Macroeconomic variables in china

From the beginning of the first public company on the Shanghai Stock Exchange in 1990, the stock market has experienced a rapidly increase during these twenty years in china. Up to the year of 2008, there were approximately 1650 public companies on either Shanghai Stock Exchange or Shengzheng Stock Exchange with the total market capitalization of 121366(100 million yuan). The relationship between macroeconomic variables and market prices has been widely recognised by economists, they have made a lot of researches in this field, though the way to identify their bearings are vary from person to person. Some of them use only one of macroeconomic variables like Comoncioli(1995)who focuses on the relationship between stock market index and Gross Domestic Product (GDP), Pearce and Roley(1983) study on the PPI(producer price index), and Lee (1992)emphasizes on the Interest Rate. Some prefer to combine different kinds of macroeconomic variables for analysize. Abdullah and Hayworth(1993)use seven macroeconomic variables (namely, money spply, inflation , short and long-term interest rates, budget, trade and the growth of industry)to study their relationship between stock market prices. Tursoy, Gunsel and Rjoub(2008) adopt more than ten macroeconomic variables for research. In this mini essay, the first part is the introduction of some relative backdrop, including the situation of stock market in china and the privious researches of other learners. Next to this, it begins to analyse the relationship between each macroeconomic variables and stock market prices according to the detailed statistics in china. The last part is to draw some conclusions.

Since the differennt research purposes, the selection of proper and relevant macroeconomic variales are different. Dritsaki(2005)thinks that selecting macroeconomic variables should focus on those objects which reflect both economic and financial situation of one country. Thus, variables like GDP, CPI , Money Suppley, Exchange Rate, Interest Rate are applyed in this essay, for there are more likely valuable in tracing the relationship betwwen macroeconomic variables and stock market prices based on the special situation in china.

On the long run, the fluctation of stock market prices and the changement of GDP shows a positive relationship, except the year of 2007. As we are known, GDP is a kind of mixed index , which reflects the strength of a country’s overall macro-economic indicators. When there is a decline in the economic downturn, the majority of the public companies are more likely to reduce their investment and costs , hence, the stock market’s supply will move slowly; at the same time, due to economic downturn and lower expection and future income, investors, thereby reducing capital expenditure and investment,. Consequentaly, stock prices is bound to fall down. Conversely, when a country′ GDP grews rapidly, the herald of economic prospects, expectations about the future improvement of business confidence in future development, are keen to enlarge the scale of additional investment and the demand for capital expansion, thus stimulate the stock market and increase its whole value.

Consumer Price Index& Total Market Capitalization

Year

1992

1993

1994

1995

1996

1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

TMC

1048

3531

3691

3474

9842

17529

19506

26471

48091

43522

38328

42457. 72

37055. 57

32430. 28

89403

327141

121366

CPI

106. 4

114. 7

124. 1

117. 1

108. 3

102. 8

99. 2

98. 6

100. 4

100. 7

99. 2

101. 2

103. 9

101. 8

101. 5

104. 8

105. 9

Note: TMC= Total Market Capitalization(100 Million Yuan)

CPI= Concumer Price Index(assumption the last year is 100)

As can be shown from the table, the CPI fluctuated in a narrow level, while the TMC saw an increase trend on the whole. It is widely realize that the measurement of Inflation Rate is based on the CPI. In theory, Inflation Rate not only directly affect people's current decision-making, but also induce their inflation expectations. In times of inflation , currency depreciation inspired by inflation expectations always prompt the individuals to exchange the currency with commodity for the purpose of hedge, one of the hedge tools is stock, thus expanding the demand for shares; on the other hand, when inflation has grown to a level , the Government often carry out a tight fiscal and monetary policies to inhibit its development , then, the interest rates is in rise. At that moment, one of the best options of public company to raise funds is to issue stock , which allowing a corresponding increase in the supply of the stock market. At this point, if the stock market growth in demand is greater than supply growth, the stock price and inflation showed a positive relationship, or if the stock market growth in demand is less than supply growth, the stock price and inflation shows negative correlation.

From the bar chart, though the money supply shows a steady increasing tread, the TMS seems not always keep pace with it , this might due to the special situation in china. In theory, Money supply on stock market prices can be achieved through three kinds of effects: (1) Expected effects. When the central bank plan to implement expansionary monetary policy , it can influence the market participants expect the currency market for the future, thus changing the stock of money supply and affect the price and size of the stock market; (2) the portfolio effect. When the central banks carry a easing monetary policy, currency held by the people increased, while the marginal utility of money (investment income) is decreasing in the other conditions remain unchanged, people held money would exceed the needs of daily transactions , This would, of course, result in some money flood into the stock market, and the stock market prices is in rise undoubtly; (3) the growth effect of the intrinsic value of the stock. When money supply increases, interest rates will fall, and investment will increase, thereby stimulating the stock market prices. Generally speaking, these three kinds of effects are positive, that is, money supply increase, the stock prices. Therefore, the money supply on stock prices is positive.

Exchange Rate & Total Market Capitalization

Year

1992

1993

1994

1995

1996

1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

TMC

1048

3531

3691

3474

9842

17529

19506

26471

48091

43522

38328

42457. 72

37055. 57

32430. 28

89403

327141

121366

ER

551. 46

576. 20

861. 87

835. 10

831. 42

828. 98

827. 91

827. 83

827. 84

827. 70

827. 70

827. 70

827. 68

819. 17

797. 18

760. 40

694. 51

Note: TMC= Total Market Capitalization(100 Million Yuan)

ER= Exchange Rate (Base on 100 Dollars)

Exchange rate, is a currency of another country’s currency exchange rate. As an important economic lever, the exchange rate changes on the interaction between a country’s stock market is reflected in many ways, including: import and export, prices and investment. Exchange rate directly affect the international flow of capital. A country’s exchange rate, means that the currency depreciation will boost exports and depress imports, thus promote one country′s cash flow, enhance public company’s expected returns, Then to some extent, promote the stock prices. However, as can be seen from the data, the relationship between Exchange Rate and stock market prices seems not significant as expected.

From the perspective of investor, one of the most sensive factors that effect the stock prices is the movement of bank interest rate, which have a direct impact on the thrend of stock prices. According to classical economic theory, the interest rate is the price of money , and the opportunity cost of holding money, which depends on the capital markets supply and demand. The supply of funds from savings, while the demand comes from investerment. Both investment and savings have profound impact on interest rates. Interest rates can reduce the cost of holding money, promote the transformation of savings to investment, thereby increasing the circulation of cash flow and corporate discount rates, leading to stock market prices rise. So interest rates increase, stock market lower; on the other hand, interest rates drop, the stock market higher.

The analysis carried out in this paper indicates that the relationship between each macroeconomic variables and stock market prices are difference in china. From the above-mentioned datas and analysis, macroeconomic variables are relevant indicators of the movements of stock market prices, to be more specific , CPI, Interest rate, Exchange rate show a negative correlation with Stock Market Price, while GDP and Money Supply present a positive relationship with Stock Market Price on the long run.