ARABIAN GROUP OF JOURNALS
International Journal of Accounting Research (IJAR)
Vol. 2, No. 12, 2016
Accounting Research

INFLUENCE OF INFLATION RATE TO STOCK PRICE GROWTH AMONG DIVERSIFIED COMPANIES IN THE PHILIPPINES

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Abstract

This study aimed to determine the influence of inflation rate to stock price growth among diversified companies in the Philippines. Research respondents were the 73 diversified companies in the Philippines. This study employed a descriptive correlation design which is useful for identifying the relationship between two or more quantifiable variables. Secondary data of the inflation rate and stock prices were gathered through the use of a checklist method as an instrument. A monthly data of the inflation rate was compared to stock price growth of a diversified company to obtain an understanding of the underlying forces and structure that produced the observed data**.** The statistical treatment used to analyze and interpret data was the regression model using panel data. The results showed that though the inflation rate can positively influence the stock price growth among diversified companies in the Philippines, this influence cannot be considered as significant.

Keywords: Inflation rate, stock price growth, diversified companies, quantitative research, descriptive-correlation design, Philippines

Introduction

Investors need to be informed before making the decision to invest in the equity of a certain company. That is why financial analysts and economists have been interested in the real relationship between inflation and stock prices, whether or not income can survive the effect of inflation (Wang and Liu, 2013). Past studies attempt to explain the movement of the stock price using different factors. Kurihara (2006) noted that there are several daily factors affecting the stock price which is determined by the demand and supply. These factors include market behavior, company fundamentals, and external factors. Inflation is one of those factors which investors took as a hedge against their investment. Aurangzeb, Ahmed, and Mubarak (2012) discovered unexpected inflation and stock prices having a negative relationship. This means that amount of goods and services that money can buy is slowly reduced by the increase in the general price index. As a result, a decreased in the real value of money. In effect, there would be a decline in stock price. They cited that inflation contributes to the stock market a nearly 80 percent time-series variation. Furthermore, forecasting the prices of stock would be most beneficial if there are sufficient data about the change in inflationary predictability. The study of inflation and stock price is essential to comprehend the worldwide problem of the complexity of

inflation process and its effect on stock prices in connection with the amount of stock returns from the investment (Saleem, Zafar, and Rafique, 2013).

Marshall (1992) explanation of the classical quantity theory stated that inflation caused by money shock would lead to lower interest rates. Variability in inflation rate could decline the growth of stock price because such irregularities could create a bad impression to long-term investment. Investors will try to withdraw and sell their financial interest due to small return on their investment. Ong (2014) added that there is inflation, central banks tends to control it through increasing interest rate. This could force the investor to transfer their funds to the short and less risky investment. As a result, stock prices will go down because of low demand for stocks in the market.

Most of the studies consider that inflation rate heavily affects the stock market volatility and its impact on the economy. Udoka, Mboto, and Anyingang (2013) stated that companies with a steady flow of earnings experience a decline in stock price when inflation rate exceeds from what is expected. As a result, stockholders of such company will suffer negative investment returns. Bhar (2010) suggested that inflation tends to hit the stock price stability creating a negative relationship between inflation and stock prices. Due to inflation, the value of stock prices in the market may vary. This provides uncertainty to investors about future savings and investments. Inflation may decrease the real value of debts and enhance a declining economy (Ahmad, Farooq, Naseem and Rehman, 2011).

Zaidi (2011) stated that if the company can probably perform well, in the long run, stock prices will go up. However, if it can be observed that the company may be in a bad position in the future, then stock prices will go down. She further said that when there is inflation, the net worth or earnings of the company will be affected. As a result, company earnings will go down resulting in lowering stock prices and lower returns. The effect of inflation on stock prices can also be manifested when inflation causes the interest rates to increase. If the inflation rate is high, the interest rate is also high. This will cause investors to pull out their investments and put it in a bank because the interest return in a bank is fixed. As a consequence, there are more debt investments those equity investments lowering the stock prices (Brigo and Mercurio, 2006). The study of Strand (2008) also explained that when inflation rises, stocks portfolio will be greatly affected especially when these stocks do not benefit from the said inflation. Ahmad et al. (2011) also examined the effect of inflation on stock prices of different countries through the collection of stock price data from the Capital International Perspective for a period of 10 decades. Through the use of a regression model, the study reported a negative relationship between stock prices and inflation. On the other hand, Efficient Internal Market model proposed that diversification adds value to the firm (Rajan, R. Servaes, H. and Zingales, L. 2000). This added value might result to a positive outlook of investors to the firm image and will result to increase the demand for their stocks. Above studies used stock prices from different types of listed firms. No known study whether these theories and concepts is applicable to the diversified firms. This paper explores whether inflation can affect the stock price growth of diversified firms in the Philippines.

Review of Related Literature

Inflation Rate

An advantageous effect of inflation to stocks is commonly believed. The reason is that the returns to shareholders are increased due to inflation since product prices increase faster than interest (Udoka et al., 2013). Hardin, Jiang and Wu (2012) stated that if investors are unsuccessful in adjusting nominal growth rates with nominal discount rates, stock prices will be undervalued (overvalued) when inflation is comparatively high (low). The relation of inflation

to stock price is still unclear which makes studying the performance of these two variables vital for researchers (Saleem et al., 2013).

Inflation has been a concern of every ups and down of the economy. Granville (2013), Bartolotti (2006), and Ciftcioglu and Begovic (2007) had studies of the good effect of inflation on growth in the short-run. A study showed that increasing money supply raised the output level of the firms in a short period of time creating demand shocks. An unforeseen inflation provided an increase in the growth rate while a decrease in inflation rate resulted in a declined growth rate. However, this view is applicable only in the short-run and does not consider its long-run effects. Modern economists believe that inflation rate negatively affects economic growth. It is because inflation brings out uncertainty as the study discussed due to lack of approximation techniques and less understanding of its variability. Thus, regulating inflation is a precondition for maximizing economic growth.

Kumari (2011) stated that today, because of the increasing growth and liberalization, the center of studies has been moved toward developing countries. There are two main channels in which inflation appears to affect stock prices. The first channel is the impact of inflation on the potential earnings of the firms. The other one is the way investors regulate their discount rate for future cash flows. A less stability was found in the prices of stocks and a higher investment uncertainty if there is an indication of inflation. The perception of this study is a negative relationship between inflation and stock prices since the latter are the reflection of future activity of the economy (Bhar, 2010). Morris (2009) explained that one factor of a fall in stock prices in the period of inflation is also a rise in interest rates as the Federal Reserve tightens the supply of money to reign in borrowing. The higher earnings of the companies may be perceived by the investors as a product of higher prices rather than productivity gains. Thus, investors might not be willing to pay for the current price of the stock or if they own stocks already, may decide in selling those. As the expectation of the investors stumbles because of these conditions, stock prices are expected to fall.

Stock Price Growth.

For years, a sustained growth in Gross Domestic Product signifies a strong and efficient nation. Later, a good stock market has been recognized as important for economic growth through investors and entrepreneurs being offered with interest. It is said that throughout the years, many researchers have been studying the relation of inflation to stock prices with equivalent effect to its returns (Kumari, 2011). Saleem et al. (2013) mentioned that a decline in nominal interest rates is caused by a decline in the expectations the consumers have in future inflation. This may lead to an increase in stock prices because lower rates mean a higher present value of how much money can be earned or lost in the future by an entity or corporation during a given time. But a decline in the expectations the consumers have in future inflation may also lower the expected future corporate earnings which would probably lower stock prices. Thus, the effect of the expectations the consumers have in future inflation on stock prices may be uncertain or neutral.

Ahmad et al. (2011) examined the effect of inflation on stock prices of different countries through the collection of stock price data from the Capital International Perspective for a period of 10 decades. Through the use of a regression model, the study reported a negative relationship between stock prices and inflation. Strand (2008) explained that when inflation rises, stocks portfolio will be greatly affected especially when these stocks do not benefit from the said inflation. During 2007, Canadian Imperial Bank of Commerce, one of the largest banks in Canada, experienced unanticipated crisis wherein prices ranges from $48.70 to $108.64. This fluctuation created a shock making investors sell off their assets which caused a downward stock price adjustments among financial institutions. The study further recommended that holding stocks in oil or precious metal companies is better compared to investing in financial

stocks. It provides higher profits even though prices are high since they are limited resources and a need for every country. Due to some other factors, the inflation may or may not affect the stock market return negatively or positively. Thus, studying inflation and stock prices is important to know how greatly or badly it plays its role in the economy (Saleem et al., 2013).
Hardin et al. (2012) stated in their studies that investors are also interested in the relationship between inflation and stock prices. One hypothesis with regards to the negative relationship between inflation and stock price is about the damage brought by unexpected inflation to real economy which caused the stock price to fall when inflation rate fluctuates. Another hypothesis asserts that investors are becoming conscious in taking a risk when inflation rises. Investors want a higher stock returns and higher real discount rates. Thus, there is an understatement in stock prices when there is high inflation and overstatement when inflation is low. In addition, a negative relationship between inflation rate and the stock price was discovered from a test conducted in Pakistan (Saleem et al., 2013).
On the other hand, Al-Khazali and Pyun (2004) provided proof on the long term Fisher effect on stocks in nine market countries in the Pacific-Basin (i.e. Australia, Hong Kong, Indonesia, Japan, South Korea, Malaysia, the Philippines, Singapore, and Thailand). The result of the study takes sides the long term Fisher effect between stock prices and the corresponding changes in the prices of commodities as measured by the consumer price index. The study shows the time path of the reaction of stock prices towards the shock of inflation and it displays an initial negative association in the short-run, which turns positive over the longer time range. However, Aurangzeb et al. (2012) conducted studies in order to seek a relationship between stock returns and inflation rate. No association was found between the two variables. Furthermore, only a neutral impact has discovered on the effect of inflation on stock prices.

Method

This chapter presented the methods and procedures that will be used in conducting this research work. It showed the important details on the instrument to be employed in the gathering of data and the statistical tools applied for the analysis and interpretation of the data.

Research Design

A descriptive correlation design was employed in this study to determine the influence of inflation rate to stock price growth among diversified companies in the Philippines. Descriptive-correlation method is useful for identifying the relationship between two or more quantifiable variables and how one variable may be affected by the other and the extent of the relationship if there is any (Veronese, 2005).

Research Subject

The respondents of this study were the 73 diversified companies in the Philippines. Diversified companies are those that are not specifically focused on one business sector enabling stockholders to less likely realize significant gains or losses. Considering the location of the respondents, purposive sampling was used as the sampling technique because of the accessibility and availability of the data taken on set criteria.

Data Source

Inflation rates were collected from the official website of the Philippine Statistics Authority - National Statistical Coordination Board and the stock prices were from a financial information site called Market Watch on a monthly basis from January 2010 to December 2014.

Statistical Tool

Regression analysis: This measure was used to determine the influence of inflation rate to stock price growth among diversified companies in the Philippines from January 2010 to December 2014.

Results and Discussions

Philippine Inflation Rate

Figure 2. Philippine Inflation Rate 2010-2014.

Over time, as the cost of goods and services increase, the value of a peso is going to fall because a person will not be able to purchase as much with that money as one previously could. A descending change had occurred in the inflation path settled within the expected varieties for both 2009 and 2010 due to the anticipated acceleration of world oil rates and the lesser inflation outturn for the fourth quarter of 2008. There had been an occurrence of higher than expected rise in the inflation in the Philippines in April 2012 driven mainly by the expected increases in food, drinks, clothing and housing prices (Sandique-Carlos, 2012).
Over the past sixty months, the inflation rate fluctuated between 3 percent in 2013 and 4.65 percent in 2011. Figure 1 shows a trend analysis for these sixty months. It shows that inflation rate had been unstable from years 2010 to 2014. Despite the expectation of lower inflation and due to strong pressures from the apparent result of scarcity, reduced agrarian produce, and election-related expenditure in the approaching months, it had been said that it will no longer go any lower. Impacts of inflation are both in a good and bad way. Because of the result of cost-push deceleration of inflation due to the supply-side improvement of the economy, it had produced a good effect. Lower inflation can also be an indication of a still economy, with the public not that encouraged and poised in spending (Wang and Liu, 2013).

Stock Price Growth

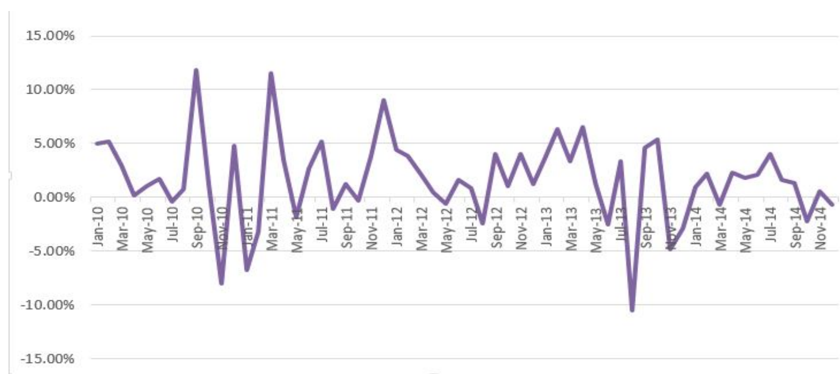

Figure 3. Stock Price Growth of Diversified Companies.

Figure 2 shows the average stock prices of the diversified companies in the Philippines. Data shows that diversified firm stocks prices were not stable. Stock prices normally vary from time to time, this is caused by several factors in the market. However, the key factor that affects the stability of the stock prices in the market is investor demand. Stock prices rise when the demand for the stocks exceeds the supply. On the other hand, stock prices decline when the supply of the stocks exceeds the demand. The demand for the stocks is relative to the subsequent factors: earnings, economy, and expectations. The prices of stocks in the market normally rise when all three determinants are positive and decline when the three are negative. Stock prices are unstable due to the fact that the said determinants change frequently (Basu, 2011).
The prices of the stock are primarily determined by the income of the company. For instance, stock prices will rise when the company is earning very well, declares dividends every year, and has a lot of growth potential in the forthcoming years. A decline in interest rates is caused by a decline in the expectations the consumers have in future inflation. This may lead to an increase in stock prices because lower rates mean a higher present value of how much money can be earned or lost in the future by an entity or corporation in a given time (Saleem et al., 2013).

Regression Analysis

Table 1: Regression Analysis

Variables/Indicators	Coefficient	t-ratio	p-value
Const	-0.393	-0.158	0.875
	2.491		
Inflation Rate	0.536	0.824	0.413
	0.651		
R-squared	0.012		
Adjusted R-squared	-0.005		

Estimates revealed that the inflation rate influenced the stock price from period 2010 to 2014 as indicated in Figure 3. In every 1% increase in inflation rate, there was a 0.54% growth in stock price. The result shows a direct effect of inflation on the stock prices. This result rejecting Marshall (1992), Bhar (2010), Udoka, Mboto and Anyingang (2013) and Ong (2014) concept the inflation has a negative effect on stock prices. The result could explain that investors' decision is not affected by the movement of inflation.

Conclusion

The inflation rate is not a factor for stock price growth among diversified companies in the Philippines. Acquiring the stocks of this sector during increasing and decreasing inflation is a good idea for investors. Thus, the concept that inflation can influence the stock prices cannot be applied to the diversified companies. This paper can be of value to improve financial planning in both the corporate and private sectors. This can help investors understand risks and hedge investments and in the creation and evaluation of monetary policy. But this study is only limited to the published figures from secondary sources which were based on measures from financial market websites. Many other variables and factors were not considered to arrive at the conclusion.

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