheses are formulated:

H_1: There is significant positive relationship between the level of stock prices and earnings per share.
H_2: There is a significant positive relationship between the level of stock prices and money supply.
H_3: There is a significant positive relationship between the level of stock prices and gross domestic product.
H_4: There is a significant negative relationship between the level of stock prices and the price level.
H_5: There is a significant negative relationship between the level of stock prices and interest rates.

The Empirical Model

In order to test the above-mentioned hypotheses, the following model has been developed:

$$SP = f(EPS, DPS, OL, GDP, CPI, INT, MS)$$

Where
SP: Stock price;
EPS: Earnings per share;
DPS: Dividend per share;
OL: Oil price;
GDP: Gross domestic product;
CPI: Consumer price index;
INT: Interest rate;
MS: Money supply narrowly defined.

The ordinary least squares method is used here to regress stock prices (i.e., dependent variable) on these factors (i.e., the independent variables) in the UAE financial markets. The objective of this procedure is to find out the amount of variance on the dependent variable explained by the independent variables and to assess their importance.

Using more than one independent variable in a regression model may create multicollinearity among these variables. This calls for a multicollinearity

test which is carried out here to assess the degree of correlation among the repressor variables.

Sampling and Data Collection

Data for the study covers the period from 1990 to 2005. The sources of data include the yearly local share directory publications of the National Bank of Abu Dhabi, the UAE Central Bank publications, the UAE Ministry of Economy publications, and the year 2005 Annual Statistical Bulletin (ASB) of the Organization of the Petroleum Exporting Countries (OPEC).

The sample consists of 17 companies based on the availability of data from the year 1990 to the 2005. The sample is divided into two groups for further investigation and also for comparison purpose. The first group includes nine banks. The nine banks are selected according to the availability of the data from 1990 to 2005. These banks are the National Bank of Fujairah, National Bank of Umm Al Qaiwain, National Bank of RAK, Commercial Bank of Dubai, Mashreq Bank, Emirates Bank of International, National Bank of Dubai, Abu Dhabi Commercial Bank and National Bank of Abu Dhabi.

The second group includes companies (i.e., the non-banks group), which are: Oman Insurance Company, Al Dhafrah Insurance Company, Emirates Insurance Company, Al Ain Ahlia Insurance Company, Abu Dhabi National Insurance Company, Abu Dhabi Aviation, Abu Dhabi National Hotel and Etisalat

The following is a brief description of the data used in this study.

1. A specific index has been built by the author for the stock price of the companies included in the study. For the purpose of the stock price index, the base year used is 1990, and then a weight is assigned for each stock, which represents the ratio of its price to the sum of the prices of all stocks that are included in the index. The most famous example of a price-weighted index is the Dow Jones Industrial Average.

Stock splits or stock dividends were sorted out by changing the divisor while constructing the index as after either of these events, the index level must be unchanged. Appendix 1 provides the data used in our study for the period from 1990 to 2005. The procedure of constructing the index is also explained.

2. EPS and DPS were calculated annually and directly by calculating those values for each company and dividing the summation of the result of the 17 companies by 17. In order to the stock split effect, the stock split was considered in calculating EPS and DPS.

3. The money supply (MS) used is the narrow definition that consists of currency in circulation and demand deposits.

4. For GDP, interest rate on lending and consumer price index, both the annual percentage change and the absolute values are used.

5. The time series used for the oil price (OL) was the annual nominal prices of oil drawn from the year 2005 Annual Statistical Bulletin (ASB) of the Organization of the Petroleum Exporting Countries (OPEC) and also both the annual percentage change and the absolute values are used.

DATA ANALYSIS AND RESULTS

This section presents data analysis and results. It contains three sections. In the first one, multicolliearity test is presnted. In the second section, the results of ordinary least squares regression are provided. Finally, further investigation for the two sets covered in this study, the banks and nonbanks are reported in the third section.

Multicollinearity Test

As mentioned in the previous section, the following regression model is used in this study:

$$SP = f(EPS, DPS, OL, GDP, CPI, INT, MS)$$

Where
SP: Stock price;
EPS: Earnings per share;
DPS: Dividend per share;
OL: Oil price;
GDP: Gross domestic product;
CPI: Consumer price index;
IINT: Interest Rate;
MS: Money supply narrowly defined.

Using more than one independent variable in the regression model may lead to the multicollinearity problem among these variables before examining the contribution of independent variables to the regression model the possibility of a multicollinearity problem among these variables needs to be addressed. A multicollinearity test was carried out to assess the degree of correlation among the independent variables.

Table 1 provides the correlations among these variables. Using a "rule of thumb" test, as proposed by Anderson, Sweeney, and Williams (1990), which suggests that any correlation coefficient exceeding (.7) indicates a potential problem.

As can be seen from Table 1, there is a strong correlation between OL and GDP. Therefore, OL was dropped from the regression model. The strong correlation between OL and GDP was expected as oil constitutes a large proportion of GDP. Thus, the average percentage share of oil in GDP was 33% during the 1990–2005 period as Table 2 shows.

TABLE 1 Cross Correlations Among Independent Variables

	MS	GDP	CPI	INT	OL	EPS	DPS
MS	1						
GDP	.138	1					
CPI	.497	−.140	1				
INT	−.003	.594	.031	1			
OL	.064	.936	−.172	.527	1		
EPS	.577	.476	.319	.493	.357	1	
DPS	.643	.486	.184	.431	.377	.955	1

The correlation results in Table 2 also suggest a strong association between EPS and DPS. Therefore, DPS was dropped from the regression model because EPS is more practical being the source of generating DPS. Moreover, companies do not pay dividends all the time.

The regression model was run for the UAE financial markets sample with five independent variables after dropping OL and DPS. A one year lag has been used for EPS. Table 3 provides the results of regression analysis.

As the adjusted R^2 shows, the model explains 97.9% of the variation on stock prices. The estimated coefficients of MS, GDP, and EPS are, as expected, positive and statistically significant at 1% level of significance as in the case of EPS and GDP, but statistically insignificant as in the case of MS. The estimated coefficients of CPI and INT are, as expected, negative and statistically significant at 1% level of significance as in the case of CPI, but statistically insignificant in the case of INT.

TABLE 2 The Average Oil Contribution in the Total GDP (AED Millions)

Year	GDP	Oil contribution	% Oil contribution in GDP
1990	125266	57632	46
1991	126264	54260	43
1992	131676	53753	41
1993	133206	47341	36
1994	141909	44558	31
1995	156902	47949	31
1996	175778	57123	32
1997	187550	55799	30
1998	177360	37402	21
1999	201797	49794	25
2000	257979	86690	34
2001	254236	74990	29
2002	272856	72552	27
2003	321752	92136	29
2004	385535	123973	32
2005	485512	173195	36
Average			33%

TABLE 3 Summary of Regression Results

R	R Square	Adjusted R square	Standard error of the estimate
.993	.987	.979	38.707
	Beta	*t*	Sig.
(Constant)		1.153	0.279
MS	.126	1.520	0.163
GDP	.607	3.500	0.007
CPI	−.581	−3.470	0.007
INT	−.040	−0.555	0.593
EPS	.863	8.966	.000

The results indicate that the coefficient value for EPS is, as expected, positive and statistically significant at 1% level of significance. This is inconsistent with the findings of Allen and Rachim (1996), Benesh and Peterson (1986), and Al-Qenae et al. (2002). It can be concluded that EPS reflects the future cash flow and the owner's return on his or her investment. Thus, it is the price you are willing to pay for a future stream of earning. As a result, the hypothesis of the positive and significant relationship between the level of stock prices and earnings per share is confirmed.

The positive impact of GDP on stock prices is expected. The positive relation with the level of real economic activity such as GDP, industrial production (IP) and Gross National Product (GNP) was suggested by Fama (1990) and Geske and Roll (1983). It is worth mentioning here that most studies report a positive and statistically significant coefficient for GDP (e.g., Ralph & Eriki, 2001; Ibrahim, 1999, 2003; Mukherjee & Naka, 1995; Chaudhuri & Smiles 2004). Based on this finding, the hypothesis of the positive and significant relationship between the level of stock prices and gross domestic product is confirmed.

Regarding MS, the positive value of the coefficient is consistent with the findings of Dimitrios Tsoukalas (2003), Ibrahim (1999, 2003), Mukherjee and Naka (1995), Chaudhuri and Smiles (2004), and Maysami and Koh (2000). The positive and significant coefficient for MS can be explained, as reported by Mukherjee and Naka (1995), in that injections of money supply have an expansionary effect that boosts corporate earnings. Alternatively, it could be explained by economic stimulus provided by money growth. Such stimulus, usually referred to as a corporate earning effect, would likely result in increased future cash flows and stock prices. Another explanation, suggested by Maysami and Koh (2000), is that an increase in money supply has a direct positive liquidity effect on the stock market. Hence, the hypothesis on the positive and significant relationship between the level of stock price and money supply is also confirmed.

The negative coefficient for CPI is consistent with the findings of Ralph and Eriki (2001), Zhao (1999), Al-Qenae et al. (2002), and Mukherjee and Naka (1995) results. If prices, wages, and other costs change exactly in keeping with the unanticipated change in inflation, stock value is unaffected by the operating earning term. Therefore, the hypothesis of negative and significant relationship between consumer price index and the level of stock price is accepted.

The negative coefficient for INT is consistent with the findings of Al-Qenae et al. (2002), and Mukherjee and Naka (1995). However, the coefficient is statistically insignificant. This could explain the availability of surplus portfolios and investors' liquidity. Therefore, the use of a lending fund to purchase stocks is minimal. The hypothesis of negative and significant relationship between the level of stock price and the interest rate is partially accepted.

FURTHER INVESTIGATION

Further investigation was carried out in this article by using the same model. Regression was run for the two sets covered in this study, the banks and the non-banks. The purpose of this analysis is mainly for comparison purposes. The same procedure adopted in the previous section has been followed in this section. A multicollinearity test was carried out to assess the degree of correlation among variables. Table 4 provides the correlations among these variables. An examination of the results of correlations presented in Table 4 suggests the existence of a multicollinearity problem between EPS and DPS. Therefore, DPS was dropped from the regression model for the same reason mentioned above. It should be mentioned here that OL is also dropped from the model based on the results provided in Table 1.

Regression Results of the Banks Group

Table 5 reports the regression results of the model. As seen in the table, the model explains 89.5% of the variation on stock prices. The results indicate that the estimated coefficients of EPS, MS and GDP were, as expected,

TABLE 4 Cross Correlation Among Independent Variables for Banks

	MS	GDP	CPI	INT	EPSB	DPSB
MS	1					
GDP	.138	1				
CPI	.497	−.140	1			
INT	−.003	.594	.031	1		
EPSB	.645	.461	.193	.410	1	
DPSB	.697	.356	−.036	.217	.869	1

TABLE 5 Summary of the Regression Results for Banks

R	R Square	Adjusted R square	Standard error of the estimate
.966	.932	.895	121.481
	Beta	*t*	Sig.
(Constant)		1.022	.333
MS	0.296	2.251	.051
GDP	.310	2.250	.051
CPI	−0.978	−2.017	.074
INT	−.092	−0.528	0.610
EPS	1.464	3.681	.005

positive and statistically significant at the 1% level in the case of EPS and at the 5% level in the case of MS and GDP, whereas there were as expected negative coefficients of CPI and INT and statistically significant at the 1% level in the case of CPI, but statistically insignificant in the case of INT. However, a positive and statistical significance of CPI was reached by Ibrahim (2003), Maysami and Koh (2000) and part of Mukherjee and Naka (1995) results. According to Van et al. (1972) if prices, wages, and other costs change exactly in keeping with the unanticipated change in inflation, stock value is unaffected by the operating earning term. It is worth mentioning here that the results of this analysis are almost consistent with the results of the whole sample mentioned above, particularly in the case of CPI and EPS. This gives us an indication of the relative importance of these two factors as determinants of stock prices of the UAE banks.

Regarding the non-banks group, which includes different companies from different sectors, a multicollinearity test was also carried out to assess the degree of correlation among variables. Table 6 provides the correlations among these variables. As can be seen from Table 6, there is a strong correlation between EPS and DPS. Therefore, DPS was dropped from the regression model. OL was also dropped from the model for the same reason mentioned above.

TABLE 6 Cross Correlations Among Independent Variables for Non-Banks

	MS	GDP	CPI	INT	EPSN	DPSN
MS	1					
GDP	.138	1				
CPI	.497	−.140	1			
INT	−.003	.594	.031	1		
EPSN	.534	.475	.365	.522	1	
DPSN	.569	.516	.272	.512	.97	1

REGRESSION RESULTS OF THE NON-BANKS GROUP

Table 7 provides the regression results of the non- banks group model. The table shows that the model explains 955 of the variation of stock prices. The results indicate that the estimated coefficients for EPS is, as expected, positive and statistically significant at the 1% level of significance. This is consistent with the results of the two models discussed above. As can be seen from the table, the coefficients for MS and GDP were, as expected, positive and statistically significant at the 5% level in the case of MS, but statistically insignificant in the case of GDP, whereas there was as expected negative coefficient of CPI but statistically insignificant. However, unexpectedly, the coefficient for INT was positive and statistically insignificant. The results also provide an indication of the relative importance of EPS as a determinant of stock prices in the UAE financial markets.

In conclusion, the results of this study are consistent with most of the findings provided in the literature review and support the existence of a long-run relationship between stock prices and both internal and external factors. The most important influencing factor is EPS. This measns that an increae in the demand for stocks with higher earnings increases stock prices and, consequently, the trading volume.

CONCLUDING REMARKS

For the UAE financial markets model and for the two groups of the sample, the results indicate that the coefficient value of EPS was as expected, positive and statistically significant at the 1% percent level, the hypothesis of the positive and significant relationship between the level of stock price and earnings per share is confirmed. The results also indicate that EPS was the most influencing factor on the UAE stock prices. Furthermore, the results of the three models report the positive relationship between stock price and money

TABLE 7 Summary of Regression Results for Non-Bank Companies

R	R Square	Adjusted R square	Std. error of the estimate
.986	.973	.958	38.818
	Beta	*t*	Sig.
(Constant)		−1.109	.296
MS	0.256	2.179	.050
GDP	.210	.861	.411
CPI	−.027	−.118	.908
INT	.074	.739	.479
EPSN	.739	7.325	.000

supply and GDP, although the significant level was not the same in the three models. However, the results of the three models reveal negative relationship between stock price and consumer price index (inflation) and interest rate which is consistent with most of previous studies.

The findings indicate a strong positive impact of EPS on the UAE stock prices. This provides decision makers (i.e., portfolio managers and investors) with information about future stock prices. Accordingly, companies should give more attention in their policies and strategies to those factors influencing EPS, which according to the results of this study represents the most influencing factor and might be considered the main factor for business survival and success. Decision makers should support studies either by supporting research centers or by direct support to the researchers and postgraduate students.

The positive impact of money supply is another factor that the decision makers should pay close attention to. More specifically, they should pay attention to changes in the money supply and the sensitivity of stock prices to these changes. The same can be said in the case of GDP, which also affects stock prices.

Decision makers also should be more concerned about the changes in inflation as measured by changes in CPI. In the findings of this study and other similar studies, inflation has an inverse relationship with stock prices. The findings of this study could contribute, with other studies, to establishing a database for the stock market industry to assess market performance, continuously monitor and improve its behavior, and detect any undesired phenomena.

As the UAE stock market is an emerging market, further studies need to be conducted to gain a better understanding of the market behavior and assist investors, portfolios managers, and companies to make rational decisions. Research in this area should include market efficiency, reaction to the announcement of events, P/E ratio, and stock market returns, and the impact on UAE stock market prices of regional (i.e., GCC) and international stock markets.

Finally, it is recommended that the monetary authorities monitor the stock market behavior while setting policy as the results show that the stock price is affected by money supply, interest rate, and consumer price index.

REFERENCES

Allen, Dave E. & Rachim, Veronica S. (1996). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics*, *6*(2), 175–188.

Al-Qenae, Rashid, Li, Carmen & Wearing, Bob (2002). The information content of earnings on stock prices: The Kuwait stock exchange. *Multinational Finance Journal*, *6* (3/4),197–221.

Anderson, D. R. et al. (1990). *Statistics for Business and Economics*. Cincinnati, OH: South-Western College Publishing. Retrieved from http://www.centralbank.ae

Anderson, R. A., Sweeney, D. J., & Williams, T. A. (1990). *Statistics for Business and Economics*. Rochester, New York: West Publishing Company.

Benesh, Gary A. & Peterson, Pamela P. (1986). 'On the relation between earnings changes, analysts' forecasts and stock price fluctuations. *Financial Analysts Journal*, *42*(6), 29–41.

Chaudhuri, K. & Smiles, S. (2004). Stock market and aggregate economic activity: Evidence from Australia. *Applied Financial Economics*, *14*, 121–129.

DeFina, Robert H. (1991). Does inflation depress the stock market? *Business Review*, Federal Reserve Bank of Philadelphia, 3–12.

Dimitrios, Tsoukalas (2003). Macroeconomic factors and stock prices in the emerging Cypriot equity market. *Managerial Finance*, *29*(4), 87–92.

Docking, Diane S. & Koch, Paul D. (2005). Sensitivity of investor reaction to market direction and volatility: Dividend change announcements. *Journal of Financial Research*, *28*(1), 21–41.

Fama, Eugene F. (1990). Stock returns, expected returns, and real activity. *Journal of Finance*, *45*(4), 1089–1108.

Geske, Robert & Roll, Richard (1983). The fiscal and monetary linkage between stock returns and inflation. *Journal of Finance*, *38*(1), 1–33.

Hammoudeh, S. & Aleisa, E. (2004). Dynamic relationships among GCC stock markets and NYMEX oil future. *Contemporary Economic Policy*, *22*(2), 250–269.

Hartono, Jogiyanto. (2004). The recency effect of ccounting information. *Gadjah Mada International Journal of Business*, *6*(1), 85–116.

Ibrahim, Mansor H. (1999). Macroeconomic variables and stock prices in Malaysia: An empirical analysis. *Asian Economic Journal*, *13*(2), 219–231.

Ibrahim, Mansor H. (2003). Macroeconomic forces and capital market integration: A VAR analysis for Malaysia. *Journal of the Asia Pacific Economy*, *8*(1), 19–40.

Lee, Bong-Soo. (2006). An empirical evaluation of behavioral models based on decompositions of stock prices. *Journal of Business*, *79*(1), 393–427.

Maysami, Ramin C. & Koh, Tiong S. (2000). A vector error correction model of Singapore Stock Market. *International Review of Economic and Finance*, *9*, 79–96.

Molodovsky, Nicholas (1995). A theory of price-earnings ratios. *Financial Analysts Journal*, *51*(1), 29–43.

Mukherjee, Tarun K. & Naka, Atsuyuki (1995). Dynamic relations between macroeconomic variables and the Japanese Stock Market: An application of vector error correction model. *The Journal of Financial Research*, *XVIII*, 223–237.

Organization of the Petroleum Exporting Countries. (2005). *Annual Statistical Bulletin*. Vienna, Austria.

Udegbunam, Ralph I. & Eriki, P. O. (2001). Inflation and stock price behavior: Evidence from Nigerian stock market. *Journal of Financial Management and Analysis*, 1–10.

Van Horne, J. C. & Glassmire, W. F. (1972). The impact of unanticipated changes in inflation on the value of common stocks. *Journal of Finance*, *27*(5), 1081–1092.

Williams, J. B. (1938). *The theory of investment value*. Cambridge, MA: Harvard University Press.

Zhao, Xing-Qiu (1999). Stock prices, inflation and output: Evidence from China. *Applied Economics Letters*, *6*(8), 509–511.