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Hedge funds and China's stock market: a study on factors influencing investment decisions by fund managers

Alan Phan
Southern Cross University

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HEDGE FUNDS AND CHINA'S STOCK MARKET:
A STUDY ON FACTORS INFLUENCING INVESTMENT DECISIONS BY FUND MANAGERS

ALAN V. PHAN

A THESIS SUBMITTED IN PARTIAL FULFILMENT
OF THE DEGREE OF DOCTOR OF BUSINESS ADMINISTRATION
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STATEMENT OF ORIGINAL AUTHORSHIP

I certify that the substance of this thesis has not been already submitted for any degree and is not currently being submitted for any other degree.

I also certify that to the best of my knowledge any assistance received in preparing this thesis, and all sources used, have been acknowledged and referenced in this thesis.

Signed:_____ Date:_____

Alan V. Phan

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ABSTRACT

The research was conducted using a web-based questionnaire sent to all Asia-related hedge funds, worldwide. Analysis of the collected data revealed that the factors influencing the portfolio investments made in China by fund managers differed from the factors which influence investment in global and emerging markets. While market conditions, market timing and changes in earning estimates are the top three influencing factors on investment decisions on global stock exchanges, fund managers are more influenced by global trend, potential growth and company size when dealing with China's stock market. Research results also support the hypotheses that there are relationships between size of fund, trading style and personal expertise of managers and the factors influencing investment decisions.

The international hedge fund industry and China's stock market are two fast-growing entities of global capital markets. Stronger interaction between these two institutions in the future would create important implications for the financial world. The objective of this research is to identify factors that influence investment decisions by hedge fund managers in relation to China's stock market.

The following implications can be extracted from this research:

(1) If China's stock market is classified within the Emerging Markets Index, adjustments are necessary and provision should be made reflecting investor criteria for China.
(2) Global trends and the potential growth of China were the two most attractive factors influencing investment decisions, suggesting a 'herding' tendency and 'attention-grabbing' bias of hedge fund managers.
(3) Company evaluation remains important to hedge fund managers, suggesting that Chinese government regulators should implement reforms to improve quality of listed firms.
(4) Gaps in the research on China's stock market as well as the outcomes of this research indicate that further studies on the international hedge fund industry

and China's stock market could reveal new perspectives and enhancements to the current body of knowledge on these subjects.

This thesis consists of six chapters. **Chapter 1** provides an overview of the research context and research justification. The research problem and questions are identified, and the theoretical framework and hypotheses are constructed. **Chapter 2** presents an overview of the hedge fund industry and China's stock market. **Chapter 3** examines the literature: factors that influence investment decisions in global, emerging markets and in particular, China's stock market. A framework of an 8-step decision-making process was developed. **Chapter 4** researches alternative methodologies and presents a justification for the selection of the research methodology. **Chapter 5** summarises the results of the data analysis and interpretation. **Chapter 6** discusses the conclusions, implications, contributions and limitations of the research. Recommendations for further research are also included.

The outcomes of this research are expected to benefit all participants of the global financial industry, including institutional and individual investors; executives in banking, insurance and securities businesses; financiers of listed firms and multi-national corporations; government regulators and independent research analysts. Other beneficiaries will be academics and the media.

Key words: hedge funds, China's stock market, portfolio investment, decision-making process, influencing factors, China, Asia, capital markets.

PRESENTATION

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LIST OF ABBREVIATIONS

ADR:	American Depositary Receipt
AmCham:	American Chamber of Commerce
AMEX:	American Stock Exchange
ANOVA:	Analysis of variance
BRSN:	Buy-on-rumor-Sell-on-news
BVI:	British Virgin Islands
CALPERS:	California Public Employees Retirement System
CAPM:	Capital Asset Pricing Model
CBRC:	China Banking Regulatory Commission
CEO:	Chief Executive Officer
CIA:	Central Intelligence Agency (USA)
CIO:	Chief Investment Officer
CIRC:	China Insurance Regulatory Commission
COO:	Chief Operating Officer
CPC:	Communist Party of China
CSRC:	China Securities Regulatory Commission
EPS:	Earning per share
ETF:	Exchange traded funds
FDI:	Foreign direct investment
FII:	Foreign indirect investment
FSC:	Frankfurt Stock Exchange
F/X:	Foreign exchange
GAAP:	General Acceptable Accounting Practice

GDP:	Gross Domestic Product
HKEX:	Hong Kong Stock Exchange
ICBC:	Industrial and Commercial Bank of China
IAS:	International Accounting Standards
IMF:	International Monetary Fund
IPO:	Initial public offering
IRR:	Internal rate of return
LBO:	Leveraged buy-out
LSE:	London stock exchange
M&A:	Mergers and acquisitions
MAO:	Modified audit opinion
MOFTEC:	Ministry of Foreign Trade and Economic Cooperation
NASDAQ:	National Securities Dealers Automated Quotation
NPL:	Non-performing loan
NYSE:	New York Stock Exchange
OECD:	Organisation for Economic Cooperation and Development
OTC:	Over-the-counter
P/E:	Price/Earning ratio
PEG:	Price/Earning growth rate ratio
P/B:	Price/Book value
PRC:	People's Republic of China (China)
QDII:	Qualified domestic institutional investors
QFII:	Qualified foreign institutional investors
ROE:	Returns on equity
ROI:	Returns on investment

RMB:	Renminbi (Chinese currency)
S&P:	Standard and Poor's
SEC:	Securities and Exchange Commission (USA)
SME:	Small-medium enterprises
SOE:	State-owned enterprises
SPSS:	Statistical Package for Social Science
UK:	United Kingdom
USA:	United States of America
VC:	Venture capital
WTO:	World Trade Organization

CHAPTER ONE
INTRODUCTION

1.1 Introduction to Chapter 1

Two new entities were recently added to the complex structure of the global capital markets: international hedge funds and China's stock market. They generated instant notice with their rapid growth curve and potential impact. However, as of 2006, these two entities have had limited interaction with each other. The objective of this study is to identify the factors which influence the decision-making processes of hedge fund mangers, in relation to China's stock market.

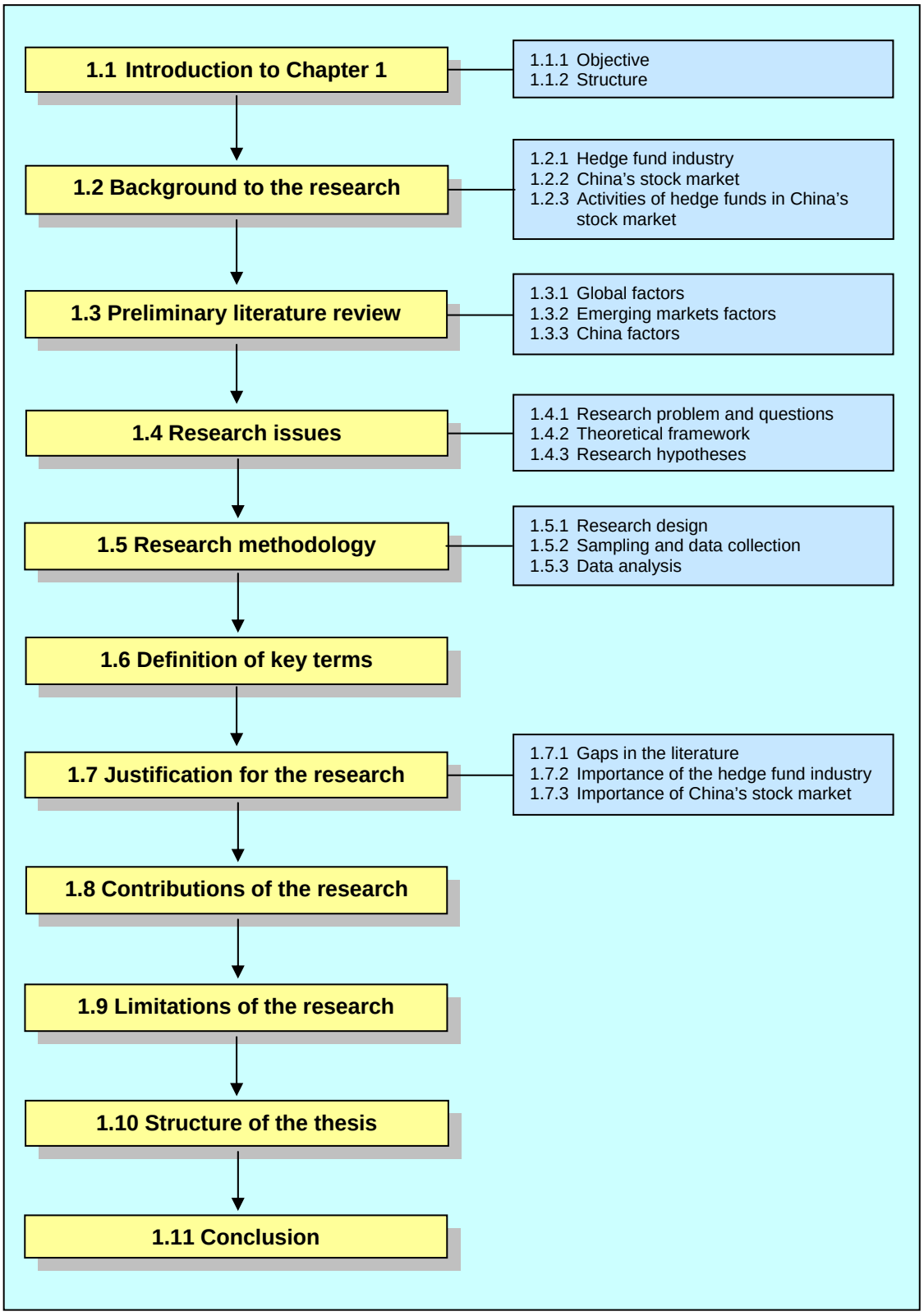
1.1.1 Objective

The objective of this chapter is to present the background to the research, outlining the rising importance of both the hedge fund industry and China's stock market. A preliminary literature review determined the influencing factors on investment decisions in global, emerging markets and China's stock exchange. Research questions and hypotheses are proposed, and a theoretical framework is constructed. Finally, the research methodology is presented with justifications, together with the contributions and limitations of this research.

1.1.2 Structure

The chapter consists of ten sections. Following the introduction, Section 1.2 outlines the background to the research and Section 1.3 examines a preliminary literature review. Section 1.4 includes the research problem, questions, hypotheses and theoretical framework. Section 1.5 proposes a research methodology and Section 1.6 lists definitions of the key terms used in this study. Section 1.7 explains the justifications for and contributions of the research. Section 1.8 identifies the limitations while Section 1.9 presents an overview of the structure of the thesis and Section 1.10 concludes the chapter. Figure 1.1 details the structure of this chapter.

Figure 1.1 Structure of Chapter 1



Source: Developed for this research

1.2 Background to the research

This section presents the rising importance of hedge funds and China's stock market in global capital markets. The background, characteristics and activities of these two entities are outlined and the limited interaction between the hedge funds and China's stock market is examined.

1.2.1 Hedge fund industry

International hedge funds have moved from the obscurity of an alternative investment vehicle for wealthy families in the 1970s to the spotlight of notoriety, when George Soros brought down the British pound with his US$10 billion 'gamble', walking away with more than US$1.7 billion profit for his funds (Casey 2004). In 1997, the Federal Reserve Board had to intervene directly to prevent a meltdown of the global financial markets by the collapse of Long-Term Capital Management (Loweinstein 2000).

In 2006, over 9,500 hedge funds control an estimated US$1.15 trillion in alternative investments using a variety of strategies including currency derivatives, M&A financing, market shorting activities, offshore arbitrage or interest swap (Hedge Fund Association 2006). The industry is growing at a rate of 20% annually, compared to a 4% growth rate for mutual funds (Fishman 2004). One of the main reasons for this growth is that the performance of hedge funds has been superior to that of mutual funds (Kohler 2004).

Many economists have warned that hedge funds are big enough to destabilise financial markets, but others think that hedge funds provide a critical source of liquidity (Weinberg & Condon 2004).

1.2.2 China's stock market

With an equally rapid growth curve, China's stock market is the second largest in Asia after Tokyo, with a total market capitalisation of US$682 billion and participation of over 72 million retail investors. Fueling this growth is China's

economy - the fastest-growing economy in the world for the last 10 years, with an annual GDP growth rate averaging 8.2%. As the Chinese population places only 3% of total assets into stock, compared to 42% in the United States of America, there are many opportunities for an explosive growth in China (China Funds 2004).

However, 'dizzy valuations, pervasive manipulation, insider trading, rampant disregard for regulation and downright fraud' are the watchwords for China's stock market (Loong 2001). Other problems facing investors include split-shares issues (Chan, Cheng & Fung 2001), quality of listed firms (Leahy 2004), governmental intervention (Hamlin 2002), information flow (Yang 2003), currency convertibility (*Xin Hua News Agency,* 2005) and structural problems (Wang 2004).

Understanding the important role of the stock market in China's financial structure, government regulators have stepped up reforms to improve the system. Recent moves included the sale of state-owned shares, reorganisation of the IPO process and the introduction of short selling (Bloomberg 2005).

1.2.3. Activities of hedge funds in China's stock market

Overall, there has been an absence of interest from international hedge fund managers in investing in China's stock market. Only US$4.3 billion out of the US$1.05 trillion total investments managed by hedge funds in 2004 actually went into the Chinese equities market (Santini 2004). However, the fourth quarter of 2004 recorded greater movements of hedge funds to establish offices in China (*Quamnet News* 2005).

Another important reform has been the granting of permission for Qualified Foreign Institutional Investors (QFII) to trade domestic shares in China. As of 31 December 2004, 27 investment banks were approved to become QFII. The total investment quota has been increased to US$10 billion (Browne 2005).

1.3 Preliminary literature review

A literature review was conducted to identify factors that influence the decisions of hedge fund managers when they invest in global (United States of America, Western Europe and Japan) stock exchanges, herein referred to as '*global factors'*. The findings of this preliminary review were used to construct an 8-step decision-making process of fund managers, described in Section 3.2 of Chapter 3. A similar literature review was performed on China's stock market, herein referred to as '*China factors'*. As China is classified as an emerging market, global equity flows were examined to determine '*emerging markets factors'* which are then further refined to extract the '*China factors'*.

1.3.1 Global factors

All factors influencing the investment decisions of fund managers could be categorised into an 8-step process which includes setting objectives, determining strategy, collecting information, analysing data, understanding constraints and bias, controlling risks, making decisions and measuring performance.

a. Setting objectives

Fund managers select between 'relative return' (beta) and 'absolute return' (alpha). Relative return correlates closely with market indices: if a fund loses 10% of its value but the selected asset index loses 20%, fund performance is considered 'superior'. On the other hand, absolute return with positive alpha does not use indices as benchmarks, but measures expected returns based strictly on risk factors (Black 2004).

b. Determining strategy

Hedge funds are classified according to their stated strategies which include: aggressive growth, short selling, distressed securities and properties, market-neutral and securities hedging, market timing, opportunistic, multi-strategy, special situation, value, emerging markets, fund of the funds, fixed income, macro, arbitrage, European,

Pacific Rim, commodities, technology, healthcare and bio-technologies, managed futures and mortgage-backed securities (Knab 2005).

c. Collecting information

Fund managers rely on three levels of information channels: primary data which includes in-house research and analysis; secondary data which consists of media publications, independent analyst reports, corporate news and filings and academic studies; and tertiary data, composed of industry rumour, conversations with experts and colleagues, and informal exchanges with company executives (Arnswald 2001).

d. Analysing data

The collected information and data are analysed to identify strategic and systematic advantages to exploit. The analysis process, undertaken by institutional investors, is grouped into three distinct methodologies, also known as 'styles of investing': fundamental analysis, technical analysis and portfolio optimisation. As their names imply, fundamentalists rely mainly on the financial fundamentals and ratios of companies; tacticians focus on technical analysis and follow market trends; and methodologists use econometric forecasting and portfolio optimisation models to determine their decisions (Arnswald 2001).

e. Understanding constraints and bias

The most important constraint is the fund charter which specifies the classes of assets in which they are allowed to invest, which allocation ratios they maintain, which strategy they use and which investment time horizon they adhere to (Arnswald 2001). Another important constraint is the organisational factors which can trigger a buy-sell decision not directly related to the investment's performance in a portfolio. Two major causes are the availability of funds due to inflows (managers invest to earn adequate returns) or outflows (managers divest to refund investors) and portfolio readjustment due to breach of investment or prudential guidelines (Beh & Abonyi 2000).

Other constraints and biases include information overload and accuracy (Barber and Odean 2001), herding tendency (Grinblatt, Titman & Wermers 1994), 'status quo' bias (Masatli & Ok 2002), market timing (Campbell & Viceira 2000), 'noise trading' (French & Roll 1986) and 'buy on rumour-sell on news' (Peterson 2003).

f. Controlling risks

Most hedge funds use momentum strategies and buy only large cap companies to lower their risk profile (Shu 2005). Other risk controls used by hedge funds include changes in asset allocation (Campbell & Viceira 2000) and stop-loss technique (Arnswald 2001).

g. Making decisions

Signals to buy or sell include a low entry point, corporate announcements, a change in earning estimate, daily trading volume (Arnswald 2001), insider trading (Derwin 2004), and executive compensation (Shipman 2002).

h. Measuring performance

All fund mangers face the consequence of their 'buy/sell' decisions, by the performance of their funds. Fund returns can be easily compared to relevant indices or returns of competitors. Their performance will largely determine their bonus and future career as well as the inflows or outflows of their funds from investors (Arnswald 2001).

1.3.2 Emerging markets factors

As China is classified as an emerging market, factors that influence equity flows to the emerging market sector are presumed to be similar to the China factors, as defined by this research. Previous research on the equity flow to the emerging market sector further divided the influencing factors into 'push' and 'pull' factors. Push factors are home-based issues which cause investors to go outside their countries to invest. Pull

factors are conditions of the host country which attract equity capital from foreign investors.

1.3.2.1 Push factors

According to Tesar and Werner (1995) and Taylor and Sarno (1997), interest rates and industrial production in the United States of America are top determinants for foreign investment. On the other hand, Griffin, Nardari and Stulz (2003) and Bohn and Tesar (1996) concluded that excess returns of emerging countries, especially when the US economy suffers a slowdown or recession, is the main cause of cross-border equity flows.

Home bias and friendship bias are two important considerations for investors in emerging markets. Investors want familiarity with their decisions and prefer cross-listed firms (Berkel 2004), (Doidge, Karolyi & Stulz 2003).

Home bias might be the result of information asymmetries. Different countries have different accounting standards, disclosure requirements, legal frameworks and interpretation of information. This factor was confirmed by studies by Brennan and Cao (1997), Kang and Stulz (1997), and La Porta, de Silanes, Shleifer and Vishney (1997). Another preference of investors is the geographical proximity to home base (Coval & Moskowitz 1999). However, more important than physical distance is the legal and cultural similarity, such as English common law heritage or German-French civil law traditions (La Porta, de Silanes, Shleifer & Vishney 1997). A common colonial background could also influence the home bias or information asymmetries factor (Acemoglu, Johnson & Robinson 2002). Herding mentality is more pronounced when investors enter unfamiliar territory (Gumbel 2001). U.S.A. foreign policy is another determinant in equity flows, affecting even non-U.S.A. funds (Ladekarl & Zervos 2004).

1.3.2.2 Pull factors

Pull factors are categorised into three levels: investability criteria of the host country, conditions of its capital markets and quality of its listed firms.

a. Investability criteria of host country

Taylor and Sarno (1997) listed six important factors influencing investment: repatriation of capital and dividends, open economy, rate of returns, risk and volatility, credit rating and secondary market prices of sovereign debts, cost of entry and exit. Portes and Rey (2001) cited three primary factors: market size, efficiency of transaction technology, and distance. Aggarwal, Klapper and Wysocki (2003) posited four other determinants: macro condition, legal system, accounting policy and investor protection. Gelos and Wei (2002) proved that transparency is the primary focus of investors, while Vassalou (2003) claimed that future GDP growth is an important determinant. Bekaert, Harvey and Lundblad (2003) concluded that financial liberalisation is the most important issue.

The investability of a country also varies according to the type of investment products (equity or fixed income); methodology (top down or bottom up); preferred currency (local or hard); or objective (long-term or short-term) (Ladekarl & Zervos 2004).

b. Conditions of capital markets

According to Taylor and Sarno (1997), the critical issues are currency convertibility and the repatriation of capital and dividends. The acceptance of English as one of the official languages in legal interpretations is another positive factor (Ladekarl & Zervos 2004).

c. Quality of listed firms

Aggarwal, Klapper and Wysocki (2003) discovered that U.S.A. funds invest more in large, growing firms with a high analyst following and policies such as ADR listing and accounting standards. Gelos and Wei (2002) found that transparency or corporate governance was most important. Doidge, Karolyi and Stulz (2003) and Warnock (2002) agreed that US portfolios are tilted towards foreign firms which have shares cross-listed in the United States of America. In a study on global asset allocation, Dahlquist and Robertson (2001) found that institutional investors prefer to invest in

large firms, firms paying low dividends, firms with large cash reserves, good market liquidity, large export sales and cross-listings. They avoid firms with a dominant owner. Ladekarl and Zervos (2004) cited company size as the leading determinant of investment.

1.3.3 China factors

Similar to the factors influencing equity flows to emerging markets, the China factors are classified into three levels: investability of the country, conditions of its capital markets and characteristics of its stock market.

a. Investability

Houget (2004) was specific in citing the structural problems of China which have their roots in the political system: microeconomic inefficiency; insolvent banks; lack of physical infrastructure; lack of adequate risk-pricing mechanism; very weak institutions; absence of globally competitive domestic private sector; regional tensions and growing inequality; corruption; massive ecological problems; absence of a social safety net; gender imbalance; and political tensions with Taiwan.

However, China's GDP growth is an important positive factor (Fung, Iizaka, Lee & Parker 1999). Its massive reserve surplus of foreign exchange totalling US$711 billion in May 2005 was an important sign of assurance for foreign investors (*Wall Street Journal*, 2005). Headlines on China bring out herding behaviour among institutional investors (Wylie 2005) and the result has been huge inflows of capital totaling US$840 million in 2003, nine times as much as in 2002 (Gibbs 2004).

One often-cited negative factor is that China ranks below most emerging countries on law enforcement, rules of law and ranks high on corruption (Allan, Qian & Qian 2004; Ketlar, Murtuza & Ketlar 2005). Another problem is China's inefficient use of resources. While China's GDP accounted for 4% of the global total, its consumption of primary energy sources accounted for 12% of the global total; freshwater, 15%; aluminum, 25%; and cement, 50% (*Wall Street Journal* 2005).

b. Conditions of China's capital markets

In 2004, 45% of foreign portfolio investment flowed into China. In addition, major Chinese companies are successfully seeking IPO funds overseas (Johnson 2005). Savings in Chinese banks from individual and corporate accounts total US$4 trillion (Chen 2005; Mandel 2005; *Wall Street Journal* 2005). This means that a shift from bank savings to bond and stock markets would trigger massive liquidity (China Funds 2004).

However, China badly needs strong reforms on capital control and currency convertibility. Greater flexibility on the RMB rate and complete liberalisation of capital accounts would enhance investor confidence and increase the value of listed companies (Hu 2004; Bremner & Dawson 2005).

Other factors are lack of investor protection (Allan, Qian & Qian 2004), lack of common-law tradition (LaPorta, Silanes, Shleifer & Vishny 1999), lack of independent, professional auditors (Allen, Qian & Qian 2004) and the use of English for official corporate documents (Ladekarl & Zervos, (2004).

Another wait-and-see factor for investors is China's banking crisis. Chinese banks, with an estimated US$280 billion of non-performance loan portfolio and numerous corruption scandals, are waiting for a government bail-out (Meredith 2005).

c. Characteristics of stock market

China's stock market has been characterised by the issues of overvalued A shares, control of state-owned shares, enforcement of laws, dominance of speculators and manipulators, low quality of listed firms and too much supply with too little demand (Leahy 2005). However, government regulators have introduced rapid reforms in recent years to upgrade China's stock market to international standards. Recent moves included the sale of state-owned shares, reorganisation of the IPO process and introduction of short selling (Bloomberg 2005).

The quality of China's listed firms is being improved by an influx of major Chinese companies like Sinopec, Baosteel, Bank of China, ICBC, and Shenhua Energy (Dyer 2005; Zheng 2006). Corporate governance is being improved (King & Wood 2005) and law enforcement is becoming more efficient (*China Daily* 2005; Pistor & Xu 2005).

Other remaining negative factors include information asymmetry (Knab 2005), irrational behaviour of local investors (Chen, Kim, Nofsinger & Rui 2003; Lu 2005), hidden transaction costs (Kryzanowski 2001; Lin 2005), and politically-motivated management (DeWeaver 2005).

The preliminary literature review has illuminated a few theories on hedge fund strategies and the influencing factors on their investment decisions, in general. However, there is no literature on the application of these strategies and factors to China's stock market. Some hypotheses are proposed in news articles, but these hypotheses have never been scientifically tested. The gap in knowledge on this relationship between hedge funds and China's stock market can be overcome by meeting the objectives of this research.

1.4 Research issues

In this section, four topics will be discussed: the research problem, the research questions, the research hypotheses and the theoretical framework. The initial identification of a broad problem area is narrowed down to specific issues which are answered empirically, and which represent the first steps in a research process (Sekaran 2003).

All influencing factors on investment decisions by fund managers were extracted from existing literature, as presented on Table 3.2, Page 90. The factors were then classified into groups sharing similar characteristics. The research questions, hypotheses and theoretical framework were finally developed based on this review process.

1.4.1. Research problem and questions

Simply stated, the research problem for this study is ***'to identify which factors influence investment decisions by international hedge fund managers in relation to China's stock market'***. The influencing factors could be positive or negative, the direction of the factors could be 'push' or 'pull' and the strength of each factor could be measured and ranked.

The research questions for this project are:

1. What are the most important global factors that influence investment decisions of hedge fund managers in global stock exchanges?
2. What are the most important factors that influence investment decisions of hedge fund managers in China's stock market?
3. Are there differences between global factors and China factors in terms of ranking in importance?
4. Is there a relationship between size of fund and influencing factors on investment decisions?
5. Is there a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions?
6. Is there a relationship between personal expertise of fund managers and the influencing factors on investment decisions?

1.4.2. Theoretical framework

The relationships among the above variables are represented in the theoretical framework, as depicted in Figure 1.2. In this framework, capital flow is directed from global capital funds to hedge funds where investment decisions are influenced by global, emerging markets and China factors. Different investment targets are selected for different strategies, and investment decisions are determined accordingly.

1.4.3 Research hypotheses

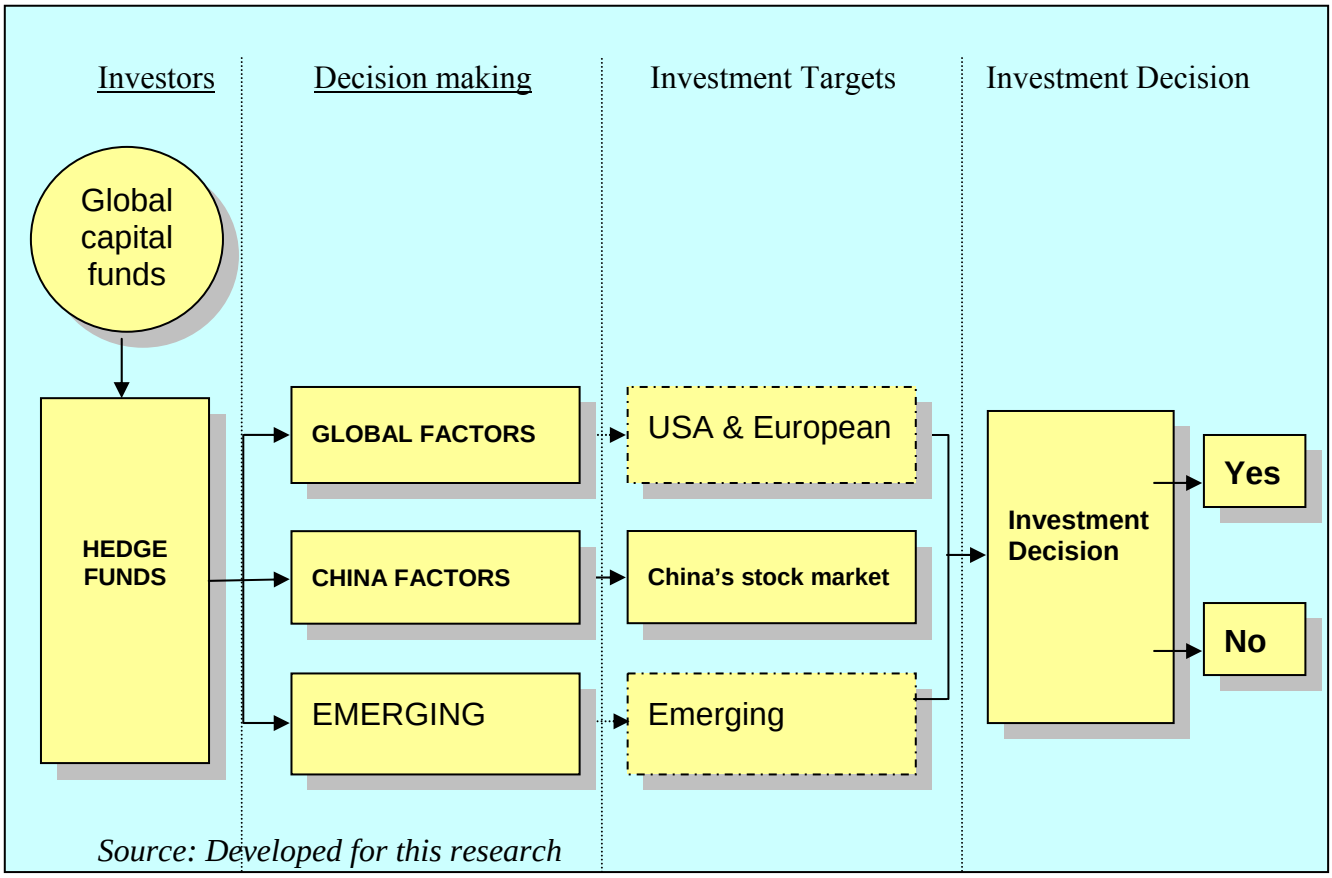
From the research questions, the following hypotheses were developed:

1) Hypothesis 1: There are differences between global factors and China factors in terms of ranking of importance.
2) Hypothesis 2: There is a relationship between fund size and influencing factors on investment decisions.
3) Hypothesis 3: There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.
4) Hypothesis 4: There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.

1.5 Research methodology

Research design or methodology involves making a series of rational choices to ensure that issues relating to the research objectives conform to the type of investigation (Sekaran 2003). Three sub-topics are relevant to the investigation of the research questions and hypotheses: research design, sampling and data collection, and data analysis procedures.

Figure 1.2 Theoretical framework



Source: Developed for this research

1.5.1 Research design

After a study of alternative paradigms, methodologies, functions and techniques, the survey method of quantitative analysis within a positivist paradigm was selected as the most suitable method for this research objective. This selection is justified on the following bases:

- Ontologically, the financial world of stock markets and investment decisions is an external world, objectively positioning itself without any influence from any individual perceptions or desires;
- The world of stock markets concerns mainly with quantifiable results. There is no possible way of changing existing perceptions or reality, or constructing new perceptions or realities;
- Epistemologically, the researcher is independent of the research project, free of bias and personal value, without influence on the collected data or research result;
- Researchers cannot have any links or subjective relationships with participants, and therefore cannot fabricate findings or follow a personal agenda;
- The objective of this research is to test hypotheses regarding the influencing factors on investment decisions, not to build theory or implement reform;
- In the financial world, objectivity is essential in order to explain phenomena and causal relationships;
- Investment decisions in the context of money management are based on quantifiable measurements, benchmarked against market indices or interest rates;
- Personal bias and heuristics might influence investment decisions, but this factor is considered negative and interfering with the objective judgment of traders. As a result, its effect is marginal among institutional investors;
- Data are collected from a large sample to obtain results that are representative of the population;
- Data analysis is based on statistical techniques and generalisation of results is expected;
- Almost all academic studies from previous research on financial markets as reviewed in the literature section, have been conducted using quantitative methods with measurable variables;
- An overview of all aspects of decision making is necessary for readers to understand the complexity of the interrelated variables;

- The survey technique is the most suitable for a study of attitudes and behaviours;
- The survey technique allows standardisation and uniformity, so that the researcher can compare and contrast answers;
- Survey results are reliable and accurate;
- The survey technique of using questionnaires is efficient and low cost, suitable for the time and financial resources of this project.

In conclusion, the most suitable research design for this project is the survey method of quantitative analysis within a positivist paradigm.

1.5.2 Sampling and data collection

As of December 2005 there were 1,335 hedge funds involved in some Asian investment strategy (Eurekahedge 2006). Since a survey of the total population is manageable within the time and resource limits of this study, sampling is not necessary.

All data collected were in the form of primary data. The questionnaire design took into consideration all relevant factors generated from the literature review. Ethical issues were addressed, especially in regard to any confidentiality required by respondents. Five-point Likert scales were used for questions on influencing factors, as this is the most commonly used questionnaire style for attitudes and opinions.

Two sets of independent variables (influencing factors) were used in this research: global factors and China factors. Global factors are represented by 20 variables, and the China factors have 26 variables. Fourteen other questions deal with the characteristics of hedge funds and personal information on respondents. A pilot survey of 10 cases was conducted to test the results of responses and to make any necessary adjustments to the questionnaire.

Questionnaires were sent to all managers and administrators of Asian-related funds via email, with direct links to a web site specially constructed for executives to reply online. Reminder emails were sent three times at 2-week intervals. In addition, about one-third of email recipients were contacted by telephone as an additional reminder.

The majority of Asian-related funds are located in Cayman Island, Hong Kong, Tokyo and Singapore. Other domiciles include BVI, United States of America, European Union and others.

1.5.3 Data analysis

Data screening was used to initially adjust input by solving the problem of missing data, outliers and non-normality. Results were then processed by using SPSS 11.0 (Statistical Package for Social Sciences) software, with the collected data first tested for reliability.

There are two types of statistical interpretation: descriptive statistics and inferential statistics. Descriptive statistics are techniques used to summarise large amounts of information. Measures of descriptive statistics are mean, mode, median, range, variance and standard deviation (Tabachnick & Fidell 2001). Inferential statistics are used to make judgments or probabilistic statements about a population on the basis of samples (Sekaran 2003).

After listing the demographic data of the respondents, the first two research questions were answered by the application of one-way ANOVA (Analysis of Variance) and the last four questions or hypotheses were tested using the following:

For Hypothesis 1, the proposed statistical tests were dependent t-test and correlation.
For Hypotheses 2 and 3, logistic regression analysis was employed.
For Hypothesis 4, the Kruskal-Wallis technique of ANOVA test was used.

1.6 Definition of key terms

In addition to the terms used to describe the influencing factors, which are applicable only to this study, other key terms are common jargon used by stock market investors and analysts. Some of the terms are applicable only in a Chinese environment.

- **Arbitrage**: The simultaneous purchase and sale of identical or equivalent financial instruments in order to benefit from an imbalance in price relationships between different markets.
- **Corporate governance**: Rules and practices of a corporation in its operations, from goal setting and administrative functions to financial control and legal obligations.
- **Country infrastructure**: All physical structures, systems and networks which support a country's business activities including plants, buildings, utilities, transport systems, logistical networks and telecommunications.
- **China factors**: Factors influencing investment decisions of hedge fund managers in relation to China's stock market.
- **Derivative security**: A financial instrument, the performance of which is linked to a specific security, index or financial instrument. Typically, derivatives are used to transfer risk or negotiate the future sale or delivery of an investment. There are four basic forms of derivative instruments: forward contracts, futures contracts, swaps and options.
- **Emerging markets**: Countries having an emerging or developing market economy (EME) with low-to-middle per capita income. EME can be small like Tunisia or big like China but share common characteristics of fast growth, transitional nature and an increase in foreign investment.
- **Emerging markets factors**: Factors influencing investment decisions of hedge fund managers in relation to exchanges of emerging markets.
- **Exchange traded funds (ETF)**: An ETF is a mutual fund that tracks a stock index, similar to an index fund.
- **Fund of the funds**: A fund that invests in other hedge funds instead of trading assets itself.
- **Fundamental analysis**: A stock valuation method that uses financial analysis to predict price movement. Analysis tools include financial statements, asset quality, management, products, competition, ratios, earning multiples, discounted cash flow, book value, dividend or projected growth.
- **Global factors**: Factors influencing investment decisions of hedge fund managers in relation to global stock exchanges (United States of America, Western Europe and Japan).

- **Global-macro investing**: A strategy of investing in a wide variety of financial instruments based on a forecast of broad trends of global economies; also known as 'global directional investment'.
- **Hedge fund**: A mutual fund serving only high net worth individuals or institutions considered to be sophisticated investors. Privately formed hedge funds are more flexible than mutual funds in investment strategies.
- **Market neutral**: A strategy to obtain profits from any direction (bull or bear) of the market. A person using this strategy will take both long and short positions at the same time.
- **Methodological technique**: The use of econometric forecasting and portfolio optimisation models for investment decisions. Methodologists might use either fundamental or technical analysis, but their asset allocation remains the principal focus.
- **Mutual fund**: A mutual fund is organised to receive money from public investors and place it under professional management. The portfolio manager trades the fund's securities to maximise return on investment. Gain, loss, dividend or interest income is then passed on to investors.
- **Noise trading:** Trading without any special information, but the trading could influence price movement by providing extra liquidity.
- **Sharpe ratio**: A measure of how well a fund is rewarded based on the risk it incurs. The higher the ratio, the better the return per unit of risk taken.
- **Short selling**: Selling shares of stock without owning this stock based on the belief that the share price is falling and the seller will be able to buy the stock back at a lower price.
- **Special situation investing:** Investment strategies aimed at capturing profit opportunities presented by special situations such as M&As (mergers and acquisitions), distressed properties, bankruptcy, political or economic events, LBOs (leveraged buy-out), IPOs (initial public offering), hostile take-overs, spin-offs, or restructuring.
- **Spreads**: Difference between the price at which a market maker is willing to buy a security (bid) and the price at which the market maker is willing to sell (ask); represents profit on the trade.
- **Technical analysis or trend investing**: A study of price movements in markets through the use of charts and statistical analysis to predict price trends. Technical

tools include charts, trend lines, support and resistance levels, bar charts, candlestick charts, Bollinger bands, moving average, relative strength index and/or money flow index.

- **Top-down investing:** A strategy that seeks to assess the influence of various macro-and micro-economic factors before identifying individual investments.
- **Volatility**: Standard deviation of change in value of a financial instrument over a specific time period; used to quantify the risk factor of a financial product.

1.7 Justification for the research

The most important consideration in initiating this research project was the gap in the literature on the factors influencing hedge fund investment in the Chinese stock market. In addition, the growing importance of the hedge fund industry and China's stock market in the global financial structure justifies the research in terms of timing, level of significance and potential beneficiaries.

1.7.1 Gaps in the literature

The literature review process undertaken for this research ascertained that there has been no scientific research completed to identify and quantify the factors influencing the investment decisions of hedge fund managers relating to China's stock market. The gap in knowledge on this subject is significant, considering the growing importance of these two entities.

1.7.2 Importance of the hedge fund industry

The hedge fund industry is rapidly becoming an important component of global capital markets. Over 9,500 hedge funds control US$1.15 trillion of assets and account for more than 14% of trading activities in global stock exchanges (Weinberg & Condon 2004). Research into the behaviour, especially the decision-making processes, of hedge fund managers is valuable for all participants in the industry, including fund managers and administrators, institutional and individual investors, corporate financiers, research analysts, the media and government regulators.

1.7.3 Importance of China's stock market

The US$600 billion Chinese stock market is expected to retain its dominant role in Asian capital markets due to recent governmental reforms, a fast-rising GDP and massive savings by the Chinese population (*Wall Street Journal* 2005). The objective of this research is the identification of the unique China factors that influence investment decisions of fund managers. As such, the beneficiaries of this research include Chinese government officials who set policy as well as government regulators and administrators who operate the stock exchanges. In addition, Chinese domestic investors will be able to more fully understand the motivation of foreign investors, and Chinese listed firms will be able to know the quality requirements of foreign funds.

Finally, this research is expected to develop new data and theories on the interaction between international hedge funds and China's stock market. The beneficiaries of this aspect of the research include all academics and researchers of international business as well as media reporters. A list of beneficiaries of this research is provided in Figure 1.3.

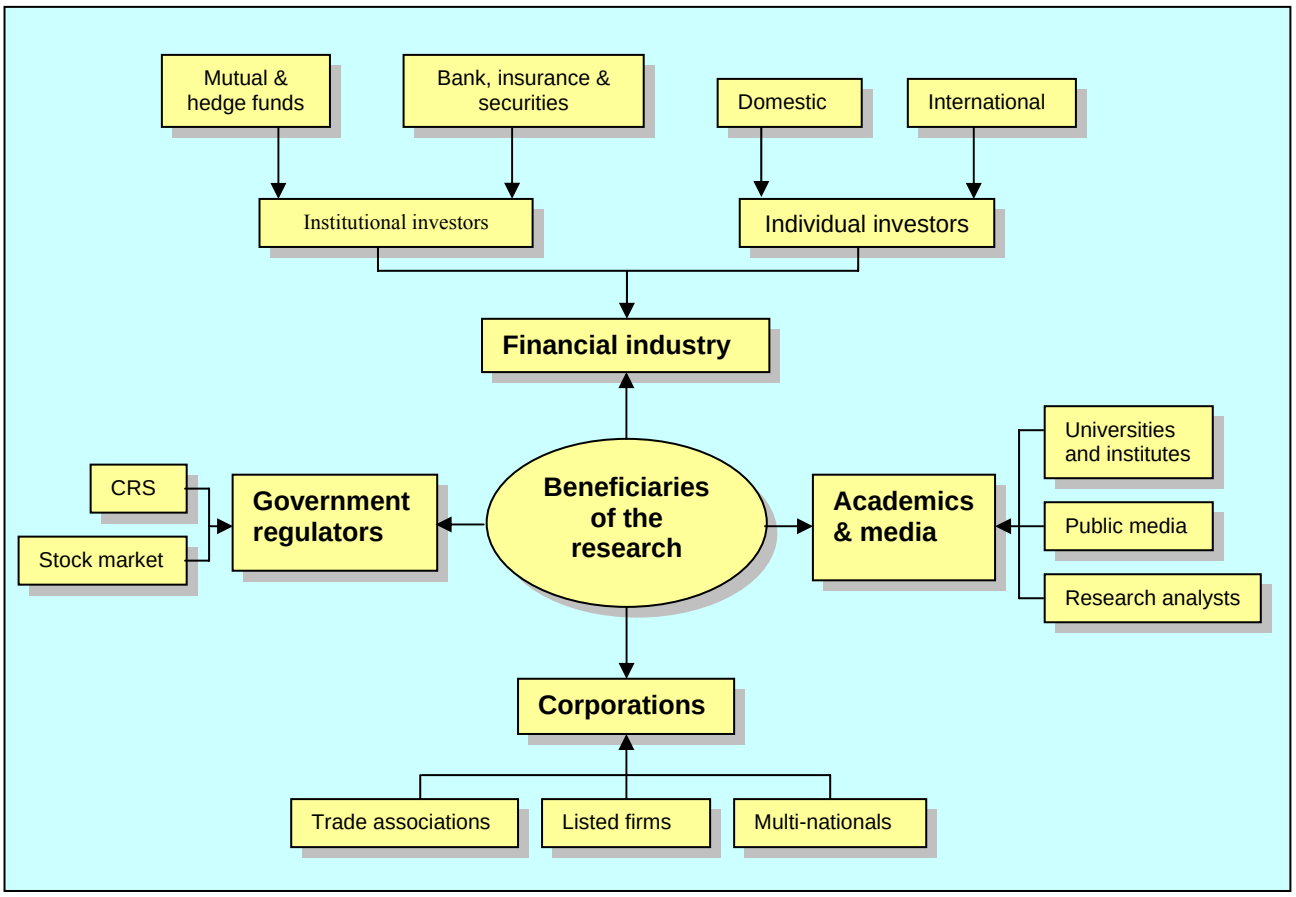
1.8 Contributions of the research

Since this study is the first attempt to quantify and rank the influencing factors of hedge fund investment decisions on China's stock market, its contribution to the body of knowledge is significant. However, its results also provide practical information and perspectives for various groups:

a. Institutional investors: With increasing inflow of funds (Hedge Fund Association 2006), institutional investors are hard pressed to identify profitable allocations for their investments. China's stock market is a major potential target.
b. Private investors: In addition to 72 million domestic investors within China (Shanghai Stock Exchange 2006), there are hundreds of thousands of foreign investors, most recently Japanese, who are enthusiastic about China's market

(Wong 2005). These investors will benefit from any additional data and information on China's stock market.

Figure 1.3 Beneficiaries of the research



Source: Developed for this research

c. Analysts: One of the weaknesses of China's stock market is lack of verifiable data and information (*Xin Hua News Agency* 2005). This research will provide additional information and assist analysts of China's market to explain its particular character.

d. Stock market officials: The goal of China's stock market operators is to raise its standards to the same level of international financial markets such as New York, London or Tokyo (Shanghai Stock Exchange 2006). This research will help them understand the decision making processes and investment criteria of their important customers (the fund managers).

e. Regulators: To ensure a transparent, fair and level playing field for its market, China's regulators at the China Securities Regulatory Commission (CSRC) need

behavioural data on their important constituencies. The results of this study will help serve this purpose.

f. Other researchers: Hedge funds and China's stock market are two complex subjects of growing importance. This study will enhance or complement works done by other researchers.
g. Publishers: Since the subjects of this research are of interest to the general media as well as scientific journals, a press release could be drafted to inform the hedge fund community of the results. Magazines such as *Hedge Week Magazine*, *Hedge Fund Intelligence* and *Alternative Investment News* should be interested in publishing such information.
h. Conference organisers: The research results could be presented in many international conferences organised by Hedge Fund World, The Hedge Fund Association or *Alternative Investments News*.

1.9 Limitations of the research

This research was limited in the following respects, which has influenced the independence of the outcome:

a. Returned responses may not have represented a proportional cross-section of hedge fund industries. Hedge funds with special investment strategies are likely to refrain from participation due to the proprietary nature of their business model.
b. Existing funds in China are small compared to the average industry size. If the investment climate in China changes and larger-sized funds enter the market, the results of this study might be skewed.
c. Economic developments and changes in China happen at a rapid rate because of the current transformation from a semi-socialist structure to a capitalist structure. Therefore, the results of the study might be outdated within a short period.
d. Market conditions strongly influence investor sentiment. Different results might be delivered if the survey took place in a bear market rather than a bull market.
e. Fund executives normally downplay any weakness in trading decisions. It is therefore difficult to accurately measure factors that have negative results.

f. Successful fund managers of large funds are not as responsive as their counterparts in smaller, underperforming funds. Therefore the results may not be as representative of the sample as expected.

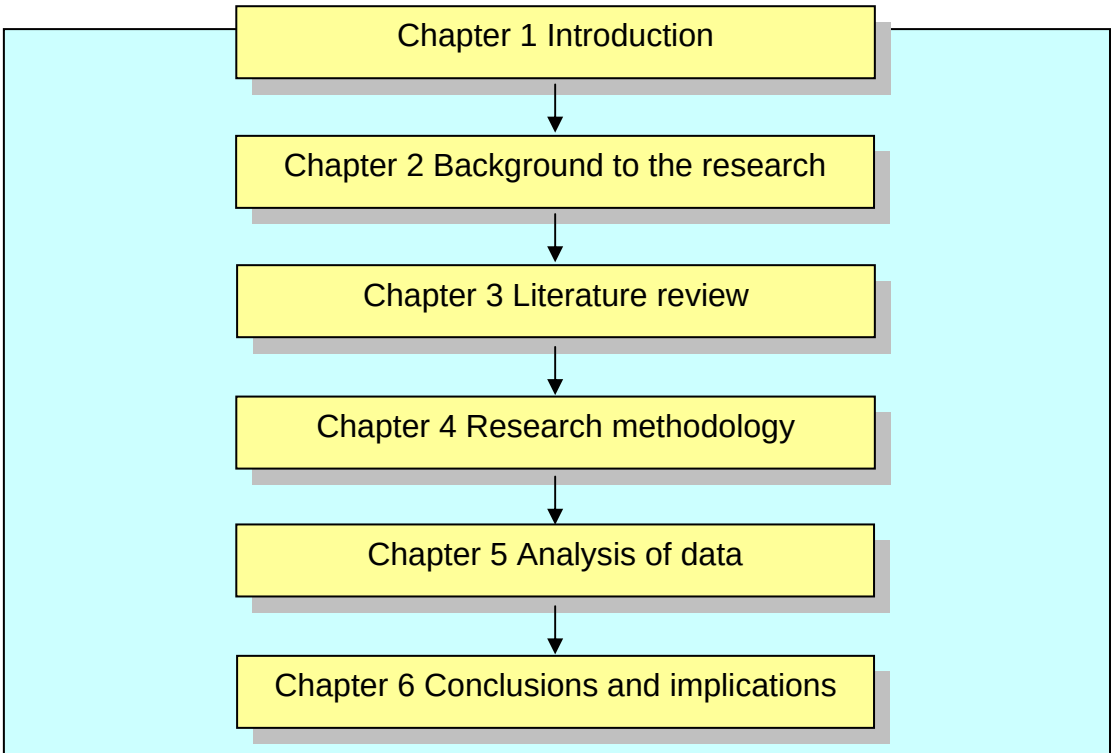
g. Because hedge fund managers are busy, impatient executives, the questionnaire is limited to a short response period and cannot be constructed to explore in-depth or complex issues relating to decision-making processes.

h. As is the norm for doctoral researches, this study has been constrained by lack of resources, time, funding and scope.

1.10 Structure of the thesis

This thesis consists of six chapters. An outline of each chapter is presented in this section. Figure 1.4 presents an overview of the structure of the thesis.

Figure 1.4 Structure of thesis



Source: Developed for this research

Chapter 1 provides an overview of the context and justification of this research. Chapter 1 begins with background information on the research and a preliminary literature review. From this review process, the research problem and questions are

identified and a theoretical framework and hypotheses constructed. The research methodologies are proposed and definitions of key words are listed, followed by the justification, contributions and limitations of the project.

Chapter 2 presents an overview of the hedge fund industry and China's stock market. The background information on these two entities includes their history, legal structure, strategies, policies, performance and other characteristics. Information presented on China includes the country and its capital markets, with highlights, trends, risks and opportunities identified.

Chapter 3 presents the literature review for this research subject: factors that influence investment decisions. Global factors are explored to develop an 8-step decision-making process framework, equity flows to emerging markets are examined and the China factors are discussed in detail on three levels: country, capital markets and stock market.

Chapter 4 examines alternative research methodologies and presents the justifications for the selection made. Sampling and data collection are discussed, data analysis procedures are proposed and the limitations, assumptions and ethical considerations of the study are discussed.

Chapter 5 presents an analysis and interpretation of the research findings. The data include demographic characteristics of respondents and their funds, a descriptive analysis of the influencing factors and the results of the hypotheses testing.

Chapter 6 summarises the research results together with their interpretation and implications. The contributions and limitations of the research are discussed, and opportunities for further research are proposed.

1.11 Conclusion

The preliminary literature review process has identified factors that influence investment decisions of hedge fund managers, either negatively or positively.

However, no specific theory has been scientifically tested to certify which factor is more important to these funds or whether any factor is considered in the evaluation process. This gap in the body of knowledge justifies the objective of this research to quantify and rank the influencing factors on investment decisions of hedge fund managers in relation to China's stock market.

The contributions of this research will be helpful to investors, both institutional and individual, who are turning to China in search of financial opportunities. At present, China's growing economy is of major importance to the global economy and a reformation of China's stock market to reflect the proportional size of China's GDP would also be of major importance to the global capital market. Other beneficiaries of this research include analysts, corporate financiers, stock market officials, government regulators and general public.

CHAPTER TWO

BACKGROUND TO THE HEDGE FUND INDUSTRY AND CHINA'S STOCK MARKET

2.1 Introduction

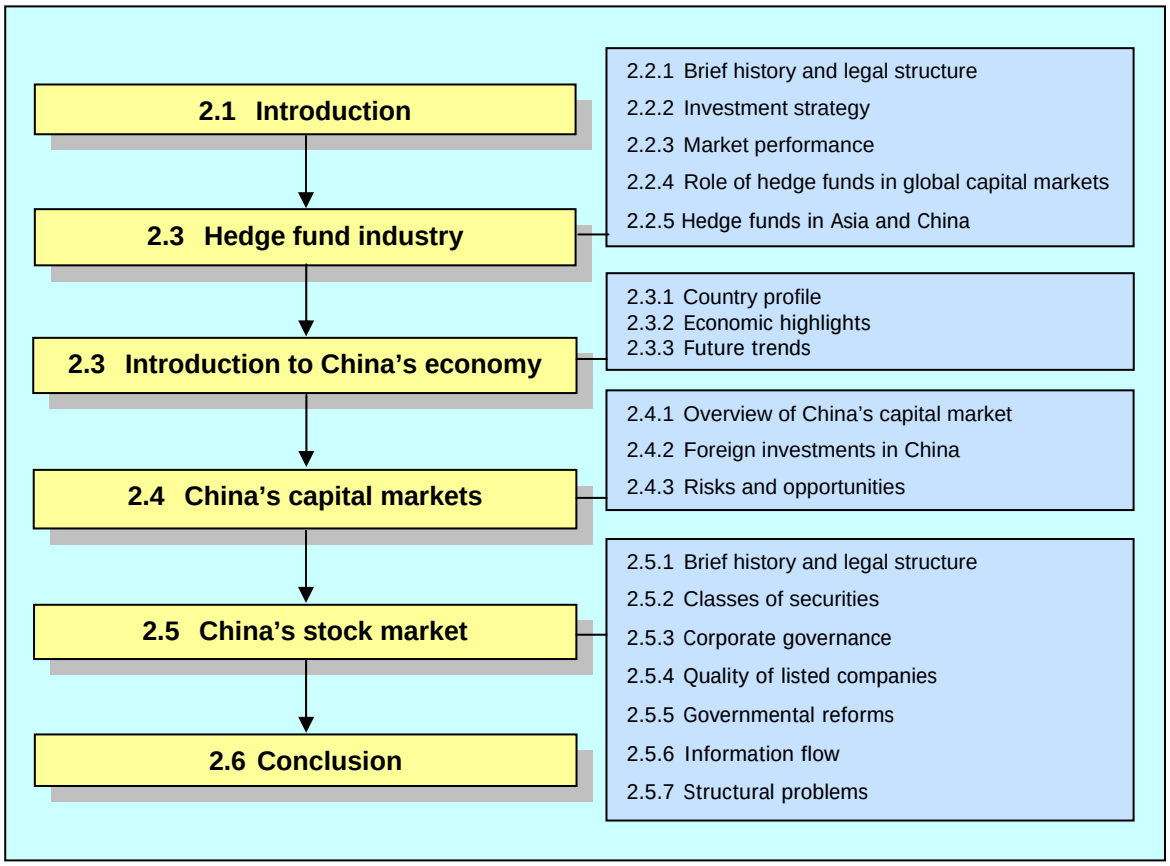
This chapter is presented as a review of the current literature on the background of the hedge fund industry and China's stock market. Section 2.1 introduces these two topics, highlighting their importance on the global financial markets. Section 2.2 provides a general background to hedge funds in five sub-sections: history and legal structure of hedge funds; investment strategies of hedge funds; market performance; role in global markets; and hedge fund activities in Asia and China. Section 2.3 introduces China's economy with a review of the country's profile, its economic highlights and future trends. Section 2.4 reviews particulars of China's capital market, including its overall structure, with sub-sections in banking, insurance, investments and securities and debts. An analysis of foreign investment in China and its risks and opportunities is included. Section 2.5 presents preliminary information on China's stock market, with the characteristics of its stock market highlighted in five sub-sections: history and legal overview; classes of securities; quality of listed companies; corporate governance; governmental reforms; information flow and structural problems. Section 2.6 presents the concluding remarks on the chapter. The structure of this chapter is depicted in Figure 2.1.

2.2. Hedge fund industry

International hedge funds have become a more mature sector of global financial markets since their infancy in the 1970s. In 2004, hedge funds controlled an estimated

US$1.05 trillion in alternative investment vehicles and accounted for 12.5 % of trading activities in Wall Street (Black 2004). The fast growth of hedge funds has caused concerns among authorities, from Joseph Yam of the Hong Kong Monetary Authority (*People's Daily* 2004) to Alan Greenspan of the US Federal Reserve Board (*Reuters* 2005), on the destabilising effects of hedge funds on global markets. However, many experts also believe that hedge funds increase trading liquidity and discipline and that their role in redefining absolute returns with innovative products will strengthen market structure in the long run (Weinberg & Condon 2004).

Figure 2.1 Structure of Chapter 2



Source: Developed for this research

2.2.1 Brief history and legal structure

Hedging strategy was proposed by Alfred Winslow Jones in 1949 as a means to limit risk and enhance returns simultaneously. He set up his own funds in 1962 and used this strategy of short selling and leverage successfully, to outperform market indices and other funds. Between 1966 and 1968, 140 new hedge funds were formed to copy his success. However, inexperience and bear markets caused heavy losses in the hedge fund industry and investors stayed away until the mid-1980s when a small group of talented traders, including George Soros, Michael Steinhart and Julian Robertson, restored credibility with exceptional returns (Casey 2004).

The hedge fund industry subsequently gained notoriety when George Soros brought down the British pound with his US$10 billion 'gamble' and walked away with more than US$1.7 billion profit for his funds (Black, 2004). However, the failure of hedge funds could also be spectacular. In 1997, the US Federal Reserve Board had to intervene directly to prevent a meltdown of the global financial markets by the collapse of Long-Term Capital Management. The bail-out cost was US$3.65 billion (Loweinstein 2000).

As of 2006, over 9,500 hedge funds control an estimated US$1.15 trillion US dollars in alternative investments, using a variety of strategies such as currency derivatives, M&A financing, market shorting activities, offshore arbitrage, interest swap, event driven, or fund of funds. Their goal is to maximise absolute investment returns for owners, irrespective of market conditions (Hedge Fund Association 2006).

Hedge funds operating in the United States of America, or accepting American investors, are regulated by the SEC (Securities and Exchange Commission) under the Securities Act of 1933. Funds that have fewer than 99 'accredited investors' such as institutional investors or high net worth individuals, are exempted from registration and report filing processes. However, in July 2004, the SEC introduced new regulations requiring all the over-US$25 million funds to register. In addition, all US fund managers must be certified Investment Advisors under the 1940 Act (Evans, Atkinson & Cho 2005).

However, the majority of international funds prefer to operate from offshore locations, legally governed by local jurisdiction. Popular domiciles included the Cayman Islands (35%), Bermuda (8%), British Virgin Islands (17%), compared to 26% in the U.S.A. (Black 2004).

In contrast with managers of mutual funds, hedge fund managers can employ many tools such as leverage, hedging, shorting, derivatives, arbitrage, swaps, long, macro, pair trading, or market timing. Hedge fund asset classes include currency, equity, bonds, gold, commodities, real estate, distressed assets, special situation, options, warrants, or notes (Kohler 2004).

Important variables for hedge funds are volatility and risks versus investment returns. Hedge funds are more flexible than mutual funds because they are essentially private entities, mostly managed by owner-operators who have highly-specialised expertise in certain specific areas of investment (Friedland 2006).

The industry is growing at a rate of 20% annually, compared to that of 4% by mutual funds (Fishman 2004).

2.2.2 Investment strategies

Recent headlines popularise the impression that hedge funds are speculative and volatile; however, only 5% of hedge funds employ extreme leverage to make directional bets on global macro strategies, such as Soros did with his Quantum Funds or Robertson with his Tiger Funds. Most hedge funds do not use leverage or complicated derivatives (Hedge Fund Association 2006). In fact, even though hedge funds, which abruptly move large sums of money in and out of nations, were blamed for destabilising economies and causing financial crises, the volatility of global capital flows was caused mainly by the actions of banks, not hedge funds (Baily, Farrell & Lund 2000).

Dion Friedland (2006) of Magnum Funds identifies approximately 14 distinct investment strategies used by hedge funds, each offering different degrees of risk, volatility and return. These strategies include: (a) aggressive growth; (b) short selling; (c) distressed securities and properties; (d) market neutral and securities hedging; (e)

market timing; (f) opportunistic; (g) multi-strategy; (h) special situation; (i) value; (j) emerging markets; (k) fund of the funds; (l) income; (m) macro; and (n) arbitrage.
Since there are many strategies as well as classes of assets for fund mangers to evaluate, each hedge fund is different from another. Some funds like to engage in highly volatile situations and some are more interested in the predictability of their investment income. However, since all hedge funds are structured in such a way that managers are able to share profits with shareholders as the main compensation, they must somehow generate maximum returns, to benefit from the funds. As such, they normally operate within their area of expertise and enjoy a certain competitive advantage (Kohler 2004).

The most-often employed strategy of hedge funds is securities selection, with long and short positions (45%). The next is specialist credit and multi-process category with 10% of total funds (Black 2004).

2.2.3 Market performance

According to the Hedge Fund Association (2006), a joint study of Vanderbilt University and Van Hedge Fund Advisors in 2003 on the results of trading activities of the previous 16 years, showed that the S&P 500 Index had 15 negative quarters, totaling a negative return of 108.1%. During this same period, an average equity mutual fund suffered a comparable negative return of 111.8%, while an average hedge fund had only 9.2% negative return. Two factors were cited as links to high performance by hedge funds: better incentive packages for managers and more flexibility in operations. However, Kelly (2005) proposed that fund performance has been overstated as the return index neglected to take into account the funds that went out of the business.

Overall, the performance of hedge funds appears to be superior to that of mutual funds (Kohler 2004). However, it is difficult to specify which hedge fund investment strategy would bring quality results. In a study across the TASS classification of hedge funds, Brown and Goetzmann (2003) reported that fund of the funds normally outperformed other hedge funds because of the diversification principle. However,

there was no concrete evidence that one investment strategy provides better returns than another.

The performance of hedge funds was tested further by a study by Edwards, Franklin and Caglayan (2001), results of which suggested that commodity funds provided better returns in bear markets than hedge funds, while hedge funds performed better under bull markets.

One weakness in performance is that hedge funds tend to imitate mutual funds in focusing only on large cap companies. According to Blondin (2003), these international investors, because of risk aversion, simplify their investment decisions for three reasons: liquidity, corporate governance and availability of information from global data providers. Therefore, even though they might generate a lower rate of return, fund managers prefer to be benchmarked against large-capital and index performance.

2.2.4 Role of hedge funds in global capital markets

Despite their increasing popularity, hedge funds lack the elements necessary to construct an investible index that can be used as a passive hedge fund investment vehicle. This weakness will prevent hedge funds from becoming a popular investment vehicle, as mutual funds have done. (Muhtaseb 2003).

However, fund activities are becoming more important on Wall Street as they tend to be hyperactive. In 2003, hedge fund trading activities generated over US$3.4 billion or 12% in fees and commissions for brokerage firms, while holding only 3.6% of equity assets (Weinberg & Condon 2004).

Many economists warned that hedge funds are big enough to destabilise the financial markets, but others think that hedge funds provide a critical source of liquidity (Weinberg & Condon 2004). In June 2005, the Chairman of the US Federal Reserve Board, Alan Greenspan, believed that in a low-interest environment, hedge funds would increase their appetite for risks to earn adequate returns and that would be a recipe for disaster. However, he thought that as long as banks and financial

institutions do not allow excessive leverage, the stability of financial markets would be maintained (*Reuters* 2005)

The growing importance of hedge funds on global capital markets depends on market conditions. As market indices plunge and drag down the performance of mutual funds, money flows increasingly to hedge funds. The bear markets of 2000-2003 have tripled the size of hedge funds assets, from 4% to 12% of the US$12 trillion fund management industry (Mulcahy 2003).

2.2.5 Hedge funds in Asia and China

China expects to become the second largest economy in the world, after the United States of America, by 2020 (Wang 2004). Money managers, from banks to hedge funds, are jockeying to find a quick way to gain the dominant market position in China. Currently, popular sectors are venture capital and private equity. Many funds are active in the distressed asset and real estate areas. As concerns over liquidity and regulation lessen, Asian markets are attracting new players other than traditional multi-nationals. The fund management industry is maturing, just as American and European markets did in the late 1980s and 1990s.

However, in Asia, hedge fund activities are limited by exchange rules against shorting in many countries, including China. Furthermore, there exists a cultural resistance to fund management as opposed to direct investment by investors (Eurekahedge 2004). According to Eureka, only 1,212 hedge funds have Asia-focused strategies, investing approximately US$65 billion in total assets. This means that Asia absorbs only 6% of the world's total hedge fund investment; while market capitalisation of its stock markets comprises up to 14% of the global markets. In 2004, Eureka expected the gap to be closed within the following five years, before 2008. Furthermore, major sources of these funds are non-Asian: Swiss (40%), United States of America, (25%) and the United Kingdom (20%). Only 5% of the money comes from Asia, primarily from Tokyo, Hong Kong and Singapore (Eurekahedge 2004).

At present, four major Asian stock exchanges (Tokyo, Taipei, Hong Kong and Singapore) received an infusion of approximately US$980 billion from international

mutual and hedge funds, or about 28% of total market capitalisation. Meanwhile, the total composition of international funds, mostly mutual and private investors in the Shanghai and Shenzhen stock markets, amounts to about US$42 billion, or 8% of the above Asian investments. Assuming that the international risk perception of the China stock market could change favourably, an additional 20% or US$103 billion could flow in and change the indices substantially (Dragon Funds 2004).

According to Tsui (2005), two principal reasons why international investors are still staying away from Chinese stocks seem to be the overvaluation of A-shares (domestic) and the potential dumping of C-shares (state-owned).

However, the fourth quarter of 2004 recorded greater movements of hedge funds to China. Dynasty Asset Management launched its China Opportunities Fund, specialising in small and mid-cap stocks. Value Partners and Dalton Investments also started special funds targeting Greater China. Other new hedge fund entrants in Hong Kong include Acru Asset Management, Baring Asset Management and Apex Capital Management. At least four more funds are preparing to raise money for Chinese investments (*Quamnet News* 2005).

As of 31 December 2004, 27 investment banks were approved to become Qualified Foreign Institutional Investors (QFII). They include the Netherland's ING and ABN-Amro, Germany's Allianz, France's Société Générale and the United States of America's JP Morgan Chase and Franklin Resources. Over US$2 billion was committed, but it is only a beginning (Miller 2004). On 17 May 2005, the Chinese government increased the QFII quota to US$10 billion (*Shenzhen Daily* 2005)

One common objective of fund managers is to determine how to 'short' the Chinese A shares. Short sales allow hedge funds to satisfy several objectives: gamble that a company's shares are overvalued and heading down; gain returns out of the market's volatility by betting on movement in a basket of stocks; or offset the downside risk of shares held long in a portfolio. There are also some concerns: an upward revaluation of the yuan would hurt export sales of Chinese firms, even though they would be able to report higher earnings in the short term; and rising commodities prices and interest rates are other concerns (Heinzl 2004).

Hedge funds can make money without a shorting strategy. Ke Shifeng, who looks after US$300 million of Class A shares for United Kingdom-based fund manager Martin Currie, says he achieved a 3.2% return last year, despite a 15% fall in the main Chinese market index. He says there is real value to be found among Class A shares bought through QFII's, and he is bullish on moves to sell state shares. He believes QFII investors will benefit (Browne 2005).

A new source of international money was the enthusiastic Japanese investors who have increasingly found China companies to be attractive targets. Wong (2005) reported that at one stock brokerage catering to Japanese investors, 60,000 new accounts were opened with US$3 billion new investments in February 2005 alone.

There appears to be a high level of concern by Chinese officials about the entry of hedge fund money into Asian markets. Joseph Yam, CEO of the Hong Kong Money Authority, warned that lack of transparency and the high level of leverage by hedge funds could cause financial instability just as they did during the Asia crisis of 1997 (*People's Daily* 2004).

At present, the most active funds on China's stock market, operated through QFII's, are closed-end funds for retail investors. Among these are the China Fund (CHN), Greater China Fund (GCH), JF China Region Fund (JFC) and the Templeton China World Fund (TCH), all of which trade on the New York Stock Exchange. Amongst hedge funds, the high performers are Apollo Asia Fund, SCI Asian Hedge Fund and AMP China Fund. Funds with the largest investment sizes include Dragon Fund, Interfund Capital China and First State China Growth Fund. Global banks such as Goldman Sach, Morgan Stanley, Citibank, HSBC and UBS, also have invested funds, but the amounts are not disclosed (Farber 2003).

2.3 Introduction to China's economy

China recorded the fastest-growing economy in the world for the last 24 years with an annual GDP growth rate averaging 9.3%, totaling US$1.65 trillion in 2004 (Hoguet

2004). China's GDP growth over the last five years was 8.2% per annum. The estimated GDP for 2005 was US$1.89 trillion, or US$8.9 trillion using purchasing power parity basis for calculation (Central Intelligence Agency 2006). Chinese people have also accumulated an estimated US$4 trillion in personal and corporate savings accounts, earning low interest in banks. The prospect for China's capital market would be enormous if this money starts flowing into other financial instruments (Browne 2006).

2.3.1 Country profile

China has one of the largest land masses in the world with a total of 9.6 million square kilometers (slightly smaller than the United States of America.). Figure 2.2 depicts a map of China and its cities. The country is made up of 23 provinces, five autonomous regions, four separate municipalities and two special administrative regions, Hong Kong and Macao. Its capital, Beijing, will host the Summer Olympics in 2008. The official figure reported a population of 1.33 billion people as of 2005, excluding Hong Kong and Macao. The urban population is 36% of the total population (Central Intelligence Agency 2006).

Figure 2.2 Map of China

Source: U.S. Department of Energy (2005).

The official name of the country is the People's Republic of China (PRC), governed by the Presidency, the State Council, National People's Congress and the Central

Military Commission (Tin Wha CPA's 2004). However, the ultimate political power in China is the Communist Party of China (CPC)

The majority ethnic group is the Han Chinese, comprising 91% of the population. The official language is Mandarin (Putonghua) and the most popular religion is a combination of Confucianism, Taoism and Buddhism (US State Department 2005).

2.3.2 Economic highlights

The official currency of China is the renminbi (RMB), denominated in units of yuan. It is non-convertible, and its exchange rate is regulated by the People's Bank of China. Currently, it is set at US$1 = RMB 7.95 (2006).

China's economy maintains one of the fastest GDP growth rates in the world, averaging 8.2% per annum during the last five years, and in 2005 the GDP reached US$1.89 trillion, an increase of 9.9%. In terms of power purchasing parity, the value of its GDP was US$8.89 trillion, or US$6,800 per capita (Central Intelligence Agency 2006). China's contribution to global GDP has been almost twice as large as that of the next three biggest emerging economies, India, Brazil and Russia, combined (*The Economist* 2005). However, being spread over 1.3 billion people, the rural GDP per capita was only US$322 and urban GDP per capita was only US$1,057 based on the official exchange rate (US Commercial Service 2004). The country's labour force was 778 million workers, with 50% employed in agriculture, 22% in industry and 28% in service businesses. However, unemployment, including in the rural areas, remained as high as 20% (Central Intelligence Agency 2006).

China's current account surplus was US$106 billion in 2004 with a global trade surplus of US$32.6 billion. In 2004, its Foreign Direct Investment (FDI) receipt was US$61 billion, the top global destination. Oil consumption reached 6.53 million barrels per day (US Department of Energy 2005) and foreign exchange reserves amounted to US$818 billion in December 2005 (Central Intelligence Agency 2006). According to *The Economist* (2005), global monetary policy has mostly been shaped in Washington for decades. With the holding of US$120 billion plus in US treasury bonds, the supply of cheap labour and products and the enormous consumption of raw

materials, China's fiscal policy has held down global inflation, provided cheap credit and influenced the boom-bust cycle of the world's economy.

At present, China has over 376 million mobile phone subscribers and 96 million internet users. It is the leader in wireless messaging and online gaming (Morgan Stanley 2004).

Over all, after joining the WTO in 2001, the socialist economy has been forced to open up to an increasing number of foreign and private ownerships, creating a near-market economic system that is extremely competitive (*The China Business Review* 2005).

2.3.3 Future trends

Lin of Beijing University predicted China should be able to maintain about an 8% annual GDP growth rate for another 20 to 30 years. All major economic indicators are favorable and very similar to the Japanese economy during the 1960s (Gunde 2005). Zheng of the National Bureau of Statistics agreed, citing improvements in productivity, governmental reforms and technological advances backed by high savings rates, inflows of foreign investment and growth of fixed assets (Xu 2005).

However, Edwards of UCLA opined that China faces serious challenges on five fronts: its banking system, infrastructure, rural-urban inequalities, aging population, and currency appreciation. Chua, editor of the *Asian Wall Street Journal*, added two other uncertainties, trade dependence on export of manufactured goods and import of natural resources, and possible political instability due to a demographic crunch and corruption (Gunde 2005). Woetzel (2006) added five other challenges faced by Chinese society: rule of law, education, health care, social welfare and the environment.

2.4 China's capital markets

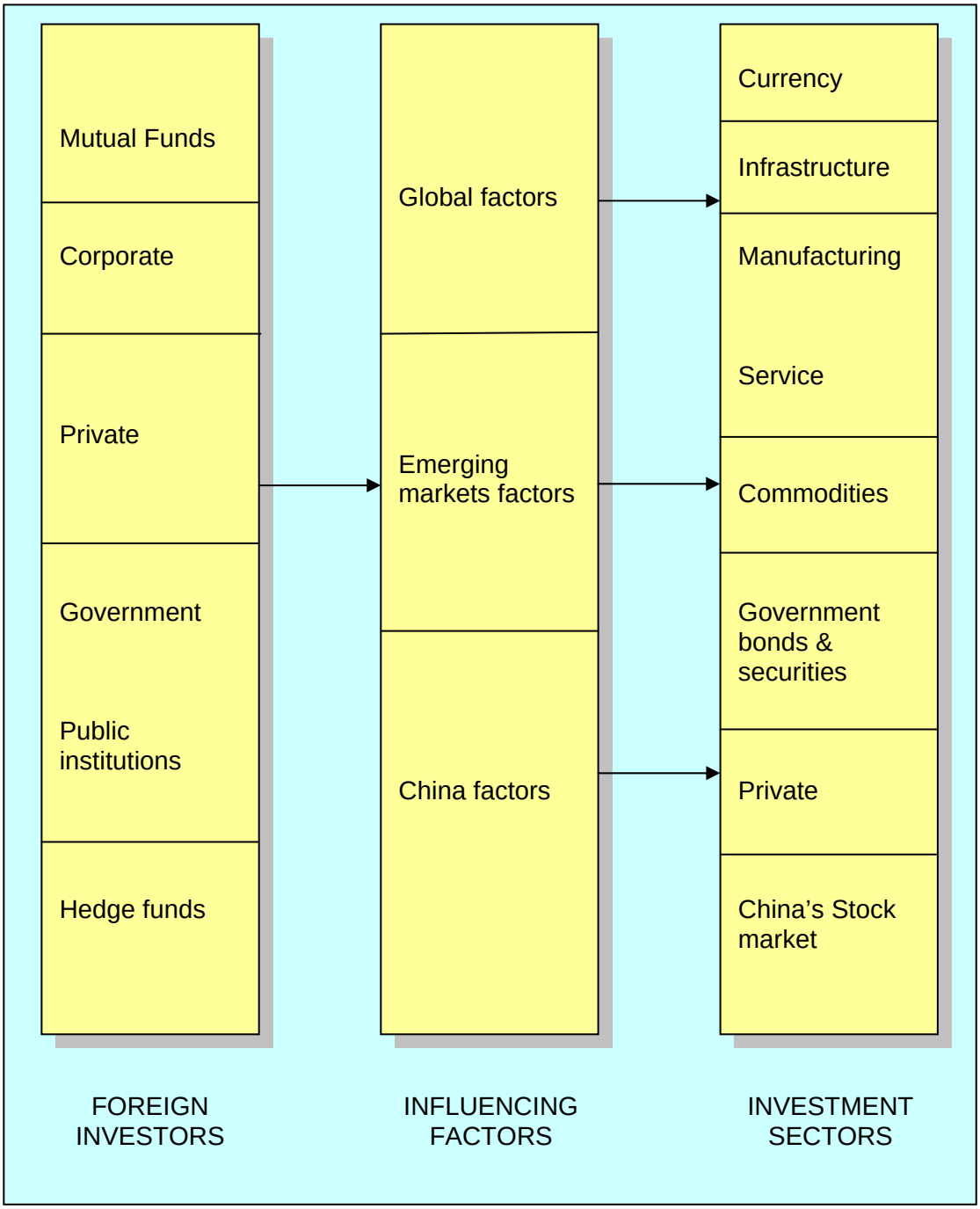
Examination of a country's capital market will explain the structural formation of its stock market and investor perceptions, because stock exchanges are a major component of an economy and its capital markets. An overview of foreign investments and selected sectors in China is presented in Figure 2.3, page 40. The chart illustrates the type of foreign investments in China, which include mutual and hedge funds, corporate entities, private investors, governmental and public institutions. The investment decisions of these investors are based on three influencing factors: global, emerging markets and China-related considerations. Investment targets consist of different classes of assets: currency, infrastructure, manufacturing, service, commodities, government bonds and securities, private equity and the stock market.

2.4.1 Overview of China's capital markets

Even though China's capital markets have undergone rapid transformation since 1981, many sectors are beset with challenges caused by remnants of the old socialist system and all sectors remain underdeveloped by world standards. Each sector of the four main industries, banking, insurance, investment, securities and debts, faces different sets of problems and proposed reforms (US Commercial Service 2005). The total size of the investment banking and venture capital market was US$63 billion in 2003 and is projected to reach US$101 billion in 2008. M& A funding could add another US$52 billion (*Euromoney* 2005).

All four sectors are regulated by a complex system of bureaucracies, including the People's Bank of China (central bank), the Ministry of Finance, Ministry of Foreign Trade and Economic Cooperation (MOFTEC), China Banking Regulatory Commission (CBRC), China Insurance Regulatory Commission (CIRC), China Securities Regulatory Commission (CSRC) and State Administration of Foreign Exchange (Goldstein 2002).

Figure 2.3 Foreign investments in China



Source: Developed for this research

In the banking sector, the four state-owned banks (ICBC, Bank of China, Agricultural Bank of China and the China Construction Bank) dominate China's capital market with over 79% of deposits, 150,000 branches and an army of 1.5 million workers (Cockerill 2000). Foreign banks are restricted to providing services to foreign clients and foreign joint ventures. However, a number of international banks have started to acquire a small percentage of Chinese banks to prepare for further expansion once

China completes the liberalisation of its banking system according to the schedule and conditions agreed to in the WTO accession (Ho 2002).

The major problem in regard to the four state-owned banks is the accumulation in their portfolios of non-performance loans (NPL), since the previous Communist government policy required them to give out loans according to political, not financial, objectives. Estimates of this NPL portfolio ranged from US$200 billion to US$900 billion. Without governmental assistance, these four banks would have been insolvent a long time ago (Langlois 2002). Other problems are undercapitalisation, a surplus of employees, outdated organisations and lack of transparency (Cockerill 2000).

On the other hand, Chinese banks benefit from the high rate of savings deposited in individual and corporate accounts, estimated to be at least of US$4 trillion (Browne 2006). These accounts are being paid at minimal interest, from 0.75% to 1.5% per annum, because the options of the Chinese people are limited by non-allowance of the purchase of any overseas financial products. In addition, the profit prospects of auto-leasing and the credit card industry have attracted many joint ventures and strategic partnerships from global banks (US Commercial Service 2005).

In the insurance sector, a total of 65 domestic insurers are re-structuring the technical, financial and human resources of their operations, as well as forming strategic alliances, to prepare for competition from foreign insurers, who are being granted licenses on non-life insurance services. The total premiums in 2004 exceeded US$32 billion (Goldstein 2002).

In the investment sector, foreign entrants in the investment banking and fund management service are being licensed and will present domestic companies with major competition. Foreign direct investments (FDI) are expected to remain above US$60 billion for 2005 and 2006, with manufacturing still the favorite destination (US Department of Energy 2005).

Since 2002, China has permitted the establishment of venture capital companies. The China Venture Capital Association claimed over 50 member firms in 2002, managing over US$40 billion of investments (Landry 2002).

Recent laws on M&A (mergers and acquisitions) allows cross-border transactions for foreigners as well as Chinese. The regulation opened the way for foreign companies to acquire over 10,000 SOEs, which could be worth as much as US$1.2 trillion. However, Chinese companies are also buying up foreign assets to expand their market; most notable was the acquisition of IBM's PC division by Lenovo for US$1.75 billion (Gray 2005).

In the securities and debts sector, the size of a bond market of over US$350 billion is substantial, yet it represents only 25% of the GDP. The US bond market is about US$14 trillion or 110% of its GDP. However, the Chinese market would require structural reforms, including competitive terms and rates, to meet world standards (Fratzscher 2002). The stock markets of Shanghai and Shenzhen are not fully developed with securities, with inherent problems of non-liquidity, nonconvertibility of the renminbi, scandals, majority state-owned shares and poor quality listings (AmCham 2003).

Overall, there is plenty of expansion room for China's capital market. While US companies derive two-thirds of their capital from capital markets, only 4% of Chinese companies are doing so. Compared to the size of Japan's equity market at US$3.6 trillion, the US$400 billion plus Chinese market should grow at a healthy rate for the near term (Paulson 2005).

2.4.2 Foreign investments in China

The major factors influencing China's attraction to foreign investment include cheap labour, the size of the domestic market and good logistical infrastructure. In addition to these factors, China is expected to maintain a fast-growing economy and an expansion of foreign and private sector market shares, as a result of the WTO agreement. As a result, China will remain the favourite place for foreign investors for many years (US Commercial Service 2005).

In 2004, total FDI slowed down to US$61 billion from US$64 billion in the previous year, but it still maintained its position as one of the top global destinations. The total

received FDI to 2003 was US$501 billion and the total contracted FDI was US$943 billion (Bloomberg 2005). Most FDI went into the manufacturing sector, with electronics and information technology acquiring an increasing share. Foreign money also flowed increasingly into the M&A sector and venture capital.

In addition to FDI, foreign indirect investments (FII) include government and corporate bonds, stock market, currency and other financial instruments. Total estimates for FII amounted to US$320 billion in 2003 (Invest in China 2005).
In addition, 'hot' international money (unofficial or illegal transfer) poured in an estimated US$20 billion at the end of 2004, for currency speculation, and an even bigger amount went into real estate speculation (*People's Daily* 2004).

The major sources of FDI in 2004 included Hong Kong and BVI (US$26.7 billion), South Korea (US$6.3 billion), Japan (US$5.5 billion), United States of America (US$3.9 billion), Taiwan (US$3.2 billion) and others (US$16.1 billion) (*China Business Review* 2005).

Governmental policies regarding foreign investment in the coming years are designed to encourage, using tax concessions and other incentives, the flow of FDI into different sectors such as hi-tech industries, poor areas, western provinces, and acquisitions of SOEs (Hu 2002).

According to a survey in 2000 by the China America Merchants Association, the major challenges facing foreign investors in China are red-tape and bureaucracy (67%), human resources (56%) and lack of transparency (43%). Protection of intellectual property rights was another problem (Am-Cham 2003).

2.4.3 Risks and opportunities

Even though the Chinese government has continuously reformed laws and regulations to open up the capital market to foreigners and private entities, Chinese laws can be incomplete, incoherent and even self-contradictory. Since they are vaguely drafted pending further clarification and interpretation, their enforcement could be arbitrarily applied, especially when conflicting with the interests of local governments (Yu 2001).

A further risk is the transitional nature of the structural framework. From tax codes to foreign exchange control, from pension reforms to state-owned assets, Chinese capital markets are beset with adjustments and the challenges of the growing pains of their currently incomplete structures (*Euromoney* 2005).

However, no one could dispute the enormous potential of this market. As of 2005, the amount of household and corporate savings was estimated at US$4 trillion (Browne 2005). According to Jingu (2002), this source of funds would have considerable impact if properly and efficiently injected into the domestic capital market. At present, 94% goes into bank deposits. Duhamel (2002) also believes that these savings will be an especially lucrative source of revenue for investment and fund management companies, once the government allows it to flow freely. With 31 million retirees and 1.5 million new retirees every year, social security and pension funds are another attractive market that strongly interest international fund managers.

The development of capital markets in China will continue due to four driving forces: the macro-economic growth model; the rapid expansion of the private sector; the pressing need for pension reform; and a high investor demand (Cha 2002).

2.5 China's stock market

In just over 13 years, China's stock market has grown into the second largest in Asia, after Tokyo, with a total capitalisation of US$682 billion and participation of over 72 million retail investors (Green 2001). However, 'dizzy valuations, pervasive manipulation, insider trading, rampant disregard for regulation and downright fraud' are the watchwords for China's stock market (Loong 2001). The majority of observers and players compare China's stock market to a Macau casino (Anderlini 2004).

2.5.1 Brief history and legal structure

Many anomalies of China's stock market, compared to the operational standards of markets in the United States of America, Europe, Japan or Hong Kong, exist today (Green 2001).

China established the Shanghai and Shenzhen stock exchanges in 1990. Within 13 years, total market capitalisation has gone from zero to US$682 billion, ranking these stock exchanges the second largest in Asia, after Japan. There are 1,325 companies listed on Shanghai and Shenzhen, with 92% classified as small to medium enterprises (SME). The percentage of market capitalisation over GDP has gone from 1% in 1990 to 51% in June 2003. Total investors amount to 72 million (Shanghai Stock Exchange 2004).

The total capitalisation of China's stock market was only 46% of GDP, whereas Japanese and Singaporean markets had a capitalisation of 140% of GDP. If China could realise its full potential, the size of its stock market could be as big as US$3 trillion (Ho 2002).

However, according to Green, China editor of *The Economist*, the above numbers are misleading. The market capitalisation took into account the C shares which are non-tradable, and equaling 65% of the total number. If removed, the true market capitalisation of China is about US$227 billion, about the same size as Malaysia's market. On the number of investors, Green estimated that the true number is about one-third of the official claim, or 24 million, as the government used the account numbers, from which many are duplicate and fictitious due to a high level of speculation and manipulation (Green 2001).

The initial objective of the Chinese government in establishing stock markets was to raise capital for their ailing SOEs by selling one-third of shareholding to public investors. It was the first step in the privatisation process of state assets. The move was designed to stop the subsidising of loss-making SOEs from the annual budget and to use the proceeds to fund pension liabilities (Leahy 2004).

2.5.2 Classes of securities

Shares in China's stock markets are designated into three classes: A for domestic investors trading in Chinese currency (RMB or Yuan); B for foreign investors and payable in foreign currencies; and C for government-owned shares which are not publicly traded. Under this two-tier trading system (A and B shares), stock-price behaviour is very different between the two tiers and in most of the firms. A and B share prices do not have the same price dynamics. Essentially, A and B share prices tend to be driven by their own economic forces (Chan, Cheng & Fung 2001).

From June 2003, China allowed a number of qualified foreign institutional investors, or QFIIs, to trade in A shares as well. However, to avoid the short-term speculation preferred by hedge funds, any capital gains from investment of QFIIs must remain in China for at least one year from the date of remittance (China Stock Market Organisation 2004).

In addition, many of the same Chinese companies are listed on the Hong Kong, New York or London stock exchanges. Their shares are denoted as H, N and L shares respectively (Anderlini 2004).

2.5.3 Quality of listed companies

The lack of good quality listed companies started with the flawed IPO (initial public offering) process. In the early years, the government decided on the number of new listings each year in accordance with official policy and provincial interest, no matter what the financial records of the candidates were. When this quota system was eventually abandoned, the supply of new listings was still controlled to ensure healthy demand and a high share price for listed companies (Shi & Weisert 2002). In fact, provincial authorities have the power to select the SOE for IPO listing, and they naturally want to keep the best money-making enterprises and prefer to sell the less desirable enterprises to the public for the same money (Cockerill 2000).

The difficulties involved in listing in China have caused many good quality companies to go IPO overseas, especially Hong Kong or Nasdaq. In fact, the

capitalisation of Chinese offshore-listed companies was higher than the domestic A-share market. The end result was 'the outsourcing' of the stock market by China. Meanwhile, the trend created a quality image problem for domestic-listed companies (Leahy 2004).

Most listed Chinese firms are less than 10 years old and there has been little research or analysis on the usefulness for investors of their accounting disclosures (Chen, Firth & Gao 2002).

2.5.4 Corporate governance

Song Jinsong, an analyst with Hantang Securities Co, said poor corporate governance and irregularities among major stock holders are the root causes of all evils in the securities market. He also blamed the current bearish market for China's lack of a sound national credit record system, acute shortage of managerial professionals and for the inability of regulators to crack down on irregularities (*Xin Hua News Agency* 2005). Zhang Jingdong, another senior researcher with Hua'an Securities Co, agreed with Song and said that the top priority for the CSRC to revive the market should be to improve corporate governance of the country's listed firms, while increasing transparency and credibility (*Xin Hua News Agency* 2005).

However, during the early years of the market, governmental organs were utilised to tout shares to the public. This was understandable since the government was the controlling shareholder in most listed companies and they needed a good share price to raise capital (Roberts & Clifford 1999). On the opposite side, another governmental agency, CSRC, was in charge of enforcing the corporate governance code. In fact, many CSRC officials have been known to request brokers to buy stocks to keep prices from falling too far (Forney & Goettig 2003).

Many economists believed that excessive governmental intervention and insider control by management exacerbated the corporate governance problems. Most company directors are government employees and they are accustomed to following instructions (Shi & Weisert 2002). In addition, it is difficult for CSRC enforcement

officers to impose any discipline because the CEOs of these SOEs are often higher-ranking members of the Communist party (Hamlin 2002).

In fact, China's stock markets are famous for price-fixing, IPO manipulation, political influence, lack of transparency and research, poor corporate governance and above all, an average P/E ratio of 82.8 (compared to 18 on the New York Stock Exchange). Furthermore, as the government is the majority shareholder in most companies (the C shares), rights of minority shareholders are non-existent (Gao 2002).

2.5.5 Governmental reforms

Understanding that a healthy stock market is important to its capital market, the Chinese government placed a strong emphasis on reforming the system, beginning with the appointment of overseas experts to the CSRC. In 2001, an American lawyer, Laura Cha, was appointed Vice Chairman of CSRC (Chen & Thomas 2003). Another reason for the necessary reforms was the potential unrest caused by the mass of Chinese investors who lost their savings when the stock indexes of Shanghai and Shenzhen plunged more than 40% after 2001 (Leahy, 2004).

Furthermore, the population is rapidly ageing due to the official one-child policy, causing expected social security and pension liability to rocket to over US$1.1 trillion in the next 10 years. A good strong domestic stock market could contribute positively to this funding (Leahy 2005).

On 12 September 2005, the government announced that US$270 billion worth of state-owned shares would be traded in a series of reforms, including the introduction of short-selling and the re-organisation of the IPO process (Bloomberg 2005). In April 2005, regulations on the conversion of C shares (non-tradable) into A shares were issued and a total of 339 companies, or one-third of total market capitalisation, has begun to implement the changes (DeWeaver 2006).

Earlier, the CSRC pushed through regulations regarding corporate governance, with the new requirements of quarterly reports, independent directors, and international accounting standards (Gray 2005). On the quality improvement of listed companies,

CSRC had many plans in the pipeline: the unification of the A and B shares markets; dual listing of H shares in Shanghai; listing of foreign enterprises; creation of a second board for emerging companies; the introduction of futures and derivatives; and consolidation of brokerage companies (Loong 2001).

In addition, enforcement became stricter with the jailing of hi-profile CEOs, the delisting of weak companies, the suspension of auditing firms and the crackdown on stock manipulators (Roberts & Clifford 2001).

In another move to entice more foreign investment, the Shanghai and Shenzhen stock exchanges jointly created a Huashen Index, composed of top performers. The P/E ratio of this group is 14.2, compared to 15.34 on the New York Stock Exchange, 17.8 on the Hong Kong and 47.56 on Nasdaq (*Xinhua News Agency* 2005).

2.5.6 Information flow

On a positive note, Chinese companies are not unlike US-listed companies in information and accounting disclosure. A study by Chen, Chen and Su (2001) tested the frequency of the MAO (modified audited opinions) issue. They found that Chinese companies tried to avoid MAOs by changing accounting methods more frequently as they become more mature, meaning that accounting standards are quite similar to United States regulations.

Even though Chinese firms do not use GAAP standards for their accounting system, their Chinese-approved audited statements are as complete and rigorous as any other relevant international records (Chen & Su 2000).

However, the accounting issue was never a concern for domestic investors. Most of them are trend followers: they trade stocks without regards to a firm's financial fundamentals (Su 2000). Even though earnings are used to set market prices, stock dividends, unexpected earnings growth or disappointment have little effect on price movement (Chen, Firth & Gao 2002). In fact, a study of 1,499 earnings announcements showed no relationship to price and volume (Gao 2000).

On the other hand, foreign investors are sensitive to information flow. Since most foreign investors are institutional, they are better informed and trade stocks with clear-cut strategies and objectives, backed up by a large volume of information and data analysis (Yang 2003).

2.5.7 Structural problems

However, all the above problems are symptoms, not the disease. The stock market needs viable companies and the root cause of the lack of viability of listed companies are the 'strategic burdens', 'social burdens' and 'policy burdens' imposed on them by the old socialist system. If the government could relieve them from these burdens with bold new reforms, SOEs could become viable and contribute positively to the stock market (Lin 2004). Therefore, the reform must start with an overhaul of the pension system because once the social security and pension funds are fully funded, they would actively become key institutional investors in the stock market, as are existing pension funds in developed countries (Wang 2004).

Another fundamental and essential reform is to end capital controls and make the renminbi fully convertible. Once foreign and domestic capital could flow freely according to market forces, efficiency and transparency would be the norm of the stock market (Dorn 2003).

However, from the viewpoint of international funds, the real problem is that China's stock market is facing the same liquidity problem of other emerging markets. There is not enough 'depth' and 'volume' to satisfy the demands of major fund placement. One example is that the total market capitalisation of US$682 billion is less than that of Microsoft alone (Freeman, Fellow & Bartels 2000). (Note that after the crash of the Internet bubble, Microsoft's market cap is now hovering about US$420 billion).

This liquidity factor could be changed substantially once private Chinese investors are free to unlock the US$1.4 trillion in low-interest savings held in back accounts. If these funds could be shifted to equity markets, the government could unload their C shares and use the proceeds to fund the US$650 billion in pension liability, as originally planned under the privatisation plan (Miller 2004).

In conclusion, despite all its shortcomings, China's stock market has changed people's perceptions and attitudes towards such concepts as capital, profit, bonus, risk, return, speculation and investment, in a market environment. The Chinese government realises that the bottom line for an international stock market will be market reforms, corporate reforms, transparency, credibility and rules of law - but above all, profit (Karmel 1996).

2.6 Conclusion

This discussion on the background of international hedge funds has revealed an emerging institution in the global financial framework. These funds cannot match the dominance and size of banks, brokerages or mutual funds, yet. However, they will have a permanent presence in global finance and will continue to challenge the established order: the US$1.15 trillion-plus liquid assets under their management are larger than the assets of most Third World countries.

Meanwhile, China's stock market is still struggling with structural problems and attempted reforms. However, given the success the Chinese government has had in improving the Chinese economy overall, it can be reasonably assumed that China's stock market will be transformed into a powerful, global financial institution.

To understand the factors that would induce international hedge funds to invest substantially in China's stock market is to predict the extent of the growth factor of both entities.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

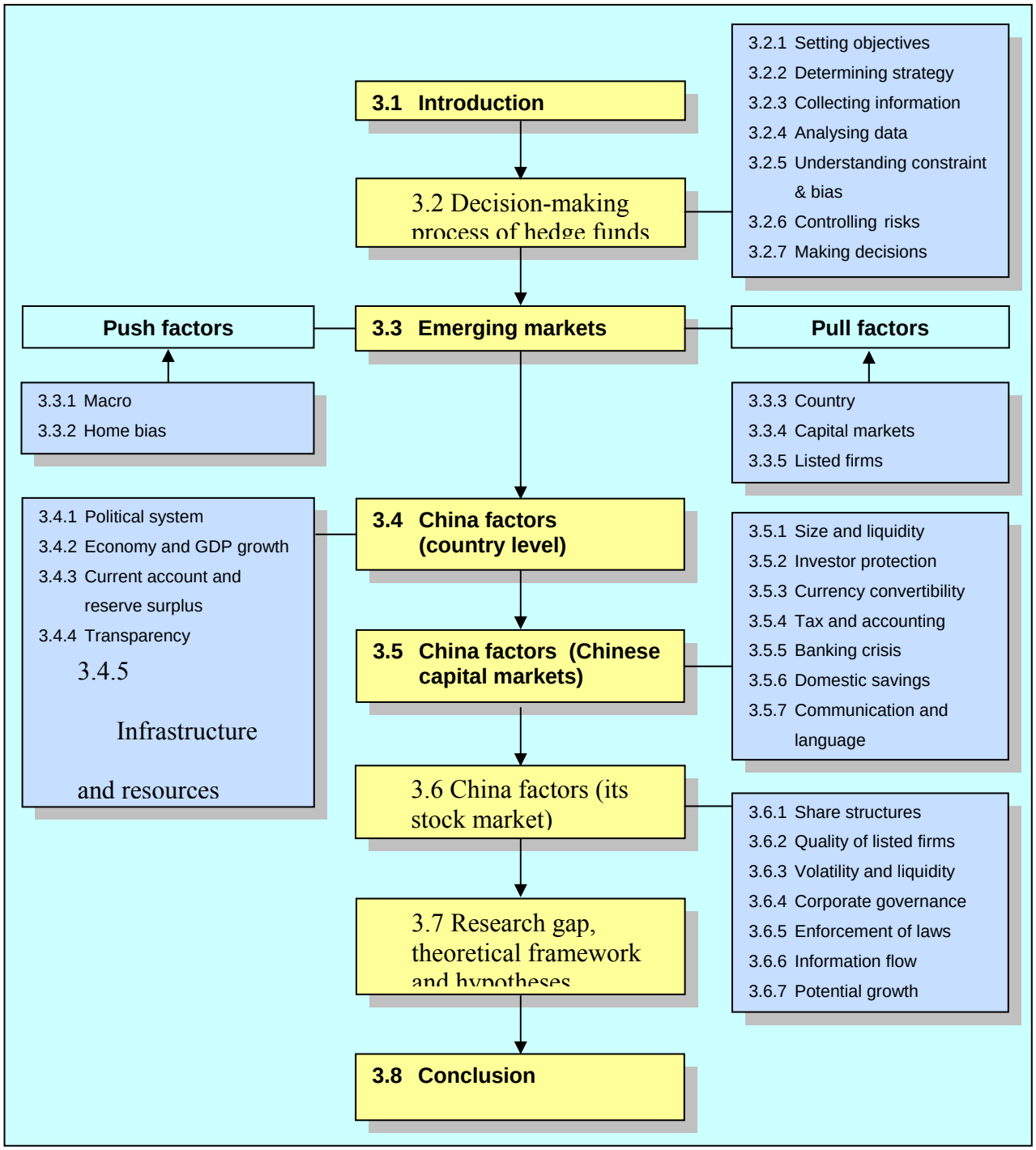
The world's financial assets total more than US$136 trillion and have been projected to exceed US$228 trillion by 2010 (Farrell, Key, and Shavers 2006). The stock of global financial assets has grown faster than the world's GDP, indicating that financial markets are better integrated and more liquid than ever. As a result, global capital is increasingly accessible and diversified across all markets and assets. China's share of this global financial stock is US$14 trillion or about 12%. However, the utilisation of China's capital resource is not efficient: nearly two-thirds of the US$14 trillion is held in bank deposits.

In order to understand the decision-making process employed by hedge funds and how those funds apply that process to China and its stock market, it is necessary to overview global equity flows. The global equity flow chart in Figure 3.2 shows that while total global equity investments amounted to US$40 trillion in 2004 only US$300 billion went to emerging markets (Standard & Poor's 2005). A mere US$4 billion was actually invested in China's stock market (Santini 2004). Considering the size of China's GDP or China's FDI receipts, this gross underweighting of investments underlies severe problems in its stock market in terms of global capital attraction.

Section 3.2 of this chapter reviews the literature available on the 8-step process of decision-making employed by fund managers on a global basis. Section 3.3 details the 'push and pull' factors which influence equity flows to emerging markets. Sections 3.4, 3.5 and 3.6 identify all the China factors concerning macro-conditions, capital markets and the stock market.

Following the literature review, Section 3.7 identifies the research gaps, research problem and research questions of this study, constructs a theoretical framework, and proposes four hypotheses in response to the research problem and questions. The structure of Chapter 3 is presented in Figure 3.1.

Figure 3.1 Structure of chapter 3

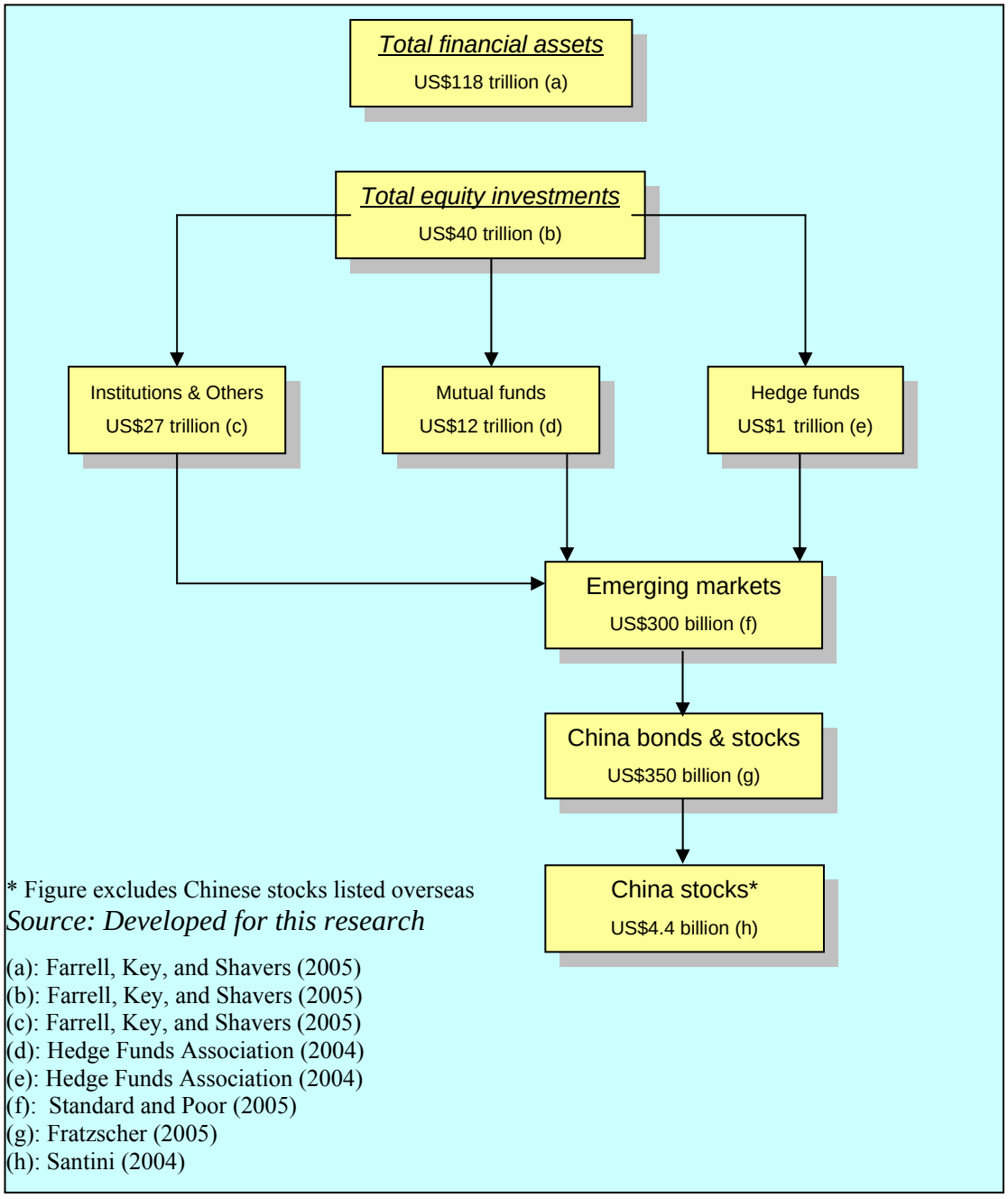


Source: Developed for this research

3.2 Decision-making process of hedge fund managers

Based on a survey by *Investor Relations Business*, most institutional investors, regardless of their fund size, apply similar criteria to their investment decisions. Over 70% of the top holdings of the seven largest and seven smallest institutional investors are essentially the same, based on a Thomson Financial Corporate Group analysis of their second-quarter 13-F filings (*Investor Relations Business* 2002).

Figure 3.2 Global equity flows chart (as of December 2004)



* Figure excludes Chinese stocks listed overseas

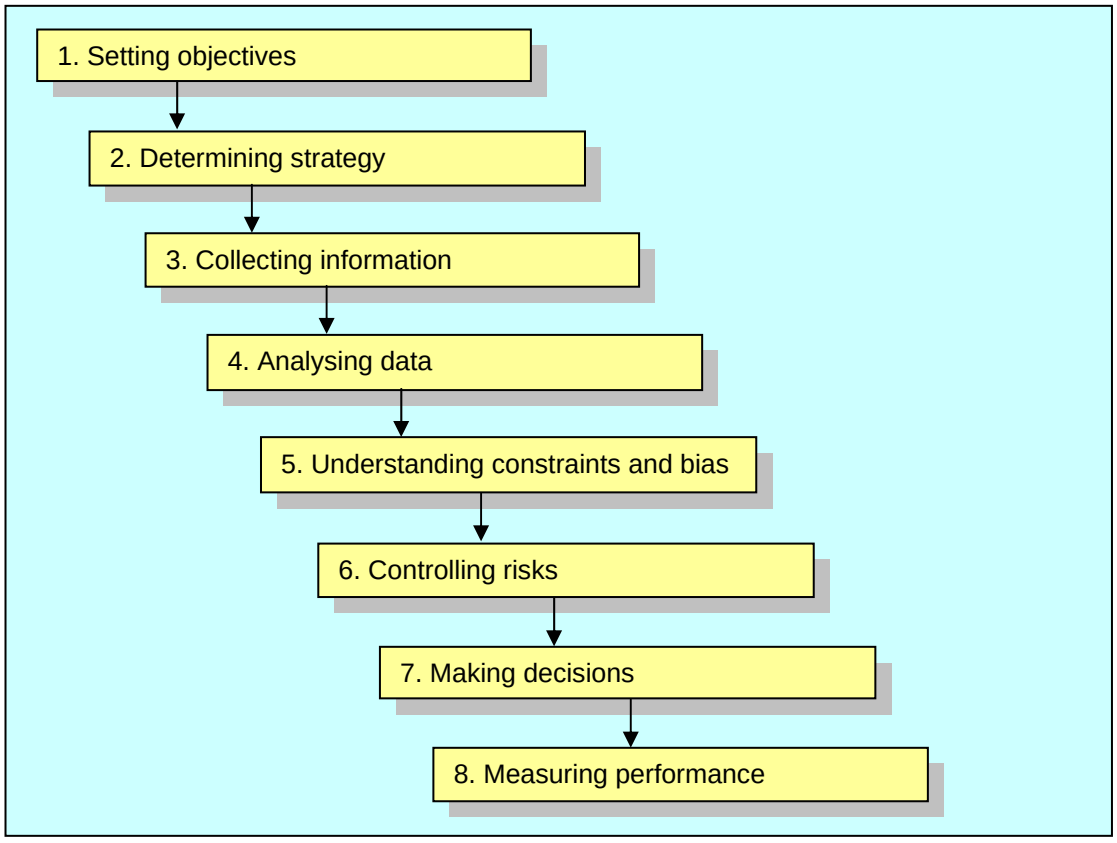
Source: Developed for this research

(a): Farrell, Key, and Shavers (2005)
(b): Farrell, Key, and Shavers (2005)
(c): Farrell, Key, and Shavers (2005)
(d): Hedge Funds Association (2004)
(e): Hedge Funds Association (2004)
(f): Standard and Poor (2005)
(g): Fratzscher (2005)
(h): Santini (2004)

While hedge funds have more flexibility in strategic application, their investment decision-making process is similar to that of mutual funds. There is no literature on the complete process of decision-making steps undertaken by fund managers, but partial pieces of the whole picture are available from many research studies. By synthesizing findings from existing literature, an 8-step decision-making process was constructed. However, additional study and research would be needed to verify and perfect the proposed model.

The process could be summarised in eight separate steps: setting objectives, determining strategy, collecting information, analysing data, understanding constraints and bias, controlling risks, making a decision and measuring performance. Figure 3.3 charts the construction of this 8-step process. Each component of this process is described in the following sections.

Figure 3.3 Decision-making process of hedge funds



Source: Developed for this research

3.2.1 Setting objectives

Given investment objectives, fund managers pursue a style that fits well with their personality or the fund mission (Arnswald 2001). Passive strategists assume that markets are highly information-efficient and the best risk protection for their clients is a diversification strategy. These managers lean more to index-linked or index-related investments. On the other hand, active fund managers try to achieve above average returns for their clients, or in other words, 'beat the market'.

These two different objectives are known as 'beta' or 'relative return' and 'alpha' or 'absolute return'. Relative return correlates closely with market indices: if a fund loses 10 percent of its value but a selected asset index loses 20 percent, fund performance is considered 'superior'. On the other hand, absolute return with positive alpha does not use indices as benchmarks, but measures expected returns based strictly on risk factors (Black 2004).

3.2.2 Determining strategy

Concurrent to strategy determination, fund managers classify and allocate assets to match stated objectives. Sharp (1992) identified 12 major asset classes for allocation: cash; intermediate government bonds; long-term government bonds; mortgage-related securities; large cap value stocks; large cap growth stock; medium cap stocks; small cap stocks; non-US bonds; European stocks and Japanese stocks. Each class will behave according to their special characteristics of risk versus return. Since 1992, hedge funds have added more diversified classes of assets for consideration.

Hedge funds are classified according to their stated strategy. Besides the 14 strategies identified by Friedland (2006) of Magnum Funds, other hedge fund indices popular with the industry include Barclays/GHS and CSFB/Tremont. Inclusive lists of strategies used are: aggressive growth; short selling; distressed securities and properties; market neutral and securities hedging; market timing; opportunistic; multi-strategy; special situation; value; emerging markets; fund of the funds; fixed income; macro; arbitrage; European; Pacific Rim; commodities; technology; health care and bio-techs; managed futures; and mortgage-backed securities (Knab 2005).

Strategy selection is normally disclosed in the fund's prospectus or registration statement. Funds that deviate from a stated strategy could be liable for claims of misleading and be subject to shareholders and regulatory lawsuits (Friedland 2006).

3.2.3 Collecting information

A principal goal of information acquisition is to determine the arbitrage potential of each asset in terms of price or value. The most popular method of asset valuation is Capital Asset Pricing Model (CAPM). CAPM theoretically determines the 'right' price of a security based on risk factors (market or systematic) and expected returns (compared to risk-free returns). The coefficient of risk is referred to as Beta (Sharpe 1992).

CAPM was modified by Fama & French (1996) to include firm size and book-to-market ratio. The authors included two factors, SMB and HML, as indicators for fund movement. SMB is zero-investment portfolio that is long on small cap companies and short on large cap companies. HML is zero-investment that is long on high book-to-market (B/M) stocks (value) and short on low B/M stocks (growth).

This pricing method produced improved results with further modification by using the top and bottom of different decile portfolios (of size and B/M ratio) based on macro-economy information (Cooper, Gulen & Vassalou 2001).

However, CAPM or other methods of pricing determination might be triggered by institutional investors themselves. As they tend to invest in large cap companies, with higher liquidity and lower returns, they create more demand on these stocks and may cause price increases, irrespective of their CAPM value (Gompers & Metrick 1999).

All of these data analysis exercises are conducted non-stop by brokers, analysts and fund managers to locate the 'right' information for decision-making. There are over 7,000 stocks in the major US exchanges. Each company produces thousands of pages of SEC filings and public disclosures, filled with facts and numbers. The digestion of

all available data creates an information overload and a bias toward 'attention-grabbing' firms (Barber & Odean 2001).

Fund mangers rely on three levels of information channels: primary data which includes in-house research and analysis; secondary data which consists of media publications, independent analyst reports, corporate news and filings and academic studies; and tertiary data, composed of industry rumour, conversations with experts and colleagues, and informal exchanges with company executives (Arnswald 2001).

3.2.4 Analysing data

Information and data collected are analysed to locate strategic and systematic advantages to exploit. The analysis process by institutional investors is grouped into three distinct methodologies, also known as 'styles of investing'. They are: fundamental analysis, technical analysis and portfolio optimisation. Arnswald (2001) called these analysts fundamentalists, tacticians and methodologists. As their names imply, fundamentalists rely mainly on the financial fundamentals and ratios of companies; tacticians focus on technical analysis and follow market trends; and methodologists use econometric forecasting and portfolio optimisation models for their decisions (Arnswald 2001).

The most representative fundamentalist has been Warren Buffet, the Wall Street 'guru'. His value-investing strategy has been based on the belief that the market is not efficient and there is a difference between value and price, which investors could arbitrage. Other considerations include business tenets (simple, understandable, consistent operating history, long-term prospect), management tenets (rational, prudent, good use of profits) and financial tenets (return on equity, high profit margin, low operating cost) (Hagstrom 2001).

As an alternative, technical analysts, also known as momentum strategists, believe markets are efficient, and a stock's current price has discounted all available information and inherent risks. Therefore, price movements are not random and price patterns tend to repeat themselves (trending) in certain directions. Valid prediction on these movements is all it takes to make money in the market. They study trading

patterns of stocks through the use of charts, trend lines, support and resistance levels, bar charts, candlestick charts, Bollinger bands, moving averages, relative strength indices and/or money flow indices (Edwards & Magee 2001).

The three methods of stock analysis have created numerous controversies among operators and academics. Gencay (1998) found that a momentum strategy using moving averages to locate 'buy' signals produces better performance. Most institutional investors agree with this reasoning, with 77% of mutual fund managers being momentum investors, buying stocks that are past 'winners' (Grinblatt, Titman & Wermers 1994).

However, Noma (2005) showed that in the long term, high book-to-market firms (value) with high fundamentals outperform other portfolios with low book-to-market ratios (growth). This strategy was confirmed in a study by Chan and Lakonishok (2002) who showed that value stocks, on the average, earn higher returns than growth stocks and that smaller stocks perform better than large stocks. This value strategy works well in bull or bear markets.

Other investors look at alternative methods to increase their success rates. According to Shen (2002), market-timing strategy can be successfully implemented by switching on spreads between the E/P ratio of the S&P 500 index and interest rates. Extreme low values of the spreads indicate that most stock prices are high and that the opposite is also true. In this method, investors know when to buy into a market and when to exit.

Market-timing is more suitable for institutional investors who are more deliberate based on their experience and prudence due to judiciary requirement. They do not over-react to exaggerated price movements as do individual investors (Barberis, Shleifer & Vishny 1998). Institutional investors are also more sophisticated as short-sellers and know how to unwind positions in a timely manner (Dechow, Hutton & Sloan 2000).

This ability to forecast stock market time-varying volatility and the impact of good and bad news upon return volatility is an important attribute of institutional investors

(Yeh & Lee 2000). With the vast resources of information and the efficiency in utilisation, the optimal strategy for institutional investors would be to move funds 'timely' among various asset classes and investing styles (Barberis & Shleifer 2003).

3.2.5 Understanding constraint and bias

In the decision-making process, institutional investors face a large number of constraints and biases. First and foremost are the rules and regulations they have to follow whether they are an independent fund operator or executive manager of a multi-national investment firm. The fund charter also specifies in which classes of assets they are allowed to invest, which allocation ratios they maintain, which strategy they use and which investment time horizon they adhere to (Arnswald 2001).

Another important constraint is the organisational factors which can trigger a buy-sell decision not directly related to the investment's performance in a portfolio. Two major causes are the availability of funds due to inflows (managers invest to earn adequate returns) or outflows (managers divest to refund investors) and portfolio readjustment due to breach of investment or prudential guidelines (Beh & Abonyi 2000).

In addition, all investors must deal with information overload and data accuracy. There are cognitive and temporal limits to the processing of information. Therefore, in buying or selling, most investors are influenced by attention-grabbing stocks: daily abnormal trading volume, daily returns and daily news. However, the impact is more pronounced on negative selling than positive buying and greater with individual investors (Barber & Odean 2001).

On personal bias, most investors exhibit a herding tendency, especially on buying past winners. (Grinblatt, Titman & Wermers 1994). This herding instinct could also cause the 'disposition' effect or selling past winners and holding past losers, due to their loss-aversion bias (Shapira & Venezia 2000). According to Tsang (1998), the herd mentality of funds and banks by over-investing in Asia without proper due diligence was the principal cause of the Asian financial crisis in 1997.

Institutional investors have also been widely accused of myopically focusing on current earnings in their trading decisions and consequently causing share prices to systematically deviate from fundamental values (Eames 1995)

Another pronounced personal bias among investors is the 'status quo' bias (Masatli & Ok 2002). Furthermore, fund managers are often concerned with their personal career and interests, such as earning bonuses and awards based on performance and index comparisons (Griffin, Harris & Topaloglu 2003). As a result, they show a strong desire to exceed return targets. Aggressive investors would frequently engage in market-timing and change asset allocation to maximise short-term returns. Risk-return trade-off principles would be affected and uncertainty would follow (Campbell & Viceira 2000).

Another constraint is the effect of 'noise trading', inferring that trading itself can speed up the flow of information and introduce 'noise' into stock returns, affecting trading volume and return volatility (French & Roll 1986). This noise trading pattern was confirmed by DeLong, Shleifer, Summers and Waldmann (1989).

Finally, BRSN (buy on rumour-sell on news) is a frequent behavioural pattern in financial markets and is diagnosed as inflated expectation by investors. Prices normally decline following an equal or better-than-expected outcome (Peterson 2003).

3.2.6 Controlling risk

With short-selling and leverage flexibility, hedge funds are more effective in hedging by using a variety of options, futures and derivatives. As a result, they have a low beta or low exposure during bear markets (Amenc & Martellini 2003). In addition, their preferred investment in large cap companies using momentum strategies also lower their risk profile (Shu 2005). However, demand by institutional investors for large stocks might drive valuations of these stocks too high, making smaller, riskier stocks more attractive (Bennett, Sias & Starks 2001).

Another method of risk control is a change in asset allocation weighting to balance the volatility factor. However, over-utilisation of this technique can expose funds to imbalance and uncertainty (Campbell & Viceira 2000).

Stop-loss techniques and downward risk strategies are also employed by a smaller number of institutional investors (Arnswald 2001).

3.2.7 Making decisions

Arnswald (2001) found that investors respond to the following signals to make their 'buy/sell' decisions (ranked in importance):

- a fundamentally low valuation by sector or market comparison
- positive corporate news/announcements
- raising of corporate earnings estimates by analysts
- above-average rise in market price accompanied by higher turnover
- quotation stabilised at a price level sharply lower than its all-time-high
- observed purchases by other institutional investors
- growing expectations concerning higher dividends

Other secondary considerations for investment decisions include:

- market capitalisation
- previous corporate development as well as stock market performance
- frequent reports and availability of independent analysts' forecasts
- trading costs such as bid/offer spread
- availability of tradable derivatives for transactions
- availability of additional information

One important signal missing from the above list is insider trading, especially insider buying. Many fund managers would consider this action as a 'bullish' sign of an undervalued stock (Derwin 2004). The opposite is also true. Insider selling is regarded as one of the 'bearish' signals for the stock (Dettmer 2003). Another signal of

importance to institutional investors is corporate governance, especially an 'executive compensation' package (Shipman 2002).

Institutional investors are also known as 'manipulative traders' by using their financial clout in buying/selling into small illiquid stocks, creating a price movement in their favor (Aggarwal & Wu 2003).

However, like many professional traders, Steve Lescarbeau, the famous stock trader, relies mainly on his established system: 'My systems tell me what to do. There is never any judgment on whether to buy or sell, the only judgment is how much to buy or sell.' (Schwager 2005).

3.2.8 Measuring performance

All fund mangers face the consequences of their 'buy/sell' decisions by the performance of their funds. Fund returns can be easily compared to relevant indices or returns of competitors and subject to vigorous in-house appraisal. Their performance will largely determine their bonus and future careers as well as the inflows or outflows of their funds from investors (Arnswald 2001). Therefore, fund performance is the subject of extensive scrutiny from researchers.

Lo (2001) suggested that many analysts lack the necessary tools for measuring hedge fund performances such as dynamic risk analytics, survivorship bias and liquidity. Instead, they rely excessively on traditional risk management tools such as mean variance analysis, beta and value assessment. DeSouza and Gokcan (2004) also suggested that analysts should familiarise themselves with a risk budget approach to hedge fund asset allocation. They propose to rate the fund performance by using the Hurst exponent with the D-statistics as well as the Omega function to obtain true rate of return.

Since hedge funds like to use a Sharpe ratio to prove performance, Lo (2002) countered that the annual Sharpe ratio for a hedge fund can be overstated by as much as 65% because of the presence of serial correlation in monthly returns, and once this

serial correlation is properly taken into account, the rankings of hedge funds based on Sharpe ratios can change dramatically.

Considering the backfilling bias (reporting only favourable periods of past results) and the survivorship bias, hedge funds may appear to have lower returns and higher risks than mutual funds. In addition, the number of fund failures has been substantial. Funds of funds do not work as well as regular diversified mutual funds. Opportunities might exist in arbitrage, but with so much capital chasing limited opportunities, profit potential is drastically reduced (Malkiel 2004).

3.3 Factors influencing equity flows to emerging markets

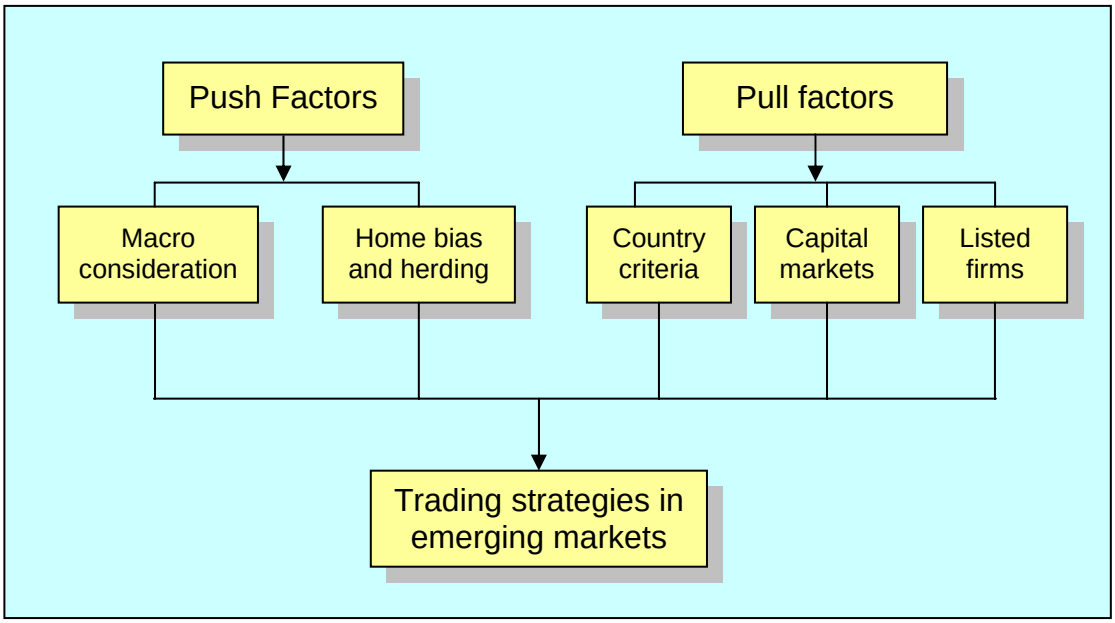
On investment decisions, different rules and considerations apply to emerging markets. Since China is considered to be a part of the emerging markets, a study of equity flows to this particular area gives insights to influencing factors other than global factors.

The emerging markets sector has been examined closely by Wall Street analysts in the last few years, because of the outstanding returns that continue to outperform returns from USA exchanges. However, there are other reasons for the increased equity flow to emerging markets: (a) improved economic conditions, even boom times, in many countries; and (b) increasing confidence of investors in the long-term viability of emerging markets investments (SRI Institute, 2005). Bartram and Dufey (2001) summarised the benefits of international portfolio investment as including growth, hedging, diversification and market segmentation. However, they also listed risks and constraints as other factors, comprising currency risk, political risk, taxation, exchange control, market regulations, transaction costs and unfamiliarity.

Figure 3.4 presents factors influencing equity flows to emerging markets. These factors are classified as ‘push’ and ‘pull’ factors. Push factors are home-based issues that cause investors to go outside their countries to invest. Pull factors are conditions of the host country which attract equity capital from foreign investors. Push factors are composed of macro condition of the investors’ country, home bias and the herding tendency. Pull factors consist of the investability criteria of the host country, including

country factors, capital market factors and listed firms factors. All these factors influence the level of equity flows to emerging markets.

Figure 3.4 Factors influencing equity flows to emerging markets



Source: Developed for this research

One limitation on the measurement of capital flows should be noted. Since a majority of flows are attributed to global financial centres, for example, London for Europe and Tokyo and Hong Kong for the Far East, the volumes that actually go into emerging countries could be larger than reported (Warnock & Cleaver 2002). In fact, Warnock (2002) warned that information on equity flows to a specific recipient country cannot be accurately obtained, therefore, the price index for holding valuations cannot be chosen with confidence.

3.3.1 Push factors: macro-considerations of investors

In contrast to common assumptions, three studies clearly established that 'push' factors from the investor's country are much more important in determining equity flows. According to Tesar and Werner (1995), the US interest rate and industrial production are top determinants. Griffin, Nardari and Stulz (2003) concluded that cross-border equity flows follow a high return performance of the global market. Host country stock return is secondary. Taylor and Sarno (1997) concurred that change in

the US interest rate caused substantial flows, with global factors outweighing local factors in short term dynamics.

Another important 'push' factor is the need to diversify an asset portfolio to reduce risk factors. Siegel (2005) suggested a stock portfolio with an eye to each country's share of world equity values: United States of America. and Canada, 54.9%; Europe, 27.8%; Japan, 9.1%; other developed Pacific countries (Australia, Hong Kong, Singapore and New Zealand), 3.2%. As a group, emerging markets should get 4.9%: Korea, 0.9%; Taiwan, 0.5%; China, 0.4%; Brazil, 0.4%; Mexico, 0.3%; India, 0.3%; Russia, 0.2%; and other emerging countries, 1.9%.

Equity flows are also affected by the excess returns of emerging countries, especially when the US economy suffers a slowdown or recession (Bohn & Tesar 1996).

3.3.2 Push factors: home bias and herding

Home bias and friendship bias are two important considerations for investors in emerging markets. Investors want familiarity with their decisions (Berkel 2004). This explains why cross-listed foreign firms (that have a USA listing concurrent with a home-country listing) enjoy a higher portfolio weight than non-cross-listed firms (Doidge, Karolyi & Stulz 2003).

Home bias might be the result of information asymmetries. Different countries have different accounting standards, disclosure requirements, legal frameworks and interpretations of information. This factor was confirmed by studies by Brennan and Cao (1997), Kang and Stulz (1997), and La Porta, de Silanes, Shleifer and Vishney (1997). Another preference of investors is the geographical proximity to home base (Coval & Moskowitz 1999). However, more important than physical distance is the legal and cultural similarity, such as English common law heritage or German-French civil law traditions (La Porta, de Silanes, Shleifer & Vishney 1997). A common colonial background could also influence the home bias or information asymmetries factor (Acemoglu, Johnson & Robinson 2002).

United States of America foreign policy is another determinant in equity flows, affecting even non-USA funds. The recent American declaration of Guatemala as a narcotics country caused Deutsche Bank to pull out a US$ 350 million purchase of the government bond (Ladekarl & Zervos 2004).

The herding mentality is more pronounced when investors enter unfamiliar territory. Fund managers are no different. They prefer to set up a fund in a new market only when there is another fund active in that market. However, the reason may be that it is easier to benchmark performance when you have a comparable set of numbers (Gumbel 2001).

3.3.3 Pull factors: characteristics of recipient country

Extensive research has been conducted on the characteristics of factors that will pull equity flows into a particular country. The determinants are varied and some are deemed more important than the others. However, researchers never completely agree on any set of influencing factors.

Taylor and Sarno (1997) listed six important factors: repatriation of capital and dividends; open economy; rate of returns; risk and volatility; credit rating and secondary market prices of sovereign debts; and cost of entry and exit. Portes and Rey (2001) cited three primary factors: market size, efficiency of transaction technology, and distance. Aggarwal, Klapper and Wysocki (2003) came up with four other determinants: macro condition, legal system, accounting policy and investor protection. Gelos and Wei (2002) found that transparency is the primary focus of investors, while herding among fund managers also impacts on investment decisions. Vassalou (2003) claimed that news related to future GDP growth is an important determinant and Bekaert, Harvey and Lundblad (2003) concluded that financial liberalisation is the most important issue.

CalPERS (California Public Employees Retirement System), which manages an investment portfolio of US$191 billion, provides specific criteria for a country to be considered ‘investible’. They include:

- Macro-economic conditions: GDP growth, inflation, current and trade account, credit history, labour practice.
- Political stability: transparency, democratic and legal institutions, human rights, corruption.
- Size: GDP per capita, capital markets, stock markets (CalPERS 2005).

On barriers to investment flows normally associated with emerging markets, Berkel (2004) found that indirect barriers such as financial market development and information asymmetries might have some impact, but direct barriers such as capital flow restrictions do not have any impact on portfolio investment.

The investability of a country also varies according to type of investment products (equity or fixed income), methodology (top down or bottom up), preferred currency (local or hard) or objective (long-term or short-term) (Ladekarl & Zervos 2004)

3.3.4 Pull factors: characteristics of recipient country's capital markets

Once a country is considered 'investible', fund managers evaluate its capital markets to ensure their investment is located in a suitable environment. Most institutional investors have emphasised the importance of size and liquidity of capital markets as primary considerations. CalPERS' criteria on the investability index of capital markets include: stability (quality of the system, depth and breadth of local investor base); transparency (corporate governance, rights of minority shareholders); legal and regulatory framework (policy and enforcement); custody; clearing and settlement costs (property rights, legal titles); and tax and accounting practices (CalPERS 2005).

Other critical issues are currency convertibility and the repatriation of capital and dividends (Taylor & Sarno, 1997). The acceptance of English as one of the official languages in legal interpretation is another positive factor (Ladekarl & Zervos 2004).

However, while mutual funds must follow closely these 'investible' criteria established by their judiciary requirements, hedge funds decisions could be decided by individual managers with much less restriction. Nevertheless, a majority of hedge funds still set up investability criteria for their managers (Ladekarl & Zervos 2004).

3.3.5 Pull factors: characteristics of recipient country's listed firms

For managers who use the bottom-up strategy, the characteristics of a country's listed firms are more important than all the above macro factors.

Aggarwal, Klapper and Wysocki (2003) discovered that USA funds invest more in large, growing firms with a high analyst following and policies such as ADR listing and accounting standards. Gelos and Wei (2002) found that transparency or corporate governance was most important. Doidge, Karolyi and Stulz (2003) agreed that foreign firms with shares cross-listed in the United States of America exchanges had Tobin's q ratios that are 16.5% higher than those who are not. This valuation premium indicated those cross-listed firms who are subject to disclosures and transparency could achieve lower costs and better access to capital markets, growth opportunities and be less controlled by majority shareholders.

Edison and Warnock (2003) reported that USA portfolios are tilted towards firms that are large, have few restrictions on foreign ownership and are cross-listed on USA exchanges. International CAPM is underweighted in emerging markets but fully weighted on these cross-listed firms (home bias). In a study on global asset allocation, Dahlquist and Robertson (2001) found that institutional investors, especially from the United States of America prefer to invest in large firms, firms paying low dividends, firms with a large cash position, good market liquidity, presence in international markets (large export sales) and which are cross-listed. They avoid firms with a dominant owner. Ladekarl and Zervos (2004) cited company size as the leading determinant.

Over all, the research results confirmed that institutional investors establish basically the same criteria of investability for foreign firms as for USA and European firms, with particular emphasis on corporate governance which may be due to the uncertainty of enforcement issues of foreign authorities. In any event, emerging market stocks will be subject more to global influences once they become 'investible' to foreign investors (Bae, Chan & Ng 2002).

3.3.6 Trading strategies of hedge funds in emerging markets

Fund managers prefer momentum trading strategies in emerging markets, especially during crises (Kaminsky, Lyons & Schmukler 2002). Ratner and Leal (1999) confirmed that a momentum strategy performed better in emerging markets than global markets. A study by Rouwenhorst (1998) confirmed that a momentum strategy works well in these countries. Other researchers found that value investing using P/E and B/M combined with momentum strategies outperformed all other strategies in emerging markets (Hart, Slagter & Dijk 2000).

Since foreign fund managers are momentum traders and usually hold large positions in listed shares, their behaviour strongly affects price movements in local markets (Richards 2004). However, Stultz (1997) observed that there was no adverse effect or increased volatility on the impact of portfolio flows to emerging markets. Funds do practice contagion trading among countries selling assets from one country, when prices fall in another (Kaminsky, Lyons & Schmukler 2002).

Herding among investment funds is less prevalent in more transparent countries. During crises, funds withdraw more from less transparent countries (Gelos & Wei 2002).

3.4 China factors: country level

Literature review on China's capital markets was hampered by lack of scholastic research and study due to the young age of its developing institutions. Government data are often suspected of political motives. As a result, references on this subject are overly relied on journalistic articles which could have been more subjective than desired.

In general, China attracted very little foreign investment in its stock market during the early period of 1997 and 2001, mainly through its B shares. Investments increased much faster after China's entry to the WTO and the QFII quota was established (Cheong & Xiao 2003). Overall, the pros and cons of investing in China's stock market were well-known. The pros were: (a) liberalisation and reforms; (b) potential

and high-growth; and (c) favourable macroeconomic factors and development. The cons included: (a) mismanagement of listed companies; (b) volatility; and (c) risky institutional frameworks. (Stark & Wiklund 2001). A summary of all the China factors is presented in Figure 3.5, page 72.

3.4.1 Political system

Houget (2004) was specific in citing the structural problems of China which have roots in the political system:

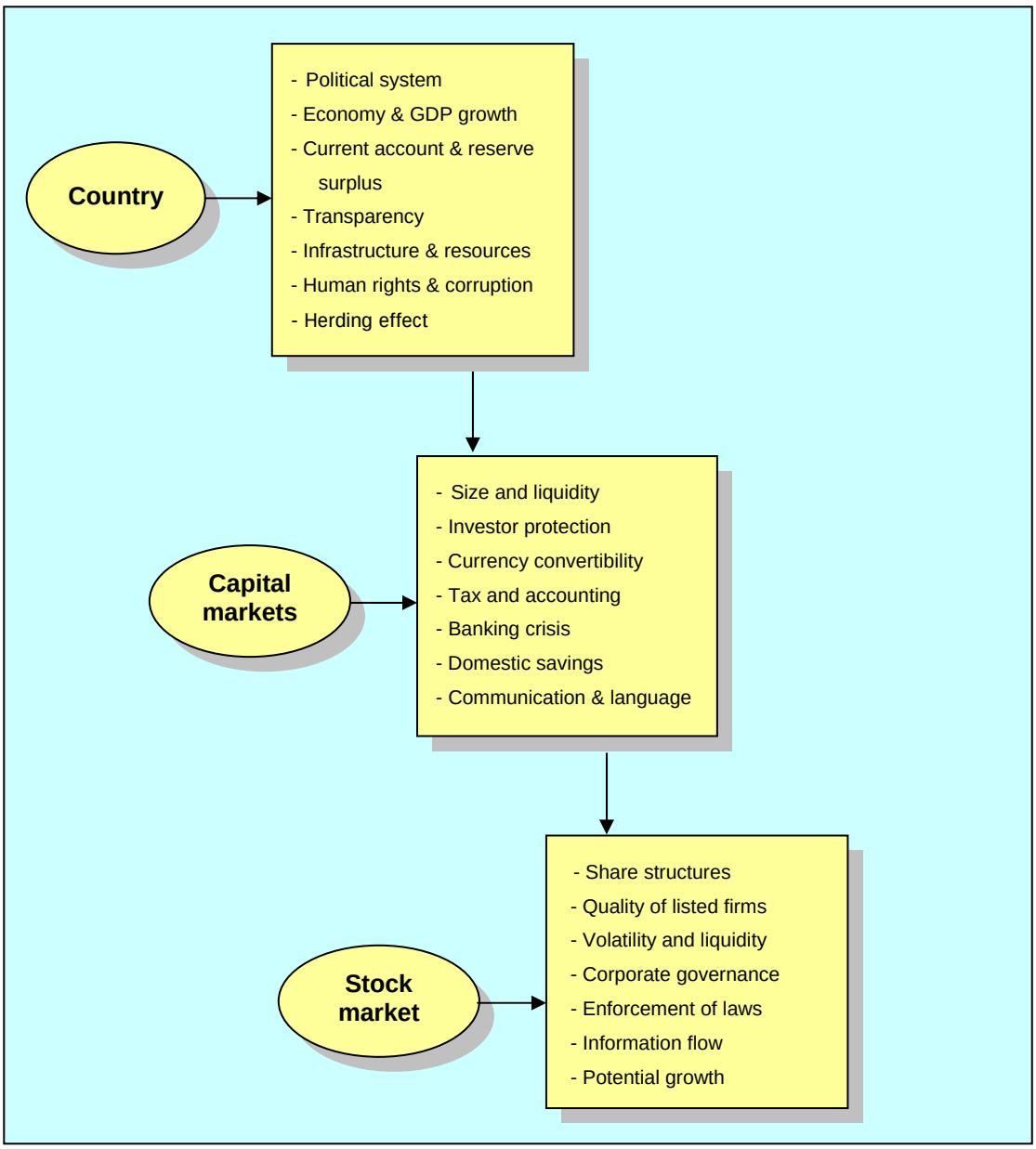
- microeconomic inefficiency: management of SOEs is a prime example;
- insolvent banks: NPL ratio might be as high as 50%;
- lack of basic physical infrastructure: energy and water demand are concerns;
- lack of adequate risk-pricing mechanism: no credit rating system for corporations and individuals;
- very weak institutions, especially capital markets;
- absence of globally competitive domestic private sector;
- regional tensions and growing inequality: East versus West and urban versus rural;
- corruption;
- massive ecological problems;
- absence of a social safety net;
- political tensions with Taiwan;
- gender imbalance: 30 million more males than females by 2030.

Gordon and Li (2001) posited that the government used regulations and a monopolistic position to benefit its social welfare policy. As a result, these economic burdens should be considered as implicit taxes on investors, domestic and foreign.

China's political system might have other unintentional effects on the economy. Of particular interest is the corruption issue resulting from dictatorial powers at all levels of government. OECD researchers have concluded that China's corruption problem is becoming a danger to the legitimacy of the Beijing government and presents an acute risk for the privatisation of state-owned assets (Yeh 2005).

These corruption and inequality problems lead to potential unrest. Fear of social unrest is the main reason why the Chinese government continues with massive lending and money growth, despite a danger of overheating the economy. If Chinese banks cannot be reformed in time, an economic crash could be the result of financial market liberalisation (Engardio 2005).

Figure 3.5 China factors influencing investment decisions



Source: Developed for this research

3.4.2 Economy and GDP growth

China's GDP growth is an important factor influencing foreign investment decisions. The relationship between capital flows into a country and its GDP growth is significant (Fung, Iizaka, Lee & Parker 1999). According to Xu (2005), China should be able to maintain its GDP growth of at least 8% per annum for years to come, thanks to a large domestic demand and accelerated financial reforms. Consequently, the high growth rate could be challenging for fund managers, because equity returns tend to be low in high growth countries (Compton 2005).

However, this fast growth pattern is not without risk. China's current economic development relies heavily on investment and exports, which are easily affected by overheating in some industries and trade protectionism. This could result in a rise of non-performing assets and have an impact on the sound operation of the country's financial institutions and financial markets (Su 2005).

3.4.3 Current account and reserve surplus

China in the 21st century could be compared to Japan during the period 1953 to 1973, when Japan experienced similar GDP growth averaging 9.4% per annum. However, more importantly, the massive and growing reserve surplus of foreign exchange totaling US$450 billion (already rising to US$711 billion in May 2005) is a sign of assurance for foreign investors (Hoguet 2004). In fact, by continuous purchase of US Treasury bonds, China is financing the current deficit of the United States of America to the tune of US$106 billion or 21.3% of the total, compared to 18% by Western Europe and 14% by Japan (Cheong & Xiao 2003).

Many China-watchers expect the country's current-account surplus to rise to 7% or even 8% of GDP in 2005. China may still be poor, but it has become one of the world's biggest exporters of capital. China's central bank has chosen to pile up foreign currency reserves, many of which are invested in American Treasury bonds. Thanks to its own saving surplus and its recycling of savings, China had US$711 billion worth of reserves at mid-year, 2005 (*The Economist* September 2005).

3.4.4 Transparency and liberalisation

Another major factor in attracting foreign capital is the liberalisation of rules and regulations to create a transparent market system. A study by Henry (2000) showed that liberalisation will impact on the local stock market by increasing its equity premium, thereby lowering the cost of capital. On the other hand, liberalisation will make local equities increasingly responsive to global factors. As a result, the strategy of indexing across all emerging markets could no longer work. Fund managers must select specialised investments in specific targeted markets, which could benefit a country like China (Fernandes 2005).

However, Meredith (2005) commented that China's long road to honest capitalism could be compared to the civil rights movement in the United States of America. It took decades from Martin Luther King's era to the imperfect present.

3.4.5 Infrastructure and resources

Chinese leaders have expressed concern that the country will not be able to sustain economic growth without more efficient use of resources. The official *People's Daily* newspaper noted in an editorial that while China's gross domestic product accounted for 4% of the global total, its consumption of primary energy sources accounted for 12% of the global total; freshwater, 15%; aluminum, 25%; and cement, 50% (*Wall Street Journal* 2005)

3.4.6 Human rights and corruption

Human rights and corruption within China are frequently mentioned in many news articles and analyses on China. In a comparative study among emerging and developing countries, China ranks below most emerging countries on law enforcement, rule of law and high on corruption. In fact, its Transparency International's Corruption Perceptions Index (CPI) is the worst among seven developing countries (Allan, Qian & Qian 2004). Using the same index, Ketlar, Murtuza and Ketlar (2005) estimated that China's CPI cost the country at least US$18 billion worth of FDI due to investors' perceptions of the corruption issue.

In 2004, there were up to 74,000 group protests throughout China, with participation by more than 3.7 million people. The main issues were official corruption, land disputes and tax policies. Over 30,000 government officials were found guilty of corruption in the last three years, with an estimated US$84 billion loss in 2004 alone (Fenby 2005). In the same year, 461 judges were also convicted of corruption (Loke 2005)

Yan (2005) concluded that corruption in China has infiltrated, in breadth and intensity, across all economic sectors, geographical regions and reform periods.

3.4.7 Herding effect

Herding behaviour of institutional investors is well-known. A recent study by Wylie (2005) confirmed that European and American funds have strong herding tendencies. Attention on China's investment opportunities reached an all-time high after China's funds gained an average 63% return in 2002. The result was huge inflows of capital totalling US$840 million in 2003, nine times as much as in 2002 (Gibbs 2004).

The herding affect can be observed by the influx of players other than traditional large financial intermediaries. The Asian markets are rapidly maturing in the alternative investment area, in the same manner that United States of America and European markets did in the late 1980s and 1990s (Wang 2004). Other important entrants are Japanese investors (Wong 2005).

3.5 China factors: capital markets

Any investment decision in a company stock must first be weighed against the conditions of the country's capital market. Five important factors that investors require include stability, transparency, legal framework, settlement cost and tax and accounting policies. (CalPERS 2005).

3.5.1 Size and liquidity

The investment banking firm of JP Morgan estimated that US$55 billion of foreign portfolio investment went into Asia in 2004, of which 45% went to Hong Kong/ China. This amount should increase to US$65 billion in 2005. However, due to problems and reforms in domestic markets, major Chinese companies selected to go IPO overseas in Hong Kong and New York (Johnson 2005). While no one disputes its potential, China's capital markets are still at a sub-par level in comparison to other developing countries. Its banking sector is dominated by large but inefficient institutions (Allan, Qian & Qian 2004).

Even with planned financial reforms, the root cause of problems in capital markets appears to be the government's retention of control of the big banks and SOEs. As long as this situation remains, the pressure to allocate credit on the basis of political patronage rather than market efficiency will persist (EIU Viewswire 2005).

3.5.2 Investor protection

In the previously mentioned comparative study, Allan, Qian and Qian (2004) found that in the area of shareholder protection, China was behind the majority of emerging markets. Another study concluded that countries with English common-law origin provide the strongest shareholder protection. China lacks this tradition (LaPorta, Silanes, Shleifer & Vishny 1999).

Another research indicated that the earnings management of Chinese listed firms was mainly induced by 'tunnelling' activities of the controlling shareholders. Tunnelling is defined as the transfer of corporate resources away from firms for the benefit of the controlling shareholders (Liu & Liu 2003).

However, a revised version of the Securities Laws was issued on 31 October 2005 to include many provisions for investor protection and to increase inspections and enforcements against brokerages and issuers (DeWeaver 2006).

3.5.3 Capital control and currency convertibility

Hu (2004) reported that Chinese control on capital accounts and currency exchange created huge inflows of 'hot money' (funds from speculators instead of investors), giving rise to investor concern of an overheated economy. The remedy would be to introduce greater flexibility to the RMB rate, and eventually the complete liberalisation of capital accounts. If this step is taken, Bremner and Dawson (2005) believed that the loosening of the Chinese Yuan would boost the dollar value returns of Chinese companies, but might hurt sales of export-oriented companies.

However, the government focus has been the establishment of a properly regulated foreign exchange system, not the value of the currency itself. "It is always the same in China - the hardware is always there but the problem is the skills of the traders themselves," said Zuo Xiaole, chief economist at Galaxy Securities. 'Even the banks do not have this kind of knowledge.' (Balls & McGregor 2005, p.7).

3.5.4 Tax and accounting

From an investor's viewpoint, another major shortcoming of China's capital markets might be the lack of independent, professional auditors (Allan, Qian & Qian 2004). In another survey, LaPorta, Silanes, Shleifer and Vishny (1999) proved that countries with English common-law origin also provide more informative accounting standards and more efficient enforcement.

However, Hilton (2003) found that a global, harmonized, accounting standard may be preferable as comparability would be fairer to other accounting systems, such as those in China.

3.5.5 Banking crisis

China's bank assets have ballooned to almost US$3.7 trillion in 2004, or 210% of GDP, representing the highest ratio of any large economy. However, productivity of these assets is poor: China needs $5 of fresh capital to generate $1 of incremental output. Returns on assets (ROA) of these banks are the worst in Asia, only 0.5%

annually. Revenue generation by credit card operations is the most profitable sector of Western banks. However, for Chinese banks, only 12 million of 880 million cards issued are genuine credit cards (*The Economist* October 2005).

Most investors are waiting to see how the Chinese government reacts to the banking crisis. The estimated cost of NPL is about US$280 billion, sizable but representing only 18% of GDP. In addition to this problem, the IPOs of the Bank of China, the China Construction Bank, Minsheng Bank, the Bank of Communications and the Agriculture Bank were beset with the discovery of new fraud cases committed by senior management (Meredith 2005).

3.5.6 Domestic savings

Chinese investors reportedly have kept about US$1.48 trillion in resident savings accounts and US$1 trillion in corporate savings accounts, five times the capitalisation of domestic stock markets. However, according to a local economist, what the stock markets needs is not capital, but confidence (Chen 2005). This figure has since been revised to US$4 trillion (Browne 2006).

On the subject of savings, Kotlikoff found that over the next 40 years, the flood of Chinese savings could turn anticipated capital shortages into capital gluts world-wide. The potential impact is so large that global interest rates could drop by as much as a third by 2050, even with all expected budget deficits from Western countries. Those lower rates, in turn, could finance more business investment, boost productivity, and raise national incomes across the developed world (Mandel 2005).

3.5.7 Communication and language

Ladekarl and Zervos (2004) indicated that English in corporate documents and communications would enhance investors' favourable sentiment toward foreign companies. Other research was carried out on the readability of bi-lingual annual reports of 118 corporations in Hong Kong and Malaysia. Over all, different language versions produced different reading behaviour and might affect the decision-making process of readers (Courtis & Hassan 2002).

3.6 China factors: stock market

China's stock market has made good progress since 2003: growth of institutional investors, implementation of corporate governance, higher quotas for QFIIs, improvement in issuance frameworks, a shift to value investing and profitable large cap companies were targeted for listing. More progress has been predicted beyond 2004 (Green & He 2004).

Shum, manager of Invesco, a major QFII and asset management firm in Beijing, dispelled the four popular myths about China's stock market: overvalued A shares; dominated by speculators and manipulators; low quality of listed firms; and too much supply with too little demand. He found the daily reality is just the opposite (Leahy 2005)

3.6.1 Share structures

The government is finally taking action in selling off state-owned C shares in 1,400 listed companies in the Shanghai and Shenzhen stock exchanges. Holders of A shares will be compensated differently by a combination of cash, warrants and additional shares. Listing rules and procedures will be revamped to bring in more quality companies. The issue of B shares originally reserved for foreign investors would also be resolved afterwards by complete integration (Balfour & Bremner 2005). Therefore, this factor might no longer be applicable. The end result would be the removal of the overhang of all state-owned shares composed of two-third of market capitalisation of the stock market (*The Economist* August 2005).

In another reform move, CRSC now allows foreign investors to purchase A shares directly without going through QFII, but the shares are subject to a lock-up period (Chen 2005).

However, restriction on foreign ownership of any form might cause an equity premium to be paid by foreigners as evidenced in Switzerland (Stulz & Wasserfallen 1995).

3.6.2 Short selling rule

This factor might still hinder the hedging strategy of some hedge funds, but from the experience of regional stock exchanges such as Korea and Taiwan, the impact has not been significant (Chen 2005). On the other hand, market officials and regulators are concerned that short selling might damage the stock pricing structure due to its bearish bets. Contrary to this fear however, there is little global empirical research to support this theory (*International Securities Finance,* 2004).

According to Lamont and Stein (2004), short selling is normally undertaken by rational arbitrageurs, who exploit grossly overvalued stocks. Since the cost of borrowing stock and constraints by other institutional regulations would be a hurdle, short sellers know that shorting is profitable only with an abnormally overvalued price issue (Lamont & Stein 2004). In fact, most pricing pressures are caused by noise traders who are uninformed about corporate fundamentals or events. A tax or fee to increase the cost of short selling would drive these uninformed short sellers out of the market (Arnold, Butler, Crack & Yan 2005).

According to some CSRC official, the short selling rule is being reviewed and might be allowed in the near future (Balfour & Bremner 2005).

3.6.3 Quality of listed firms

Once the listing procedure has been reformed and implemented, there should be no shortage of qualified companies. The United States exchanges such as Nasdaq and NYSE and the European exchanges such as London and Frankfurt have been particularly active in looking for qualified Chinese companies to list. In 2004, Nasdaq added 16 Chinese companies to its listings, while LSE added 12. However, big companies prefer NYSE, which has 16 Chinese companies with a total of US$335 billion market capital, equal to half of China's stock market capitalisation (Weber & Bremmer 2005).

3.6.4 Volatility and liquidity

Long term investors might dread volatility, and China's stock market offers extreme volatility. However, hedge fund managers who manage to make money irrespective of market direction would welcome the opportunity. China is the ultimate inefficient frontier, with few players and few dollars chasing absolute returns (Friedlander 2005).

Furthermore, stock prices and trading volume are jointly determined by the same market dynamics. Low-volume stocks normally outperformed high-volume stocks and volume discounts are more pronounced for past winners than past losers. As a result, low-volume stocks would offer better returns (Wang & Chin 2003).

3.6.5 Corporate governance

The ownership base of Chinese listed companies is increasingly composed of institutional investors that require strict corporate governance in parallel to robust growth (King & Wood 2005)

Research has been carried out extensively on this China-specific factor. Lin (2001) has a long list of poor corporate governance practices of Chinese firms, including excessive power of management, insider control, weak transparency and lack of minority shareholders' rights. He attributed the shortcomings to cultural and political traditions, lack of competitiveness of markets, poor legal enforcement, weak debt and equity markets, but above all, continued state ownership and control. Hovey, Li and Naughton (2003) agreed that ownership structure and concentration have a significant impact on firm performance in China.

However, Shipman (2002) reported that in a survey of institutional investors completed by Thompson Financial, 68% considered that corporate governance was a secondary influence behind fundamentals and macroeconomic factors.

3.6.6 Enforcement of laws

Together with corruption, the lack of law enforcement in China appears to have been a major negative factor for foreign investors. China has enacted far more laws and regulations compared to other emerging countries, but from an enforcement view point, it could be said that laws are mere recommendations. Law enforcement officials usually initiate action only after the damage has been done (*China Daily* 2005).

On this problem, Pistor and Xu (2005) suggested that administrative governance should be adopted as an alternative to legal government. This strategy would help improve operations in the short-term, during which time, long-term liberalisation and development programs could be implemented.

3.6.7 Information flows

While availability of information is crucial for the analysis process, some hedge funds prefer to exploit the asymmetry. Much money has come into Asian hedge funds in recent years and the main reason for this flow is the recognised inefficiency of markets, especially information asymmetry (Knab 2005).

3.6.8 Behaviour of local investors

Local investors are well-known for their predictable trading pattern, with a strong herding mentality and overconfident bias. They exhibit the strong disposition effect of selling winners early and holding losers too long. Most domestic investors are small and less experienced, with less diversified portfolios, than their foreign counterparts (Lu, 2005).

Chen, Kim, Nofsinger and Rui (2003) agreed that Chinese investors are less sophisticated (trading mistakes, disposition effect, overconfident bias) than their Western counterparts. However, since foreign institutional investors are more rational, their participation in the local stock market should help its stability (Cheong & Xiao 2003).

3.6.9 Transaction cost

Investors in emerging markets reserve an annual investment cost between 2% to 5%, including transaction cost, operating cost and management fees. As a result, portfolios have a lower return if managers fail to control these costs (Masters 2002). In addition to the above costs, managers have to account for the following hidden costs: the liquidity cost, price impact cost, execution quality cost and information asymmetry cost (Kryzanowski 2001).

Another China-specific cost is the excessive fee collection of regulatory authorities, from local government to the central administration. The growing problem of arbitrary and increasing fee collection stems from budget shortfalls and growing bureaucracies (Lin 2005).

However, the cost issue might not be clear to investors. In some major institutions, trading costs are bundled together as managers try to maximise the profit of their responsible sector. Bundling would in effect cover the accurate return of a portfolio. As a result, it is difficult to identify the exact performance of each fund's return (Schwartz & Steil 2004).

3.6.10 Management team

While Chinese managers are often praised for their hard-working attitude, managers of listed firms are blamed for many shortcomings. Problems are traced to the political system that appoints successful bureaucrats as managers. Since they are promoted based on the GDP growth of their province or township, they concentrate on projects that benefit local tax revenue, work force, investments and products. Also, they take excessive risks, as the government pays for failures, and management takes a profit from success (DeWeaver 2005)

3.7 Research gap, theoretical framework and hypotheses

The above literature review has generated theories on hedge fund strategies and the influencing factors on investment decisions. In the process of the literature review,

applicable factors involving emerging markets and China's stock market were extracted from the extant body of knowledge, as presented on Table 3.2, page 89. The result has not only exposed a research gap, but has also helped in formulating a theoretical framework and hypotheses, based on an analysis of the research problems and questions.

3.7.1 Research gap

The global factors influencing decision-making have been subject to research based mainly on the behaviour of mutual fund managers; but no research has been conducted involving hedge fund managers. It is therefore assumed that hedge fund managers exhibit similar behavioural patterns to mutual fund managers. This assumption must be tested.

The 8-step process of decision-making of fund managers, as depicted in Figure 3.3, page 55, was constructed by piecing together numerous articles and studies on each separate step of the subject. There has been no comprehensive study on an holistic theory. The objective of this study is to bridge this research gap.

Furthermore, there is no literature on the application of these strategies and global factors to China's capital markets or its stock market. Some hypotheses have been proposed through news articles, but these hypotheses have not been put to a scientific test. Again, filling the gap in the body knowledge on this relationship would be one of the contributions of this study.

3.7.2 Research problem

The research problem for this study is ***'to identify which factors influence investment decisions by international hedge fund managers in relation to China's stock market'***. The influencing factors could be positive or negative, the direction of factors could be 'push' or 'pull' and the strength of each factor could be measured and ranked.

3.7.3 Research questions

A number of questions are generated to solve the above problem. They are:

1. What are the most important global factors that influence investment decisions of hedge fund managers in global stock exchanges?
2. What are the most important factors that influence investment decisions of hedge fund managers in China's stock market?
3. Are there differences between global factors and China factors in terms of ranking in importance?
4. Is there a relationship between size of fund and influencing factors on investment decisions?
5. Is there a relationship between analysis and trading style of fund managers and influencing factors on investment decisions?
6. Is there a relationship between personal expertise of fund managers and influencing factors on investment decisions?

3.7.4 Theoretical framework

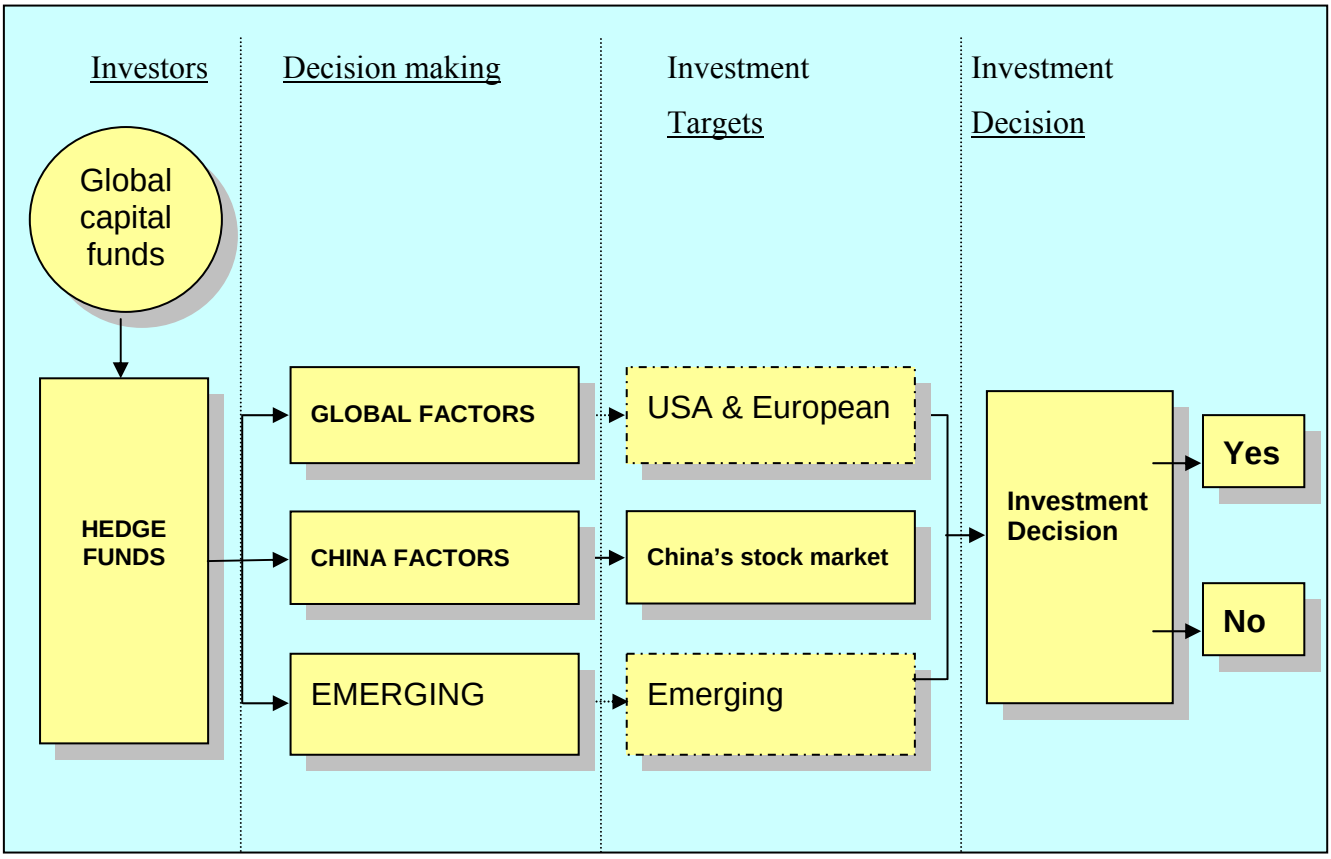
From the research questions and literature review, a conceptual model is synthesised to explain the relationships among several factors or variables. This network of relationships is known as a theoretical framework (Sakaran 2003).

The extracted variables in this study include:

(a) Dependent variable: 'investment decision' by hedge fund managers;
(b) Independent variables: 'influencing factors', that are categorised into two principal constructs: 'global factors' and 'China factors'. A summary list of these factors is presented in Table 3.2, page 90.

The relationship among the above variables can be explained in the theoretical framework depicted in Figure 3.6.

Figure 3.6 Theoretical framework



Source: Developed for this research

3.7.5 Research hypotheses

Once the relationship between the important variables are identified and established, the resulting hypotheses are tested through appropriate statistical analysis (Sekaran 2003).

1) Hypothesis 1:

H0: There are no differences between global factors and China factors in terms of ranking of importance.

H1: There are differences between global factors and China factors in terms of ranking of importance

2) Hypothesis 2:

H0: There is no relationship between fund size and influencing factors on investment decisions.

H2: There is a relationship between fund size and influencing factors on investment decisions.

3) Hypothesis 3:

H0: There is no relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.

H3: There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.

4) Hypothesis 4:

H0: There is no relationship between personal expertise of fund managers and the influencing factors on investment decisions.

H4: There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.

The relationship between the research questions and hypotheses is depicted in Table 3.1 (page 88). A summary of all the factors influencing investment decisions extracted from the literature review is presented in Table 3.2 (page 90-92).

3.8 Conclusion

The literature reviewed in this chapter has examined the global factors which influence investment decision-making processes of fund managers. Although none of the literature encompassed all aspects of the 8-step process, from setting objectives to measuring performance, research has dealt extensively with each separate subject to give details on how the investment decisions are being executed.

The pattern of equity flows to emerging markets was identified through push and pull factors that researchers have studied through official data of government and financial institutions. Even though the collected data may not be specific enough to establish

the exact flow to each country, the generalisation was conducted under rigorous conditions.

However, the research gap is most profound when China factors are involved. Very few empirical studies have been completed on the influencing factors on investment decisions by fund managers entering China's stock market. Most literature involved the decision-making processes of FDI, which is inherently different from portfolio investment where passive participation is the norm. As a result, justification of this research would be especially relevant.

Finally, all global and local factors were extracted from the literature as per the Summary List in Table 3.2, to form independent variables for the theoretical framework. Research questions were proposed and hypotheses were constructed.

Chapter 4 discusses in full detail the research methodology used to test these hypotheses.

Table 3.1 Relationship between research questions and hypotheses

Link to Literature	Research questions	Research Hypotheses
Section 3.2	**Research question # 3** Are there differences between global factors and China factors in terms of ranking in importance?	**Research hypothesis #1** There is difference between global factors and China factors in terms of ranking in importance?
Section 3.3	**Research question # 4** Is there a relationship between size of fund and influencing factors on investment decisions?	**Research hypothesis #2** There is a relationship between fund size and influencing factors on investment decisions.
Link to Literature	**Research questions**	**Research Hypotheses**
Section 3.4 3.5 and 3.6	**Research question # 5** Is there a relationship between analysis and trading style of fund managers and influencing factors on investment decisions?	**Research hypothesis #3** There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.
All sections	**Research question # 6** Is there a relationship between personal expertise of fund managers and influencing factors on investment decisions?	**Research hypothesis #4** There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.

Source: Developed for this research

Table 3.2 Summary of influencing factors on investment decision-making processes of hedge funds

Influencing Factors on Decision Making	Proposed by Authors
A. GLOBAL FACTORS	
1. Alpha or beta return	Black (2004)
2. Investment strategy	Friedland (2004)
3. Capital asset pricing model	Sharp (1992)
4. Size of company	*Investor Relations Business* (2002)
5. Book-to-market ratio	Fama & French (1996)
6. Momentum trading	Gencay (1998); Shu (2005)
7. Overload of information	Barber & Odean (2001)
8. Top-down analysis (macro)	Cooper & Gulen (2001)
9. Bottom-up analysis (value)	Hagstrom (2001)
10. Technical analysis	Oleivera (2005)
11. Portfolio optimisation	Arnswald (2001); Barberis & Shleifer (2003)
12. Econometric model	Arnswald (2001)
13. Herding	Griffin & Harris (2003); Tsang (1998)
14. Noise trading	Delong & Shleifer (1989); French & Roll (1986)
15. Buy on rumour	Peterson (2003)
16. Market-timing	Campbell & Viceira (2000); Shen (2002)
17. Hedging	Amenc & Martellini (2003)
18. Changing asset weight	Bennett, Sias and Starks (2001)
19. Low entry point	Arnswald (2001)
20. Corporate news & events	Kothari (2001)
21. Change in earning estimates	Malkiel (2004)
22. Trading volume	Chan & Lakonishok (2002)
23. Insider trading	Derwin (2004); Dettmer (2003)
24. Dividend policy	Dechow & Hutton (2000)
25. Institutional buying or selling	Bennett & Starks (2001)
26. Availability of tradable derivatives	Arnswald (2001)
27. Trading cost	*Investools* (2005)
28. Rules & restrictions of funds	Arnswald (2001)
29. Personal sentiment	Gompers & Metrick (1999); Schwager (2005)
30. Time & resource limits	Arnswald (2001)
31. Performance pressure	Masatli & Ok (2002), Lo (2002)
32. Bonus & awards	Shapira & Venezia (2000); Griffin, Harris & Topaloglu (2003)
	(continued)

33. Reversal of market & sector trend	Grinblatt & Titman (1994)
34. Inflows/outflows of investor funds	Aggarwald & Wu (2003); Beh & Abonyi (2000)
35. Analyst recommendation	Gencay (1998)
36. Corporate governance	Shipman (2002)
B. EMERGING MARKETS FACTORS	
1. US interest rate	Tesar & Werner (1992)
2. US market condition	Richards (2004); Griffin, Nadari & Stulz (2003)
3. US economy slowdown	Taylor & Sarno (1997)
4. Returns in recipient country	Stulz (1997); Bohn &Tesar (1999)
5. Diversification strategy	Hart &Dijk (2000); Siegel (2005)
6. Home bias & cross-listed	Berkel (2004); Brennan & Cao (1997)
7. Familiarity & geography	Stulz (1997); LaPorta et al (1997); Acemoglu et al (2002)
8. US foreign policy	Ladekarl & Zervos (2004)
9. Herding	Gumbel (2001); Gelos & Wei (2002)
10. Trend chasing	Hart & Dijk (2000)
11. Political stability of recipient country	Aggarwal & Klapper (2003)
12. GDP global weight	Vassalou (2003)
13. Current account & foreign reserve	Aggarwal & Klapper (2003)
14. Credit history	Warnovk & Cleaver (2002)
15. Transparency & legal system	Ladekarl &Zervos (2004); Gelos & Wei (2002*)
16. Human rights & corruption	Gumbel (2001)
17. Size & liquidity of capital markets	Kaminsky & Lyons (2002); Klapper & Wysocki (2003)
18. Investor protection	Ladekarl &Zervos (2004)
19. Currency convertibility	Gumbel (2001)
20. International custodian	Ladekarl & Zervos (2004)
21. Cost of ownership & entry	Dahlquist & Robertson (2001)
22. Communication & language	Estrada (2000)
23. Size & liquidity of listed firms	Portes & Rey (2001)
24. Quality and growth rate	Edison & Warnock (2003)
25. Accounting practice	Warnovk & Cleaver (2002)
26. Corporate governance	Rouwenhorst (1998)
27. Right valuation	Dahlquist & Robertson (2001)
28. Management team	Bae, Chan & Ng (2002)
	(continued)

B. CHINA FACTORS	
1. Political system	Houget (2004); Gordon & Li (2001); Yeh (2005)
2. Economy & GDP growth	Compton (2005); Fung et al (1999)
3. Current account & reserve surplus	Cheong & Xiao (2003); *The Economist* (2005)
4. Transparency	Henry (2000); Meredith (2005)
5. Infrastructure & resources	Su (2005); *Wall Street Journal* (2005)
6. Human rights & corruption	Allan, Qian & Qian (2004); Engardio (2005); Fenby (2005); Loke (2005); Yan (2005)
7. Herding effect	Wylie (2005); Gibbs (2004); Wang (2004)
8. Size & liquidity of capital markets	Johnson (2005), Allen, Qian & Qian (2004)
9. Investor protection	LaPorta et al. (1999); Liu & Liu (2003); Allen, Qian & Qian (2004)
10. Currency convertibility	Hu (2004); Bremner & Dawson (2005)
11. Tax & accounting system	Hilton (2003); Allen, Qian & Qian (2004)
12. Banking crisis	Ball & McGregor (2005); Meredith (2005)
13. Domestic savings	Chen(2005); Mandel (2005)
14. Communication & language	Ladekarl &Zervos (2004); Courtis & Hassan (2002)
15. Share structure issue	Balfour & Bremner (2005); Chen (2005)
16. Short selling rule	Chen (2005); Lamont & Stein (2004)
17. Quality of listed firms	Weber & Bremner (2005)
18. Volatility & liquidity	Wang & Chin (2003); Friedlander (2005)
19. Corporate governance	Lin (2001); Leahy (2005); King & Wood (2005)
20. Dividend and profit repatriation	Green (2001); Cockerill (2000)
21. Information and data flow	Knab (2005); Lu (2005)
22. Potential growth	Miller (2005)
23. Enforcement of laws	Pistor & Xu (2005)
24. Transaction cost	Lin (2005); Kryzanowski (2001); Masters (2002)
25. Management team	DeWeaver (2005)

Source: Developed for this research

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

In the previous chapter, a theoretical framework was developed and hypotheses were established. This chapter presents the justification for selecting a specific survey instrument in a quantitative method to collect data to test these hypotheses.

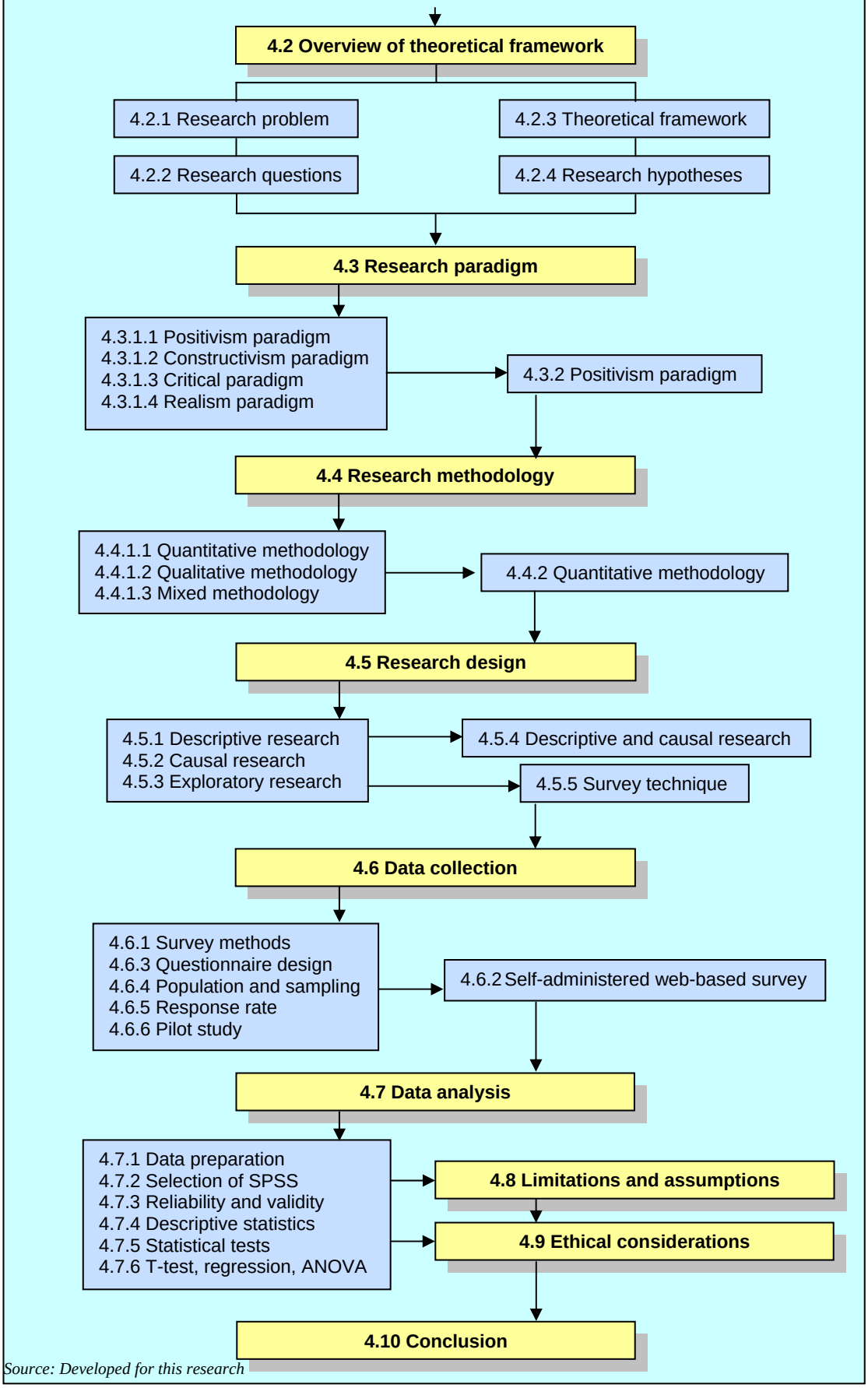
4.1.1 Objective

The objective of this chapter is to select the most suitable research process to identify the influencing factors on investment decisions made by hedge fund managers in relation to China's stock market. The chapter also presents techniques used in data collection and analysis to achieve reliability and validity of research findings.

4.1.2 Structure

This chapter consists of ten sections as shown in Figure 4.1. The chapter begins with an overview of the theoretical framework derived from the research questions and hypotheses extracted from the literature review in Chapter 3. The chapter then examines alternative research strategies and methodologies to justify the selection of the most suitable instrument for this project. Section 4.3 reviews the four research paradigms and presents a justification for the selection of positivism. Section 4.4 describes the three popular methodologies and a justification for the selection of the quantitative method. Section 4.5 reviews the functions and techniques of research methods and presents a justification for the use of the survey instrument as the most appropriate tool. Section 4.6 justifies the selection of a self-administered web-based questionnaire for the survey, as well as further data collection techniques including the questionnaire design, population and sampling, and the expected response rate. Section 4.7 deals with data analysis processes and techniques which include data preparation, the choice of the SPSS software program, reliability and validity of data, data interpretation with statistics and tests for this project. The chapter concludes with limitations and assumptions in Section 4.8 and ethical considerations in Section 4.9.

Figure 4.1 Structure of Chapter 4



Source: Developed for this research

4.2 Overview of theoretical framework

The literature review has generated theories for hedge fund strategies and influencing factors on investment decisions. Applicable factors involving emerging markets and China's stock market were extracted from the body of knowledge, as presented on Table 3.2, page 90. The result has exposed a gap, and on the other hand, has helped in formulating a theoretical framework and hypotheses after analysing the research problem and questions.

4.2.1 Research problem

The research problem for this study is ***'to identify which factors influence investment decisions by international hedge fund managers in relation to China's stock market'***. The influencing factors could be positive or negative, the direction of factors could be 'push' or 'pull' and the strength of each factor can be measured and ranked.

4.2.2 Research questions

A number of questions are generated to solve the above problem. They are:

1. What are the most important global factors that influence investment decisions of hedge fund managers in global stock exchanges?
2. What are the most important factors that influence investment decisions of hedge fund managers in China's stock market?
3. Are there differences between global factors and China factors in terms of ranking in importance?
4. Is there a relationship between size of fund and influencing factors on investment decisions?
5. Is there a relationship between analysis and trading style of fund managers and influencing factors on investment decisions?
6. Is there a relationship between personal expertise of fund managers and influencing factors on investment decisions?

4.2.3 Theoretical framework

From the research questions and literature review, a conceptual model is synthesised to explain the relationships among several factors or variables. This network of relationships is known as a theoretical framework (Sekaran 2003).

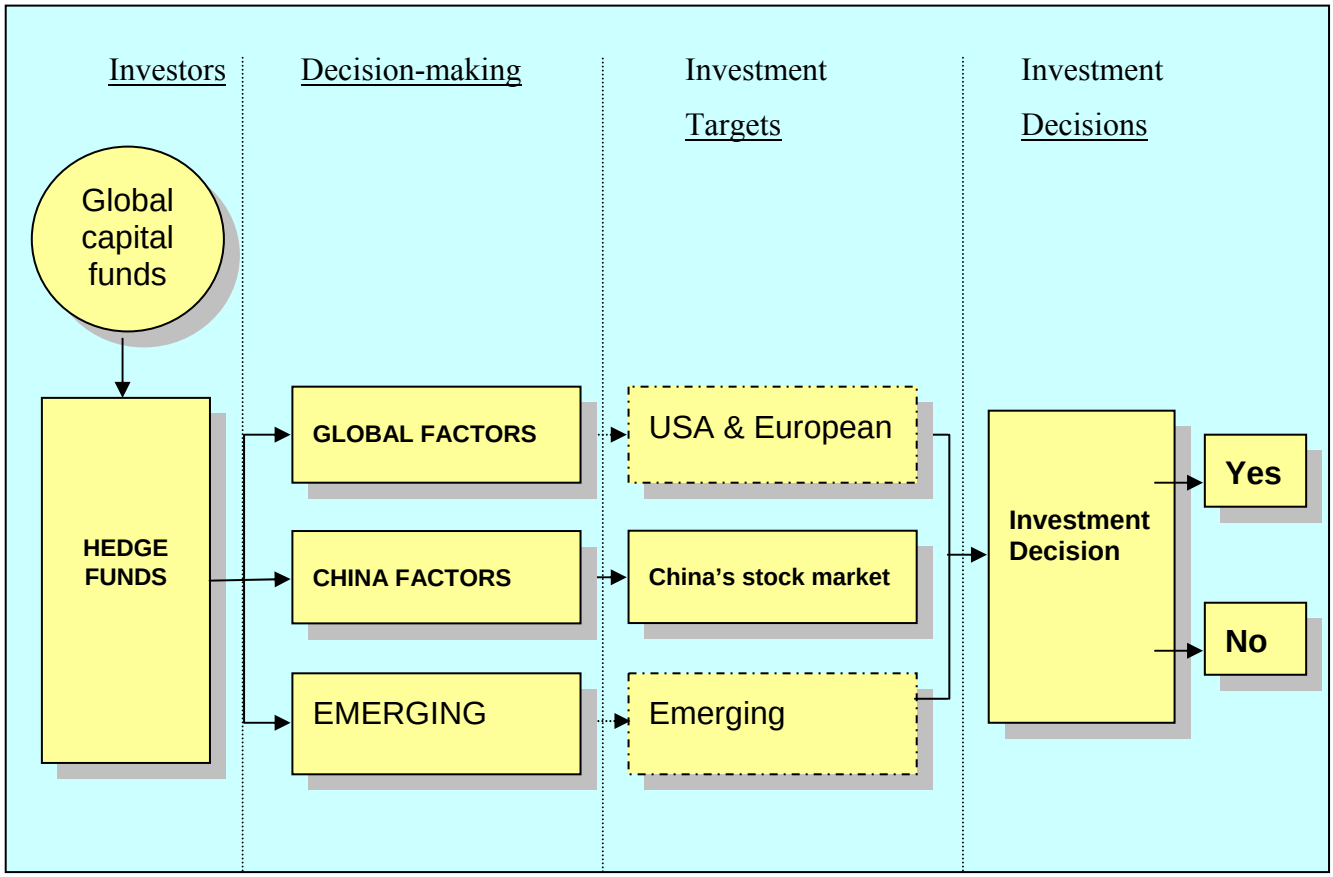
The extracted variables in this study include:

(a) Dependent variable: 'investment decision' by hedge fund managers

(b) Independent variables: 'influencing factors' that are categorised into two principal constructs: 'global factors' and 'China-related factors'. A summary list of these factors is presented in Table 3.2, page 90.

The relationship among the above variables is explained from the theoretical framework, as depicted in Figure 4.2.

Figure 4.2 Theoretical framework



Source: Developed for this research

In this framework, the flow of capital is directed from global capital funds to hedge funds where investment decisions are influenced by global, emerging markets and China factors. Different investment targets are selected for different strategies, and investment decisions are determined accordingly.

4.2.4 Research hypotheses

Once the relationship between important variables are identified and established, resulting hypotheses are tested through appropriate statistical analysis (Sekaran 2003).

1) Hypothesis 1: There are differences between global factors and China factors in terms of ranking of importance.
2) Hypothesis 2: There is a relationship between fund size and influencing factors on investment decisions.
3) Hypothesis 3: There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.
4) Hypothesis 4: There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.

The relationship between the research questions and hypotheses is depicted in Table 4.1 (page 98) and Figure 4.3 (page 100) which represent the complete research process as outlined in this chapter.

4.3 Selection of research paradigm

Crotty (1998) suggested that four questions must be asked to ensure the appropriate selection of research design. They include:

- What epistemology is embedded in the research (objectivism, subjectivism)?
- What theoretical perspective stood behind the methodology (postpositivism, interpretivism, critical theory)?
- What methodology governed the choice (experimental, survey, ethnography)?
- What techniques and procedures were chosen (questionnaire, interview, focus group)?

Table 4.1 Relationship between research questions and hypotheses

Link to Literature	Research questions	Research Hypotheses
Section 3.2	**Research question # 3** Are there differences between global factors and China factors in terms of ranking in importance?	**Research hypothesis #1** There is difference between global factors and China factors in terms of ranking in importance?
Section 3.3	**Research question # 4** Is there a relationship between size of fund and influencing factors on investment decisions?	**Research hypothesis #2** There is a relationship between fund size and influencing factors on investment decisions.
Section 3.4, 3.5 and 3.6	**Research question # 5** Is there a relationship between analysis and trading style of fund managers and influencing factors on investment decisions?	**Research hypothesis #3** There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.
All sections	**Research question # 6** Is there a relationship between personal expertise of fund managers and influencing factors on investment decisions?	**Research hypothesis #4** There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.

Source: Developed for this research

Creswell (2003) proposed a 3-step research process which he called 'elements of inquiry' (knowledge claims, inquiry strategies, conceptualised methods), 'research approaches' (qualitative, quantitative, mixed methods) and 'design process' (questions, theoretical lens, data collection, data analysis, write-up, validation).

Guba and Lincoln (1994) named positivism, critical theory, constructivism and realism as the four principal research paradigms that underlie the philosophical assumptions of the researcher. Simply stated, a researcher understands the paradigm operated under before selecting a suitable methodology for the research.

4.3.1 Alternative research paradigms

A paradigm is defined as a fundamental perspective adopted by scientists in their search for meaning and could be viewed as the basic belief system or world view that defines the nature of the world and the individual's position and relationship with that world (McMurray 2005). A paradigm could be described as the framework to define a research subject, research questions, research process and result interpretation (Ritzer 1975).

According to McMurray (2005), the philosophical assumption behind the alternative research paradigm could be explained as in Table 4.2. In each paradigm, the ontological question would be the form and nature of reality and what should be known about it. The epistemological question would be the relationship between the researcher and the research project, or the knower and the knowable. The methodological question would be the way in which researcher discovers or creates knowledge.

4.3.1.1 Positivism paradigm

The ontological assumption of positivism is that the world exists externally, characterised by natural laws and can be observed objectively in a scientific way (Easterby, Thorpe & Lowe 1991; Perry, Riege & Brown 1999).

The epistemological assumption is that the researcher is independent of the research project, value and bias free, with no influence on the collected data or research result (Creswell 2003).

The methodological approach is restricted to the discovery and explanation of facts. Behaviours are described on the basis of facts and observations collected by the researcher, using theories and frameworks that the researcher has developed. It therefore involves scientific, experimental, empiricist, quantitative or deductive approaches (Ticehurst & Veal 2000). Furthermore, this paradigm emphasises value-free theory testing rather than theory building (Guba & Lincoln 1994).

Figure 4.3 Overall summary of the process of this research

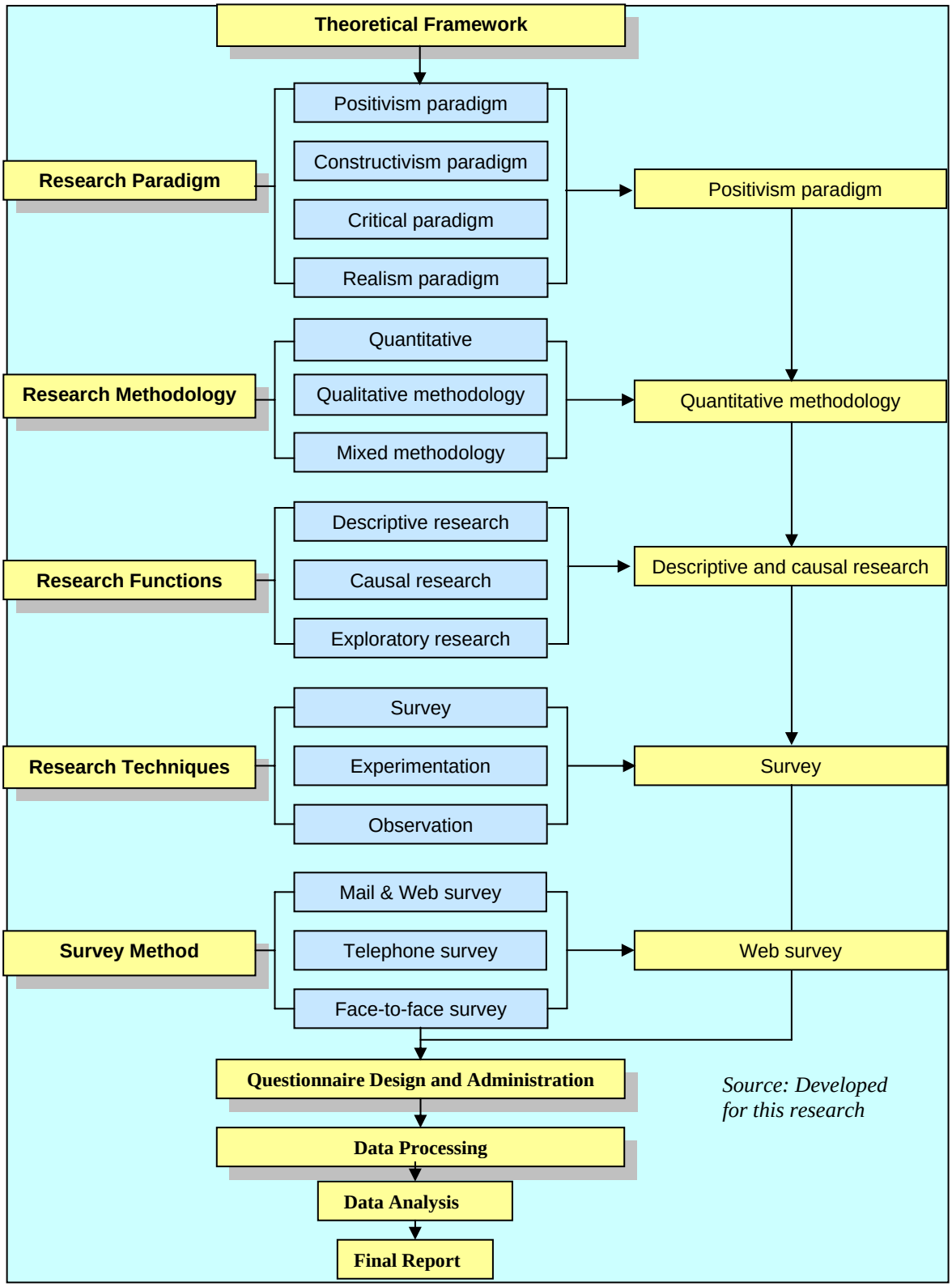


Table 4.2 Assumptions of research paradigms

Assumptions	*Positivism*	*Constructivism*	*Critical theory*	*Realism*
Ontology	Single reality that could be understood and characterised by science	Multiple realities depending on individual perception	Social reality is based on historical, political, cultural values and could be trans-formed	Reality can only be imperfectly and probabi-listiccally understood
Epistemology	Researcher is separate from process, findings are objective and bias-free	Researcher and responders create findings jointly	Interactive links between researcher and subjects to transform reality	Researcher is part of the process but tries to remain objective
Methodology	Quantitative, testing of hypotheses, survey and experiment-tation techniques	Qualitative, generating theory, active participation in process	Qualitative, critical theory, focus group approach	Mixed methods, emphasising in triangulation

Source: McMurray (2005)

According to Phillips and Burbules (2000), key assumptions of the positivism paradigm include:

- Evidence established in research is always imperfect and fallible. That is why researchers use null hypotheses.
- Research is the process of making claims, then refining or abandoning them. Most quantitative researches start with the test of a theory.
- Data, evidence and rational considerations shape knowledge.
- Research seeks to develop relevant true statements that can explain or describe the situation or causal relationship.
- Being objective is the essential part of a competent inquiry.

4.3.1.2 Constructivism paradigm

Often combined with interpretivism, the constructivist ontology assumes that truth is subjective, and that reality is constructed and arises out of social interaction. This paradigm assumes that different perceptions result in different realities that are based on individual mental constructions socially or experimentally (Perry, Riege & Brown 1999).

The epistemology of the constructivist paradigm is that the researcher and the subjects of the research should be interactively linked to literally create the 'findings' (Guba & Lincoln 1994). The researcher develops subjective meanings from experience, often varied and multiple, creating a complexity of views instead of simplicity. Rather than starting with a theory as positivists, constructivists generate or inductively develop a theory or pattern of meaning (Creswell, 2003).

The research question in the constructivist paradigm often determines the suitable methodologies which may include ethnographies, case studies, action researches and grounded theories (McMurray, 2005).

4.3.1.3 Critical paradigm

Critical theorists believe that research should contain an action agenda for reform to better the lives of participants, institutions which participants live or work, and the researcher's life. It is also called the advocacy/participatory paradigm (Creswell 2003).

According to this paradigm, a critical view of reality challenges the dominant social values through critique and analysis of powerful vested interests (McMurray 2005).

The epistemology of the critical paradigm asserts that researcher and participant are interactively linked in a subjective relationship and knowledge is value-dependent (Guba & Lincoln 1994). The purpose of the research is to expose myths to empower victims of oppression, domination and exploitation (McMurray 2005).

Critical theorists argue that each researcher influences data in many ways as people respond differently in different settings. The purpose is to dispel myths and ideology associated with social phenomena to bring forth changes and reforms (McMurray 2005).

Kemmis and Wilkinson (1998) summarised the key features of the critical paradigm as follows:

- Researcher advances an action agenda for change;
- Studies often begin with an important issue or stance on society's problem and need for empowerment;
- The aim is to create political debates and discussions to enable changes;
- The inquiry is completed 'with' others, rather than 'on' or 'to' others.

4.3.1.4 Realism paradigm

The ontology of the realist paradigm accepts that reality might be imperfect and probably apprehended, but it is the only reality to be discovered or explained (Guba & Lincoln 1994). Perry, Riege and Brown (1999) ventured that perception is not reality and many perceptions need to be triangulated to arrive at a better picture of reality.

The epistemology of the realist paradigm focuses on objectivity, but not dualism. Data should be collected and triangulated from a variety of sources to reflect different viewpoints (Guba & Lincoln 1994). Instead of emphasising methods, researchers understand that the problem is most important (Rossman & Wilson 1985).

According to Creswell (2003), realism or pragmatism offers the following assumptions:

- Realism is not committed to any one system of philosophy or reality;
- The realist is free to select his research methods, techniques or procedures;
- The realist often uses mixed methodologies rather than subscribing to just quantitative or qualitative methods;
- Truth is what works at the time;
- The realist looks to 'what' and 'how' to research based on its intended consequences;
- The realist understands that research always occurs in social, historical, political and other contexts;
- We need to stop asking questions about reality and the laws of nature. We simply like to change the subject.

4.3.2 Justification for the selection of the positivist paradigm

Reviewing the four paradigms and implications on the selection, positivism is chosen for the following reasons:

(a) Ontologically, the financial world of stock markets and investment decisions is an external world, objectively positioning itself without any influence from any individual perceptions or desires;

(b) The world of stock markets concerns mainly with quantifiable results, there is no possible way to construct or change any different perception or reality;

(c) Epistemologically, the researcher is independent of the research project, free of bias and personal value, without influence on the collected data or research result;

(d) Researchers cannot have any links or subjective relationships with participants, and therefore cannot fabricate findings or follow a personal agenda;

(e) The objective of this research is to test hypotheses regarding the influencing factors on investment decisions, not to build theory or implement reform;

(f) Finally, in the financial world, objectivity is essential in order to explain phenomena and causal relationships.

In summary, the main focus of this research is to make measurements in a systematic and statistical way to create reliability, validity and generalisation of these measurements and its predictive cause and effect (Casell & Symon 2004).

4.4 Selection of research methodology

After determining a research paradigm, researchers select strategies of inquiry or methodologies. Alternative methodologies have multiplied over the years together with increasing technological capability to handle complex analysis. However, major strategies used in social science are still concentrated on three methodologies: quantitative, qualitative and mixed methods (Creswell 2003).

4.4.1 Alternative research methodologies

Notable differences between quantitative and qualitative research can be highlighted in three aspects:

- the qualitative method relies on insights and the conceptual abilities of the researcher while the quantitative method is bounded by statistical rules and formulas (Cooper & Emory 1995);
- the qualitative method probes deeper with less structure, hence is useful in exploratory works (Jarratt 1996);
- the results of a qualitative method are often reported in words, whereas numbers are presented in a quantitative method (Creswell 2003).

The comparison between quantitative and qualitative methods is summarised in Table 4.3.

Table 4.3 Comparison between quantitative and qualitative methods

Area	Quantitative method	Qualitative method
Objective	Quantification of results	In-depth understanding
Theory	Hypotheses testing	Theory generating
Data	Specific and precise	Rich and subjective
Approach	Structured	Largely unstructured
Sample size	Large	Small
Representativeness	Yes, if random	No
Interviewer skill	Low to moderate	High
Length of interview	Short	Long
Reliability	High	Low
Validity	Low	High

Source: Davis (2005); Hussey and Hussey (1997)

4.4.1.1 Quantitative methodology

Ticehurst and Veal (2000) defined quantitative research as the quantification of relationships between variables such as weight, time, performance and technical measurements. These relationships are explained by the use of statistics such as correlations, frequencies or mean variances. Recently, quantitative strategies have involved complex experiments with multiple variables and elaborate structural equations (Creswell 2003).

Quantitative research is most suitable when variables can be quantified and measured, where hypotheses can be created and tested, and when inferences and generalisations can be drawn from samples of a population (Gay & Diehl 1992). Most quantitative research tends to be sequential in nature, due to the nature of the core data collection (Ticehurst & Veal 2000).

The most common quantitative methods are observational techniques, experimentation and survey techniques (Cooper & Schindler 1998). Experiments could be true experiments with random assignment of subjects to treatments, or quasi-experiments that use non-randomised designs (Keppel 1991). Surveys include cross-sectional and longitudinal studies with questionnaires or interviews to collect data, with the intent to generalise from samples to a population (Babbie 1990).

4.4.1.2 Qualitative methodology

Qualitative research methods comprise interpretive techniques which seek to describe, decode, translate and explain the meaning, not frequency, of the phenomena in a social world (Van Maanen 1983). Researchers are not bounded by any particular methodology but rather use diverse tools and methods according to the requirement of problem resolution (Denzin & Lincoln 1994).

Qualitative research is most suitable when 'rich' information about small number of subjects is needed, or when flexible or informal approach is desirable, or when the population involved is the best to analyse and describe situations in their own words (Ticehurst & Veal, 2000).

The most common qualitative strategies include ethnographies, grounded theory, case studies, phenomenological research, narrative research and critical theory (Creswell, 2003). Techniques used in qualitative methods include in-depth interviews, group interviews or focus group, participant observation and ethnographies (Ticehurst & Veal, 2000).

4.4.1.3 Mixed methodology

The mixed method strategy was proposed by Campbell and Fiske (1959) when their 'multi-method matrix' was used to examine multiple approaches in data collection. Creswell (2003) added that limitations and inherent biases in any method could neutralise or cancel biases of the other method. Triangulation of data sources could be a means to converge across quantitative and qualitative methods.

Creswell (2003) pointed out three procedures often employed by mixed methodologists:

- Sequential procedures: in which the researcher seeks to elaborate or validate his findings of one method by another method;
- Concurrent procedures: in which researcher converges quantitative and qualitative data to synthesise into a comprehensive analysis;

- Transformative procedures: in which a theoretical lens provides a framework for research design with both methods used to collect and analyse data.

4.4.2 Justification for the selection of the quantitative methodology

Reviewing the three methodologies and their implications on the selection, the quantitative method is chosen in this research for the following reasons:

(a) The quantitative method is most suitable for the positivist paradigm, where objectivism is the core assumption;
(b) Investment decisions in the context of money management are based on quantifiable measurements, benchmarked against market indices or interest rate;
(c) Personal bias and heuristics might be involved in investment decision, but this factor is considered as negative and interfering in objective judgment of traders; as a result, its effect is marginal among institutional investors;
(d) There is no construction of new theory or implementation of any action agenda in this research; theories and hypotheses are developed to be tested and validated;
(e) Data are collected from a large sample to obtain results that are representative of the population;
(f) Data analysis is based on statistical techniques;
(g) Generalisation of results is expected;
(h) Almost all the academic studies of previous researchers on financial markets as reviewed in the literature section in Chapter 3, have been conducted under quantitative methods using measurable variables.

In view of the selection of a quantitative methodology, the following weaknesses are acknowledged:

(a) Collected data do not reflect the richness and diversity of the hedge fund industry;
(b) Generalisation might not be statistically projected as assumed;
(c) Mixed methodologies might offer a better alternative: the validity of quantitative survey results might be triangulated with a qualitative case study. However, limited time and financial resources do not allow such an approach

4.5 Quantitative research design: functions and techniques

According to Zikmund (2003), business research can be classified on the basis of function or technique. The function or purpose of research can be exploratory, descriptive or causal. The employed techniques include observation, survey or experiment. Sekaran (2003) also cited three purposes of research: exploration, description and hypothesis testing. Gay and Diehl (1992) broadened the classification to include also historical and associative research.

4.5.1 Descriptive research

The major purpose of descriptive research is to describe characteristics of a population or a phenomenon. The process is to determine answers to questions of *who, what, where, when* and *how*. The end result is a systematic description that is factual and accurate, and feasible for statistical calculations (Zikmund 2003).

Data obtained from descriptive research enable readers to understand characteristics of a group in a given situation, offer an overview of all aspects of the subject, contribute new ideas and simplify decision-making processes (Sekaran 2003).

4.5.2 Causal research

The objective of causal research is to identify variables that might cause certain behaviour and to establish cause-and-effect relationships between these variables (Hussey & Hussey 1997). To detect causality, one variable is held constant while measuring changes in other variables. Most causal research relies on experimentation and simulation (Cooper & Schindler 1998).

Causal research is difficult and complex, especially when dealing with personal attitudes and behaviours. Researchers may never be certain that one variable and not others has influenced the causal relationship (Zikmund 2003).

4.5.3 Exploratory research

Exploratory research is used when researchers lack a clear idea of the problem and hope that further research would provide conclusive evidence. Exploratory research could also be used to clarify an ambiguous problem or to conclude that a problem does not exist (Gay & Diehl 1992).

In business, exploratory research is used to test new concepts for products or services before a costly launch is decided. Most approaches involve focus groups, pilot studies, case studies, in-depth interviews or projective methods (Ticehurst & Veal 2000).

4.5.4 Justification for the selection of descriptive and causal research

Reviewing the three functional research designs of the quantitative method and its implications on the selection, descriptive and causal research are chosen for the following reasons:

(a) Descriptive research should be used to describe the characteristics of decision-making processes of fund managers in their special setting of the financial universe;
(b) Factors involving China and emerging markets require factual and accurate data to measure variables;
(c) An overview of all aspects of decision-making is necessary for readers to understand the complexity of interrelated variables;
(d) The objective of the research is to establish cause-and-effect relationships between influencing factors;
(e) Since this research is not involved in new concepts or ideas, exploratory research is not a suitable design.

4.5.5 Justification for the selection of the survey technique

After selection of the descriptive and causal design, available research techniques, or methods of data collection, are now limited to survey, observation and

experimentation. These alternative techniques are reviewed before the selection of the technique for this research.

Survey techniques refer to data collection using questionnaires received from a representative sample of a population. Information obtained could be attitudinal, behavioural, motivational or perceptual (Gay & Diehl 1992). The advantages of survey techniques include standardisation and uniformity; relative accuracy and reliability; efficiency and low cost (Cooper & Schindler 1998).

Observation techniques refer to data collection using human, mechanical, electrical or electronic tools (Zikmund 2003). Advantages of the observation technique include the recording of behaviour without relying on reports from respondents, thus making studies more objective (Ticehurst & Veal 2000). The technique can be used in both quantitative and qualitative research (Sekaran 2003).

Experimentation techniques are used mainly in causal research. The researcher manipulates an independent variable to determine its effect on other dependent variables. Laboratory experiments also allow researchers to control or eliminate many intervening variables to test results (Zikmund 2003). A similar approach to this technique is the simulation technique where a real life situation is replicated using an elaborate set of mathematical formulas (Cooper & Schindler 1998).

Reviewing the three research techniques and their implications on the selection, the survey technique is chosen for the following reasons:

(a) Primary data and a representative sample of a population need to be collected to make generalisations on the influencing factors of the decision making process;
(b) The survey technique is most suitable for study of attitudes and behaviours;
(c) The survey technique allows standardisation and uniformity so that the researcher can compare and contrast answers;
(d) Survey results are fairly reliable and accurate;
(e) The survey technique using questionnaires is efficient and low cost, suitable for the time and financial resources of this project.

4.6 Data collection

After the selection of positivism as the research paradigm, quantitative as the research methodology, descriptive and causal research designs, and the survey as the research technique, this section discusses data collection from this foundation. The issues involved are the administrative of the survey instrument, the questionnaire design and other structures of the survey instrument, the issue of population and sampling, response rates and reliability and validity of the data.

4.6.1 Survey methods

There are four possible survey methods: mail survey, telephone survey, face-to-face survey and web-based survey. Mail surveys and web-based surveys use self-administered questionnaires and depend on respondents to answer without any assistance from the researcher. Face-to-face surveys and telephone surveys are considered interviewer-administered (Ticehurst & Veal 2000). The advantages and disadvantages of each method are summarised in Table 4.4.

4.6.2 Selection of self-administered web-based survey

A self-administered web-based survey is selected as the survey method for this research for the following reasons:

- To obtain a reliable and accurate result, a large representative sample of the population must be reached across a wide geographical area including Europe, Asia and America;
- Fund managers who make multi-million dollar investment decision are busy, difficult-to-reach executives;
- Telephone surveys or face-to-face interviews with these executives are difficult to arrange;
- Mail surveys which require postage-paid reply envelopes across three continents are not feasible under limited budget;
- Hedge fund managers who work exclusively on net-connected trading platforms prefer the familiar environment of the internet;

- Financial executives are independently capable of answering the questionnaire without any assistance;
- Busy executives prefer to answer surveys at their own time and place;
- Business executives prefer anonymous surveys to protect the confidentiality of their business operation;
- Web-based surveys are the only quantitative survey method within the financial budget of this project.

Table 4.4 Advantages and disadvantages of survey methods

Method	*Advantages*	*Disadvantages*
Mail	- Low cost - Large samples - Minimal staff and facilities - Access to wide geographical area - Respondents have time for thoughtful answers - Respondents assured of anonymity	- Low response rate - Not effective with 'rich' information or open-ended questions
Telephone	- Low cost - Better access to certain population - Faster process - Better response rate	- Limited to certain populations - Constraints on questions and measures - Not appropriate for sensitive subjects
Face-to-face	- Most effective in response - Can have 'rich' information - Suitable for certain sample design	- High cost - Need more staff - Longer collection process - Respondents might not remain anonymous
Web-based	- Low cost - Convenient for certain populations - Large sample - Access to wide geographical area - Respondents assured of anonymity	- Limited to certain populations - Low response rate

Source: Ticehurst and Veal (2000)

On the other hand, a web-based survey method has some weakness and disadvantages:

- Respondents tend to be executives who are less busy and less successful; hence, results might not be representative;

- E-mail spam problem has caused many executives to install filtering devices preventing mail penetration;
- Financial executives, like most business persons are busy and pre-occupied; hence, response rates may be very low.

4.6.3 Questionnaire design

Questionnaires should be designed to match the respondent profile. There are many types of questionnaire surveys: household surveys, street surveys, telephone surveys, customer surveys, captive group surveys and organisational surveys. Furthermore, each type of questionnaire design has different lengths, types of questions, types of information, measuring scales, filters and layout to obtain the appropriate answers required by the research problem (Sekaran 2003).

On the wording of questions, four principles are adhered to: use of simple language, avoidance of ambiguity, avoidance of leading questions and asking one question at a time. Furthermore, every question is linked to research questions or hypotheses (Ticehurst & Veal 2000).

Sekaran (2003) suggested that the questionnaire design process starts with the research problem and questions, goes through a list of information requirements and ends with a final layout. Along the way, characteristics of individuals and organisations are collected.

A cover letter precedes the questionnaire package with information on the purpose of the survey, request for assistance, assurance of anonymity and confidentiality if appropriate, benefits and risks, and background of the researcher and organisation if respondent needs additional information (Ticehurst & Veal 2000).

For this research, four sections are included in the questionnaire:

(1) Section I - Information and characteristics of the fund: the seven questions include size of fund, size of China investment, age of fund, fund objective and investment strategy, trading style and fund performance.

(2) Section II - Global factors on investment decisions: all influencing factors generated from the literature review are included in 20 questions grouped under four composite variables. These composite factors are classified as internal factors, external environment, strategic consideration and company evaluation.

(3) Section III - China factors on investment decisions: the first three composite factors are similar to global factors, except the internal factors. In its place, a factor classified as China-related factors is added. A total of 26 questions is included.

(4) Section IV- Information and characteristics of individual respondent: the seven questions include position of respondent, years at position, size of investment under management, information and data sources, investment authority, trading expertise and years of expertise.

All 60 questions are designed with a response time frame of five minutes. Likert scales from 1 to 5 are used to measure all influencing factors. All wordings of questions are straight-forward, easy to understand and familiar to financial executives. There are no open-ended questions and the layout is simple yet professional without any clutter. Some of influencing factors extracted from the body of literature could not be included in the questionnaire because of they are already covered by similar factors in the same group. They would also lengthen response time and confuse readers unnecessarily.

A short email was sent to the whole population asking these executives to participate in the web-based survey. The mailing list would include names and addresses of funds' principal executives, including President or CEO, Chief Operating Officer, Chief Investment Officer, Head of Trading Department and Chief Administrator. Upon clicking on the highlighted link of the email, respondents are transferred to a website set up exclusively for the survey. The site includes only five pages: the first page is a cover letter explaining the purpose of the survey, request for assistance, guaranteed anonymity and confidentiality, benefits and risks, and background of the

researcher and the university; the remaining four pages comprise the entire questionnaire with a 'submit' button on completion.

Samples of the introductory email, cover letter and the questionnaire are presented in Appendix A (page 211).

4.6.4 Population and sampling

Population is defined as the entire group of people or objects of interest to a researcher's investigation. A population shares some common set of characteristics (Cooper & Schindler 1998). For this project, a population of 1,355 is the total number of hedge funds with Asia-related investments. They include hedge funds that have invested in China and those that have invested in Asia but not yet in China.

A sample is defined as a subset of a population from which the researcher could extrapolate conclusions about the population (Sekaran 2003). A good sample has the following characteristics: (a) selected at random with an equal selection chance for every member; (b) large enough to satisfy statistical meaning; and (c) unbiased (Hussey & Hussey 1997).

A sampling process commences with the identification of sampling units and the sampling frame. Sampling units are non-overlapping elements of the population. The sampling frame is the physical representation or actual list of sampling units. Sampling errors normally occur in the procedural process or the imprecision associated with using statistics to estimate parameters (Davis 2005).

There are two types of sampling design: probability sampling and non-probability sampling. On probability design, the choices are simple random, systematic, multi-stage random, stratified, cluster, stratified cluster and repetitive. For non-probability design, the sampling includes judgment, quota, convenience and snowball. Table 4.5 and Table 4.6 summarise the advantages of each type (Davis 2005).

Table 4.5 Types of probability sampling design

Type	Description	Advantages	Disadvantages
Simple random	Use of random numbers	- Easy to analyse - No classification error - Minimum knowledge on population	- Larger error for same sample size - Do not use previous research data on population
Systematic	Select at interval of nearest integer to sampling ratio	- Reduces variability - Simplicity	- Variability might change periodically - Error is high when stratified
Multi-stage random	Random sampling in each of sampling stage	- Lower field cost - Require list only for selected members	- Higher error potential
Stratified	Select from every sampling units, proportionate to size	- Ensure representativeness - Good classification process	- Need accurate information on population - Costly to prepare list
Cluster	Ultimate units are groups to be selected at random	- Lowest field cost - Requires list only in clusters - Characteristics can be estimated - Can be used for subsequent sampling	- Larger error potential - Must have ability to assign members to clusters
Stratified cluster	Select clusters at random for every sampling unit	- Reduces variability of simple cluster sampling	- Combination of disadvantages of cluster and stratified sampling
Repetitive	Using earlier samples to design later ones	- Facilitates efficient planning of succeeding sampling - Reduces number of observations	- More field work - More analysis

Source: Davis (2005)

Table 4.6 Types of non-probability sampling design

Types	Description	Advantages	Disadvantages
Judgment	Select subgroup on available information	- Reduces cost - Some stratification effect	- Cannot control bias and variability - Requires strong assumptions on population
Convenience	Select in any convenient manner	- Quick and inexpensive	- Unknown amount of systematic and variable errors
Snowball	Additional units referred by initial responders	- Only for highly specific application	- Non-representativeness

Source: Davis (2005)

Sample size is an important consideration. Sekaran (2003) cited two determinants of sample size: precision and confidence. Precision is a function of the range of variability in the sampling distribution of the sample mean and confidence is the certainty factor that estimates made by the researcher would hold true for the population. In business research, a 95% confidence level is acceptable. According to Roscoe (1975), any sample size larger than 30 and less than 500 is appropriate for most research and is considered as statistically significant.

A sampling plan specifies the methods and procedures to obtain targeted samples. A researcher could avoid sampling errors and wasted time by following diligently the *how* and *when* statements of the plan (Davis, 2005).

Davis (2005) suggested a seven-step sampling process to avoid sampling errors and ensure statistical and sample efficiency. Table 4.7 summarises the sampling process of this research project.

4.6.5 Response rate

Response rate is important because a high response rate provides statistical inference about the representative nature of the population, while a low response rate could mean bias in data quality and reliability (Cooper & Schindler 1998). However, with the current problem of 'spamming', mass emails are expected to be opened by receivers only at about a 35% rate. The rest would remain blocked or deleted. As a

result, a 20% response rate for a web-based questionnaire is considered to be good (Melon Media 2005).

Table 4.7 Sampling process of this research project

Step	Description
1. Population	Total population of 1,355 includes all international hedge funds that have Asia-related investments
2. Sampling units	Decision maker on fund investments. Could be CEO, President, Managing Partner, Chief Investment Officer or General Manager
3. Sampling frame	Mailing list extracted from database of AIM (Alternative Investment Managers), an analyst research firm located in Florida
4. Sample design	Probability type (simple random) is selected because it is more accurate, with good generalisation of results and universally accepted.
5. Size of sample	297 is the targeted sample size (95% confidence) for a population of 1300 (Sekaran 2003)
6. Sampling plan	Total population to be contacted with expected response rate of 22% would give the right amount of sample size needed. Methods and procedures are explained in details in previous section
7. Sample	Implementation of the sampling plan is discussed in Chapter 5

Source: Davis (2005)

This research project attempts to obtain a response rate of 22% using a web-based survey method. E-mailings could be repeated up to three times as reminders. When required, executives will be contacted by phone to encourage more participation in the survey.

4.6.6 Pilot study

A pilot study is conducted to determine the feasibility of the project before launching a full scale operation. Pilot studies help the researcher gain valuable insights into the process and make necessary adjustments to avoid major problems (Zikmund 2003).

A pilot study is planned for this research study for the following reasons:

- to ensure proper design of the questionnaire
- to assess adequacy of the research method and protocol
- to establish effective sampling and survey techniques
- to gain further professional advice on the research questions and hypotheses.

Questionnaires were submitted to six highly-regarded professionals in the hedge fund industry for completion. Phone calls were then made to these executives seeking guidance and advice. All feedback was incorporated into the data collection process.

4.7 Data analysis process and techniques

After data collection, the process of analysis begins with a variety of techniques to obtain results for testing hypotheses. This section presents the last phase of the survey project and justification for the selection of techniques.

The first step of the process is preparing the data, which requires editing, coding, categorising and entering data in a selected software program for analysis. The next step is obtaining a feel for the data by developing descriptive statistics such as means, standard deviations, correlations and frequency distributions. The data are then tested for goodness by reliability tests and validity determination. Interpretation of the results is the last step (Sekaran 2003).

4.7.1 Data preparation

Most survey-based business research accumulates a large amount of data which is more efficiently processed by computer programs. Data preparation involves data editing, data coding, data categorisation and entering data into the computer program. Data editing is the process of checking for incompleteness and inconsistencies of respondents. Blank responses must be handled by a pre-set procedure depending on variable scales and the question structure. Data coding is the process of identifying each answer with a numerical score or character. Data categorising is the process of classifying variables into groups of concepts and constructs. Raw data are then finally entered into the computer program either manually or by using scanner sheets (Sekaran 2003).

4.7.2 Selection of SPSS software program

There are many software programs used to process data analysis including SPSS, SAS, STATPAK, SYSTAT or EXCEL. The most popular program is SPSS (Statistical Package for the Social Sciences). The justification for the selection of SPSS is the simplicity and completeness of its data analysis program (Sekaran 2003).

4.7.3 Reliability and validity of data

Goodness of data is based on two principal measurements: reliability and validity (Ticehurst & Veal 2000). A measure is reliable when it is error free and consistent across time and across various items in the instrument. Reliability can be used to test for stability of measures and internal consistency of measures. For stability, test-retest reliability or parallel form reliability are used. For internal consistency, inter-items consistency or split-half reliability tests are used. Figure 4.3 presents testing measures of goodness of data and Table 4.8, describes these four tests (Sekaran, 2003).

Internal validity aims at establishing true values of causal relationships between variables. External validity refers to the generalisation of causal relationships between two variables into new settings with other subjects (Lincoln and Guba 1997). All assessments of validity are subjective opinions based on the judgment of the research (Davis 2005).

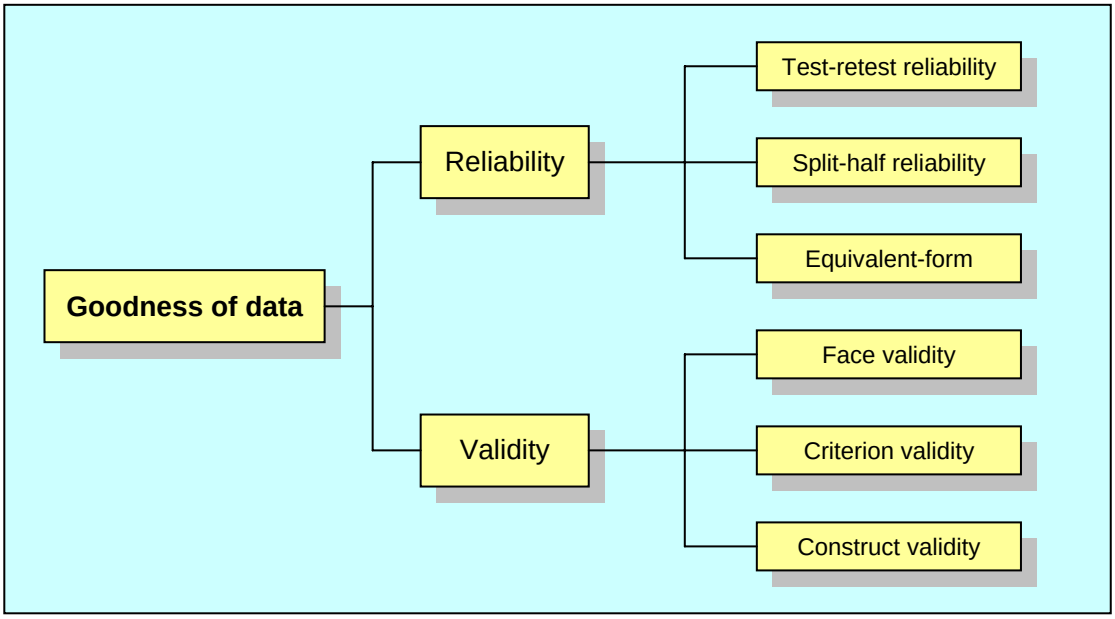
Sekaran (2003) classified six types of validity measurements: content, face, criterion-related, concurrent, predictive, construct, convergent and discriminant. Table 4.9, , describes each type of validity.

Table 4.8 Tests of reliability

Measure	Reliability Test	Description
Stability	Test-retest reliability	Reliability coefficient obtained on second test is similar
Stability	Parallel-form reliability	Two comparable sets of construct are highly correlated
Consistency	Inter-items consistency	Independent measures of same concept are highly correlated
Consistency	Split-half reliability	Two halves of an instrument are highly correlated

Source: Sekaran (2003)

Figure 4.4 Testing measures



Source: Sekaran (2003)

Table 4.9 Types of validity measurements

Type of validity	*Description*
Content validity	Does the measure adequately measure the concept?
Face validity	Does the instrument measure what its name suggests?
Criterion-related validity	Does the measure help to predict a criterion variable?
Concurrent validity	Does the measure help to predict a criterion variable currently?
Predictive validity	Does the measure help to predict a future criterion ?
Construct validity	Does the measure tap the concept as theorized?
Convergent validity	Do two instruments measuring the concept correlate highly?
Discriminant validity	Does the measure have a low correlation with an unrelated variable?

Source: Sekaran (2003)

4.7.4 Data interpretation: descriptive and inferential statistics

Descriptive statistics are techniques used to summarise large amounts of information. Measures of descriptive statistics are mean, mode, median, range, variance and standard deviation (Tabachnick & Fidell 2001).

Mean is the sum of scores in a distribution divided by the number of scores. Mode is the most frequent score in a distribution. Median is the midpoint in a distribution. Range is the highest score minus the lowest score. Variance is the mean of the squared deviation scores about the mean of a distribution. Standard deviation is the square root of variance (Ticehurst & Veal 2000).

Inferential statistics are used to make judgment or probabilistic statements about a population on the basis of samples. The most frequently used measurement is the Pearson correlation matrix or coefficient (Sekaran 2003).

4.7.5 Data interpretation: statistical tests

Statistical tests are used to make comparisons between variables and relationships between variables. The type of test is selected based on format of data, level of measurement or number of variables. Table 4.10 summarises the types of statistical tests (Sekaran 2003).

Table 4.10 Types of statistical tests

Task	Data format	No. of Variables	Types of variables	Test
Relationship between 2 variables	Cross tabulation of frequencies	2	Nominal	Chi-square
Difference between 2 means-paired	Means- whole sample	2	Ratio or ordinal	t-test-paired
Difference between 2 means-independent samples	Means- 2 sub groups	2	1 ratio or ordinal, 2 nominal	t-test-independent samples
Relationship between 2 variables	Means- 3 or more sub groups	2	1 ratio or ordinal, 2 nominal	One-way analysis of variance
Relationship between 3 or more variables	Means-cross-tabulated	3+	1 ratio or ordinal, 2 or more nominal	Factorial analysis of variance
Relationship between 2 variables	Individual measures	2	Ratio or ordinal (2)	Correlation
Linear relationship between 2 variables	Individual measures	2	Ratio or ordinal (2)	Linear regression
Linear relationship between 2 or more variables	Individual measures	3+	Ratio or ordinal (3+)	Multiple regression
Relationships between large number of variables	Individual measures	Many	Ratio or ordinal (large number)	Factor analysis; cluster analysis

Source: Ticehurst & Veal (2000)

To select appropriate tests for data analysis and interpretation, Manning and Munro (2004) suggested a 5-step process as follows:

(1) Understand the purpose of the research such as testing hypotheses or making a correlation between variables or testing differences in variables;
(2) Identify the variables involved and the exact nature of relationship expected;
(3) Determine the scale of measurements of each variable;
(4) Ensure the variables satisfy the assumptions;
(5) Select the appropriate tests based on above considerations.

Since the objective of this research is to test hypotheses based on two independent composite variables (global factors and China factors) and one dependent variable (investment decisions), the selected tests are listed in Table 4.11.

4.7.6 T-test, correlation, logistic regression and ANOVA

The selection of these four types of statistical tests for hypothesis testing is based on characteristics and significance of these tests set out below:

Table 4.11 Links between hypotheses and statistical tests of this research

Hypothesis	*Independent variables*	*Dependent variables*	*Statistical test*
H1: There is difference between global factors and China factors in terms of ranking in importance.	Global factors and China factors	Investment decision	Dependent t-test and correlation
H2: There is a relationship between fund size and influencing factors on investment decisions.	Fund size, global factors and China factors	Investment decision	Logistic regression
H3: There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.	Analysis & trading style of fund, global factors and China factors	Investment decision	Logistic regression
H4: There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.	Personal expertise, global factors and China factors	Investment decision	ANOVA Kruskal-Wallis test

Source: Developed for this research

4.7.6.1 T-test

A t-test is used to compare whether the means of two variables are significantly, or statistically, different. When the comparison of the means apply to the whole sample, the test is known as paired samples test or dependent t-test. The distribution of t is calculated based on the degree of freedom and alpha value of a one or two-tail test. T-test is often expressed in the null and alternate hypothesis (Ticehurst & Veal, 2002).

The formula for the t-test is a ratio. The top part is the difference between two means or averages. The bottom part measures variability or dispersion of the scores, also known as standard error of the difference. The square root of this value is standard deviation. To test the significance of the difference, an alpha value, or risk level, is determined along with degrees of freedom. For most t-tests, an alpha value of 0.05 is acceptable. A t-test of significance is a very robust test even when assumptions are violated (Davis 2005).

4.7.6.2 Correlation

Correlation is used when two variables with interval or ratio scales are tested for relationships between them. The relationship could be described as positively correlated, negatively correlated or uncorrelated. A correlation coefficient, r, is calculated and if r = 0, there is no correlation; if r is between 0 and +1.0, it is positively correlated; and if r is between 0 and -1.0, it is negatively correlated (Ticehurst and Veal 2000).

The correlation coefficient indicates the strength and direction of a linear relationship between two variables, but it does not imply causality. The best known coefficient, the Pearson product-moment correlation coefficient, is obtained by dividing the covariance of the two variables by their standard deviations (Davis 2005).

4.7.6.3 Logistic regression

Regression analysis is used to model relationships between variables as well as to determine the magnitude of relationships and to make predictions based on the models. If the relationship is assumed to be linear, simple linear regression or multiple linear would be employed (Davis 2005).

However, if the relationship between variables is not linear in parameters, a number of non-linear techniques could be used to obtain a more accurate regression. In case the response variable can take only binary values (yes or no), logistic regression is preferred. The outcome of logistic regression is a function which describes how the probability of the event (yes or no) varies with the predictors (Tabachnick & Fidell 2001).

Logistic regression could predict the likelihood, or the odds ratio, of the outcome based on the predictor variables, or covariates. The significance of logistic regression can be evaluated by the log likelihood test, given as the model chi-square test, evaluated at the $p < .05$ level, or the Wald statistic. Logistic regression has the advantage of being less affected than discriminant analysis when the normality of the variable cannot be assumed. It has the capacity to analyse a mix of all types of predictors (Hair 1995).

4.7.6.4 Kruskal-Wallis ANOVA

Analysis of variance (ANOVA) is a collection of statistical models which compare means by splitting the overall variance into different parts. ANOVA determines whether the means of groups or sub-groups are significantly different from the overall means. The ANOVA value depends on variances between groups and within groups. The ratio of these two measures is the F value, which has a known probability distribution for a given degree of freedom. Low values of F are unlikely and result in the rejection of the null hypothesis (Ticehurst & Veal, 2000).

The Kruskal-Wallis ANOVA is widely used when differences between dependent a variable which is not an interval and an independent variable which is categorical could be analysed in a non-restrictive and non-parametric way (Davis 2005).

4.8 Limitations and assumptions

This research expects to encounter some limitations which will influence the independence of the outcome:

- Returned responses might not represent a proportional cross-section of hedge fund industries. Hedge funds with special investment strategies are likely to refrain from participation due to the proprietary nature of their business model.

- Population and samples are selected from funds that have Asia-related investments. These funds are definitely biased towards Asian opportunities and China investments, in particular. Funds that refrain from investing in Asia because of negative factors are not included in the sampling population.

- Existing Chinese funds are small compared to average industry size. If the China investment climate changes and larger-sized funds enter the market, the results of this study might be skewed.

- Economic developments and changes in China happen at a rapid rate because of the transformation from a semi-socialist structure to a capitalist one. Therefore the results of the study might be outdated within a short period.

- Fund executives normally downplay any weakness in trading decisions. It is difficult to measure accurately the factors that have negative results.

In addition to the above limitations, the research is based on certain assumptions that might affect its findings:

- Results might be misinterpreted if relationships between variables are more complex than assumed;
- As a population, hedge funds are treated as a homogenous group. In reality, hedge funds characteristics are very diverse, in terms of size, objectives and operational models.

4.9 Ethical considerations

The National Health and Medical Research Council (NHMRC) of Australia (1999) established three basic principles for ethical conduct by researchers: (a) integrity, respect for persons, beneficence and justice; (b) consent; and (c) research merit and safety. Bouma (2000) expanded these principles further with his five rules:

(a) Researchers must treat participants with dignity and respect;
(b) Researchers must be supervised by qualified persons to ensure the safety of participants;
(c) The potential benefit of the project must substantially outweigh potential harm;
(d) Participants must be able to make a voluntary, informed consent;
(e) The research must be conducted openly and accountably to community and participants.

Considering the above principles and using the guidelines established by the Graduate Research College of Southern Cross University, this research project handles the ethical issues in the following manner:

- *Voluntary participation and informed consent*: The cover letter of the questionnaire package sent to participants stresses the fact that the respondent is free to not answer any question, withdraw participation at any time and by responding, has expressed explicit consent to the research publication.

- *Confidentiality and anonymity*: The mail questionnaire is a standard business survey providing complete anonymity, because respondents are not allowed to write their name on the responding page.

- *Privacy*: Respondents could reply to the questions in their own time, in their own locations, in complete privacy without any interference from the researcher.

- *Deception*: The cover letter gives full disclosure to participants about the objectives, subject and process of the research project.

- *Feedback*: The cover letter also informs participants that either partial or complete findings of the research would be available through various industry publications or by personal request.

In view of the above factors, this research project meets all the ethical standards and principles established by the NHMRC, the University and the research community. There could be **no** harm or damage to any participants or their business. In addition, the ethics application for the research has been approved on 3 March 2006 (Approval number ECN-06-09) by the Human Research Ethics Committee (HREC) of Southern Cross University.

4.10 Conclusion

This chapter has reviewed the research paradigms, research methodologies, research designs and research techniques. From among the alternatives and options, the objectivist paradigm, quantitative methodology, descriptive and causal research design and mail survey instrument were selected as best suited for the objective of this project. In the data collection section, a self-administered questionnaire was designed, and population, sampling and response rate issues were considered. In the data analysis section, the SPSS program was selected. Issues involving data preparation and data interpretation were resolved and statistical tests were chosen. Finally, the limitations, assumptions and ethical considerations were discussed. The next chapter reports the findings and results of the research.

CHAPTER FIVE

ANALYSIS OF DATA

5.1 Introduction

The research methodology and data collection techniques were justified in Chapter 4. Chapter 5 presents an analysis of the data obtained from the results of a series of statistical tests applied to the survey data, performed by the utilisation of the SPSS 11.0 program.

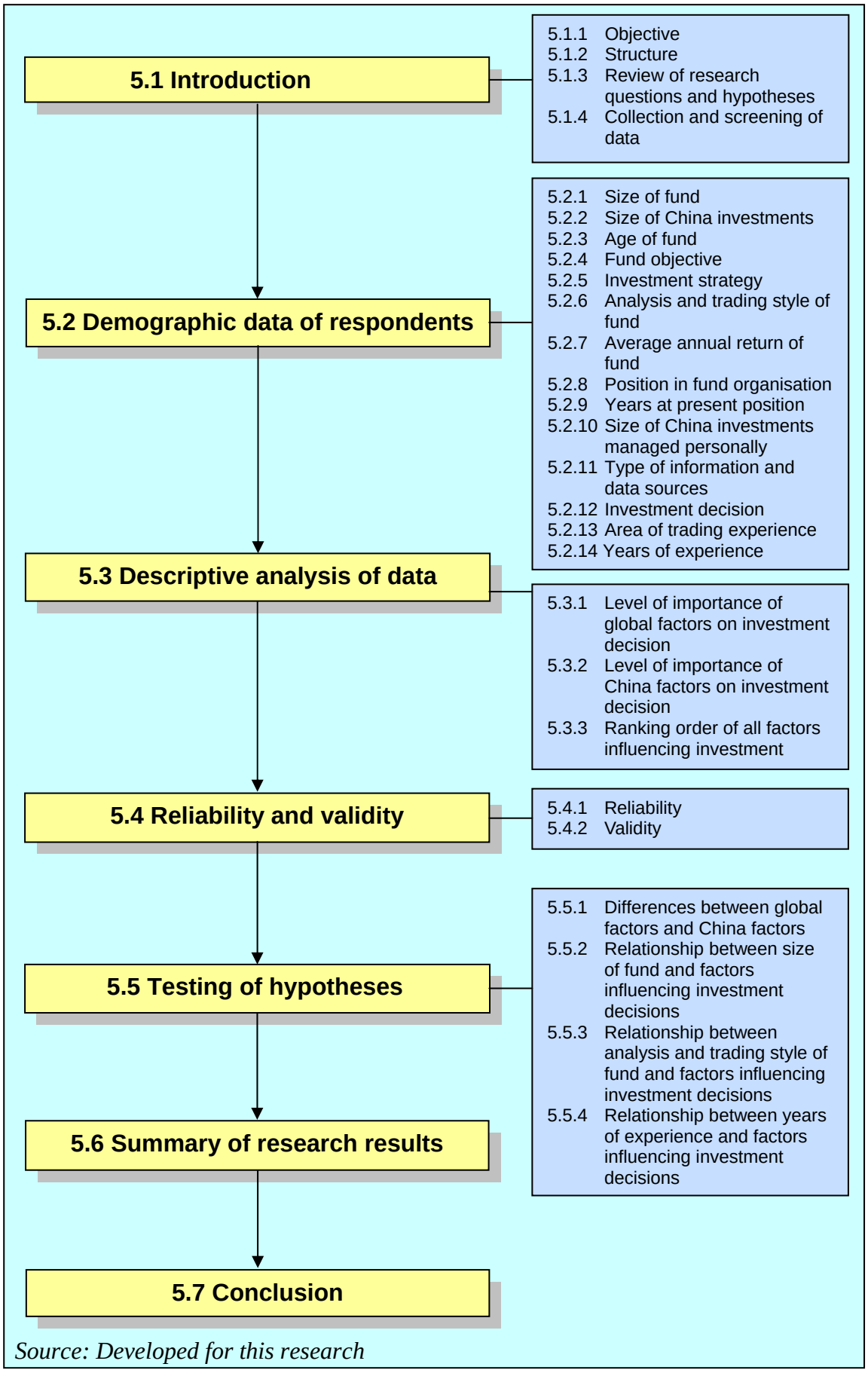
5.1.1 Objective

The main objective of this chapter is to report and explain the results obtained from the SPSS tests performed on data from 287 respondents of the survey questionnaire. The tests were executed to extract conclusions from demographic, descriptive and inferential statistics.

5.1.2 Structure

This chapter has been organised into seven sections as shown in Figure 5.1. Section 5.1 introduces the topics, including a review of the research questions and hypotheses. Section 5.2 describes the demographic data of respondents including organisational structures and personal information. Section 5.3 records the descriptive statistical data including frequencies of level of importance and their comparisons, relating to all individual factors on investment decisions as well as composite factors. The section concludes with the ranking order of importance of these influencing factors. Section 5.4 deals with the issues of reliability and validity of the collected data. Section 5.5 reports the results of tests performed on the four proposed hypotheses. Section 5.6 summarises the total results, with a conclusion presented in Section 5.7.

Figure 5.1 Structure of Chapter 5



Source: Developed for this research

5.1.3 Review of research questions and hypotheses

Research questions for this project included:

1. What are the most important global factors that influence investment decisions of hedge fund managers in global stock exchanges?
2. What are the most important factors that influence investment decisions of hedge fund managers in China's stock market?
3. Are there differences between global factors and China factors in terms of ranking in importance?
4. Is there a relationship between size of fund and influencing factors on investment decisions?
5. Is there a relationship between analysis and trading style of fund managers and influencing factors on investment decisions?
6. Is there a relationship between personal expertise of fund managers and influencing factors on investment decisions?

From above questions, research hypotheses were developed as follows:

1) Hypothesis 1: There are differences between global factors and China factors in terms of ranking of importance.
2) Hypothesis 2: There is a relationship between fund size and influencing factors on investment decisions.
3) Hypothesis 3: There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.
4) Hypothesis 4: There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.

5.1.4 Collection and screening of data

As discussed in Section 4.6 of Chapter 4, total population of hedge funds with Asia-related investments is 1,355 as of March 2006. They include hedge funds that have invested in China and those that have invested in Asia but not yet in China. Since the population is small and could be covered fully in the survey, sampling is not necessary.

The mailing list of 1,355 Asia-related hedge funds was purchased from Alternative Asset Databases, located in Miami, Florida, United States of America. Each fund had three or four names of top executives, including President or CEO, Chief Operating Officer, Chief Investment Officer, Trading Department Head and Chief Administrator. Total contact persons on the mailing list were 6,376. Each entry consisted of name, position, physical address, phone and fax numbers and email address.

Each of these potential participants was sent an email on three occasions at 2-week intervals. Total emails sent during the campaign were 6,376 the first time, 6,255 the second time and 6,190 the third time. As expected, only about 37% of emails were opened. The remaining emails were either unopened or blocked. To increase the response rate, 140 executives were asked by phone to participate in the survey.

A total of 287 responses were received during the 8-week period from 23 March 2006 to 24 May 2006. The desired target of 297 (Sekaran, 2003) was not achieved by 10 responses, but the sample size of 287 remains statistically significant according to Roscoe (1975).

Seven out of a total of 287 replies were eliminated from data entry due to an unusually large numbers of missing questions or incorrect format. The remaining total of 280 was recorded into SPSS database. Of these entries, two responses were excluded from all computations and eight were excluded only from particular computations due to some missing data.

5.2 Demographic data of respondents

Section I of the survey questionnaire dealt with information on the hedge funds and Section IV asked respondents for their personal information. Seven characteristics of hedge funds were obtained including: size of fund; size of fund investment in China; age of fund; fund objective; fund strategy; analysis and trading style; and rate of return. Seven personal characteristics of respondents were asked involving: company position; years at that position; size of China investment under personal management;

data sources; decision-making authority; years of trading experience and area of expertise. Following are summaries of these demographic data.

5.2.1 Size of fund

Sizes of funds were classified according to their capitalisation. The following categories were created to name fund sizes:

- Micro-cap funds: capitalisation under US$100 million.
- Mini-cap funds: capitalisation from US$100 million to US$500 million.
- Mid-cap funds: capitalisation from US$500 million to US$1 billion.
- Large-cap funds: capitalisation from US$1 billion to US$5 billion.
- Mega-cap funds: capitalisation over US$5 billion.

About one-third of respondents (36%) indicated that size of their funds was under US$100 million or micro-caps. The second common category was funds with sizes between US$100 million and US$500 million or mini-caps. Funds that were over US$5 billion, mega-caps, composed only of 9% of the respondents. A summary of these data is presented in Table 5.2.1.

Table 5.2.1 Size of funds under management

Size of funds	Frequency	Percent %
Micro-cap	100	35.97
Mini-cap	84	30.22
Mid-cap	34	12.23
Large-cap	35	12.59
Mega-cap	25	8.99
Total	278	100.00

Source: Analysis of survey data

5.2.2 Size of China investments

Overall, the size of Chinese investments made by these funds was relatively small compared to the size of the total managed funds. Only 5% of respondents had over

US$200 million investments in China. The majority, 39%, had investment sizes under US$10 million. A summary of these data is presented in Table 5.2.2.

Table 5.2.2 Size of fund investments in China

Size of investments in China	Frequency	Percent %
None yet	47	16.91
Under US$10 million	108	38.85
From US$ 10 million to US$ 50 million	60	21.58
From US$ 50 million to US$ 100 million	23	8.27
From US$100 million to US$ 200 million	25	8.99
Over US$ 200 million	15	5.40
Total	278	100.00

Source: Analysis of survey data

5.2.3 Age of fund

More than half of the funds (57%) were 4 years old or less. Only 11% of respondents were with funds older than 10 years. A summary of these data is presented in Table 5.2.3.

Table 5.2.3 Age of fund

Age of fund	Frequency	Percent %
Under 2 years	74	26.81
From 2 years to 4 years	82	29.71
From 4 years to 10 years	89	32.25
Over 10 years	31	11.23
Total	276	100.00

Source: Analysis of survey data

5.2.4 Fund objective

Respondents were asked to specify their fund's objective in terms of alpha or absolute return or beta or indexed return. Two-third of funds (69%) was characterised as seeking alpha returns. Summary of these data is presented in Table 5.2.4.

Table 5.2.4 Fund objective

Fund objective	Frequency	Percent %
Alpha/absolute return	189	68.48
Beta/indexed return	87	31.52
Total	276	100.00

Source: Analysis of survey data

5.2.5 Investment strategy

Respondents were asked to identify the investment strategy of their fund by selecting a variety of common operational methods ranging from aggressive growth to global macro to multi-strategy. *Long-term strategy* included fixed income, long/short equities, value-oriented, multi-strategy and mortgage-backed securities. *Short-term strategy* included aggressive growth, market timing, special situation, distressed securities and managed futures. *Specialist strategy* included emerging markets, commodities/currencies, global macro and fund of funds. *Diversified strategy* included a mixture of these categories.

The majority (48%) of respondents described their strategy as one of specialist strategy. A summary of these data is presented in Table 5.2.5.

Table 5.2.5 Investment strategy

Investment strategy	Frequency	Percent %
Long term	51	18.28
Short term	67	24.01
Specialist	133	47.67
Diversified	28	10.04
Total	279	100.00

Source: Analysis of survey data

5.2.6 Analysis and trading style of fund

The most common analysis and trading style (26%) was momentum, followed by fundamentalist (23%). The least common (12%) was top-down style. A summary of these data is presented in Table 5.2.6.

Table 5.2.6 Analysis and trading style of fund

Analysis and trading style of fund	Frequency	Percent %
Fundamentalist	62	22.79
Momentum trading	70	25.74
Portfolio optimization	55	20.22
Top-down	32	11.76
Bottom-up	53	19.49
Total	272	100.00

Source: Analysis of survey data

5.2.7 Average annual return of fund

Annual rate of return was the most popular indicator of fund performance. The majority of respondents (62%) recorded a rate of return between 5% and 15%. Only 7% indicated a return of less than 5%, however, 9% reported a return above 20% annually during the last three years. A summary of these data is presented in Table 5.2.7.

Table 5.2.7 Average annual return of fund during the last three years

Average annual return (in last 3 years)	Frequency	Percent %
Under 5%	19	6.81
Between 5% and 10%	113	40.50
Between 10% and 15%	60	21.51
Between 15% and 20%	62	22.22
Above 20%	25	8.96
Total	279	100.00

Source: Analysis of survey data

5.2.8 Respondent's position in fund organisation

About one-third (33%) of respondents were managers of their trading division, while 26% were managing partners of their own firm. Most respondents (92%) were active in the trading side of their fund's operations. A summary of these data is presented in Table 5.2.8.

Table 5.2.8 Position in the fund organisation

Position	Frequency	Percent %
Trader or analyst	46	16.67
Manager of trading division	91	32.97
Administrator	22	7.97
Managing Partner	70	25.36
CEO/President/Owner	47	17.03
Total	276	100.00

Source: Analysis of survey data

5.2.9 Years at present position

The majority of respondents (72%) had been at their present positions in the fund organisation for less than five years. Only 9% had been at their present positions longer than 10 years. A summary of these data is presented in Table 5.2.9.

Table 5.2.9 Years at present position

Years at present position	Frequency	Percent %
Under 2 years	98	35.25
Between 2years and 5years	103	37.05
Between 5years and 10 years	51	18.35
Over 10 years	26	9.35
Total	278	100.00

Source: Analysis of survey data

5.2.10 Size of China investments managed personally

More than half of the respondents (53%) managed funds with sizes under US$10 million while 25% are responsible for China investments larger than US$50 million. A summary of these data is presented in Table 5.2.10.

Table 5.2.10 Size of China investments managed personally

Size of China investment	Frequency	Percent %
Under US$ 5 million	74	26.91
Between US$ 5 million and US$ 10 million	71	25.82
Between US$ 10 million and US$ 50 million	61	22.18
Over US$ 50 million	69	25.09
Total	275	100.00

Source: Analysis of survey data

5.2.11 Type of information and data sources

The most common source of data (42%) used by respondents was in-house research and analysis, seconded by subscriber databases and independent analyst reports (24%). Only 7% each relied on corporate disclosures, media reports or informal tips or chats. A summary of these data is presented in Table 5.2.11.

Table 5.2.11 Types of information and data sources

Information and data sources	Frequency	Percent %
In-house research and analysis	116	41.88
Subscribed databases and independent analyst reports	68	24.55
Media reports, newsletters and trade publications	21	7.58
Corporate disclosures and press releases	22	7.94
Informal visit and conversation with corporate executives	31	11.19
Chats or tips from industry professionals	19	6.86
Total	277	100.00

Source: Analysis of survey data

5.2.12 Investment decision making

Half of the respondents (50%) indicated that investment decisions made were 'my own decision' either under strategic guidelines or at their own discretion. Only 26% shared the decision-making process with colleagues. A smaller percentage (24%) made decisions after consultation or authorisation from superiors. A summary of these data is presented in Table 5.2.12.

Table 5.2.12 Investment decisions

Investment decisions	Frequency	Percent %
My own decision under strategic guidelines	78	28.89
My own decision at my discretion	57	21.11
Shared decision with colleagues	70	25.93
After consultation with superiors	39	14.44
After authorization by superiors	26	9.63
Total	270	100.00

Source: Analysis of survey data

5.2.13 Area of trading expertise

The most common areas of trading expertise came from equities (32%) or multi-strategy (24%). Few respondents had experience with bond trading (8%) or options, derivatives and swaps (9%). A summary of these data is presented in Table 5.2.13.

Table 5.2.13 Area of trading expertise

Area of trading expertise	Frequency	Percent %
Equities	88	32.12
Bonds	22	8.03
Commodities	36	13.14
Currencies	37	13.50
Options, derivatives or swaps	26	9.49
Multi-strategy	65	23.72
Total	274	100.00

Source: Analysis of survey data

5.2.14 Years of expertise

A strong majority of respondents (68%) reported that they had more than five years of experience in their current area of expertise. Only 10% had less than 2 years of trading experience. A summary of these data is presented in Table 5.2.14.

Table 5.2.14 Years of expertise

Years of expertise	Frequency	Percent（%）
Under 2 years	29	10.47
Between 2 years and 5 years	59	21.30
Between 5 years and 10 years	66	23.83
Above 10 years	123	44.40
Total	277	100.00

Source: Analysis of survey data

5.3 Descriptive analysis of data

The objective of this descriptive analysis section is to transform the raw data into means, medians, averages, frequency distributions, standard deviation and variance to interpret and identify the significance of each and all variables involved.

Initially, the frequencies of level of importance of global factors were calculated based on four composite factors: *internal factors of fund, external environment, strategic consideration and company evaluation*. Second, the frequencies of level of importance of the China factors were determined on three similar composite factors: *external environment, strategic consideration and company evaluation*; plus an additional factor involving only *China-related issues*. Third, comparisons of these factors were calculated using one-way analysis of variance to establish relationships among them. Finally, all factors were ranked on the order of level of importance of investment decisions in global stock exchanges and in China's stock exchange.

5.3.1 Level of importance of global factors on investment decisions

Twenty questions in Section II of the questionnaire dealt with the influencing factors on investment decisions in global stock exchanges. These factors were classified into four composite factors including internal factors of funds, external environment, strategic consideration and company evaluation.

5.3.1.1 Internal factors of funds

Of the four variables that made up this composite factor, performance pressure was considered most important; followed by rules and restrictions of the organisation. The least important factor was personal bonuses and awards, while cash inflows and outflow levels of the fund were somewhat important. Details of the frequencies are presented in Table 1 of Appendix B. The sample size of this composite factor was 270, with 3.04 as the average and 3.25, the median.

The conclusion was confirmed by the one-way ANOVA test on the SPSS program. Tables 5.3.1 and 5.3.2 indicated that the levels of importance of rules/restrictions and performance pressure were higher than personal bonus/awards and the level of performance pressure was higher than cash inflows/outflows. There were significant relationships among these factors. No relationship was established among other factors.

Table 5.3.1 Comparisons of internal factors of funds

Internal factors	n	$\bar{x}$	Median	s	*F*	*P*
Rules/restrictions	273	3.14	3.00	1.276	9.640	**<0.001***
Performance pressure	272	3.32	4.00	1.363		
Cash inflows/outflows level	272	2.91	3.00	1.218		
Personal bonus/awards	272	2.76	3.00	1.403		

Source: Analysis of survey data

Table 5.3.2 Comparisons between two different internal factors

	Rules/ restrictions	Performance pressure	Cash inflows/outflows	Personal bonus/awards
Rules/restrictions	/	0.360	0.183	**0.005***
Performance pressure	0.360	/	**0.002***	**<0.001***
Cash inflows/outflows	0.183	**0.002***	/	0.541
Personal bonus/awards	**0.005***	**<0.001***	0.541	/

Source: Analysis of survey data

5.3.1.2 External environment

Of the four variables that made up this composite factor, market conditions was considered the most important; followed by an indication of institutional buying or selling. Less important were informal news and rumours as well as analyst recommendations. Details of the frequencies are presented in Table 3 of Appendix B. The sample size of this composite factor was 272, with 3.05 as the average and 3.00, the median.

The conclusion was confirmed by a one-way ANOVA test on the SPSS program. Tables 5.2.3 and 5.2.4 indicated that the level of importance of market condition was higher than institutional buying or selling and the other two factors and the level of analyst recommendations were higher than informal news and rumours. There were significant relationships among these factors. No relationship was established among other factors.

Table 5.3.3 Comparisons of factors of external environment

External environment	n	$\bar{x}$	Median	s	*F*	*P*
Market conditions	274	3.72	4.00	1.381	35.687	<0.001
Institutional buying/selling	272	2.89	3.00	1.238		
Informal news/rumours	273	2.63	3.00	1.231		
Analyst recommendation	275	2.99	3.00	1.347		

Source: Analysis of survey data

Table 5.3.4 Comparisons between two different factors of external environment

	Market conditions	Institutional buying/selling	Informal news/rumours	Analyst recommendation
Market conditions	/	**<0.001***	**<0.001***	**<0.001***
Institutional buying/selling	**<0.001***	/	0.092	0.791
Informal news/rumours	**<0.001***	0.092	/	**0.006***
Analyst recommendation	**<0.001***	0.791	**0.006***	/

Source: Analysis of survey data

5.3.1.3 Strategic considerations

Of the four variables that made up this composite factor, market timing was considered the most important; followed by changing of asset weight. The least important factor was hedging bet, while technical charting technique was somewhat important. Details of the frequencies are presented in Table 5 of Appendix B. The sample size of this composite factor was 271, with 2.95 as the average and 3.00, the median.

The conclusion was confirmed by a one-way ANOVA test on the SPSS program. Tables 5.3.5 and 5.3.6 indicated that the level of importance of market timing was higher than changing asset weight and hedging bet, and the level of importance of technical charts was higher than hedging bet. There were significant relationships among these factors. No relationship was established among other factors.

Table 5.3.5 Comparisons of factors of strategic consideration

Strategic consideration	n	$\bar{x}$	Median	s	*F*	*P*
Market timing	272	3.25	4.00	1.513	9.996	**<0.001***
Changing asset weight	272	2.80	3.00	1.170		
Hedging bet	271	2.68	3.00	1.264		
Technical charts	273	3.07	3.00	1.394		

Source: Analysis of survey data

Table 5.3.6 Comparisons between two different factors of strategic consideration

	Market timing	Changing asset weight	Hedging bet	Technical charts
Market timing	/	**0.001***	**<0.001***	0.397
Changing asset weight	**<0.001***	/	0.692	0.099
Hedging bet	**<0.001***	0.692	/	**0.004***
Technical charts	0.397	0.099	**0.004***	/

Source: Analysis of survey data

5.3.1.4 Company evaluation

This composite factor included eight variables with size of company, trading volume and financial ratios of company considered as important and very important. The other important factors were changing in earning estimates, quality of management and corporate governance. On a lesser scale were corporate news or events and insider trading. Details of the frequencies are presented in Table 7 of Appendix B. The sample size of this composite factor was 270, with 3.00 as the average and 3.13, the median.

The conclusion was confirmed by a one-way ANOVA test on the SPSS program. Tables 5.3.7 and 5.3.8 indicated that the level of importance of changes in earning estimates was higher than insider trading and corporate governance. There were significant relationships among these factors. No relationship was established among other factors.

Table 5.3.7 Comparisons of factors of company evaluation

Company evaluation	n	$\bar{x}$	Median	s	*F*	*P*
Size of company	275	3.04	3.00	1.352	3.123	0.003
Trading volume	274	3.00	3.00	1.319		
Insider trading	274	2.76	3.00	1.388		
Corporate news/events	275	2.96	3.00	1.358		
Changes in earning estimates	274	3.21	3.00	1.379		
Corporate governance	273	2.83	3.00	1.415		
Financial ratios	275	3.11	3.00	1.346		
Quality of management	274	3.10	3.00	1.518		

Source: Analysis of survey data

Table 5.3.8 Comparisons between two different factors of company evaluation

	Size of company	Trading volume	Insider trading	Corporate news/events	Changes in earning estimates	Corporate governance	Financial ratios	Quality of management
Size of company	/	1.000	0.270	0.998	0.848	0.646	0.999	1.000
Trading volume	1.000	/	0.500	1.000	0.628	0.861	0.981	0.987
Insider trading	0.270	0.500	/	0.688	**0.004***	0.999	0.068	0.080
Corporate news/events	0.998	1.000	0.688	/	0.437	0.953	0.923	0.940
Changes in earning estimates	0.848	0.628	**0.004***	0.437	/	**0.032***	0.991	0.987
Corporate governance	0.646	0.861	0.999	0.953	**0.032***	/	0.270	0.302
Financial ratios	0.999	0.981	0.068	0.923	0.991	0.270	/	1.000
Quality of management	1.000	0.987	0.080	0.940	0.987	0.302	1.000	/

Source: Analysis of survey data

The frequencies of four composite factors described above were tabulated in Table 5.3.9. The results indicated that investment decisions in global stock exchanges were more influenced by internal factors and the external environment than other factors.

Table 5.3.9 Frequencies of level of importance of global factors

	Sample size	Average	Median	Standard deviation
Internal factors	270	3.04	3.25	1.01
External environment	272	3.05	3.00	1.02
Strategic consideration	271	2.95	3.00	0.75
Company evaluation	270	3.00	3.13	0.84

Source: Analysis of survey data

5.3.2 Level of importance of China factors on investment decisions

There were 26 questions on Section III of the questionnaire dealing with influencing factors on investment decisions in China's stock market. These factors were classified into four composite factors including external environment, strategic consideration, company evaluation and China-related factors.

5.3.2.1 External environment

Of the four variables that made up this composite factor, market conditions was considered the most important, followed by indication of institutional buying or selling. In addition, informal news and rumours was rated as less important than analyst recommendation. Details of the frequencies are presented in Table 9 of Appendix B. The sample size of this composite factor was 261, with 3.18 as the average and 3.50, the median.

The conclusion was confirmed by a one-way ANOVA test on the SPSS program. Tables 5.3.10 and 5.3.11 indicated that the level of importance of market conditions was higher than institutional buying/selling and the other two factors; the level of importance of institutional buying/selling was higher than informal news/rumours; the level of importance of analyst recommendation was higher than informal

news/rumours. There were significant relationships among these factors. No relationship was established among other factors.

Table 5.3.10 Comparisons of factors of external environment

External environment	n	$\bar{x}$	Median	s	*F*	*P*
Market conditions	262	3.77	4.00	1.302	28.958	**<0.001***
Institutional buying/selling	262	3.13	3.00	1.322		
Informal news/rumours	262	2.70	3.00	1.230		
Analyst recommendation	261	3.10	3.00	1.452		

Source: Analysis of survey data

Table 5.3.11 Comparisons between two different factors of external environment

	Market conditions	Institutional buying/selling	Informal news/rumours	Analyst recommendation
Market conditions	/	**<0.001***	**<0.001***	**<0.001***
Institutional buying/selling	**<0.001***	/	**0.001***	0.994
Informal news/rumours	**<0.001***	**0.001***	/	**0.003***
Analyst recommendation	**<0.001***	0.994	**0.003***	/

Source: Analysis of survey data

5.3.2.2 Strategic consideration

Of the four variables that made up this composite factor, market timing was considered the most important; followed by technical charting. Less important factors were changing asset weight and hedging bet. Details of the frequencies are presented in Table 11 of Appendix B. Sample size of this composite factor was 259, with 3.03 as the average and 3.00, the median.

The conclusion was confirmed by a one-way ANOVA test on the SPSS program. Tables 5.3.12 and 5.3.13 indicated that the level of importance of market timing was

higher than changing asset weight and hedging bet, and the level of importance of technical charting was higher than hedging bet. There were significant relationships among these factors. No relationship was established among other factors.

Table 5.3.12 Comparisons of factors of strategic consideration

Strategic consideration	n	$\bar{x}$	Median	s	*F*	*P*
Market timing	263	3.38	4.00	1.544	10.844	**<0.001***
Changing asset weight	261	2.84	3.00	1.342		
Hedging bet	262	2.76	3.00	1.261		
Technical charts	262	3.13	3.00	1.451		

Source: Analysis of survey data

Table 5.3.13 Comparisons between two different factors of strategic consideration

	Market timing	Changing asset weight	Hedging bet	Technical charts
Market timing	/	**<0.001***	**<0.001***	0.162
Changing asset weight	**<0.001***	/	0.936	0.078
Hedging bet	**<0.001***	0.936	/	**0.004***
Technical charts	0.162	0.078	**0.015***	/

Source: Analysis of survey data

5.3.2.3 Company evaluation

This composite factor included eight variables with size of company, trading volume and financial ratios of the company considered as very important. The other important factors were quality of management and changing of earning estimates. On a lesser scale were insider trading, corporate governance and corporate news or events. Details of the frequencies are presented in Table 13 of Appendix B. Sample size of this composite factor was 254, with 3.12 as the average and 3.00, the median.

The conclusion was confirmed by a one-way ANOVA test on the SPSS program. Tables 5.3.14 and 5.3.15 indicated that the level of importance of size of company,

trading volume and financial ratios were equivalent, but they were all higher than the other factors; the level of importance of quality of management is higher than all of the factors except the three factors above (size of company, trading volume and financial ratios). There were significant relationships among these factors. No relationship was established among other factors.

Table 5.3.14 Comparisons of factors of company evaluation

Company evaluation	n	$\bar{x}$	Median	s	*F*	*P*
Size of company	263	3.87	4.00	1.205	59.582	**<0.001***
Trading volume	262	3.85	4.00	1.150		
Insider trading	261	2.58	3.00	1.159		
Corporate news/events	260	2.55	2.00	1.193		
Changes in earning estimates	263	2.65	3.00	1.373		
Corporate governance	261	2.62	3.00	1.350		
Financial ratios	263	3.67	4.00	1.230		
Quality of management	262	3.18	3.00	1.315		

Source: Analysis of survey data

Table 5.3.15 Comparisons between two different factors of company evaluation

	Size of company	Trading volume	Insider trading	Corporate news/events	Changes in earning estimates	Corporate governance	Financial ratios	Quality of management
Size of company	/	1.000	**<0.001***	**<0.001***	**<0.001***	**<0.001***	0.586	**<0.001***
Trading volume	1.000	/	**<0.001***	**<0.001***	**<0.001***	**<0.001***	0.685	**<0.001***
Insider trading	**<0.001***	**<0.001***	/	1.000	0.999	1.000	**<0.001***	**<0.001***
Corporate news/events	**<0.001***	**<0.001***	1.000	/	0.981	0.998	**<0.001***	**<0.001***
Changes in earning estimates	**<0.001***	**<0.001***	0.999	0.981	/	1.000	**<0.001***	**<0.001***
Corporate governance	**<0.001***	**<0.001***	1.000	0.998	1.000	/	**<0.001***	**<0.001***
Financial ratios	0.586	0.685	**<0.001***	**<0.001***	**<0.001***	**<0.001***	/	**<0.001***
Quality of management	**<0.001***	**<0.001***	**<0.001***	**<0.001***	**<0.001***	**<0.001***	**<0.001***	/

Source: Analysis of survey data

5.3.2.4 China factors

This composite factor was composed of 10 variables with global trend and potential growth deemed the most important. On a lesser scale were factors involving tax and accounting system, communication and language problems, transparency and legal system and information and data flow. Other factors including cost of ownership and entry, custodian of assets, currency convertibility and dividend and profit repatriation were considered of little importance. Details of the frequencies are presented in Table 15 of Appendix B. Sample size of this composite factor was 254, with 3.12 as the average and 3.00, the median.

The conclusion was confirmed by a one-way ANOVA test on the SPSS program. Tables 5.3.16 and 5.3.17 indicated that there was no difference between the levels of importance of global trend and potential growth, but they were higher than all of the other factors; there was no difference among the levels of importance of transparency/legal system, tax and accounting system and information and data flow, but they were higher than the other factors except global trend and potential growth; there was also no difference between the levels of importance of communication and language and dividend/profit repatriation, but they were higher than currency convertibility, custodian of assets and cost of ownership and entry. There were significant relationships among these factors. No relationship was established among other factors.

Table 5.3.16 Comparisons of China factors

China-related factors	n	$\bar{x}$	Median	s	*F*	*P*
A = Global trend	261	4.28	4.00	1.001	126.860	<0.001
B = Transparency/legal system	264	3.15	3.00	1.136		
C = Currency convertibility	262	2.24	2.00	1.244		
D = Custodian of assets	262	2.23	2.00	1.238		
E = Cost of ownership and entry	264	2.23	2.00	1.201		
F = Communication and language	264	2.79	3.00	1.061		
G = Potential growth	263	4.24	4.00	0.895		
H = Tax and accounting system	262	3.34	3.00	0.960		
I = Dividend/profit repatriation	260	2.72	3.00	1.045		
J = Information and data flow	264	3.28	3.00	1.146		

Source: Analysis of survey data

Table 5.3.17 Comparisons between two different China factors

	A	B	C	D	E	F	G	H	I	J
A	/	<0.001	<0.001	<0.001	<0.001	<0.001	1.000	<0.001	<0.001	<0.001
B	<0.001	/	<0.001	<0.001	<0.001	0.007	<0.001	0.597	<0.001	0.919
C	<0.001	<0.001	/	1.000	1.000	<0.001	<0.001	<0.001	<0.001	<0.001
D	<0.001	<0.001	1.000	/	1.000	<0.001	<0.001	<0.001	<0.001	<0.001
E	<0.001	<0.001	1.000	1.000	/	<0.001	<0.001	<0.001	<0.001	<0.001
F	<0.001	0.007	<0.001	<0.001	<0.001	/	<0.001	<0.001	0.999	<0.001
G	1.000	<0.001	<0.001	<0.001	<0.001	<0.001	/	<0.001	<0.001	<0.001
H	<0.001	0.597	<0.001	<0.001	<0.001	<0.001	<0.001	/	<0.001	1.000
I	<0.001	<0.001	<0.001	<0.001	<0.001	0.999	<0.001	<0.001	/	<0.001
J	<0.001	0.919	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	1.000	/

Source: Analysis of survey data

The frequencies of the four composite factors described above were tabulated in Table 5.3.18. The results indicated that investment decisions in China's stock market were more influenced by external environment and company evaluation than other factors.

Table 5.3.18 Frequencies of level of importance of China factors

	Sample size	Average	Median	Standard deviation
External environment	261	3.18	3.50	1.06
Strategic consideration	259	3.03	3.00	0.87
Company evaluation	254	3.12	3.00	0.91
China-related factors	253	3.04	2.80	0.76

Source: Analysis of survey data

5.3.3 Ranking order of all factors influencing investment decisions

Since all means of groups were normally distributed, Pearson correlation coefficients were calculated to rank the order of importance of each factor. Results are presented in Tables 5.3.19 and 5.3.20.

Table 5.3.19 Rank of means of the importance level of global factors

Rank	Factor	Mean	Rank	Factor	Mean
1	Market conditions	3.72	11	Analyst recommendation	2.99
2	Performance pressure	3.32	12	Corporate news/events	2.96
3	Market timing	3.25	13	Cash inflows/outflows level	2.91
4	Rules/restrictions	3.14	14	Institutional buying/selling	2.89
5	Changes in earning estimates	3.11	15	Corporate governance	2.83
6	Financial ratios	3.11	16	Changing asset weight	2.80
7	Quality of management	3.10	17	Insider trading	2.76
8	Technical charts	3.07	18	Personal bonus/awards	2.76
9	Size of company	3.04	19	Hedging bet	2.68
10	Trading volume	3.00	20	Informal news/rumours	2.63

Source: Analysis of survey data

The test yielded a Pearson correlation coefficient r= 0.942, $P<0.05$; as such, the conclusion can be drawn that there was a *significant positive correlation between global factors and China factors* on investment decisions.

However, excluding the common internal factors of organisation such as performance pressure and rules/restrictions, the three top ranking global factors were market conditions, market timing and changes in earning estimates; while the three most important factors influencing investment decisions in China were global trends, potential growth and size of company.

Table 5.3.20 Rank of means of the importance level of China factors

Rank	Factor	Mean	Rank	Factor	Mean
1	Global trend	4.28	14	Changing asset weight	2.84
2	Potential growth	4.24	15	Communication and language	2.79
3	Size of company	3.87	16	Hedging bet	2.76
4	Trading volume	3.85	17	Dividend/profit repatriation	2.72
5	Market conditions	3.77	18	Informal news/rumours	2.70
6	Market timing	3.38	19	Financial ratios	2.67
7	Tax and accounting system	3.34	20	Changes in earning estimates	2.65
8	Information and data flow	3.28	21	Corporate governance	2.62
9	Quality of management	3.18	22	Insider trading	2.58
10	Institutional buying/selling	3.13	23	Corporate news/events	2.55
11	Technical charts	3.13	24	Currency convertibility	2.24
12	Transparency/legal system	3.15	25	Custodian of assets	2.23
13	Analyst recommendation	3.10	26	Cost of ownership and entry	2.23

Source: Analysis of survey data

5.4 Reliability and validity

To reduce errors and to ensure quality of measurements, all variables in the questionnaire were tested for reliability and validity. The SPSS program was used to calculate the coefficients of reliability or Cronbach alpha values of all composite variables and the Davis four-step program was initiated to measure the content validity of the questionnaire.

5.4.1. Reliability

The reliability of data was confirmed by calculating the Cronbach alpha value of each composite variable. The value indicates a level of confidence on the reliability of the questionnaire in terms of measuring the underlying dimension. The alpha value ranges from 0 (perfectly unreliable) to 1 (perfectly reliable). Any construct that scores a value higher than 0.80 is considered significantly reliable; and any alpha scores between 0.60 to 0.80 is assumed to be acceptable (Hair 1995).

All composite variables for this research survey were presented in Table 5.4.1.

Table 5.4.1 Reliability 'alpha' value of composite variables

Composite variables	Questions	Alpha values
Internal factors/Global	Section 2 Question 1 - 4	0.7633
External environment/Global	Section 2 Question 5 - 8	0.7863
Strategic consideration/Global	Section 2 Question 9 - 12	0.7541
Company evaluation/Global	Section 2 Question 13 - 20	0.7564
External environment/China	Section 3 Question 1 - 4	0.8092
Strategic consideration/China	Section 3 Question 5 - 8	0.7624
Company evaluation/China	Section 3 Question 9 - 16	0.8744
China-related factors/China	Section 3 Question 17 - 26	0.8797

Source: Analysis of survey data

The results indicated that Cronbach's alphas of three China factors: external environment, company evaluation and China-related factors were above .80 (α ranging from .8092 to .8797), and could be considered to represent 'significant' reliability.

The remaining variables were all above .70 (α ranging from= .7541 to .7863), and could be presented as 'acceptable' reliability.

5.4.2 Validity

Davis (2000) suggested a four-step method to measure the content validity of research. Firstly, previous studies must be reviewed to include all relevant dimensions for the questions in the survey. Secondly, experts in the research subject should be consulted for appropriate input. Thirdly, the questionnaire should be pre-tested in a pilot study. Finally, all feedback must be reflected in the final draft.

All these four steps were followed in this research to ensure content validity. The literature review presented in Chapters 2 and 3 was employed intensively to formulate the questionnaire (Table 3.2). Six high-level executives in the hedge fund industry with sizable China investments were consulted and the questionnaire was tested by them in a pilot study (Chapter 4, Section 4.6.6). Finally, all feedback was incorporated into the completion of the final draft of the questionnaire.

5.5 Testing of hypotheses

As stated in Chapter 4, there were four hypotheses to be tested. They included:

Hypothesis 1: There are differences between global factors and China factors in terms of ranking of importance.
Hypothesis 2: There is a relationship between fund size and influencing factors on investment decisions.
Hypothesis 3: There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.
Hypothesis 4: There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.

For Hypothesis 1, the proposed statistical tests were dependent t-test and correlation.
For Hypotheses 2 and 3, logistic regression analysis was employed.
For Hypothesis 4, Kruskal-Wallis technique of ANOVA test was used.

Justifications for the use of these tests were presented in Chapter 4, Section 4.7.

5.5.1 Differences between global factors and China factors

The testing of Hypothesis 1 involved a dependent t-test which compared the difference between the means of two related composite variables and evaluated the results for significance.

First, the basic descriptive statistics including means, N and standard deviation were obtained for comparable composite variables. Second, correlations between each variable pair were measured to determine relationships. Correlation values range from -1 (perfectly negative relationship) to 1 (perfectly positive relationship). When squared, correlations indicate the proportion of variance in one variable that can be predicted by the other.

The results of the descriptive statistics for three pairs of composite variables, external environment, strategic considerations and company evaluation were summarised in Table 5.5.1.

Table 5.5.1 Descriptive statistics for three pairs of composite variables

		Mean	N	Std. Deviation
Pair 1	China external environment	3.1877	257	1.04396
	Global external environment	3.0749	257	1.00413
Pair 2	China strategic consideration	3.0453	254	.84927
	Global strategic consideration	2.9852	254	.70783
Pair 3	China company evaluation	3.1130	249	.91014
	Global company evaluation	3.0151	249	.77212

Source: Analysis of survey data

The results indicated that all China composite variables had higher levels of importance compared to global composite variables. The highest score was China external environment, followed by China company evaluation. Global variables also followed the same ranking order: external environment, company evaluation and strategic consideration.

Correlation and dependent t-tests were then performed and the results are shown in Tables 5.5.2 and 5.5.3.

Table 5.5.2 Correlations for three pairs of composite variables

		N	Correlation	Sig.
Pair 1	China external environment & global external environment	257	*.822*	**.000**
Pair 2	China strategic consideration & global strategic consideration	254	*.719*	**.000**
Pair 3	China company evaluation & global company evaluation	249	*.810*	**.000**

Source: Analysis of survey data

Table 5.5.3 Dependent t-tests for 3 pairs of composite variables

		t	df	Sig.
Pair 1	China external environment - Global external environment	2.956	256	**.003**
Pair 2	China strategic consideration - Global strategic consideration	1.599	253	.111
Pair 3	China company evaluation - Global company evaluation	2.888	248	**.004**

Source: Analysis of survey data

The results indicated that there was a significant difference between the China and global external environment as well as a significant difference between the China and global company evaluation. For both variable pairs, China factors were higher than the corresponding global factors. The only variables that did not have a significant difference were China strategic consideration and global strategic consideration.

Finally, tests were performed on the overall scores of the global factors and the China factors to observe the differences in comparison to the three pairs scores. The results are reported in Tables 5.5.4, 5.5.5 and 5.5.6.

Table 5.5.4 Descriptive statistics for overall score

		Mean	N	Std. Deviation
Pair 1	China factors overall score	3.1026	229	.70466
	Global factors overall score	3.0489	229	.54252

Source: Analysis of survey data

Table 5.5.5 Correlations for overall score

		N	Correlation	Sig.
Pair 1	China factors overall score & global factors overall score	229	*.791*	**.000**

Source: Analysis of survey data

Table 5.5.6 Dependent t-test for overall score

		t	df	Sig.
Pair 1	China factors overall score - Global factors overall score	1.885	228	**.061**

Source: Analysis of survey data

The results from these tables indicated that the corresponding correlation between the overall scores of global and China factors was both large and significant. However, the dependent t-test concluded that the differences between the means of the overall scores were not large enough to be statistically significant.

A supplementary method used to test Hypothesis 1 was to compare the ranking in importance level of the global and China factors. The results are presented in Table 5.5.7.

The Pearson product-moment correlation test indicated that P= 0.085 or there was no significant correlation between the importance ranking of global factors and China factors on investment decisions.

From all the above test results, conclusions could be drawn to support the null hypothesis and reject the hypothesis that there were differences between global factors and China factors in terms of importance ranking.

Table 5.5.7 Importance ranking in global factors and China factors

Factor	Rank Global	Rank China	Factor	Rank Global	Rank China
Market conditions	1	3	Size of company	7	1
Institutional buying/selling	11	6	Trading volume	8	2
Informal news/rumours	16	11	Insider trading	14	15
Analyst recommendation	9	8	Corporate news/events	10	16
Market timing	2	4	Changes in earning estimates	3	13
Changing asset weight	13	9	Corporate governance	12	14
Hedging bet	15	10	Financial ratios	4	12
Technical charts	6	7	Quality of management	5	5

Source: Analysis of survey data

5.5.2 Relationship between size of fund and factors influencing investment decisions

The testing of Hypothesis 2 involved logistic regression which is a technique that assumes the errors are drawn from a binomial distribution. Logistic regression is formulated to predict and explain a binary categorical variable instead of a metric measure. In logistic regression, the dependent variable is a *log odd* or *logit*, which is the natural log of the odds.

5.5.2.1 Relationship between size of fund and global factors on investment decisions

Using the SPSS program, the results presented in Table 5.5.8 were obtained.

Table 5.5.8 Results of Logistic regression analysis/ Global

	Importance	β	Wald χ^2	OR	*P*	OR95% confidence interval	
						Lower	Upper
b=From US$100 million to US$500 million (mini-cap)	X_1=Rules/restrictions	0.296	2.636	1.344	0.104	0.941	1.920
	X_2=Market conditions	-0.088	0.116	0.916	0.733	0.553	1.518
	X_3=Institutional buying/selling	-0.288	1.933	0.749	0.164	0.499	1.125
	X_4=Analyst recommendation	0.560	9.787	1.751	**0.002***	1.233	2.488
	X_5=Size of company	0.248	1.601	1.281	0.206	0.873	1.880
	X_6=Insider trading	-0.201	1.484	0.818	0.223	0.591	1.130
	Intercept	-1.715	1.203	/	0.273	/	/
c=From US$500 million to US$1 billion (mid-cap)	X_1=Rules/restriction	0.759	5.872	2.136	**0.015***	1.156	3.947
	X_2=Market conditions	-0.833	7.259	0.435	**0.007***	0.237	0.797
	X_3=Institutional buying/selling	-0.680	4.435	0.507	**0.035***	0.269	0.954
	X_4=Analyst recommendation	0.255	0.983	1.291	0.321	0.779	2.139
	X_5=Size of company	0.505	2.203	1.657	0.138	0.851	3.230
	X_6=Insider trading	0.975	11.061	0.377	**0.001***	0.212	0.670
	Intercept	2.227	1.349	/	0.245	/	/
d=From US$1 billion to US$ 5 billion (large-cap)	X_1=Rules/restrictions	1.311	9.105	3.708	**0.003***	1.583	8.686
	X_2=Market conditions	-1.309	14.321	0.270	**<0.001***	0.137	0.532
	X_3=Institutional buying/selling	-1.161	7.225	0.313	**0.007***	0.134	0.730
	X_4=Analyst recommendation	0.298	0.871	1.347	0.351	0.721	2.516
	X_5=Size of company	0.554	1.638	1.741	0.201	0.745	4.067
	X_6=Insider trading	-1.476	15.130	0.229	**0.000***	0.109	0.481
	Intercept	3.327	1.864	/	0.172	/	/
e=Over US$5 billion (mega-cap)	X_1=Rules/restrictions	2.781	17.476	16.129	**0.000***	4.379	59.398
	X_2=Market conditions	-1.409	11.953	0.244	**0.001***	0.110	0.543
	X_3=Institutional buying/selling	-2.039	10.725	0.130	**0.001***	0.038	0.441
	X_4=Analyst recommendation	-0.330	0.523	0.719	0.470	0.294	1.758
	X_5=Size of company	2.087	12.209	8.060	**0.000***	2.500	25.985
	X_6=Insider trading	-1.293	9.813	0.274	**0.002***	0.122	0.616
	Intercept	-6.780	3.329	/	0.068	/	/

Source: Analysis of survey data

The 4 logistic regression equations were：

$$\frac{\pi_b}{\pi_a} = \frac{\exp(\text{-}0.7150.296X_1\text{-}0.088X_2\text{-}0.288X_3 + 0.560X_4 + 0.248X_5\text{-}0.201X_6)}{1+\exp(\text{-}0.7150.296X_1\text{-}0.088X_2\text{-}0.288X_3 + 0.560X_4 + 0.248X_5\text{-}0.201X_6)}$$

$$\frac{\pi_c}{\pi_a} = \frac{\exp(2.227 + 0.759X_1\text{-}0.833X_2\text{-}0.680X_3 + 0.255X_4 + 0.505X_5 + 0.975X_6)}{1+\exp(2.227 + 0.759X_1\text{-}0.833X_2\text{-}0.680X_3 + 0.255X_4 + 0.505X_5 + 0.975X_6)}$$

$$\frac{\pi_d}{\pi_a} = \frac{\exp(3.327 + 1.311X_1\text{-}1.309X_2\text{-}1.161X_3 + 0.298X_4 + 0.554X_5\text{-}1.476X_6)}{1+\exp(3.327 + 1.311X_1\text{-}1.309X_2\text{-}1.161X_3 + 0.298X_4 + 0.554X_5\text{-}1.476X_6)}$$

$$\frac{\pi_e}{\pi_a} = \frac{\exp(\text{-}6.780 + 2.781X_1\text{-}1.409X_2\text{-}2.039X_3\text{-}0.330X_4 + 2.087X_5\text{-}1.293X_6)}{1+\exp(\text{-}6.780 + 2.781X_1\text{-}1.409X_2\text{-}2.039X_3\text{-}0.330X_4 + 2.087X_5\text{-}1.293X_6)}$$

The results indicated the following relationships：

1. For every one-unit increase in the level of importance of analyst recommendation, there should be a 1.175 increase in the logit of the mini-cap funds to the micro-cap funds.
2. For every one-unit increase in the level of importance of rules/restrictions, there should be a 2.136 increase in the logit of the mid-cap funds to the micro-cap funds. For every one-unit increase in the level of importance of market conditions, institutional buying/selling and insider trading, there should be 2.229, 1.972, 2.653 (1/0.435, 1/0.507, 1/0.377) increase, respectively, in the logit of the micro-cap funds to the mid-cap funds.

3. For every one-unit increase in the level of importance of rules/restrictions, there should be a 3.708 increase in the logit of the large-cap funds to the micro-cap funds. For every one-unit increase in the level of importance of market conditions, institutional buying/selling and insider trading, there should be 3.704, 3.195, 4.367 (1/0.270, 1/0.313, 1/0.229) increase, respectively, in the logit of the micro-cap funds to the large-cap funds.

4. For every one-unit increase in the level of importance of rules/restrictions and size of company, there should be a 16.129 and 8.060 increase, respectively, in the logit of the mega-cap funds to the micro-cap funds. For every one-unit increase in the level of importance of market conditions, institutional buying/selling and insider trading, there should be 4.098, 7.692, 3.650（1/0.244, 1/0.130, 1/0.274）increase, respectively, in the logit of the micro-cap funds to the mega-cap funds.

5.5.2.2 Relationship between size of fund and China factors

Using the SPSS program, the following results as shown in Table 5.5.9 were obtained.

The results indicate the following relationships：

1. For every one-unit increase in the level of importance of hedging bet and quality of management, there should be 1.599 and 1.580 increases, respectively, in the logit of the mini-cap funds to the micro-cap funds.

(Table 5.5.9 on pg. 164)

Table 5.5.9 Results of logistic regression analysis/ China

	Importance	β	Wald χ^2	OR	*P*	OR95% confidence interval	
						Lower	Upper
b=From US$100 million to US$500 million (mini-cap)	X_1=Market conditions	0.125	0.209	1.133	0.647	0.663	1.936
	X_2=Informal news/rumours	-0.318	2.694	0.728	0.101	0.498	1.064
	X_3=Market timing	-0.057	0.124	0.945	0.724	0.690	1.295
	X_4=Hedging bet	0.469	7.479	1.599	**0.006***	1.142	2.238
	X_5=Changes in earning estimates	-0.140	0.518	0.870	0.472	0.595	1.272
	X_6=Quality of management	0.457	6.397	1.580	**0.011***	1.108	2.251
	Intercept	-1.768	1.843	/	0.175	/	/
c=From US$500 million to US$1 billion (mid-cap)	X_1=Market conditions	-1.134	11.531	0.322	**0.001***	0.167	0.619
	X_2= Informal news/rumours	-1.214	13.315	0.297	**<0.001***	0.155	0.570
	X_3= Market timing	0.760	8.944	2.139	**0.003***	1.300	3.521
	X_4=Hedging bet	0.971	13.792	2.640	**<0.001***	1.582	4.406
	X_5=Changes in earning estimates	-0.954	10.184	0.385	**0.001***	0.214	0.692
	X_6= Quality of management	1.327	17.715	3.770	**<0.001***	2.032	6.993
	Intercept	-0.405	0.063	/	.802	/	/
d=From US$1 billion to US$5 billion (large-cap)	X_1= Market conditions	-1.540	23.247	0.214	**<0.001***	0.115	0.401
	X_2= Informal news/rumours	-1.531	18.742	0.216	**<0.001***	0.108	0.433
	X_3= Market timing	0.547	5.067	1.728	**0.024***	1.073	2.783
	X_4=Hedging bet	0.514	3.953	1.673	**0.047***	1.007	2.778
	X_5= Changes in earning estimates	-0.687	5.373	0.503	**0.020***	0.282	0.899
	X_6= Quality of management	1.117	12.406	3.055	**<0.001***	1.641	5.687
	Intercept	3.958	6.580	/	0.010	/	/
e=Over US$5 billion (mega-cap)	X_1= Market conditions	-2.235	21.959	0.107	**<0.001***	0.042	0.272
	X_2= Informal news/rumours	-3.245	25.510	0.039	**<0.001***	0.011	0.137
	X_3= Market timing	-0.179	0.265	0.836	0.607	0.423	1.654
	X_4=Hedging bet	0.753	4.648	2.124	**0.031***	1.071	4.214
	X_5= Changes in earning estimates	-1.221	7.539	0.295	**0.006***	0.123	0.705
	X_6= Quality of management	1.413	11.419	4.106	**0.001***	1.810	9.316
	Intercept	10.006	13.831	/	0.000	/	/

Source: Analysis of survey data

The four logistic regression equations were：

$$\frac{\pi_b}{\pi_a} = \frac{\exp(-1.768 + 0.125X_1 - 0.318X_2 - 0.057X_3 + 0.469X_4 - 0.140X_5 + 0.457X_6)}{1 + \exp(-1.768 + 0.125X_1 - 0.318X_2 - 0.057X_3 + 0.469X_4 - 0.140X_5 + 0.457X_6)}$$

$$\frac{\pi_c}{\pi_a} = \frac{\exp(-0.405 - 1.134X_1 - 1.214X_2 + 0.760X_3 + 0.971X_4 - 0.954X_5 + 1.327X_6)}{1 + \exp(-0.405 - 1.134X_1 - 1.214X_2 + 0.760X_3 + 0.971X_4 - 0.954X_5 + 1.327X_6)}$$

$$\frac{\pi_d}{\pi_a} = \frac{\exp(3.958 - 1.540X_1 - 1.531X_2 + 0.547X_3 + 0.514X_4 - 0.687X_5 + 1.117X_6)}{1 + \exp(3.958 - 1.540X_1 - 1.531X_2 + 0.547X_3 + 0.514X_4 - 0.687X_5 + 1.117X_6)}$$

$$\frac{\pi_e}{\pi_a} = \frac{\exp(10.006 - 2.235X_1 - 3.245X_2 - 0.179X_3 + 0.753X_4 - 1.221X_5 + 1.413X_6)}{1 + \exp(10.006 - 2.235X_1 - 3.245X_2 - 0.179X_3 + 0.753X_4 - 1.221X_5 + 1.413X_6)}$$

2. For every one-unit increase in the level of importance of market timing, hedging bet and quality of management, there should be 2.139, 2.640, 3.770 increases, respectively, in the logit of the mid-cap funds to the micro-cap funds. For every one-unit increase in the level of importance of market conditions, informal news/rumours and changes in earning estimates, there should be 3.106, 3.367, 2.597 (1/0.322, 1/0.297, 1/0.385) increases, respectively, in the logit of the micro-cap funds to the mid-cap funds.

3. For every one-unit increase in the level of importance of market timing, hedging bet and quality of management, there should be 1.728, 1.673 and 3.055 increases, respectively, in the logit of the large-cap funds to the micro-cap funds. For every one-unit increase in the level of importance of market conditions, informal news/rumours and changes in earning estimates, there should be 4.673, 4.630, 1.988 (1/0.214, 1/0.216, 1/0.503) increases, respectively, in the logit of the micro-cap funds to the large-cap funds.

4. For every one-unit increase in the level of importance of hedging bet and quality of management, there should be 2.124 and 4.106 increases, respectively, in the logit of the mega-cap funds to the micro-cap funds. For every one-unit increase in the level of importance of market conditions, insider trading and changes in earning

estimates, there should be 9.346, 25.641, 3.390（1/0.107, 1/0.039, 1/0.295）increases, respectively, in the logit of the micro-cap funds to the mega-cap funds.

From the above results, the conclusion can be drawn to reject the null hypothesis and support the hypothesis that **there is a relationship between the size of fund and factors influencing investment decisions.**

5.5.3 Relationship between analysis and trading style of fund and factors influencing investment decisions

Similar to the variables in the relationship between size of fund and factors influencing investment decisions, the relationship between analysis and trading style of fund and factors influencing investment decisions can be tested using the same logistic regression as discussed above. Two separate tests on global factors and factors relating to China were employed.

5.5.3.1 Relationship between analysis and trading style of fund and global factors on investment decision

Using the SPSS program, the results as shown in Table 5.5.10 were obtained.

Table 5.5.10 Results of logistic regression analysis/global

	Inportance	β	Wald χ^2	OR	*P*	OR95% confidence interval	
						Lower	Upper
b= Momentum trading	X_1=Market conditions	-0.310	0.850	0.733	0.357	0.379	1.418
	X_2= Informal news/rumours	0.488	3.143	1.628	0.076	0.950	2.792
	X_3=Market timing	0.534	5.965	1.706	**0.015***	1.111	2.618
	X_4=Hedging bet	0.244	1.140	1.276	0.286	0.816	1.995
	X_5=Technical charts	0.640	10.719	1.896	**0.001***	1.293	2.781
	X_6=Size of company	-0.537	3.475	0.584	0.062	0.332	1.028
	X_7=Corporate news/events	0.226	0.563	1.254	0.453	0.695	2.262
	X_8=Corporate governance	-0.590	4.815	0.554	**0.028***	0.327	0.939
	X_9=Quality of management	-0.786	7.466	0.456	**0.006***	0.259	0.801
	Intercept	0.548	0.063	/	0.803	/	/
c=Portfolio optimisation	X_1= Market conditions	-0.408	1.603	0.665	0.206	0.354	1.251
	X_2= Informal news/rumours	0.585	4.098	1.794	**0.043***	1.019	3.160
	X_3= Market timing	-0.022	0.008	0.978	0.930	0.602	1.590
	X_4= Hedging bet	-0.053	0.048	0.949	0.827	0.590	1.524
	X_5= Technical charts	0.314	2.220	1.368	0.136	0.906	2.067
	X_6= Size of company	0.572	3.590	1.771	0.058	0.981	3.199
	X_7= Corporate news/events	-0.492	2.488	0.612	0.115	0.332	1.127
	X_8= Corporate governance	0.221	0.610	1.247	0.435	0.716	2.172
	X_9= Quality of management	-0.355	1.525	0.701	0.217	0.399	1.232
	Intercept	-0.480	0.055	/	0.814	/	/
d=Top-down	X_1= Market conditions	-0.910	5.485	0.403	**0.019***	0.188	0.862
	X_2= Informal news/rumours	0.161	0.200	1.175	0.655	0.579	2.384
	X_3= Market timing	0.446	1.993	1.562	0.158	0.841	2.902
	X_4= Hedging bet	0.485	2.688	1.624	0.101	0.910	2.901
	X_5= Technical charts	0.415	2.471	1.515	0.116	0.903	2.543
	X_6= Size of company	0.102	0.079	1.107	0.778	0.546	2.245
	X_7= Corporate news/events	0.083	0.042	1.087	0.837	0.492	2.403
	X_8= Corporate governance	1.000	6.241	2.717	**0.012***	1.240	5.954
	X_9= Quality of management	-0.834	4.618	0.434	**0.032***	0.203	0.929

	Intercept	-3.113	1.313	/	0.252	/	//
e=Bottom-up	X_1= Market conditions	-1.189	9.780	0.304	**0.002***	0.144	0.641
	X_2= Informal news/rumours	0.678	4.245	1.969	**0.039***	1.034	3.751
	X_3= Market timing	0.861	7.650	2.366	**0.006***	1.285	4.355
	X_4= Hedging bet	0.717	6.049	2.049	**0.014***	1.157	3.629
	X_5= Technical charts	0.347	2.069	1.415	0.150	0.882	2.269
	X_6= Size of company	0.604	2.954	1.829	0.086	0.919	3.640
	X_7= Corporate news/events	1.257	10.528	3.515	**0.001***	1.645	7.513
	X_8= Corporate governance	0.603	3.110	1.827	0.078	0.935	3.569
	X_9= Quality of management	-1.563	18.660	0.210	**<0.001***	0.103	0.426
	Intercept	-6.773	6.465	/	0.011	/	/

Source: Analysis of survey data

The four logistic regression equations were：

$$\frac{\pi_b}{\pi_a}=\frac{\exp(0.548-0.310X_1+0.488X_2+0.534X_3+0.244X_4+0.640X_5-0.537X_6+0.226X_7-0.590X_8-0.786X_9)}{1+\exp(0.548-0.310X_1+0.488X_2+0.534X_3+0.244X_4+0.640X_5-0.537X_6+0.226X_7-0.590X_8-0.786X_9)}$$

$$\frac{\pi_c}{\pi_a}=\frac{\exp(-0.480-0.408X_1+0.585X_2-0.022X_3-0.053X_4+0.314X_5+0.572X_6-0.492X_7+0.221X_8-0.355X_9)}{1+\exp(-0.480-0.408X_1+0.585X_2-0.022X_3-0.053X_4+0.314X_5+0.572X_6-0.492X_7+0.221X_8-0.355X_9)}$$

$$\frac{\pi_d}{\pi_a}=\frac{\exp(-3.113-0.910X_1+0.161X_2+0.446X_3+0.485X_4+0.415X_5+0.102X_6+0.083X_7+1.000X_8-0.834X_9)}{1+\exp(-3.113-0.910X_1+0.161X_2+0.446X_3+0.485X_4+0.415X_5+0.102X_6+0.083X_7+1.000X_8-0.834X_9)}$$

$$\frac{\pi_e}{\pi_a}=\frac{\exp(-6.773-1.189X_1+0.678X_2+0.861X_3+0.717X_4+0.347X_5+0.604X_6+1.257X_7+0.603X_8-1.563X_9)}{1+\exp(-6.773-1.189X_1+0.678X_2+0.861X_3+0.717X_4+0.347X_5+0.604X_6+1.257X_7+0.603X_8-1.563X_9)}$$

The results indicated following relationships：

1. For every one-unit increase in the level of importance of market timing and technical charts, there should be 1.706 and 1.896 increases, respectively, in the logit of momentum trading style to fundamentalist trading style. For every one-unit increase in the level of importance of corporate governance and quality of management, there should be 1.805 and 2.193 (1/0.554 and 1/0.456) increases, respectively, in the logit of fundamentalist trading style to the momentum trading style.

2. For every one-unit increase in the level of importance of informal news/rumours, there should be 1.706 and 1.896 increases, respectively, in the logit of the portfolio optimization trading style to the fundamentalist trading style.

3. For every one-unit increase in the level of importance of corporate governance, there should be a 2.717 increase in the logit of the top-down trading style to the fundamentalist trading style. For every one-unit increase in the level of importance of market conditions and quality of management, there should be 2.481 and 2.304 (1/0.403 and 1/0.434) increases, respectively, in the logit of fundamentalist trading style to the top-down trading style.

4. For every one-unit increase in the level of importance of informal news/rumours, market timing, hedging bet and corporate news/events, there should be 1.969, 2.049, 3.515 and 2.366 increases, respectively, in the logit of the bottom-up trading style to the fundamentalist trading style. For every one-unit increase in the level of importance of market conditions and quality of management, there should be 3.289 and 4.762 (1/0.304 and 1/0.210) increases, respectively, in the logit of fundamentalist trading style to the bottom-up trading style.

5.5.3.2 Relationship between analysis and trading style of fund and China factors

Using the SPSS program, the results as shown in Table 5.5.11 were obtained.

Table 5.5.11 Results of logistic regression analysis/ China

	Importance	β	Wald χ^2	OR	*P*	OR95% confidence interval	
						Lower	Upper
b= Momentum trading	X_1=Market conditions	0.478	3.800	1.612	0.051	0.997	2.606
	X_2= Informal news/rumours	0.183	0.710	1.201	0.399	0.784	1.839
	X_3=Corporate governance	-1.060	25.611	0.346	**<0.001***	0.230	0.522
	X_4=Global trend	0.039	0.018	1.040	0.894	0.581	1.863
	Intercept	0.061	0.001	/	0.970	/	/
c=Portfolio optimization	X_1= Market conditions	-0.238	1.045	0.788	0.307	0.499	1.244
	X_2= Informal news/rumours	-0.612	7.291	0.542	**0.007***	0.348	0.845
	X_3= Corporate governance	-0.014	0.005	0.986	0.943	0.669	1.452
	X_4= Global trend	0.911	8.135	2.487	**0.004***	1.330	4.650
	Intercept	-1.419	0.819	/	0.365	/	/
d=Top-down	X_1= Market conditions	-0.764	8.896	0.466	**0.003***	0.282	0.770
	X_2= Informal news/rumours	-0.780	7.931	0.458	**0.005***	0.266	0.789
	X_3= Corporate governance	0.119	0.239	1.126	0.625	0.699	1.815
	X_4= Global trend	0.750	3.930	2.118	**0.047***	1.008	4.446
	Intercept	0.627	0.119	/	0.730	/	/
e=Bottom-up	X_1= Market conditions	-0.523	4.418	0.593	**0.036***	0.364	0.965
	X_2= Informal news/rumours	-1.067	15.364	0.344	**<0.001***	0.202	0.586
	X_3= Corporate governance	0.020	0.008	1.020	0.930	0.650	1.602
	X_4= Global trend	0.772	5.135	2.165	**0.023***	1.110	4.222
	Intercept	0.846	0.258	/	0.612	/	/

Source: Analysis of survey data

The four logistic regression equations were:

$$\frac{\pi_c}{\pi_a} = \frac{\exp(0.061+0.478X_1+0.183X_2-1.060X_3+0.039X_4)}{1+\exp(0.061+0.478X_1+0.183X_2-1.060X_3+0.039X_4)}$$

$$\frac{\pi_c}{\pi_a} = \frac{\exp(-1.419-0.238X_1-0.612X_2-0.014X_3+0.911X_4)}{1+\exp(-1.419-0.238X_1-0.612X_2-0.014X_3+0.911X_4)}$$

$$\frac{\pi_d}{\pi_a} = \frac{\exp(0.627\text{-}0.764X_1\text{-}0.780X_2 + 0.119X_3 + 0.750X_4)}{1+\exp(0.627\text{-}0.764X_1\text{-}0.780X_2 + 0.119X_3 + 0.750X_4)}$$

$$\frac{\pi_e}{\pi_a} = \frac{\exp(0.846\text{-}0.523X_1\text{-}1.067X_2 + 0.020X_3 + 0.772X_4)}{1+\exp(0.846\text{-}0.523X_1\text{-}1.067X_2 + 0.020X_3 + 0.772X_4)}$$

The results indicated following relationships：

1. For every one-unit increase in the level of importance of corporate governance, there should be a 0.346 increase in the logit of the momentum trading style to the fundamentalist trading style. For every one-unit increase in the level of importance of corporate governance and quality of management, there should be 1.805 and 2.193 (1/0.554 and 1/0.456) increases, respectively, in the logit of the fundamentalist trading style to the momentum trading style.

2. For every one-unit increase in the level of importance of global trend, there should be a 2.487 increase in the logit of the portfolio optimization trading style to the fundamentalist trading style. For every one-unit increase in the level of importance of informal news/rumours, there should be a 1.845 (1/0.542) increase in the logit of the fundamentalist trading style to the portfolio optimization trading style.

3. For every one-unit increase in the level of importance of global trend, there should be a 2.118 increase in the logit of the top-down trading style to the fundamentalist trading style. For every one-unit increase in the level of importance of market conditions and informal news/rumours, there should be 2.146 and 2.183 (1/0.466 and 1/0.458) increases, respectively, in the logit of the fundamentalist trading style to the top-down trading style.

4. For every one-unit increase in the level of importance of global trend, there should be a 2.165 increase in the logit of the bottom-up trading style to the fundamentalist trading style. For every one-unit increase in the level of importance of market conditions and informal news/rumours, there should be 1.686 and 2.907 (1/0.593 and 1/0.344) increases, respectively, in the logit of the fundamentalist trading style to the bottom-up trading style.

From the above results, the conclusion can be drawn to reject the null hypothesis and support the hypothesis that **there is a relationship between analysis and trading style of fund and factors influencing investment decisions.**

5.5.4 Relationship between years of expertise and factors influencing investment decisions

This hypothesis was tested using the Kruskal-Wallis test. This method is used instead of the simple ANOVA (Analysis of Variance) when assumptions of normality have not been met. On each variable in question, the SPSS program ranks all scores from lowest to highest. The average of the ranks is then calculated. If there was no difference between variables, the average of the ranks between them should be equal. The hypothesis would be supported if the contrary was true. Two separate tests on global factors (Table 5.5.12) and factors relating to China (Table 5.5.13) were employed.

Table 5.5.12 Relationship between years of expertise and global factors

Composite factor	Factor	H	P
Internal factors	Rules/restrictions	49.327	**<0.001***
	Performance pressure	52.709	**<0.001***
	Cash inflows/outflows level	25.886	**<0.001***
	Personal bonus/awards	18.874	**<0.001***
External environment	Market conditions	5.732	0.125
	Institutional buying/selling	36.245	**<0.001***
	Informal news/rumours	73.766	**<0.001***
	Analyst recommendation	35.790	**<0.001***
Strategic consideration	Market timing	28.948	**<0.001***
	Changing asset weight	5.971	0.113
	Hedging bet	1.044	0.791
	Technical charts	4.025	0.259
Company evaluation	Size of company	63.202	**<0.001***
	Trading volume	69.631	**<0.001***
	Insider trading	10.758	**0.013***
	Corporate news/events	51.760	**<0.001***
	Changes in earning estimates	13.847	**0.003***
	Corporate governance	58.459	**<0.001***
	Financial ratios	3.813	0.282
	Quality of management	40.353	**<0.001***

** Significant*
Source: Analysis of survey data

The above results indicated that, on global factors, the levels of importance of market conditions, changing asset weight, hedging bet, technical charts and financial ratios have no difference on respondents' years of expertise. There were however, significant differences between the other factors and years of expertise.

Table 5.5.13 Relationship between years of expertise and China factors

Composite factor	Factor	H	P
External environment	Market conditions	5.156	0.161
	Institutional buying/selling	10.753	**0.013***
	Informal news/rumours	48.689	**<0.001***
	Analyst recommendation	13.762	**0.003***
Strategic consideration	Market timing	41.304	**<0.001***
	Changing asset weight	27.897	**<0.001***
	Hedging bet	1.905	0.592
	Technical charts	2.226	0.527
Company evaluation	Size of company	13.679	**0.003***
	Trading volume	7.484	0.058
	Insider trading	22.650	**<0.001***
	Corporate news/events	13.459	**0.004***
	Changes in earning estimates	29.225	**<0.001***
	Corporate governance	35.493	**<0.001***
	Financial ratios	7.643	0.054
	Quality of management	16.962	**0.001***
China-related factors	Global trend	2.099	0.552
	Transparency/legal system	33.144	**<0.001***
	Currency convertibility	40.131	**<0.001***
	Custodian of assets	22.793	**<0.001***
	Cost of ownership and entry	15.270	**0.002***
	Communication and language	17.655	**0.001***
	Potential growth	0.423	0.935
	Tax and accounting system	1.759	0.624
	Dividend/profit repatriation	11.574	**0.009***
	Information and data flow	37.709	**<0.001***

**: Significant*
Source: Analysis of survey data

The above results (Table 5.5.13) indicated that, on China factors, the levels of importance of market conditions, hedging bet, technical charts, trading volume, financial ratios, global trends, potential growth and tax and accounting system have no difference on respondents' years of expertise. There were significant differences between the other factors and years of expertise.

From the results of these tests, the conclusion can be drawn to reject the null hypothesis and support the hypothesis that **there is a relationship between years of expertise and factors influencing investment decisions.**

5.6 Summary of research results

The results of the demographic data of respondents are summarised in Table 5.6.1.

Table 5.6.1 Demographics of respondents

Characteristics of respondents	Percentage of largest category
Size of fund	67% under US$500 million (micro-cap)
Size of China investments	39% under US$10 million
Age of fund	57% less than 4 years old
Objective of fund	69% seeking alpha/absolute return
Strategy of fund	48% were specialist
Analysis and trading style of fund	26% were momentum traders
Average annual return of fund	62% from 5% to 15%
Position of respondent in fund	92% were active in trading operation
Years in position	72% had less than 5 years
Size of investment personally managed	53% were under US$10 million
Sources of data/information	42% from in-house research/analysis
Decision-making process	50% made their own decision
Area of expertise	32% from equities
Years of expertise	68% had more than 5 years

Source: Analysis of survey data

On the importance ranking of the influencing factors, the results were shown in Table 5.6.2 (excluding common internal factors of organisation such as performance pressure and rules/restrictions).

Table 5.6.2 Top 5 rankings of influencing factors

Global factors ranking	China factors ranking
1. Market conditions (3.72)	1. Global trend (4.28)
2. Market timing (3.25)	2. Potential growth (4.24)
3. Changes in earning estimates (3.11)	3. Size of company (3.87)
3. Financial ratios (3.11)	4. Trading volume (3.85)
5. Quality of management (3.10)	5. Market conditions (3.77)

Source: Analysis of survey data

The results of the hypothesis testing are shown in Table 5.6.3.

Table 5.6.3 Summary of hypothesis testing

Hypothesis	Statistical test	Result
H1: There is difference between global factors and China factors in terms of ranking of importance.	Dependent t-test	Rejected
H2: There is a relationship between fund size and influencing factors on investment decisions.	Logistic regression	Supported
H3: There is a relationship between analysis and trading style of fund and influencing factors on investment decisions.	Logistic regression	Supported
H4: There is a relationship between personal expertise of fund managers and influencing factors on investment decisions.	Kruskal-Wallis ANOVA	Supported

Source: Developed for this research

5.7 Conclusion

This chapter has presented the complete results from statistical tests performed on 287 responses obtained from the survey questionnaire. The results were classified into three categories: demographic data on fund organisation and personal information of respondents; descriptive analysis of data which included frequencies, levels of importance and ranking of influencing factors on the investment decision-making process; and the statistical testing of hypotheses concerning relationships between global and China factors as well as fund size, trading style and years of personal expertise. A summary of findings were included.

The next chapter provides interpretation of the analysis, conclusions reached from the research outcomes and the implications of the research subject.

CHAPTER SIX

CONCLUSIONS AND IMPLICATIONS

6.1 Introduction

Chapter 5 presented the complete results of the statistical tests on the data collected from the web-based survey of hedge fund managers. This chapter summarises the outcomes of the research findings and generates conclusions.

6.1.1 Objective

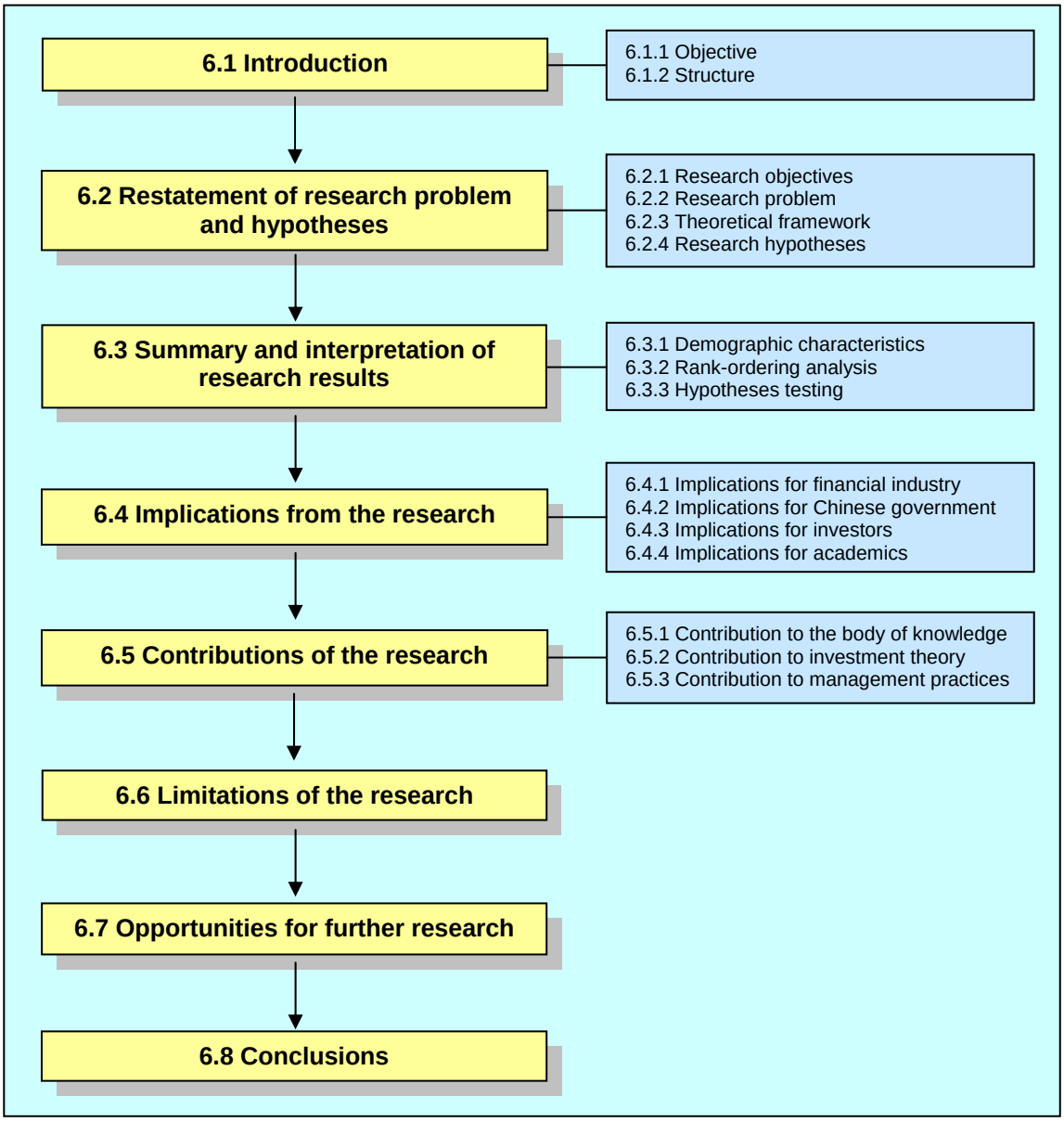
The objective of this chapter is to identify the implications, contributions and limitations of the research results obtained from the survey. A re-statement of the research problem, questions, hypotheses and theoretical framework is also included. Finally, opportunities for further research are discussed.

6.1.2 Structure

This chapter consists of eight sections. Following the introduction, Section 6.2 re-states the research objectives, research problem, questions, hypotheses and theoretical framework. Section 6.3 presents a summary of the research findings and their interpretations. Section 6.4 generates implications from these findings. Section 6.5 categorises the contributions of the research to the body of knowledge, theory generation and management practices. Section 6.6 lists the limitations of the research and Section 6.7 cites opportunities for further research. Section 6.8 presents the conclusion to the chapter.

The structure of this chapter is presented in Figure 6.1.

Figure 6.1 Structure of Chapter 6



Source: Developed for this research

6.2 Restatement of research problem and hypotheses

In the literature review, presented in Chapter 3, gaps in the body of knowledge were discovered and the research objectives were established. The identification of the research problem led to the research questions and proposed hypotheses. The theoretical framework was constructed as a result of this process.

6.2.1 Research objectives

This research examines the decision-making processes of hedge fund mangers related to their investments in global, emerging markets and China's stock exchanges to determine the factors influencing their decisions.

Hedge funds invested in excess of US$1.05 trillion world-wide. Together with mutual funds, portfolio investments amounted to US$12.8 trillion. However, only US$4.3 billion of this amount was invested in China's stock market (Santini 2004). The objectives of the research were to identify the China factors and compare them to the global factors to determine the level of importance that hedge fund managers attribute to each factor when making decisions to invest in China's stock market. In addition, the research conducted statistical tests to confirm the relationships between fund size, trading style of funds and personal expertise of managers in relation to their investment decisions.

6.2.2 Research problem and questions

Simply stated, the research problem for this study was ***'to identify which factors influence investment decisions by international hedge fund managers in relation to China's stock market'***. The influencing factors could be positive or negative, direction of factors could be 'push' or 'pull' and the strength of each factor could be measured and ranked.

The above problem generated the following research questions for this project:

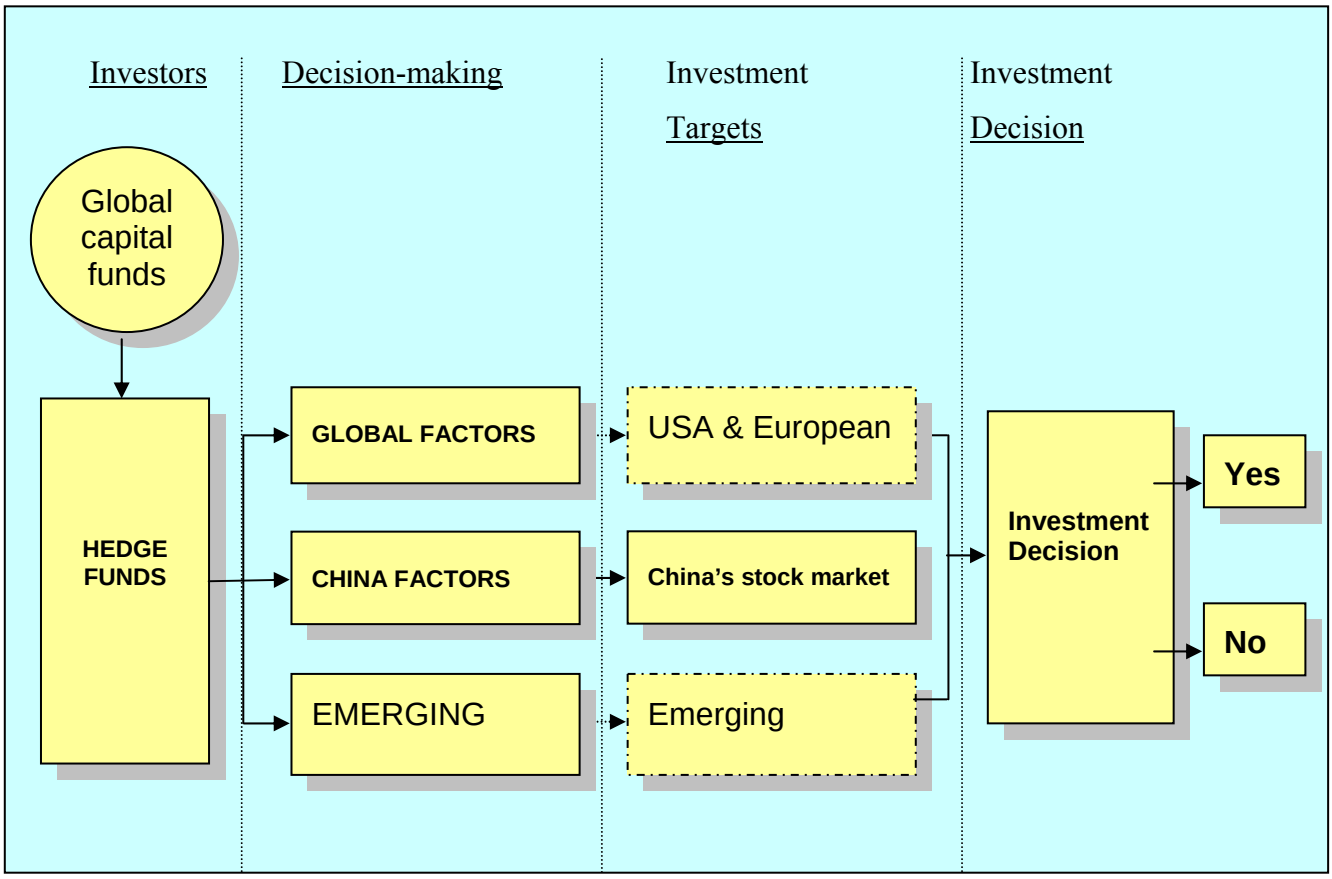
1. What are the most important global factors that influence investment decisions of hedge fund managers in global stock exchanges?
2. What are the most important factors that influence investment decisions of hedge fund managers in China's stock market?
3. Are there differences between global factors and China factors in terms of ranking in importance?
4. Is there a relationship between size of fund and influencing factors on investment decisions?

5. Is there a relationship between analysis and trading style of fund managers and influencing factors on investment decisions?
6. Is there a relationship between personal expertise of fund managers and influencing factors on investment decisions?

6.2.3 Theoretical framework

The relationships among the above variables can be explained in the theoretical framework as depicted in Figure 6.2.

Figure 6.2 Theoretical framework



Source: Developed for this research

6.2.4 Research hypotheses

From the research questions, four hypotheses were developed as follows:

Hypothesis 1: There are differences between global factors and China factors in terms of ranking of importance.
Hypothesis 2: There is a relationship between fund size and influencing factors on investment decisions.
Hypothesis 3: There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.
Hypothesis 4: There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.

6.3 Summary and interpretation of research results

Chapter 5 presented complete details of the results obtained from statistical tests on the survey of hedge fund managers. This section summarises these results and posits the interpretive meaning of the outcomes.

6.3.1 Demographic characteristics

The compilation of demographic characteristics of respondents revealed some significant results:

(a) 67% of respondents were from micro-cap and mini-cap funds (under US$100 million), which were reflective of the population of Asia-related funds according to Eureka (2006);
(b) 83% of respondents had already invested in China which meant there was an inherently positive bias on decision-making factors;
(c) 57% of funds were four years old or less, which suggested a herding tendency when China started to dominate business headlines with its GDP growth since 2000;
(d) Only 18% of respondents were classified as having a long-term investment strategy;

(e) 62% of funds attained average annual returns between 5% and 15% during the last three years, indicating a lower than average of 21.69% of BMI World Index (Standard and Poor's 2006);

(f) 72% of respondents were at their present position for less than five years which meant they were not experienced yet toward China's investment market;

(g) 75% of respondents personally managed portfolios under US$50 million which was consistent with their junior positions;

(h) however, 44% had more than 10 years of experience in trading operations elsewhere which meant they were experienced traders even if they were newcomers to China's investment markets;

(i) 66% of funds relied on their own in-house research and analysis or subscribed to databases, indicating that public information from media or corporations were considered secondary;

(j) 76% of respondents made their own or shared decisions on investments, indicating a high level of independence;

(k) 55% of respondents' areas of expertise were in equities or multi-strategy, which was reflective of the general population of hedge fund managers (Hedge Fund Association, 2006).

These results are summarised in Table 6.3.1.

Table 6.3.1 Demographics of respondents

Characteristics of respondents	Percentage of largest category
Size of fund	67% under US$500 million (micro-cap)
Size of China investments	39% under US$10 million
Age of fund	57% less than 4 years old
Objective of fund	69% seeking alpha/absolute return
Strategy of fund	48% were specialist
Analysis and trading style of fund	26% were momentum traders
Average annual return of fund	62% from 5% to 15%
Position of respondent in fund	92% were active in trading operation
Years in position	72% had less than 5 years
Size of investment personally managed	53% were under US$10 million
Sources of data/information	42% from in-house research/analysis
Decision-making process	50% made their own decision
Area of expertise	32% from equities
Years of expertise	68% had more than 5 years

Source: Developed for this research based on analysis of survey data

6.3.2 Rank-ordering analysis

Results obtained from correlation tests identified the level of importance with emphasis on the following factors:

(a) Of the four composite global factors, *internal factors* was considered the most important factor influencing decision-making processes;

(b) Of the four composite China factors, *external environment* was considered the most important factor influencing decision-making processes;

(c) While *external environment* was the most important composite factor for China investment decisions, *company evaluation* was more important under global considerations;

(d) Research results from the Literature Review (Chapter 3, Section 3.5) indicated that *transparency* and *corporate governance* were the most important influencing factors on investment decisions relating to emerging markets;

however, results from this research indicate that *global trend* and *potential growth* were the most attractive factors pulling investors to China.

In conclusion, results of the survey indicated that hedge fund managers were influenced by different factors when making investment decisions on China's stock market, compared to their investment decisions on global or emerging markets' stock exchanges. The results on the importance ranking of influencing factors are shown in Table 6.3.2 (excluding common internal factors of an organisation such as performance pressure and rules/restrictions).

Table 6.3.2 Top 5 rankings of influencing factors

Global factors ranking	China factors ranking
1. Market conditions (3.72)	1. Global trend (4.28)
2. Market timing (3.25)	2. Potential growth (4.24)
3. Changes in earning estimates (3.11)	3. Size of company (3.87)
3. Financial ratios (3.11)	4. Trading volume (3.85)
5. Quality of management (3.10)	5. Market conditions (3.77)

Source: Developed for this research based on analysis of survey data

6.3.3 Hypotheses testing

The first hypothesis was proposed to emphasise and reconfirm the difference between global factors and China factors. The tests rejected this hypothesis.

The objective of the other three hypotheses was to determine the relationship between influencing factors and characteristics of respondents and their funds. Test results showed that fund size, fund trading style and manager expertise all have a positive relationship with the influencing factors of the decision-making process.

The results of the hypotheses testing are shown in Table 6.6.3.

Table 6.3.3 Summary of hypothesis testing

Hypothesis	Statistical test	Result
H1: There is difference between global factors and China factors in terms of ranking in importance.	Dependent t-test	Rejected
H2: There is a relationship between fund size and influencing factors on investment decisions.	Logistic regression	Supported
H3: There is a relationship between analysis and trading style of fund managers and the influencing factors on investment decisions.	Logistic regression	Supported
H4: There is a relationship between personal expertise of fund managers and the influencing factors on investment decisions.	Kruskal-Wallis ANOVA	Supported

Source: Developed for this research

6.4 Implications from the research

The above research results produced some important implications relating to the influencing factors and participants of China's stock market. While most factors reflected existing literature positions on level of importance and their relationships, the factors discussed below were contrary to conventional wisdom. The implications of these contrarians on industry, government, investors and academics are discussed below.

6.4.1 Implications for the financial industry

In reference to the literature review of Chapter 3, Sections 3.4, 3.5 and 3.6, research analysts assumed that investor behaviour towards China's stock market should be similar to any other emerging markets exchange because China is classified under this index. However, findings from this research have proven otherwise. Investment decisions of hedge fund managers under study were more influenced by *global trend* (herding) and *potential growth* of China than by transparency (Gelos & Wei 2002) or

currency convertibility and capital repatriation (Taylor & Sarno 1997). As such, an exception must be made of China in classifications under the emerging markets index , to reflect the accuracy of this finding.

6.4.2 Implications for the Chinese government

Research findings indicated that *size of company*, *trading volume* and *tax and accounting system* (ranked 3rd, 4th and 7th out of 26 factors) were considered important factors influencing investment decisions. As a result, government officials in charge of setting policy and regulating market operations should take measures to improve the quality of listed firms. Attention must be paid to this important factor to ensure a strong and steady support from foreign funds.

Complete and proper timing of corporate disclosure was another important issue for fund managers as *information and data flow* was the 8th ranked factor from the survey.

6.4.3 Implications for investors

As China's stock market matures, fund managers are likely to apply global factors to decision-making processes in China (Bae, Chan & Ng 2002). As a result, *company evaluation* factors would eventually be considered more important than *external environment* factors. Investors, foreign and domestic, should adjust their portfolios to reflect the new order of influencing factors, as arising from this research.

6.4.4 Implications for academics

On China's stock market, academics have conducted research on issues such as split shares, short-selling, corporate governance, transaction costs, capital control and governmental interference (Section 3.6 of Chapter 3). However, on the basis of these research outcomes, fund investors are actually more influenced by factors related to *company evaluation*. More research in this area is required to understand the exact characteristics of this factor.

6.5 Contributions of the research

The findings of this research are expected to contribute positively to current research and studies on China's stock market and hedge fund operations. Investment decisions are the most important component of global equity flows. The understanding of decision-making processes enables better plans and strategies, effective implementation and accurate analysis of capital movements. Specifically, this research contributes directly and positively to the body of knowledge on investment theory and management practices.

6.5.1 Contribution to the body of knowledge

The literature review process ascertained that there has not been any complete scientific research that identifies and quantifies factors influencing investment decisions of hedge fund managers relating to China's stock market. The gap in knowledge on this subject is significant, considering the growing importance of hedge funds and China's stock market in global financial standings. The findings of this research have partially filled this gap.

6.5.2 Contribution to investment theory

This research established a comprehensive approach to identifying influencing factors on investment decisions of hedge fund managers in a global context as well as in the Chinese environment. The identification of an 8-step decision-making process (Section 3.2, Chapter 3) provided an holistic perspective of the research problem and the confirmation of these factors in the survey created new directions for additional research.

The theoretical framework of this study outlines the influencing factors of investment decisions applicable to global, emerging markets and China's stock exchanges. Further research on any aspect of global capital structure would broaden the perspective of this framework.

6.5.3 Contribution to management practices

An understanding of the factors influencing investment decisions of hedge fund managers will help participants of China's stock market understand the conditions under which capital inflows and outflows operate. These participants include institutional and individual investors, government regulators, industry research analysts, corporate financiers and academics.

Investors can make better decisions if they have an understanding of what motivates other investors. *Regulators* can establish better policy and enforce policy more effectively if they understand the mindset of their customers (investors). *Research analysts* can produce more accurate reports and studies if they have access to better perspectives on the decision-making process. *Corporate financiers* can assemble better business plans and strategies with an holistic approach based on the 8-step decision making process. Finally, more issues and theories are available to *academics* to use as a basis for additional research.

6.6 Limitations of the research

Doctoral dissertations are usually constrained by lack of resources, time, funding and scope. This research study was limited by all these factors and additional factors applicable to China and its environment.

First, China's capital market has transformed rapidly since 2001 when China became a member of the WTO. New policies and regulations have been issued almost monthly to upgrade the structural framework of China's stock market to world standards. As a result, changes are happening faster than research studies could capture. Therefore, findings of this research could become obsolete in a short period.

Furthermore, the survey for this research was conducted in early April 2006, at the end of a robust bull market in the United States of America and emerging markets. As these markets have suffered severe downturns since then, investor sentiments

could be affected similarly, and the results could be skewed in a different direction to those that were produced based on the survey results of early 2006.

Another limitation is the proprietary nature of hedge fund operations. Unlike mutual funds, disclosure requirements of private hedge funds are limited. Statistical secondary data on hedge fund operations are suspected to be non-representative.

This limitation also applies to primary data. Successful fund managers are reluctant to reveal competitive advantages of their strategies or decision processes. Therefore, the respondents could include a high percentage of smaller funds and underperformers from the total representative sample.

Because hedge fund managers are busy, impatient executives, any questionnaire is limited to a 5-minute period and cannot be constructed to explore in-depth or complex issues relating to decision-making processes. As a result, the research findings are limited to only 46 simplified factors.

Finally, a high proportion of respondents have already made investments in China's stock market. As a result, positive China factors might have been over-subscribed in the responses, compared to negative factors.

6.7 Opportunities for further research

To overcome the above limitations, research with more resources, time, funding and scope would yield better results in terms of quantitative and qualitative analysis than have been obtained in this research.

The scope of the research could be expanded to include the total population of hedge funds, including domestic firms. Such an inclusion could discern more negative factors and be more representative of the population.

In-depth interviews arranged to explore complex issues of decision-making processes and to triangulate results of any quantitative survey may maximise research results.

The influencing factors classified according to market capitalisation of hedge funds may lead to a further research project. As such, market participants could be provided with better insights, as managers of micro-cap funds tend to have different decision behaviour than mega-cap fund managers.

Research conducted on different sectors of the financial industry is a possibility. Investment decisions made by mutual fund managers, venture capitalists, banking executives, domestic investors and corporate traders should be of significant interest to all participants in China's stock market.

6.8 Conclusions

This chapter summarised all the aspects of this research project, from the research objectives, questions, hypotheses and theoretical framework, to the research results, interpretations, implications, contributions and limitations.

The literature review established the influencing factors on investment decisions that created a comprehensive 8-step decision-making process of fund managers. Gaps in the literature review were identified and the research problem, questions and hypotheses were proposed, and a theoretical framework was produced.

A web-based questionnaire was designed to conduct the survey using quantitative methodology. Primary data was collected and analysed by the SPSS statistical program and the results were compiled and interpreted. Implications were identified for the benefit of the financial industry, the Chinese government, investment community and academic research. Contributions of this research to the body of knowledge were specified in terms of theory generation and management practices. The limitations of this research were also listed, in order to offer future researchers more opportunities to progress the body of knowledge.

The importance of the hedge fund world and China's stock market on the global capital structure are increasing on a fast-growth curve. This research project has

contributed positively to the understanding of the decision-making process relating to these two important financial entities. As a result, the objectives of this research project were achieved.

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APPENDIX A

SURVEY QUESTIONNAIRE

AND

COVER LETTER

SAMPLE EMAIL TO FUNDS:

Re: Academic survey on China's investment

As a doctoral candidate at Southern Cross University (NSW, Australia), I am conducting a survey to determine influencing factors on investment decision of hedge funds related to China's stock market.

Survey results will be made public for the benefit of fund operators, corporate executives, market regulators, academicians and the investment public. However, the confidentiality and anonymity of your response is assured.

Your participation in the survey is entirely voluntary but will be appreciated by all above beneficiaries.

Please click on the following link to access and respond to our questionnaire - it will only take 5 minutes of your time to complete:

>>> **Click here to enter the survey** <<<

Thank you
Alan Phan
Email: alanphan@optusnet.com.au
Tel: +61 4 2137 9556

You are receiving this e-mail because you are a registered investment advisor in public filings by hedge fund managers.

This email was sent to the following email address: alanphan@optusnet.com.au.

To opt out of receiving further messages about academic surveys, please click here.

Survey - Your Assistance Requested

Influencing Factors of Investment Decision by Hedge Fund Managers Relating to China's Stock Market

GRADUATE COLLEGE OF MANAGEMENT
Doctor of Business Administration Program

The objective of this survey is to identify influencing factors of investment decision by hedge fund managers relating to China's stock market. This questionnaire is being sent to all hedge funds that have invested or plan to invest in China. The survey is part of my research study as a DBA candidate at Southern Cross University, Graduate School of Management, located in NSW, Australia.

Your participation in the survey will be voluntary and can be withdrawn at any time. You may also elect not to answer any particular question. It should take no more than 5 minutes of your time; yet, the results will contribute greatly to the knowledge on China's investment policies and strategies. Beneficiaries of the survey would include fund operators like you, as well as corporate executives, market officials, government regulators and the investment public.

Your response will be completely anonymous and confidential. No individual response will be reported and your name should not be written on the response sheets or the reply envelope. You understand that **by returning the questionnaire, you have given us your informed consent explicitly**.

If you have any further question, you may contact the undersigned or my project supervisor, Emeritus Professor Geoffrey Meredith, at below address. *The ethical aspects of this study have been approved by the Southern Cross University Human Research Ethics Committee. The approval number is ECN-06-09. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Ethics Complaints Officer, Ms S. Kelly, (telephone (02) 6620 9139, fax (02) 6626 9145, email: skelly@scu.edu.au).*

Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Your help is truly appreciated,

Alan V. Phan
Email: aphan10@scu.edu.au
Southern Cross University, GCM
P.O. Box 42
Tweed Heads, NSW 2485
Australia
Tel: (61) 421 379 556

Supervisor: Prof. Geoffrey Meredith
Email: gmeredit@scu.edu.au
Southern Cross University, GCM
P.O. Box 157
Lissmore, NSW 2480
Australia
Tel: (61) 6620 3838

SECTION I: FUND INFORMATION

1. Please select the size of funds under your management:

☐ a) Under US$100 million

- b) From US$100 million to US$500 million
- c) From US$500 million to US$ 1 billion
- d) From US$1 billion to US$ 5 billion
- e) Over US$ 5 billion

2. Please select the size of your fund investments in China:

- a) None yet
- b) Under US$10 million
- c) From US$ 10 million to US$ 50 million
- d) From US$ 50 million to US$ 100 million
- e) From US$100 million to US$ 200 million
- f) Over US$ 200 million

3. Please select the age of your fund:

- a) Under 2 years
- b) From 2 years to 4 years
- c) From 4 years to 10 years
- d) Over 10 years

4. Please specify the fund objective:

- a) Alpha/ absolute return
- b) Beta/ indexed return

5. Please describe investment strategy of your fund management (Select as many as applicable):

- a) Aggressive growth
- b) Fixed income
- c) Market-timing
- d) Long/short equities
- e) Emerging markets
- f) Commodities/currencies
- g) Value-oriented
- h) Global macro
- i) Special situation
- j) Distressed securities
- k) Multi-strategy
- l) Managed futures

☐ m) Mortgage-backed securities ☐ n) Fund of the funds

6. Please describe the analysis and trading style of your fund:

☐ a) Fundamentalist
☐ b) Momentum trading
☐ c) Portfolio optimization
☐ d) Top-down
☐ e) Bottom-up

7. Please specify average annual return of your fund during the last 3 years:

☐ a) Under 5%
☐ b) Between 5% and 10%
☐ c) Between 10% and 15%
☐ d) Between 15% and 20%
☐ e) Above 20%

*SECTION II: GLOBAL FACTORS ON INVESTMENT DECISION

Following is a list of factors that could influence your buy/sell decision in stock exchanges of a **developed country (Europe, U.S. or Japan)**. Please select the level of importance of each factor relating to your selection criteria or requirements.

Importance:

1 - Not important
2 - A little important
3 - Somewhat important
4 - Important
5 - Very important
N/A - Not applicable

Factors	Importance Very ⟶ None					
A. INTERNAL FACTORS OF YOUR FUND						
Rules/restrictions	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Performance pressure	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Cash inflows/outflows level	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

Personal bonus/awards	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

B. EXTERNAL ENVIRONMENT

Market conditions	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Institutional buying/selling	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Informal news/rumors	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Analyst recommendation	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

C. STRATEGIC CONSIDERATION

Market timing	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Changing asset weight	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Hedging bet	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Technical charts	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

D. COMPANY EVALUATION

Size of company	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Trading volume	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Insider trading	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Corporate news/events	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Changes in earning estimates	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

Corporate governance	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Financial ratios	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Quality of management	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

SECTION III: FACTORS INFLUENCING INVESTMENT IN CHINA

Following is a list of factors that could influence your investment decision in **China's stock market**. Please circle the level of importance of each factor relating to your selection criteria or requirements.

Importance:

1 - Not important
2 - A little important
3 - Somewhat important
4 - Important
5 - Very important
N/A - Not applicable

(If your fund has no intention of investing in China, Please skip this entire section.)

Factors	Importance Very → None					
A. EXTERNAL ENVIRONMENT						
Market conditions	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Institutional buying/selling	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Informal news/rumors	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Analyst recommendation	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
B. STRATEGIC CONSIDERATION						
Market timing	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Changing asset weight	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Hedging bet	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

Technical charts	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

C. COMPANY EVALUATION

Size of company	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Trading volume	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Insider trading	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Corporate news/events	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Changes in earning estimates	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Corporate governance	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Financial ratios	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Quality of management	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

D. CHINA-RELATED FACTORS

Global trend	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Transparency/legal system	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Currency convertibility	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Custodian of assets	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Cost of ownership and entry	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Communication and language	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

Potential growth	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Tax and accounting system	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Dividend/profit repatriation	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A
Information and data flow	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ N/A

*SECTION IV: YOUR PERSONAL INFORMATION

1. Please select your position in the fund organization:

- ☐ a) Trader or analyst
- ☐ b) Manager of trading division
- ☐ c) Administrator
- ☐ d) Managing Partner
- ☐ e) CEO/President/Owner

2. How many years have you been at this position?

- ☐ a) Under 2 years
- ☐ b) Between 2 years and 5 years
- ☐ c) Between 5 years and 10 years
- ☐ d) Over 10 years

3. Please specify the size of investment you are handling:

- ☐ a) Under US$ 5 million
- ☐ b) Between US$ 5 million and US$ 10 million
- ☐ c) Between US$ 10 million and US$ 50 million
- ☐ d) Over US$ 50 million

4. What type of information and data sources you rely on the most?

- ☐ a) In-house research and analysis

- b) Subscribed databases and independent analyst reports
- c) Media reports
- newsletters and trade publications
- d) Corporate disclosures and press releases
- e) Informal visit and conversation with corporate executives
- f) Chats or tips from industry professionals

5. How investment decision is decided at your fund?

- a) My own decision under strategic guidelines
- b) My own decision at my discretion
- c) Shared decision with colleagueses
- d) After consultation with superiors
- e) After authorization by superiors

6. Please indicate the area of your trading experience:

- a) Equities
- b) Bonds
- c) Commodities
- d) Currencies
- e) Options derivatives or swaps
- f) Multi-strategy

7. How many years of experience do you have with above expertise?

- a) Under 2 years
- b) Between 2 years and 5 years
- c) Between 5 years and 10 years
- d) Over 10 years

Submit

APPENDIX B
DETAILS OF DATA ANALYSIS

Frequencies of level of importance of global factors on investment decision

Table 1. Internal factors of fund

	Importance					
	N/A（%）	1（%）	2（%）	3（%）	4（%）	5（%）
Rules/retrictions	6（2.20）	30（10.99）	43（15.75）	71（26.01）	87（31.87）	36（13.19）
Performance pressure	7（2.57）	26（9.56）	41（15.07）	57（20.96）	80（29.41）	61（22.43）
Cash inflows/outflows level	7（2.57）	28（10.29）	62（22.79）	86（31.62）	63（23.16）	26（9.56）
Personal bonus/awards	12（4.41）	50（18.38）	53（19.49）	65（23.90）	60（22.06）	32（11.76）

Table 2. Frequencies of level of importance of internal factors

	Sample size	Average	Median	Standard deviation
Frequency	270	3.04	3.25	1.01

Table 3. External environment

	Importance					
	N/A（%）	1（%）	2（%）	3（%）	4（%）	5（%）
Market conditions	5（1.82）	24（8.76）	33（12.04）	16（5.84）	98（35.77）	98（35.77）
Institutional buying/selling	8（2.94）	30（11.03）	60（22.06）	88（32.35）	59（21.69）	27（9.93）
Informal news/rumors	9（3.30）	42（15.38）	76（27.84）	81（29.67）	45（16.48）	20（7.33）
Analyst recommendation	8（2.91）	45（16.36）	33（12.00）	79（28.73）	76（27.64）	34（12.36）

Table 4. Frequencies of level of importance of external factors

	Sample size	Average	Median	Standard deviation
Frequency	272	3.05	3.00	1.02

Table 5. Strategic consideration

	Importance					
	N/A (%)	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
Market timing	8 (2.94)	49 (18.01)	25 (9.19)	41 (15.07)	84 (30.88)	65 (23.90)
Changing asset weight	6 (2.21)	35 (12.87)	58 (21.32)	100 (36.76)	54 (19.85)	19 (6.99)
Hedging bet	9 (3.32)	37 (13.65)	86 (31.73)	63 (23.25)	53 (19.56)	23 (8.49)
Technical charts	6 (2.20)	46 (16.85)	35 (12.82)	70 (25.64)	69 (25.27)	47 (17.22)

Table 6. Frequencies of level of importance of strategic consideration

	Sample size	Average	Median	Standard deviation
Frequency	271	2.95	3.00	0.75

Table 7. Company evaluation

	Importance					
	N/A (%)	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
Size of company	12 (4.36)	30 (10.91)	49 (17.82)	62 (22.55)	88 (32.00)	34 (12.36)
Trading volume	11 (4.01)	35 (12.77)	28 (10.22)	109 (39.78)	52 (18.98)	39 (14.23)
Insider trading	17 (6.20)	39 (14.23)	58 (21.17)	64 (23.36)	70 (25.55)	26 (9.49)

Corporate news/events	11 (4.00)	32 (11.64)	59 (21.45)	64 (23.27)	72 (26.18)	37 (13.45)
Changes in earning estimates	14 (5.11)	24 (8.76)	32 (11.68)	74 (27.01)	81 (29.56)	49 (17.88)
Corporate governance	13 (4.76)	43 (15.75)	60 (21.98)	50 (18.32)	75 (27.47)	32 (11.72)
Financial ratios	13 (4.73)	24 (8.73)	47 (17.09)	65 (23.64)	88 (32.00)	38 (13.82)
Quality of management	14 (5.11)	39 (14.23)	43 (15.69)	45 (16.42)	75 (27.37)	58 (21.17)

Table 8. Frequencies of level of importance of company evaluation

	Sample size	Average	Median	Standard deviation
Frequency	270	3.00	3.13	0.84

Frequencies of level of importance of factors influencing investment in China

Table 9. External environment

	Importance					
	N/A (%)	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
Market conditions	6 (2.29)	13 (4.96)	27 (10.31)	39 (14.89)	81 (30.92)	96 (36.64)
Institutional buying/selling	9 (3.44)	27 (10.31)	35 (13.36)	83 (31.68)	65 (24.81)	43 (16.41)
Informal news/rumors	11 (4.20)	36 (13.74)	56 (21.37)	94 (35.88)	47 (17.94)	18 (6.87)
Analyst recommendation	12 (4.60)	38 (14.56)	30 (11.49)	58 (22.22)	77 (29.50)	46 (17.62)

Table 10. Frequencies of level of importance of external factors

	Sample size	Average	Median	Standard deviation
Frequency	261	3.18	3.50	1.06

Table 11. Strategic consideration

	Importance					
	N/A（%）	1（%）	2（%）	3（%）	4（%）	5（%）
Market timing	8（3.04）	40（15.21）	30（11.41）	33（12.55）	69（26.24）	83（31.56）
Changing asset weight	10（3.83）	37（14.18）	58（22.22）	67（25.67）	59（22.61）	30（11.49）
Hedging bet	10（3.82）	32（12.21）	69（26.34）	71（27.10）	59（22.52）	21（8.02）
Technical charts	8（3.05）	37（14.12）	49（18.70）	39（14.89）	77（29.39）	52（19.85）

Table 12. Frequencies of level of importance of strategic consideration

	Sample size	Average	Median	Standard deviation
Frequency	259	3.03	3.00	0.87

Table 13. Company evaluation

	Importance					
	N/A（%）	1（%）	2（%）	3（%）	4（%）	5（%）
Size of company	10（3.80）	5（1.90）	7（2.66）	59（22.43）	89（33.84）	93（35.36）
Trading volume	9（3.44）	2（0.76）	8（3.05）	69（26.34）	86（32.82）	88（33.59）
Insider trading	12（4.60）	33（12.64）	70（26.82）	94（36.02）	41（15.71）	11（4.21）
Corporate news/events	10（3.85）	35（13.46）	90（34.62）	68（26.15）	42（16.15）	15（5.77）
Changes in earning estimates	10（3.80）	50（19.01）	71（27.00）	51（19.39）	53（20.15）	28（10.65）
Corporate governance	9（3.45）	55（21.07）	61（23.37）	64（24.52）	46（17.62）	26（9.96）
Financial ratios	10（3.80）	7（2.66）	17（6.46）	64（24.33）	94（35.74）	71（27.00）
Quality of management	12（4.58）	7（2.67）	71（27.10）	45（17.18）	85（32.44）	42（16.03）

Table 14. Frequencies of level of importance of company evaluation

	Sample size	Average	Median	Standard deviation
Frequency	254	3.12	3.00	0.91

Table 15. China factors

	Importance					
	N/A（%）	1（%）	2（%）	3（%）	4（%）	5（%）
Global trend	6（2.30）	4（1.53）	2（0.77）	14（5.36）	108（41.38）	127（48.66）
Transparency/legal system	5（1.89）	3（1.14）	76（28.79）	82（31.06）	60（22.73）	38（14.39）
Currency convertibility	7（2.67）	76（29.01）	89（33.97）	45（17.18）	27（10.31）	18（6.87）
Custodian of assets	4（1.53）	83（31.68）	90（34.35）	37（14.12）	31（11.83）	17（0.49）
Cost of ownership and entry	5（1.89）	75（28.41）	98（37.12）	40（15.15）	31（11.74）	15（5.68）
Communication and language	6（2.27）	18（6.82）	80（30.30）	94（35.61）	54（20.45）	12（4.55）
Potential growth	4（1.52）	3（1.14）	4（11）	11（4.18）	134（50.95）	107（40.68）
Tax and accounting	4（1.53）	7（2.67）	23（8.78）	113（43.13）	92（35.11）	23（8.78）
Dividend/profit repatriation	7（2.69）	10（3.85）	101（38.85）	90（34.62）	36（13.85）	16（6.15）
Information and data flow	5（1.89）	2（0.76）	63（23.86）	84（31.82）	63（23.86）	47（17.80）

Table 16. Frequencies of level of importance of China factors

	Sample size	Average	Median	Standard deviation
Frequency	253	3.04	2.80	0.76

Different levels of importance

Table 17. Different levels of importance of external environment on the investment decision in global and China's stock market

	Investment decision	Importance 1	2	3	4	5	χ^2	*P*
Market conditions	Global	24	33	16	98	98	14.811	**0.005***
	China	13	27	39	81	96		
Institutional buying/selling	Global	29	35	21	85	95	59.048	**<0.001***
	China	27	35	83	65	43		
Informal news/rumors	Global	42	76	81	45	20	4.281	0.369
	China	36	56	94	47	18		
Analyst recommendation	Global	45	33	79	76	34	5.137	0.274
	China	38	30	58	77	46		

Table 18. Different levels of importance of strategic consideration on the investment decision in global and China's stock market

	Investment decision	Importance 1	2	3	4	5	χ^2	*P*
Market timing	Global	49	25	41	84	65	5.735	0.220
	China	40	30	33	69	83		
Changing asset weight	Global	35	58	100	54	19	8.839	0.065
	China	37	58	67	59	30		
Hedging bet	Global	37	86	63	53	23	2.923	0.571
	China	32	69	71	59	21		
Technical charts	Global	46	35	70	69	47	12.500	**0.014***
	China	37	49	39	77	52		

Table 19. Different levels of importance of company evaluation on the investment decision in global and China's stock market

	Investment decision	Importance					χ^2	*P*
		1	2	3	4	5		
Size of company	Global	30	49	62	88	34	76.682	**<0.001***
	China	5	7	59	89	93		
Trading volume	Global	35	28	109	52	39	76.650	**<0.001***
	China	2	8	69	86	88		
Insider trading	Global	39	58	64	70	26	20.858	**<0.001***
	China	33	70	94	41	11		
Corporate news/events	Global	32	59	64	72	37	23.544	**<0.001***
	China	35	90	68	42	15		
Changes in earning estimates	Global	24	32	74	81	49	39.624	**<0.001***
	China	50	71	51	53	28		
Corporate governance	Global	43	60	50	75	32	10.646	**0.031***
	China	55	61	64	46	26		
Financial ratios	Global	24	47	65	88	38	33.434	**<0.001***
	China	7	17	64	94	71		
Quality of management	Global	39	43	45	75	58	32.139	**<0.001***
	China	7	71	45	85	42		

Relationship between years of expertise and factors influencing investment decision

Table 20. Relationship between years of expertise and level of importance of rules/restrictions

Years of expertise	Importance of rules/restrictions						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	4	5	8	10	0	49.327	**<0.001***
Between 2 years and 5 years	3	9	19	18	8	1		
Between 5 years to 10 years	9	19	20	6	9	2		
Over 10 years	21	55	27	11	3	3		

Table 21. Relationship between years of expertise and level of importance of performance pressure

Years of expertise	Importance of performance pressure						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	5	2	12	8	0	52.709	**<0.001***
Between 2 years and 5 years	5	7	24	14	7	1		
Between 5 years to 10 years	22	18	10	7	6	1		
Over 10 years	33	50	20	8	5	4		

Table 22. Relationship between years of expertise and level of importance of cash inflows/outflows level

Years of expertise	Importance of cash inflows/outflows level						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	0	2	11	9	5	0	25.886	**<0.001***
Between 2 years and 5 years	2	8	18	20	9	1		
Between 5 years to 10 years	8	22	18	10	6	1		
Over 10 years	16	31	38	23	7	5		

Table 23. Relationship between years of expertise and level of importance of personal bonus/awards

Years of expertise	Importance of person bonus/awards						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	0	2	14	4	7	0	18.874	**<0.001***
Between 2 years and 5 years	3	6	20	10	18	1		
Between 5 years to 10 years	16	16	10	9	11	8		
Over 10 years	13	36	20	30	13	8		

Table 24. Relationship between years of expertise and level of importance of market conditions

Years of expertise	Importance of market conditions						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	12	15	1	0	0	0	5.732	0.125
Between 2 years and 5 years	21	22	4	7	2	2		
Between 5 years to 10 years	25	17	6	10	6	1		
Over 10 years	39	44	4	16	16	2		

Table 25. Relationship between years of expertise and level of importance of institutional buying/selling

Years of expertise	Importance of institutional buying/selling						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	5	14	6	3	0	0	36.245	**<0.001***
Between 2 years and 5 years	7	17	23	6	3	2		
Between 5 years to 10 years	9	13	23	11	8	1		
Over 10 years	6	15	34	40	19	5		

Table 26. Relationship between years of expertise and level of importance of informal news/rumors

Years of expertise	Importance of informal news/rumors						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	5	13	10	0	0	0	73.766	**<0.001***
Between 2 years and 5 years	12	18	15	6	5	2		
Between 5 years to 10 years	2	9	21	17	14	2		
Over 10 years	1	5	34	52	23	5		

Table 27. Relationship between years of expertise and level of importance of analyst recommendation

Years of expertise	Importance of analyst recommendation						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	9	14	5	0	0	0	35.790	**<0.001***
Between 2 years and 5 years	16	12	17	5	6	2		
Between 5 years to 10 years	2	18	20	9	14	2		
Over 10 years	7	32	36	18	25	4		

Table 28. Relationship between years of expertise and level of importance of market timing

Years of expertise	Importance of market timing						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	8	6	6	7	0	28.948	**<0.001***
Between 2 years and 5 years	9	9	12	8	17	2		
Between 5 years to 10 years	19	15	9	5	14	3		
Over 10 years	35	52	13	6	11	3		

Table 29. Relationship between years of expertise and level of importance of changing asset weight

Years of expertise	Importance of changing asset weight						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	6	10	7	4	0	5.971	0.113
Between 2 years and 5 years	3	8	18	14	12	2		
Between 5 years to 10 years	11	9	21	12	10	2		
Over 10 years	4	31	49	25	9	2		

Table 30. Relationship between years of expertise and level of importance of hedging bet

Years of expertise	Importance of hedging bet						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	2	8	7	7	3	0	1.044	0.791
Between 2 years and 5 years	5	11	11	20	8	2		
Between 5 years to 10 years	7	13	15	14	14	2		
Over 10 years	9	21	28	45	12	5		

Table 31. Relationship between years of expertise and level of importance of technical charts

Years of expertise	Importance of technical charts						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	2	6	13	5	2	0	4.025	0.259
Between 2 years and 5 years	9	12	12	8	15	1		
Between 5 years to 10 years	17	12	15	9	9	3		
Over 10 years	19	39	29	12	20	2		

Table 32. Relationship between years of expertise and level of importance of size of company

Years of expertise	Importance of size of company						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	0	4	4	12	8	0	63.202	**<0.001***
Between 2 years and 5 years	3	8	10	19	13	5		
Between 5 years to 10 years	8	19	21	10	4	3		
Over 10 years	23	56	26	8	5	4		

Table 33. Relationship between years of expertise and level of importance of trading volume

Years of expertise	Importance of trading volume						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	0	9	4	14	0	69.631	**<0.001***
Between 2 years and 5 years	2	4	20	12	15	5		
Between 5 years to 10 years	12	11	29	6	4	3		
Over 10 years	23	36	51	6	2	3		

Table 34. Relationship between years of expertise and level of importance of insider trading

Years of expertise	Importance of insider trading						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	5	10	5	6	2	0	10.758	**0.013***
Between 2 years and 5 years	9	19	7	10	6	7		
Between 5 years to 10 years	8	15	8	17	12	5		
Over 10 years	4	26	42	25	19	5		

Table 35. Relationship between years of expertise and level of importance of corporate news/events

Years of expertise	Importance of corporate news.events						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	9	14	5	0	0	0	51.760	**<0.001***
Between 2 years and 5 years	10	26	10	6	1	5		
Between 5 years to 10 years	8	15	17	10	13	2		
Over 10 years	10	17	30	43	18	4		

Table 36. Relationship between years of expertise and level of importance of changes in earning estimates

Years of expertise	Importance of changes in earning estimates						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	11	8	9	0	0	0	13.847	**0.003***
Between 2 years and 5 years	13	13	21	3	2	6		
Between 5 years to 10 years	13	17	11	16	5	3		
Over 10 years	12	42	32	13	17	5		

Table 37. Relationship between years of expertise and level of importance of corporate governance

Years of expertise	Importance of corporate governance						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	0	5	11	10	0	58.459	**<0.001***
Between 2 years and 5 years	1	10	6	17	19	5		
Between 5 years to 10 years	10	15	13	14	10	3		
Over 10 years	20	48	26	18	4	5		

Table 38. Relationship between years of expertise and level of importance of financial ratios

Years of expertise	Importance of financial ratios						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	4	9	9	6	0	0	3.813	0.282
Between 2 years and 5 years	11	14	15	6	7	5		
Between 5 years to 10 years	7	16	16	18	5	3		
Over 10 years	16	49	23	17	12	5		

Table 39. Relationship between years of expertise and level of importance of quality of management

Years of expertise	Importance of quality of management						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	14	10	3	1	0	0	40.353	**<0.001***
Between 2 years and 5 years	17	21	10	3	2	5		
Between 5 years to 10 years	14	8	10	11	18	4		
Over 10 years	13	34	22	28	19	5		

Relationship between years of expertise and factors influencing investment in China

Table 40. Relationship between years of expertise and level of importance of market conditions

Years of expertise	Importance of market conditions						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	7	16	4	0	0	0	5.156	0.161
Between 2 years and 5 years	9	29	8	5	0	1		
Between 5 years to 10 years	19	19	12	4	7	3		
Over 10 years	60	17	15	18	6	2		

Table 41. Relationship between years of expertise and level of importance of institutional buying/selling

Years of expertise	Importance of institutional buying/selling						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	10	3	14	0	0	0	10.753	**0.013***
Between 2 years and 5 years	7	17	21	5	1	1		
Between 5 years to 10 years	12	13	21	8	7	3		
Over 10 years	14	32	26	22	19	5		

Table 42. Relationship between years of expertise and level of importance of informal news/rumors

Years of expertise	Importance of informal news/rumors						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	5	11	7	4	0	0	48.689	**<0.001***
Between 2 years and 5 years	6	16	22	6	1	1		
Between 5 years to 10 years	6	13	18	14	9	4		
Over 10 years	1	7	47	31	26	6		

Table 43. Relationship between years of expertise and level of importance of analyst recommendation

Years of expertise	Importance of analyst recommendation						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	11	6	9	1	0	0	13.762	**0.003***
Between 2 years and 5 years	14	12	15	6	3	2		
Between 5 years to 10 years	10	14	13	12	9	5		
Over 10 years	11	45	21	11	25	5		

Table 44. Relationship between years of expertise and level of importance of market timing

Years of expertise	Importance of market timing						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	3	8	4	8	4	0	41.304	**<0.001***
Between 2 years and 5 years	5	10	9	12	16	1		
Between 5 years to 10 years	22	15	8	6	8	5		
Over 10 years	53	35	12	4	12	2		

Table 45. Relationship between years of expertise and level of importance of changing asset weight

Years of expertise	Importance of changing asset weight						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	4	9	4	9	0	27.897	**<0.001***
Between 2 years and 5 years	2	5	14	16	14	2		
Between 5 years to 10 years	12	13	10	17	7	4		
Over 10 years	15	37	34	20	7	4		

Table 46. Relationship between years of expertise and level of importance of hedging bet

Years of expertise	Importance of hedging bet						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	6	4	5	7	5	0	1.905	0.592
Between 2 years and 5 years	0	18	14	13	6	1		
Between 5 years to 10 years	3	11	20	17	9	4		
Over 10 years	12	26	32	32	11	5		

Table 47. Relationship between years of expertise and level of importance of technical charts

Years of expertise	Importance of technical charts						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	7	8	2	6	4	0	2.226	0.527
Between 2 years and 5 years	9	11	9	17	6	1		
Between 5 years to 10 years	13	17	10	10	9	4		
Over 10 years	23	41	18	16	17	3		

Table 48. Relationship between years of expertise and level of importance of size of company

Years of expertise	Importance of size of company						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	6	11	10	0	0	0	13.679	**0.003***
Between 2 years and 5 years	9	20	17	3	0	4		
Between 5 years to 10 years	21	26	11	1	1	4		
Over 10 years	57	31	21	3	4	2		

Table 49. Relationship between years of expertise and level of importance of trading volume

Years of expertise	Importance of trading volume						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	6	10	11	0	0	0	7.484	0.058
Between 2 years and 5 years	15	13	17	4	0	4		
Between 5 years to 10 years	20	17	21	0	1	4		
Over 10 years	47	45	20	4	1	1		

Table 50. Relationship between years of expertise and level of importance of insider trading

Years of expertise	Importance of insider trading						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	0	2	10	9	5	0		
Between 2 years and 5 years	1	0	22	15	10	5		
Between 5 years to 10 years	2	9	17	25	7	4	22.650	**<0.001***
Over 10 years	8	30	44	21	11	3		

Table 51. Relationship between years of expertise and level of importance of corporate news/events

Years of expertise	Importance of corporate news/events						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	0	2	13	8	4	0		
Between 2 years and 5 years	2	2	14	18	12	4		
Between 5 years to 10 years	5	9	11	25	10	4	13.459	**0.004***
Over 10 years	8	29	30	38	9	2		

Table 52. Relationship between years of expertise and level of importance of changes in earning estimates

Years of expertise	Importance of changes in earning estimates						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	1	9	9	7	0		
Between 2 years and 5 years	2	1	12	20	14	4		
Between 5 years to 10 years	7	9	13	18	13	4	29.225	**<0.001***
Over 10 years	18	42	17	23	16	2		

Table 53. Relationship between years of expertise and level of importance of corporate governance

Years of expertise	Importance of corporate governance						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	0	4	6	8	9	0	35.493	**<0.001***
Between 2 years and 5 years	2	1	15	14	17	4		
Between 5 years to 10 years	5	3	19	19	14	3		
Over 10 years	18	38	24	20	15	2		

Table 54. Relationship between years of expertise and level of importance of financial ratios

Years of expertise	Importance of financial ratios						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	5	15	6	0	1	0	7.643	0.054
Between 2 years and 5 years	13	18	16	2	0	4		
Between 5 years to 10 years	12	20	20	6	3	3		
Over 10 years	41	41	22	8	3	3		

Table 55. Relationship between years of expertise and level of importance of quality of management

Years of expertise	Importance of quality of management						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	0	12	7	8	0	0	16.962	**0.001***
Between 2 years and 5 years	4	19	12	14	0	4		
Between 5 years to 10 years	10	9	9	27	4	5		
Over 10 years	27	45	17	22	3	3		

Table 56. Relationship between years of expertise and level of importance of global trend

Years of expertise	Importance of global trend						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	10	16	1	0	0	0	2.099	0.552
Between 2 years and 5 years	22	27	2	0	0	1		
Between 5 years to 10 years	33	25	2	0	1	3		
Over 10 years	62	40	8	2	3	2		

Table 57. Relationship between years of expertise and level of importance of transparency/legal system

Years of expertise	Importance of transparency/legal system						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	2	11	13	0	0	33.144	**<0.001***
Between 2 years and 5 years	5	1	30	15	1	1		
Between 5 years to 10 years	10	8	15	28	1	2		
Over 10 years	21	49	26	20	1	2		

Table 58. Relationship between years of expertise and level of importance of currency convertibility

Years of expertise	Importance of currency convertibility						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	1	1	10	13	0	40.131	**<0.001***
Between 2 years and 5 years	3	2	2	22	23	1		
Between 5 years to 10 years	3	2	9	23	22	5		
Over 10 years	10	22	33	34	18	1		

Table 59. Relationship between years of expertise and level of importance of custodian of assets

Years of expertise	Importance of custodian of assets						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	4	1	9	12	0		
Between 2 years and 5 years	2	3	3	21	23	1		
Between 5 years to 10 years	5	6	3	22	26	2	22.793	**<0.001***
Over 10 years	9	17	30	38	22	1		

Table 60. Relationship between years of expertise and level of importance of cost of ownership and entry

Years of expertise	Importance of cost of ownership and entry						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	1	5	13	7	0		
Between 2 years and 5 years	1	3	5	22	20	2		
Between 5 years to 10 years	3	7	5	25	22	2	15.270	**0.002***
Over 10 years	10	20	24	38	26	1		

Table 61. Relationship between years of expertise and level of importance of communication and language

Years of expertise	Importance of communication and language						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	1	13	12	0	0		
Between 2 years and 5 years	0	3	25	21	2	2		
Between 5 years to 10 years	3	9	22	19	9	2	17.655	**0.001***
Over 10 years	8	41	33	28	7	2		

Table 66. Relationship between years of expertise and level of importance of potential growth

Years of expertise	Importance of potential growth						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	11	15	1	0	0	0	0.423	0.935
Between 2 years and 5 years	24	24	3	1	0	1		
Between 5 years to 10 years	25	32	4	1	0	2		
Over 10 years	47	63	2	2	3	1		

Table 67. Relationship between years of expertise and level of importance of tax and accounting system

Years of expertise	Importance of tax and accounting system						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	2	8	12	5	0	0	1.759	0.624
Between 2 years and 5 years	3	18	25	4	1	1		
Between 5 years to 10 years	5	22	27	6	2	2		
Over 10 years	12	44	49	8	4	1		

Table 68. Relationship between years of expertise and level of importance of dividend/profit repatriation

Years of expertise	Importance of dividend/profit repatriation						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	1	2	13	11	0	0	11.574	**0.009***
Between 2 years and 5 years	3	3	20	24	1	1		
Between 5 years to 10 years	4	4	17	32	4	3		
Over 10 years	7	27	40	34	5	3		

Table 69. Relationship between years of expertise and level of importance of information and data flow

Years of expertise	Importance of information and data flow						*H*	*P*
	5	4	3	2	1	0		
Under 2 years	2	2	11	12	0	0	37.709	**<0.001***
Between 2 years and 5 years	3	6	21	22	0	1		
Between 5 years to 10 years	12	12	23	13	1	3		
Over 10 years	30	43	28	16	1	1		