DETERMINANTS OF CHINESE STOCK MARKET RETURNS

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MARKET RETURNS

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ABSTRACT

This paper focuses on the macroeconomic variables underlying relationship with stock market returns for China stock market over the period 2000 to 2010. Chinese's economy has experienced large change and it has also grown rapidly over the years. Chinese's economy has experienced substantial growth and taken over Japan which used to be the second largest in terms of economy. Based on the specialty of China, this research focuses on Chinese stock market. Data were analyzed using SPSS, by gathering six variables that include inflation, oil price, gross domestic product, exchange rate change, net export and money supply. The study uses Arbitrage Pricing Theory as the basis for analysis. Correlation and regression result analyses were used to examine the relationship between macroeconomics variables and stock returns. The results indicate that five variables to have significant relationship with the dependent variable. Moreover, the results also indicate the level of influence that each macroeconomic variable has on the dependent variable. The findings are discussed and recommendations for future research are presented.

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TABLE OF CONTENT

REFERENCE   **60**

APPENDICES   **67**

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATION

APT	Arbitrage Pricing Theory
BTM	Book to Market
CAP	Capital Asset Project
ERC	Exchange Rate Change
GDP	Gross Domestic Product
HML	High Minus Low
INF	Inflation Rate
MPI	Market Pressure Index
MS	Money Supply
MSCI	Morgan Stanley Capital International
NETEXP	Net Export
OPr	Oil Price
RET	Stock Market Returns
RMB	RenMinBi
SMB	Small Minus Big
US$	United States Dollar
VIF	Variance Inflation Factor

CHAPTER 1

INTRODUCTION

1.1 Introduction to Stock Market

Stock market is a big and popular market all over the world as it indicates the overall performance of all companies in an economy. The performance of local stock markets reflects the average market performance of a country. It serves as an index to investors or governments in making their investment decisions. Meanwhile, the public would be able to reap good levels of returns from this market as long as they make the right investment decisions. Investors of different financial capacity are able to invest in this market as long as they are able to get a return that is higher than their cost of capital. This is the reason why stock market is popular all over the world. Hence, this is the reason why it is necessary to do a research in this area especially on the Chinese Stock Market which is currently seen as an upcoming economy.

There are two categories of shares that are traded in Chinese stock markets, they are A shares and B shares namely. A share is purchased by Chinese citizens only and B shares are only available to foreigners. A and B shares are traded at two official exchanges in China, namely Shanghai Stock Exchange and Shenzhen Stock Exchange. A share, the main share in Chinese the stock market, is dominated in terms of market capitalization and level of activities. The B shares are listed on both the exchanges

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REFERENCE

Journals and working papers:

Abdullah, D. A. and Hayworth, S. C. (1993). Macroecono-metrics of stock price fluctuations. *Quarterly Journal of Business and Economics, 32, 50-67.*

Adam, A. M. and Tweneboah, G. (2008). Macroeconomic Factors and Stock Market Movement: Evidence from Ghana. *The World economy, 1, 45-61.*

Bailey, W. (1994). Risk and Return on China New Stock Market: Some Preliminary Evidence. *Pacific-Basin Finance Journal, 2(1), 243-260.*

Basher, S. A. and Sadorsky, P. (2006). Oil price risk and emerging stock markets. *Global Finance Journal, 17, 224-251.*

Bodart, V. and Reding, P. (1999). Exchange rate regime, volatility and international correlations of bond and stock markets. *Journal of International Money and Finance18, 133-151.*

Booth. (1993). On the Existence of Common Factors in the Arbitrage Pricing Model: Inter-naltional Evidence From US and Scandinavian Stock Markets. *Applied Financial Economics, 3.*

Bradford DeLong. (2002). Investment, Net Exports, and Interest Rates. *Source from econ161.berkeley.edu/macro online/...notes/LN_ch10.pdf.*

Bulmash, S. B. and Trivoli, G. W. (1991). Time-lagged interactions between stock prices and selected economic variables. *Journal of Portfolio Management, 17, 61-7.*

Chen, N. F., Roll, R. and Ross, S. A. (1986). Economic forces and the stock market. *Journal of Business, 59, 383-403.*

Cheung, Y. W. and Lai, K. S. (1993). Finite sample sizes of Johansen's Likelihood Ratio Tests for Co-integration. *Oxford Bulletin of Economics and Statistics, 55, 13-328.*

Cheung, Y. W. and Lilian, K. Ng. (1998). International Evidence on the Stock Market and Aggregate Economic Activity. *Journal of Empirical Finance, 5, 281-296.*

Chinn, M. and Forbes, K. (2004). A decomposition of global linkages in financial markets over time. *Review of Economics and Statistics, 86, 705-722.*

Clare, Andrew. D. and Stephen, Thomas. H. (1994). Macroeconomic Factors, the APT and the UK Stock Market. *Journal of Business Finance and Accounting, 21,309-330.*

Cooper, R. V. L. (1974). Efficient Capital Markets and the Quantity Theory of mone. *Journal of Finance, 24, 887-921.*

Cramer, D. and Howitt, D. L. (2004). The Sage Dictionary of statistics: A practical resource for students in the social sciences. London: Sage.

Desislava, D. (2005). The Relationship between Exchange Rates and Stock Prices. *Review of Economy, 14.*

Dhakal, D., Kandil, E. M. and Sharma, S. (1993). Causality between money supply and share prices: A VAR investigation. *Quarterly Journal of Business and Economics, 32(3), 52-74.*

Diacogiannis, G. P. (1986). Arbitrage Pricing Model: a critical examination of its empirical applicability for the London Stock Exchange. *Journal of Business Finance and Accounting, 12, 489-504.*

Dimson, S., Paul, M. and Mike, S. (2002), Triumph of the Optimists: 101 Years of Global Investment Returns. *Journal of Financial Economics, 100(2), 443-458.*

Dybvig, P. H. and Ross, S. A. (1985). The APT Is Testable. *The Journal of Finance, 40(4), 1173-1188.*

Erdogan, E. and Ozlale. (2005). Effect of macroeconomic dynamics on stock returns: The case of the Turkish stock exchange market. *Journal of Economic Cooperation, 26(2), 69-90.*

Fama, E. F. (1981). Stock returns, real activity, inflation, and money. *The American Economic Review, 71, 545-65.*

Fama, E. F. (1998). Market efficiency long-term returns and behavioral finance. *Journal of Financial Economics, 49, 283-306.*

Fama, E. F. and French, K. R. (1992). The cross-section of expected stock returns. *Journal of Finance, 47(2), 427- 465.*

Fama, E. F. and Gibbons, M. (1982). Inflation, Real Returns and Capital Investment. *Journal of Finance, 21.*

Fama, E. F. and Schwert, G.W. (1977). Asset returns and inflation. *Journal of Financial Economics, 5, 115-146.*

Farebrother, R. W. (1980). Pan's Procedure for the Tail Probabilities of the Durbin Watson Statistic. *Applied Statistics, 29, 224–227.*

Forbes, K. and Rigobon, R. (2002). No contagion, only interdependence: measuring stock market co-movements. *Journal of Finance, 57, 2223-2261.*

Frank, P. and Young, A. (1972). Stock price reaction of exchange realignments, financial management. *Journal of Finance and Economics, 23.*

Geske, R. and Roll, R. (1983). The fiscal and monetary linkage between stock returns and inflation. Journal of Finance, 38(1), 1-33.

Gultekin, N. B. (1983). Stock market returns and inflation: Evidence from other countries. *Journal of Finance, 38, 49-67.*

Gunsel, N. and Cukur, S. (2007). The Effects of Macroeconomic Factors on the London Stock Returns: A Sectoral Approach. *International Research Journal of Finance and Economics, 10, 1450-2887.*

Hamao, Y. (1988). An empirical investigation of the arbitrage pricing theory. *Journal of Finance, 21, 37-42.*

Hamburger, M. J. and Levis, A. K. (1972). Money and Stock Prices: The Channels of Influences. *Journal of Finance, 27(2), 231-249.*

Hamilton, J. (2003). What is an oil shock? *Journal of Econometrics, 113, 363-398.*

Huang, B. N. Yang, C. W. and Hu, J. W. (2000). Causality and Co-integration of Stock Markets among the United States, Japan, and the South China Growth Triangle. *International Review of Financial Analysis, 9(3), 281-297.*

Humpe, A. and Macmillan, P. (2005). Can Macroeconomic Variables Explain Long Term Stock Market Movements? A Comparison of the US and Japan. *Centre for Research into Industry, Enterprise, Finance, 11.*

Johnson, R., Sun, M. and Soenen, L. (1994). The Shenzhen Stock Exchange: an Assessment of the Risk and Return. *Asian Business, 10(4), 1-16.*

Jones, C. M. and Gautamkaul, K (2006). Oil and the Stock Markets. *Journal of*

Finance, 51(2), 463-491.

Kanas, A. (2000). Volatility Spillovers between Stock Returns and Exchange Rate Changes: International Evidence. *Journal of Business Finance and Accounting, 27, 447-467.*

Kanas, A. (2002). Is Exchange Rate Volatility Influenced by Stock Returns Volatility? *Journal of finance, 9.*

Kandir. and Serkan, S. K. (2008). Macroeconomic Variables, Firm Stock Returns and Characteristics: Evidence from Turkey. *International Research Journal of Finance and Economics, 16, 1450-2887.*

Kose, M., Otrok, C. and Whiteman, C. (2003). International business cycles: world, region and country-specific factors. *American Economic Review, 93, 1216-1239.*

Kraft, J. and Kraft. (1977). Determinants of common stock prices: a time series analysis. *Journal of Finance 32(2): 417-425.*

Kuan, M. W. and Thanh-Binh Nguyen Thi. (2006). Does contagion effect exists between stock markets of Thailand and Chinese economic area (CEA) during the "Asian Flu"? *Asian Journal of Management and Humanity Sciences, 1(1), 16-36.*

Kwon, C. S., Shin, T. S. and Bason, F. W. (1997). The Effect of Macroeconomic Variables on Stock Market Returns in Developing Markets. *Business Review, 5(2), 63-70.*

Martikainen, T., Yli-Olli, P. and Gunasekaran. (1991). Incremental significance of pre-specified macroeconomic factors in testing the arbitrage pricing theory: empirical evidence with Finnish data. *Applied Financial Economics, 1, 139-147.*

Masih, R. and Masih, A. (1996). Macroeconomic Activity Dynamics and Granger Causality: New Evidence from a Small Developing Economy Based on a Vector Error-Correction Modelling Analysis. *Economic Modelling, 13, 407- 426.*

Mercereau. (2003). Stock markets and the real exchange rate: an inter-temporal approach. *IMF working paper, 3(109), 2003-2109*

Mukherjee, T. K. and Naka, A. (1995). Dynamic relations between macroeconomic variables and the Japanese stock market: an application of a vector error correction model. *Journal of Financial Research, 18, 223-37.*

Nasseh, A. and Strauss, J. (2000). Stock Prices and Domestic and International Macroeconomic Aactivity: A Cointegration Approach. *The Quarterly Review of*

Economics and Finance, 40, 229-245.

Neil, W. H. (2001). R-square and Standardization in Regression. Retrieved from: http://www.people.vcu.edu/~nhenry/Rsq.htm.

Nozar, H. and Taylor, P. (1988). Stock prices, money supply and interest rates: the question of causality. *Applied Economics, 20, 103-161.*

Poon, S and Taylor, S. J. (1991). Macroeconomic factors and the UK stock market. *Journal of Business and Accounting, 18, 619-636.*

Qu, W. and Wu, S. (2002). The Analysis of Microstructure of the Stock Market in China. *Economic Research, 1, 56-63.*

Ritter, J. R. (2005). Economic growth and equity returns. *Pacific-Basin Finance Journal, 13(5), 489-503.*

Robert, D. and Gay, J. (2008). Effect of Macroeconomic Variables on Stock Market Returns for Four Emerging Economies: Brazil, Russia, India, and China. *International Business and Economics Research Journal, 7(3).*

Rogaliski, R. J. and Vinso, J. D. (1977). Stock returns, money supply and the directions of causality. *Journal of Finance 32, 1017-1030.*

Roll. and Ross, S. (1984). Risk returns and arbitrage. *Journal of Economic 27*

Rozeff, M. S. (1974). Money and Stock Prices. *Journal of Financial Economics, 2, 245–302.*

Samitas, A. G. and Kenourgios, D. F. (2007). Macroeconomic factors' influence on 'new' European countries' stock returns: the case of four transition economies. *Financial Services Management, 2.*

Schwert, G. W. (1989). Stock Returns and Real Activity: A Century of evidence. *Journal of Finance, American Finance Association, 45(4), 1237-57.*

Trzcinka. and Charles, A. (1986). On the Number of Factors in the Arbitrage Pricing Model. *Journal of Finance and Economics Theory, 13, 341-60.*

Turgut, T., Nil, G. and Husam, R. (2008). Macroeconomic Factors, the APT and the Istanbul Stock Market, International Research. *Journal of Finance and Economics, 22, 1450-2887.*

Tursoy, G. and Rjoub. (2008). The Effects of Macroeconomics Variables on Stock

Returns: Evidence from Turkey. *European Journal of Social Sciences, 14(3).*

Wang and Pan (2004). Inter-link between the S&P 500 index and Shanghai composite index. *Journal of Business, 59, 383-403.*

Wang, K. M. and Thi, T. N. (2006). Does Contagion Effect Exist Between Stock Markets of Thailand and Chinese Economic Area (CEA) during the'Asian Flu? *Asian Journal of Management and Humanity Sciences. 1(1), 16-36.*

Wang, Xiufang. (2010). The Relationship between Stock Market Volatility and Macroeconomic Volatility: Evidence from China. *International Research Journal of Finance and Economics, 49, 450-2887.*

Wong, Bangpo. and Sharma, S. (2002). Stock market and macroeconomic fundamentals dynamic interactions: ASEAN-5 countries. *Journal of Asian Economics, 13, 27-51.*

Wu, R. (2005). International Transmission Effect of Volatility between the Financial Markets during the Asian Financial Crises. *Transition Studies Review, 15, 19-35.*

Zhao, Y., Zhang, Y. and Chunjie, Q. (2010). Study on Openness of Chinese Stock Market: Comparing with Mature Markets. *International Journal of Trade, Economics and Finance, 1(1).*

Zietz, J. and Pemberton, D. K. (1990). The link between exports, imports, and macroeconomic policy in US. *Southern Economic Journal, 57, 23- 34.*

Book sources:

Bodie, Z., Kane, A. and Marcus, A. J. (1995). Essentials of investment. *Second Edition*

Pindyck. Robert, S., Rubinfeld. and Daniel, L. (1991). Econometric models and economic forecast. *Fourth Edition.*

Website sources:

Data and Statistical Services multicollinearity. Retrieved January, 9, 2012, from: http://dss.wikidot.com/multicollinearity

Durbin–Watson statistic - Wikipedia, the free encyclopedia. Retrieved November 21, 2011, from: http://en.wikipedia.org/wiki/Durbin%E2%80%93Watson_statistic

Fama–French three-factor model. Retrieved January, 9, 2012, from:

http://en.wikipedia.org/wiki/Fama%E2%80%93French_three-factor_model

F-statistics - Wikipedia, the free encyclopedia. Retrieved September 10, 2011, from: http://en.wikipedia.org/wiki/F-statistics

Heteroscedasticity draw heavily from Berry and Feldman. Retrieved February, 1, 2012, from: http://www.nd.edu/~rwilliam/stats2/l25.pdf

Hoguet, G. R. (2008). Inflation and Stock Price, State Street Global Advisors. Retrieved November 21, 2011, from: http://www.ssga.com/library/esps/Inflation and Stock Prices George Hoguet 8.21.08rev3CCRI1221060800.pdf .

Multicollinearity - Wikipedia, the free encyclopedia. Retrieved November 21, 2011, from: http://en.wikipedia.org/wiki/Multicollinearity

Standardized Coefficient- - Wikipedia, the free encyclopedia. Retrieved January, 9, 2012, from: http://en.wikipedia.org/wiki/Standardized_coefficient

T-statistic - Wikipedia, the free encyclopedia. Retrieved September 9, 2011, from: http://en.wikipedia.org/wiki/T-statistic