Measuring the Market Impact of the Shanghai-Hong Kong Stock Connect Program:

An Event Study Analysis

By

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Abstract

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Financial liberalization in the PRC has been a gradual process. The most recent liberalization effort was the Shanghai-Hong Kong Stock Connect program which represents the first program allowing direct access between the Shanghai Stock Exchange and the Stock Exchange of Hong Kong. This study analyzes the stock price impact arising from this program for various subsets of both markets using a regression model event study analysis. The data suggest a positive abnormal return for eligible A shares on the SSE with 1% level of significance, whereas the data suggest a negative impact on the eligible shares of the SEHK, with 5% level of significance. The program's impact on the B share market of the SSE was statistically insignificant.

Key words: China, Shanghai, Hong Kong, stock connect, financial liberalization, internationalization

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Chapter 1: Introduction

1.1 Background

Over the past few decades, the People's Republic of China (PRC) has implemented many policies designed to gradually open up to the rest of the world. This process began in the late 1970s and early 1980s with Deng Xiaoping's[1] economic reform efforts aimed at export-driven growth. During this time, Deng established five special economic zones (SEZs) intended to promote foreign investment and trade among the coastal areas. After the immense success of the piloted SEZs, Deng expanded the program to other coastal cities. Not surprisingly, both stock exchanges in the PRC are located in special economic zones: Shenzhen and Shanghai.

The PRC has been cautious in liberalizing its stock market to foreign investment, as rapid liberalization can lead to financial crises as evidenced by the Asian Financial crisis of 1997. The stock market in the PRC is comprised of two main categories of shares: A shares and B shares. Originally, these two markets were designed to separate domestic and foreign investment. Both A shares and B shares are issued by Chinese incorporated companies. However, the A shares are denominated in Renminbi (RMB) and were initially only available for domestic investors, whereas the B shares are denominated in a foreign currency—typically US dollars or Hong Kong dollars—and were only available for foreign investors. Chinese incorporated firms can also issue shares on the Stock Exchange of Hong Kong (SEHK), called H shares. In addition, Chinese companies have access to developed capital markets, made possible by the use of American depository receipts and dual listings. The B shares were designed in the 1990s as a means for overseas investors to participate directly in the Chinese financial market

[1] Deng Xiaoping was the leader of the PRC from 1978-1992.

without affecting the market for domestic investors (the A share market).

Overtime, as part of the PRC's process of opening up, they permitted Qualified Foreign Institutional Investors (QFII) to participate in the A share market and allowed domestic investors to participate in the B share market. The most recent development in the PRC's efforts to open up to foreign investment is the new pilot program, the Shanghai - Hong Kong Stock Connect. This program allows foreign access to eligible A shares traded on the Shanghai Stock Exchange (SSE) through brokers in Hong Kong; a process referred to as Northbound trading. Likewise, this program allows Mainland Chinese investors access to the eligible H shares traded on the SEHK; a process referred to as Southbound trading. All trades through this program are settled with RMB.

The process of financial liberalization in the PRC has been gradual over the past few decades—liberalization with Chinese characteristics. The reoccurring pattern has been to initiate a program at a small scale and with certain restrictions to mitigate against substantial market shocks. The Shanghai-Hong Kong Stock Connect program represents a significant step forward in the opening of PRC's stock market to foreign capital, as well as the PRC's increased focus on the internationalization of the RMB. However, the recent significant decline in the Chinese stock market points to the need for further changes in the financial sector of the PRC.

1.2 Overview of the Program

The Shanghai-Hong Kong Stock Connect pilot program[2] was announced on April 10th, 2014, and officially launched on November 17th, 2014, together by the Hong Kong

[2] Information on this program was presented in the Shanghai-Hong Kong Stock Connect Information Book for Investors, which can be found in the reference list.

Exchanges and Clearing, the SSE, and ChinaClear. All overseas investors—both individual and institutional—gain access to the SSE secondary market through a broker in Hong Kong. Given that Hong Kong is a special administrative region (SAR) of the PRC, and has also been vastly influenced by the west through British colonial rule and long standing international trade relations, it is a convenient and strategic location for the PRC to establish the link to overseas investment. As well, because Hong Kong is a SAR of the PRC, it enables the PRC to gain more control over the policy change, to encourage a safe transition to open financial markets. On the other hand, only institutional investors and individuals who meet certain requirements from the PRC are eligible for secondary trading on the SEHK. Therefore, the ability for PRC investors to participate in this program is quite limited. For the purpose of this program's trades, the SSE established a subsidiary in Hong Kong and the SEHK established a subsidiary in the PRC. All orders under this program are first submitted to the exchange's subsidiary and then transferred to the respective exchange for trade and settlement.

In the initial stages of this program, a number of restrictions are in place to foster the smooth opening of the PRC's A share market to foreign capital. To control for overreaction and speculative trading, restrictions on the size and timing of trades have been implemented. All orders must be limit orders, with a bid price within ± 10% of the previous closing price. This ensures that the share price does not change substantially from the previous closing price. In addition, day trading is not permitted so investors must hold the stock until settlement, a minimum of one day. In order to control and monitor the cross boarder capital flows, the Shanghai-Hong Kong Stock Connect has established maximum net-buy daily and aggregate quotas for each area. For Northbound

trading, the daily quota is RMB 13 billion and the aggregate quota is RMB 300 billion. For Southbound trading, the daily quota is RMB 10.5 billion and the aggregate quota is RMB 250 billion.[3] The quotas ensure that the inflow or outflow of capital is within predetermined limits, so as to control for shocks to the financial system. Lastly, to ensure domestic control over the firms, the PRC has established the maximum aggregate foreign ownership in any listed firm to be 30%, with a maximum individual foreign ownership level of 10%. With these restrictions in place, the stock market in the PRC is only partially liberalized for foreign investment.

1.3 Purpose of Study

The impact of this pilot program is important to study as it is the first program that allows direct access between the SEHK and the SSE. Equally important is that all trades through this stock connect program are settled with RMB, thus indicating a push for the global use of the RMB. The objective of this study is to determine both the short-run and long-run implications of this program. For the short-term, the purpose is to analyze the impact on the share price for different market segments after the announcement of the program in early 2014. The analysis will be on the stock price impact on both the SSE and the SEHK, as trades executed through the Shanghai-Hong Kong Stock Connect program are implemented through both markets. The primary focus will be on the impact on the SSE however, as this program is aimed at the further opening of the PRC to foreign investment. The purpose of the long-run analysis is to discuss the implications of the financial liberalization of the PRC's stock market and the increased

[3] Interestingly, the quota for Northbound trading is higher than that for Southbound trading, perhaps in an attempt to encourage net capital inflow. If both quotas are capsized, the result would be a net inflow of capital. As Henry (2000a) suggests, this should lead to an increase in stock market valuations.

use of the RMB on a global scale. Analysis of the internationalization of the RMB is important at this time, as the PRC strives to gain reserve currency status for the RMB.

1.4 Hypothesis

The hypothesized impact of the Shanghai-Hong Kong Stock Connect program is a positive price response for the eligible shares traded on the SSE and the SEHK. For the B share market, the impact is likely to be negative, as investors now have access to the larger, A share market. Conditional on the success of the pilot program, the B share market is likely to become obsolete in the long run, as the equivalent A shares are available for investment, therefore eliminating the need for dual markets. The overall market impact of the program for both the SSE and the SEHK is predicted to be positive.

1.5 Outline

This paper proceeds as follows: Chapter 2 will review previous literature on the impact of financial liberalization. The methodology and data collection will be discussed in Chapter 3. The results of regression analysis will be presented in Chapter 4. Finally, the conclusions and suggestions for further study will be provided in Chapter 5.

Chapter 2: Literature Review

2.1 Purpose of Literature Review

The impact of financial liberalization has been studied extensively since the rise of globalization. The purpose of this section is to highlight different schools of thought regarding the liberalization of capital markets.

2.2 Summary of Literature

Various elements of financial liberalization have been studied over time, particularly for emerging markets. Much evidence has shown that the stock price response of open capital markets is a positive appreciation in value (Eun & Janakiramanan, 1986; Errunza & Losq, 1985; Stulz, 1999 a, b; Henry, 2000b; Bekaert & Harvey, 2000; Lin & Chen, 2006). Kim *et al.* (2013) found conflicting results when differentiating between gradual and instantaneous liberalization. They found that a positive price response is associated with instantaneous liberalization regimes whereas negative effects are associated with gradual liberalization due to the uncertainty of future stock market liberalizations, and therefore uncertainty in the future stock prices (Kim et al., 2013).

Researchers have found a number of reasons for the revaluation of security prices due to the opening of capital markets. First off, a number of researchers have found that there is a decrease in the cost of capital upon liberalization of capital markets (Stulz, 1999 a, b,; Bekaert & Harvey, 2000; Henry, 2000a,b). The decrease in the cost of capital can be explained by risk sharing as the investor base is expanded (Stulz, 1999b; Henry, 2000a), a reduced risk free rate due to increased net capital inflows (Henry, 2000a), and a

reduced equity premium caused by increased liquidity from financial liberalization (Henry, 2000a). Theoretically, a decrease in the cost of capital would subsequently increase the discounted value of future cash flows and lead to an increase in positive NPV investments undertaken by the firms, thus increasing the stock valuation. The decrease in the discount rate from increased capital inflow would also foster the growth of the economy through real investment opportunities funded (Stulz, 1999b). Another reason for the revaluation of security prices is due to the increased demand by foreign investors arising from the benefits of global diversification (Kim & Singal, 2000; Bekaert & Harvey, 2000).

Another benefit from financial liberalization is the increase in stock market liquidity, and therefore the subsequent decrease in the liquidity premium. Levine and Zervos (1998) found an increase in liquidity after liberalization and state this leads to higher future economic growth for the country. Lee and Wong (2012) found that after liberalization reforms were implemented in China, there was an average increase in the liquidity of stocks listed on the SSE. Additionally, Fuss (2006) found that emerging markets in Asia became more efficient after financial liberalization.

Evidence also suggests that the impacts of financial liberalization can be negative. As mentioned before, Kim *et al.*,(2000) found that gradual liberalization resulted in negative stock price response. Chen *et al.* (2013) also found that there was a negative price response to the initiation of QFII in the PRC. In addition, Stiglitz (2004) highlights that there is increased risk when a market undergoes liberalization, and it brings about the possibility of sudden capital outflows which leads to crises, as evidenced by crises in Mexico and Indonesia. Ranciere *et al.* (2006) also found that financial liberalization

leads to an increased occurrence of financial crises, but that the economic growth benefits more than compensate for the costs of such crises. Furthermore, researchers have found that after financial liberalization is implemented, there is a marginal increase in stock return volatility (Bekaert & Harvey, 2000; Levine & Zervos, 1998). Theory suggests that the inflow of capital into a country would cause the appreciation of the local currency as well as an increase in inflation. Considering the PRC's reliance on exports, an appreciation in the RMB—if they allowed the currency to float—would be detrimental to its export sector. Kim and Singal (2000) studied the impact of net capital inflows on currency appreciation and inflation, and could not find any evidence to support a currency appreciation or an increase in inflation.

Most of the above research has been conducted based on the impact of the initial financial liberalization reform, with the exception of Lee and Wong (2012), who studied the liquidity impact from what they referred to as the second phase of financial liberalization in the PRC, as well as research performed on the QFII program in Taiwan (Lin & Chen, 2006) and in the PRC (Chen *et al.,* 2013). The researchers have stated that the stock price impact of financial liberalization occurs on the onset of liberalization and that all subsequent relaxations are reflected in the initial price effect (Kim & Singal, 2000; Bekaert & Harvey, 2000; Henry, 2000b). In many cases, the initial phase of financial liberalization was minimal in that overseas investors were merely permitted to invest in country funds and depository receipts (Bekaert & Harvey, 2000; Henry, 2000b), rather than individual shares traded on the domestic stock exchanges.

Of interest in this paper is the impact of foreign investment in individual shares in the domestic market. In addition, the above cross-country studies of financial

liberalization excluded the PRC from their analysis. Given the significance of the pilot program under consideration in this paper, as well as the significance of the Chinese economy, the goal of this paper is to look at the stock price impact from such subsequent liberalization efforts in the PRC. To my knowledge, the stock price impact of the Shanghai-Hong Kong Stock Connect program has not yet been studied.

Chapter 3: Methodology and Data Collection

3.1 Event Study Methodology

To analyze the stock price impact of the Shanghai-Hong Kong Stock Connect program on the SSE and SEHK, an event study approach is employed. The event study method was developed in 1969 by Fama *et al.* and has been used extensively to measure the stock price impact of various events. Such events include, but are not limited to, micro events occurring at the firm level, such as dividends cuts, stock splits, mergers and acquisitions, as well as macro events that affect a broad number of firms simultaneously, such as budget releases, interest changes, and regulatory changes. Bekaert and Harvey (2000), Henry (2000a, b), Levine and Zervos (1998), Stulz (1999b), and Kim and Singal (2000) implemented the event study approach to analyze the market impact of stock market liberalization. Binder (1998) highlights two types of event study analyses: the standard event study and the regression framework.

The standard event study method was introduced by Fama *et al.* (1969), where the analysis was focused on the measurement of abnormal returns arising from the occurrence of a specified event under analysis. This method involves the comparison of expected returns derived from a market model and the actual returns realized. The prediction error (residual) serves as a measure of abnormal return from the event. Furthermore, the average abnormal return and the cumulative average abnormal return for the post-event window are analyzed. The first step is to estimate the return equation based on pre-event market data in order to predict the post-event expected return. Fama *et al.* (1969) estimated the logarithmic market model, which is as follows (Equation 3.1):

$$\log_e Rjt = \alpha_j + \beta_j \log_e L_t + u_{jt} \quad 3.1$$

where L_t represents the "general market conditions" used in their analysis. Fama *et al.*(1969) implemented the logarithmic market model to transform the data to a more symmetric distribution, thus improving statistical properties and the least squares estimates. Using the estimated equation, the expected return is calculated and deducted from the actual return to obtain the residuals (u_{jt}) as a measure of abnormal return. From there, Fama *et al.* (1969) calculated the average abnormal return(AAR) and cumulative average abnormal return(CAAR), as follows (Equations 3.2 and 3.3):

$$AAR_m = u_m = \frac{\sum_{j=1}^{Nm} \hat{u}jm}{Nm} \quad 3.2$$

$$CAAR_{-M,M} = Um = \sum_{m=-M}^{M} u_m \quad 3.3$$

where $\hat{u}_{jm}$ represents the residual for security j during month m, N_m represents the number of firms that experienced the event during month m, and the CAAR is represented as the summation of the abnormal returns (u_m) during the event period, $-M$ to M. Lastly, hypothesis tests are conducted to measure the statistical significance of the abnormal returns.

An increasingly popular event study method is the regression model. This method involves the use of a return equation and assigns a dummy variable for the event under analysis, such that the effect is represented by the coefficient of the parameter (Binder, 1998). The standard approach for the regression event study model is to estimate the following market model equation (Equation 3.4):

$$R_{it} = \alpha_{it} + \beta R_{mt} + \gamma_i D_t + u_{it} \quad 3.4$$

where R_{mt} is the return on the market, D_t is a dummy variable representing the event that is assigned the value of one during the event window and zero outside the event window, and γ_i is the abnormal return resulting from the event for stock *i*. In 1978, Izan (as cited in Binder, 1985; Binder, 1998) estimated the market model regression equation for a portfolio of firms affected by a regulatory event. The previous equation is modified to estimate the return on the portfolio, and is as follows (Equation 3.5):

$$R_{pt} = \alpha_{pt} + \beta R_{mt} + \sum_{a=1}^{A} \gamma_{pa} D_a + u_{pt} \quad 3.5$$

where Da represents a dummy variable for each announcement period "a", and γ_{pa} represents the effect of the event on the portfolio of firms. Another modification that Gibbons developed (as cited in Binder, 1998; Binder, 1985) is the multivariate regression model (MVRM) which entailed estimating the regression equation for each security separately, such that the abnormal return coefficients can fluctuate between firms.

The regression analysis for event studies is often used for regulatory events (Binder, 1998). Such events have similar properties to that of the Shanghai-Hong Kong Stock Connect program in that the program affects a number of firms during the same time period. As such, the regression model will be employed for the analysis throughout this paper.

Event Study Methodology in Previous Financial Liberalization Literature

Henry (2000b) employed the regression model for the analysis of financial liberalization, occurring for 12 different countries. He estimated four different model specifications, each building on the previous model by the inclusion of additional factors. Each model specification is estimated twice: once using stock market returns, the other time using the logarithmic dividend yield. The initial model that Henry (2000b) implemented is a panel regression as follows (Equation 3.6):

$$R_{it} = \alpha_i + \gamma \text{ Liberalize }_{it} + \varepsilon_{it.} \qquad 3.6$$

where α_i are country specific dummy variables to account for cross-country differences. The variable Liberalize is also a dummy variable that is assigned the value one during the event window, and assigned zero otherwise. As such, γ represents the average monthly abnormal return during the event window, due to financial liberalization for the 12 countries under analysis (Henry, 2000b). One issue with the event study method is that it assumes the event takes place in isolation; that is, without the occurrence of other significant events. Therefore, statistical inferences must be made carefully due to the potential for upward bias arising from other events. Henry (2000b) adjusted for other significant economic events by specifying the model to include additional dummy variables for those events that occurred in conjunction with financial liberalization, including macroeconomic stabilization, trade liberalization, privatization, and the easing of exchange controls. Lastly, Henry (2000b) further specified the model by including a vector representing the country fundamental macroeconomic variables. The final model

Henry (2000b) implements is as follows (Equation 3.7):

$$R_{it} = \alpha_i + \beta_1 R_t^{LDC} + \beta_2 R_t^{US} + \beta_3 R_t^{EAFE} + \gamma_1 \text{Liberalize}_{it} + \gamma_2 \text{Stabilize}_{it} + \gamma_3 \text{Trade}_{it} + \gamma_4 \text{Privatize}_{it} + \gamma_5 \text{Exchange}_{it} + \delta(L)\,\Delta(\ln F_{it}) + \varepsilon_{it.} \quad 3.7$$

where Stabilize, Trade, Privatize, and Exchange are all dummy variable that are assigned the value one during their event window, and assigned zero otherwise. To account for co-movements with world stock returns, Henry (2000b) included R_t^{LDC}, R_t^{US}, and R_t^{EAFE}; these variables are defined as the "continuously compounded real dollar returns" on the index of emerging market funds, S&P 500, and Morgan Stanley's Europe, Asia, and Far East, respectively.

Bekaert and Harvey (2000), Kim and Singal (2000), and Levine and Zervos (1998) also used variations of the regression framework to perform event study analyses on financial liberalization. Bekaert and Harvey (2000) used a similar model to Henry (2000), but only estimated the regression equation using the dividend yield as the dependent variable. Kim and Singal's (2000) specified model is similar to Henry's (2000) first model (Equation 3.6), except that it included a lagged return variable. Levine and Zervos (1998) also used a similar regression model, but did not control for other economic events.

Methodology Implemented

The event study methodology that best fits the purposes of this analysis is the regression model. Binder (1998) and Kothari and Warner (2006) discuss the many issues with the standard event study analysis, including heteroskedasticity and cross-sectional

dependence which occur when the event takes place at the same time. Binder (1998) states that the regression model solves these issues.

Although the MVRM is one of the main regression models used to study regulatory events (Binder, 1998), it is unfortunately infeasible for the purposes of this study on the Shanghai-Hong Kong Stock Connect program, due to the large sample size of firms included in the dataset. Therefore, a regression model similar to that of Henry (2000b) will be implemented.

For each subset of data, two regression equations will be estimated using the fixed effects panel data model. The first regression equation is a parsimonious model that includes a parameter for the market return and a dummy variable representing the Shanghai-Hong Kong Stock Connect program. For Northbound trading, the estimated model is as follows (Equation 3.8):

$$R_{it} = \alpha_i + \beta_1 R_t^{SSE} + \gamma_1 SHHKSC_{it} + \varepsilon_{it.} \qquad 3.8$$

The dependent variable, R_{it}, represents the daily return on security *i* at time *t*. α_i is the constant term that corresponds to the average estimated coefficient for dummy variables representing each cross section. R_t^{SSE} represents the daily return on the Shanghai Stock Exchange Composite index at time *t*, and the coefficient, β_1, represents how the return on stock *i* moves with the market. $SHHKSC_{it}$ is a dummy variable signifying the Shanghai-Hong Kong Stock Connect program. This variable takes the value of one during the event window, and zero otherwise. The coefficient, γ_1, represents the abnormal daily return associated with the event at time *t*. To calculate the cumulative abnormal return,

the coefficient γ_1 is multiplied by the number of trading days within the event window. Lastly, ε_{it} represents the prediction error.

For Southbound trading, the estimated model is as follows (Equation 3.9):

$$R_{it} = \alpha_i + \beta_1 R_t^{HSI} + \gamma_1 SHHKSC_{it} + \varepsilon_{it} \quad 3.9$$

The explanation follows the same as for Equation 3.8. The only difference in Equation 3.9 is that the market index is now the Hang Seng Index representing the market return in Hong Kong.

The second model that is estimated accounts for co-movements with world stock markets. For Northbound trading, the estimated model is as follows (Equation 3.10):

$$R_{it} = \alpha_i + \beta_1 R_t^{SSE} + \beta_2 R_t^{S\&P500} + \beta_3 R_t^{MSCI} + \gamma_1 SHHKSC_{it} + \varepsilon_{it} \quad 3.10$$

The two additional variables included in this model are $R_t^{S\&P500}$ and R_t^{MSCI}, representing the daily return on the Standard & Poor's 500 market index and the Morgan Stanley Capital International Emerging Markets index, respectively. β_2 represents how the stock moves relative to the market in the US, and β_3 represents how the stock moves relative to emerging markets.

For Southbound trading, the estimated model is as follows (Equation 3.11):

$$R_{it} = \alpha_i + \beta_1 R_t^{HSI} + \beta_2 R_t^{S\&P500} + \beta_3 R_t^{MSCI} + \gamma_1 SHHKSC_{it} + \varepsilon_{it} \quad 3.11$$

Again, the explanation for this model is the same as Equation 3.10, with the domestic market index for Hong Kong replacing the SSE composite index.

3.4 Event Windows

One major assumption that is made for event study analyses is the window of time in which the event is believed to have had an impact on the market. In Henry's (2000b) analysis of financial liberalization, he implemented an eight month event window prior to a country's initial opening, as well as alternative event windows to observe how the results vary based on the event window assumption.

For the analysis of abnormal returns arising from the PRC's financial liberalization efforts through the Shanghai-Hong Kong Stock Connect program, two plausible event windows have been implemented. The initial announcement for this pilot program was on April 10, 2014, during which it was stated that the launch date was aimed to be six months after the announcement. From this information, an event period beginning three trading days prior to the announcement until six months after the announcement (the expected launch date) is chosen—April 4 - October 10, 2014. The reason the event window begins three trading days prior to the initial announcement is to account for potential information leakage regarding the event.

The second event window is in reference to the first publication of detailed information regarding the rules and procedures of the Shanghai-Hong Kong Stock Connect program. This information was released on April 29, 2014 and indicated to the market that the program was well underway in development (Lee, 2014). In addition, the detailed document better informed market participates of the nature of the program, thus

enabling improved expectations of the program to be made. Based on this information, a second event window was implemented beginning three trading days prior to the publication and ending on the expected launch date—April 24 - October 10, 2014.

3.5 Hypothesis Testing

As mentioned previously, the expected impact on the eligible shares in both markets is positive, and the expected impact on the B shares is negative. After obtaining the results of the estimated return equations, hypothesis tests must be implemented to determine the statistical significance of the predicted coefficients. For the eligible shares for both the SSE and SEHK, the hypothesis test is as follows:

$H_0 : \gamma_1 \leq 0$, the market impact from the event is either nil or negative

$H_a : \gamma_1 > 0$, the market impact from the event is positive

For the B shares listed on the SSE, the hypothesis test is as follows:

$H_0 : \gamma_1 \geq 0$, the market impact from the event is either positive or zero

$H_a : \gamma_1 < 0$, the market impact from the event is negative

In both cases, H_0 will be rejected if the t statistic is greater than the critical value, $t_{N-k,}\,\alpha$, where N represents the number of observations, k represents the number of estimated parameters, and α represents the chosen significance level. For the analysis, significance

levels of 10%, 5%, and 1% will be tested and reported for each coefficient.

3.6 Data Description

All data for analysis have been derived from Yahoo! Finance, which were provided to Yahoo! Finance by Morningstar, inc[4]. Daily stock price data have been selected, as Kothari and Warner (2006) suggest that daily data are more accurate and informative for event study analysis. Adjusted daily closing prices are used as they are amended for corporate actions, such as stock splits and dividend payouts, thus providing a better reflection of the true value and return. In addition, the firm's stock must have been listed on the respective exchange during the period between the first of April, 2012 to the initiation date, November 17, 2014 in order to be included in the dataset.

For the SSE, the stock market data are divided into two groupings: eligible A shares and B shares. The list of eligible A shares for Northbound trading was provided on the Hong Kong Clearing and Exchanges website. In the beginning of June, 2015, a total of 31 securities were added to the list of eligible securities for trade under the Shanghai-Hong Kong Stock Connect. Since these shares were added outside of the event window under analysis, they will be removed from the list of eligible securities. The list of B shares was provided on the SSE website. For the SEHK, the list of eligible shares for Southbound trading was provided on the Hong Kong Clearing and Exchanges website. The complete list of firms included for each market subset is presented in Appendix A.

Table 3.1 below shows a summary of the data for analysis.

[4] Copyright (c) 2015 Morningstar. All rights reserved.

Table 3.1
Data Collected for the period April 1, 2012 - November 17, 2014

	Northbound		Southbound
	Eligible A Shares	B Shares	Eligible Shares
Number of Firms	522	53	249
Number of Observations	331992	33708	158364

3.7 Data Type

The data used in this analysis are panel data, a combination of cross sectional data and time series data. With panel data, issues that are associated with both cross sectional data and time series data tend to occur. The ordinary least squares (OLS) regression has a number of assumptions that must be maintained in order for the estimates to be unbiased with minimum variance. When these assumptions are not met, the OLS estimators can be biased and the standards errors are incorrect, thus causing statistical inferences to be flawed.

One major issue that arises with panel data is heteroskedasticity, meaning non constant variance. This is a violation of the OLS assumption of homoskedasticity. With heteroskedasticity, the estimates are unbiased, but the standard errors are incorrect. To adjust for this error in panel data, cluster robust standard errors are estimated.

Another issue that can arise is unobserved heterogeneity. This arises when individual differences are not accounted for within the regression equation. When relevant variables are excluded, they are presented in the error term and thus the error term becomes correlated with the independent variables; a violation of the OLS assumptions. When this occurs, the OLS estimates are inconsistent and the standard errors are incorrect. To adjust for unobserved heterogeneity, the individual differences

can be accounted for in the intercept by allowing it to differ by cross sectional unit, a method referred to as the fixed effects model.

Both the clustered robust standard errors correction and the fixed effects model will be implemented in the estimation of the four regression equations stated previously in Section 3.3 of this report.

3.8 Data Limitations

A number of limitations arose in regards to data accessibility. First of all, the library databases did not contain information on securities listed on the SSE or the SEHK. Therefore, Yahoo! Finance was used to access data listed on these markets. In addition, the data that were found on Yahoo! Finance were highly limiting, as merely security price and volume data were available for each firm. Of course, the data on Yahoo! Finance were not presented in panel data form—over time and across multiple firms—as it can be on financial databases. Consequently, a program[5] written on Python 2.7.8 was utilized in order to compile the panel datasets efficiently. Though unlikely, it is possible that the data may be subject to human error in the written code. To ensure the data were collected properly, a random selection of data retrieved from the Python program was compared to the data as seen on Yahoo! Finance.

[5] Thank you to Manbir Kaur for her help in the writing of this program.

Chapter 4: Results

4.1 Northbound Trading: Eligible A Shares

Table 2 below shows the results for Equations 3.8 and 3.10, for both event windows. Since daily data were utilized, the coefficients represent the daily impact.

Table 4.1
Northbound Trading: Eligible A Shares

	Event Window			
	1: Apr 4 - Oct 10		**2: Apr 24 - Oct 10**	
	Eq. 3.8	Eq. 3.10	Eq. 3.8	Eq. 3.10
SH-HKSC	0.000419***	0.000326***	0.000533***	0.000476***
	(0.000112)	(0.000114)	(0.000122)	(0.000124)
$\mathbf{R^{SSE}}$	1.144***	1.163***	1.143***	1.163***
	(0.0116)	(0.0118)	(0.0116)	(0.0118)
$\mathbf{R^{MSCI}}$		-0.0915***		-0.0914***
		(0.00713)		(0.00713)
$\mathbf{R^{S\&P500}}$		0.0495***		0.0496***
		(0.00901)		(0.00901)
$\boldsymbol{\alpha}$	0.000579***	0.000497***	0.000567***	0.000477***
	(0.0000221)	(0.000023)	(0.000022)	(0.000022)
NT	331992	312678	331992	312678
$\mathbf{R^2}$	0.2011715	0.2046136	0.2011913	0.2046372

Cluster Robust Standard Errors in parentheses

*, ** , *** represent statistical significance at the 10, 5, and 1 percent significant levels, respectively

In each equation, all coefficients are statistically significant at the 99% confidence level. The main coefficient of interest relates to the parameter for the event, SH-HKSC. Since the coefficients for SH-HKSC are statistically significant in all cases, H_0 is rejected, thereby suggesting the market impact of the Shanghai-Hong Kong Stock Connect has been positive, on average, for the eligible A shares.

Looking at the results of Equation 3.8 during event window 1, the data suggest an average revaluation effect of 0.0419% per day. Event window 1 entails 126 trading days, so this equates to an average aggregate abnormal return of 5.2794% (126 trading days * 0.0419% average daily abnormal return). After accounting for co-movements with world stock markets in Equation 3.10, the average daily abnormal return drops to 0.0326%, an average cumulative abnormal return of 4.1076% (126 * 0.0326%).

The results for event window 2 suggest that the market impact of the Shanghai-Hong Kong Stock Connect program is relatively larger, likely resulting from the additional, detailed information that was disclosed at this time. This event window entails 113 trading days. The results for Equation 3.8 suggest that there is a 0.0533% average daily abnormal return from the event, equating to an average cumulative abnormal return of 6.0229 % (113 * 0.0533%). Once more, the estimated average abnormal return dropped in Equation 3.10, to 0.0476%. This relates to an average cumulative abnormal return of 5.3788% (113 * 0.0476%).

Table 4.2 below summarizes the average daily abnormal returns and average cumulative abnormal returns in all cases.

Table 4.2
Average Abnormal Returns: Eligible A Shares

	Event Window			
	1: Apr 4 - Oct 10		**2: Apr 24 - Oct 10**	
	Eq. 3.8	Eq. 3.10	Eq. 3.8	Eq. 3.10
Daily	0.0419%	0.0326%	0.0533%	0.0476%
Cumulative	5.2794%	4.1076%	6.0229%	5.3788%

4.2 Northbound Trading: B Shares

Table 4.3 below shows the results for Equation 3.8 and 3.10, for both event windows. In each of the cases, the coefficient for the event, SH-HKSC is statistically insignificant. At all tested levels of significance, H_0 fails to be rejected, indicating that the event did not have an impact on the B share market. This is plausible as the Shanghai-Hong Kong Stock Connect program does not directly affect the B share market. The indirect impact may be present if foreign investors choose to invest in the A share market rather than the B share equivalent.

Table 4.3
Northbound Trading: B Shares

	Event Window			
	Apr 4 - Oct 10		**Apr 24 - Oct 10**	
	Eq. 3.8	Eq. 3.10	Eq. 3.8	Eq. 3.10
SH-HKSC	-0.000234	-0.000259	-0.000106	-0.000107
	(0.000200)	(0.000207)	(0.000226)	(0.000225)
$\mathbf{R^{SSE}}$	0.840***	0.857***	0.839***	0.857***
	(0.0260)	(0.0272)	(0.0260)	(0.0271)
$\mathbf{R^{MSCI}}$		-0.0665***		-0.0664***
		(0.0136)		(0.0136)
$\mathbf{R^{S\&P500}}$		0.0224		0.0226
		(0.0162)		(0.0163)
α	0.000857***	0.000825***	0.000830***	0.000793***
	(0.0000389)	(0.000042)	(0.0000395)	(0.000042)
NT	33708	31747	33708	31747
$\mathbf{R^2}$	0.1508952	0.1531455	0.1508808	0.1531275

Cluster Robust Standard Errors in parentheses
*, ** , *** represent statistical significance at the 10, 5, and 1 percent significant levels, respectively

4.3 Southbound Trading

Table 4.4 below shows the results for Equations 3.9 and 3.11, for both event windows.

Table 4.4
Southbound Trading: Eligible Shares

	Event Window			
	Apr 4 - Oct 10		Apr 24 - Oct 10	
	Eq. 3.9	Eq. 3.11	Eq. 3.9	Eq. 3.11
SH-HKSC	-0.000228	-0.000361	-0.00014	-0.000272
	(0.000161)	(0.000165)	(0.000161)	(0.000165)
$\mathbf{R^{HSI}}$	0.844***	0.837***	0.844***	0.837***
	(0.0204)	(0.0188)	(0.0204)	(0.0188)
$\mathbf{R^{MSCI}}$		0.0453***		0.0451***
		(0.0117)		(0.0117)
$\mathbf{R^{S\&P500}}$		-0.0318**		-0.0313**
		(0.0147)		(0.0147)
$\boldsymbol{\alpha}$	0.000538***	0.000571***	0.000518***	0.000548***
	(0.0000326)	(0.0000363)	(0.0000299)	(0.0000333)
NT	158364	151392	158364	151392
$\mathbf{R^2}$	0.095277	0.0970229	0.095269	0.0970084

Cluster Robust Standard Errors in parentheses
*, ** , *** represent statistical significance at the 10, 5, and 1 percent significant levels, respectively

Though theory suggests that the impact of the Shanghai-Hong Kong Stock Connect program should be positive, the data fail to support a positive market impact on the eligible shares in each of the four cases. When testing the opposite hypothesis that the impact of the Shanghai-Hong Kong Stock Connect program is negative, the coefficients are statistically significant at the 95% confidence level for Equation 3.11 during both event windows. This indicates that the market impact was negative, with 95% confidence. In this case, event window 1 entails 136 trading days and event window 2 entails 122

trading days. Looking at the results for Equation 3.11 for event window 1, the data suggest an average daily abnormal loss of 0.0361% and an average cumulative abnormal loss of 4.9096% (136 * -0.0361%) arising from the event. For event period 2, the average daily abnormal loss declines to 0.0272%. This equates to an average cumulative abnormal loss of 3.3184% (122 * 0.0272%). Table 4.5 below summarizes the average daily abnormal return and average cumulative abnormal return corresponding to Equation 3.11 for both event windows.

Table 4.5
Average Abnormal Returns: Southbound Eligible Shares

	Event Window	
	1: Apr 4 - Oct 10	**2: Apr 24 - Oct 10**
	Eq. 3.11	Eq. 3.11
Daily	-0.0361%	-0.0272%
Cumulative	-4.9096%	-3.3184%

A possible explanation for these results could be that the SEHK is already a highly developed and open market for foreign investment. Market participants in the SEHK may have perceived this news as negative due to the speculative nature of many Chinese investors, which has been brought to the surface following the recent stock market decline in the PRC.

Chapter 5: RMB Internationalization

One of the main goals for the PRC at this time is to obtain reserve currency status for the RMB. Ma and Miao (2013) state that the prerequisite for a successful internationalization of the RMB is financial liberalization. Prasad and Ye (2013) indicate that the factors considered for reserve currency status are economic size, open capital account, flexible exchange rate, financial market development, and macroeconomic policies. Currently, the PRC is placing a strong emphasis on financial reform policies to further develop their financial sector.

Indeed, the Shanghai - Hong Kong Stock Connect program was designed in part to increase the global use of the RMB in addition to the obvious goal of further opening its capital markets to foreign investment. This program, along with many other financial reform programs, will help the PRC clear the path to global reserve currency status. As shown in Appendix B, there has been a great deal of trading activity through the Shanghai- Hong Kong Stock Connect program, and thus many cross boarder trades have been settled using the RMB.

Beginning in June 2015, however, there has been a decrease in trade volume and value as the market in the PRC began to decline significantly. Nevertheless, the PRC continues to implement new financial reform policies to further develop their capital markets. In March 2015, the PRC announced that it will be implementing a Shenzhen-Hong Kong Stock Connect program during the year, similar to that of the Shanghai-Hong Kong Stock Connect program. Subsequent announcements post market decline in the PRC indicate that plans for the Shenzhen-Hong Kong Stock Connect program remain. These two trading links that enable overseas investment in the A share market of both

stock exchanges in the PRC will help to further develop the PRC's capital markets by increasing the financial depth and the use of the RMB. As such, these financial reform programs enable the PRC to be one step closer to global reserve currency status.

Prasad and Ye (2013) state that the RMB is likely to be included in the IMF's special drawing rights within the next few years, regardless of the gradual nature of its financial market development. The expected date that RMB will gain global reserve currency status is difficult to predict, but the PRC is implementing the necessary financial reform policies to promote a financial environment suited for the internationalization of the RMB. The recent sharp decline in the Chinese market however, indicates that the PRC needs to have more financial reform efforts aimed at financial stability.

Chapter 6: Conclusion

The various impacts of financial liberalization has been the subject of many studies over the past few decades, most of which focused on the analysis of a country's initial liberalization efforts. In previous research, many have found a positive price revaluation following financial liberalization. As the PRC continues to undergo financial reform and liberalization efforts, analysis of the market impacts of such events is significant.

This paper has attempted to capture the stock price impact of the recent Shanghai-Hong Kong Stock Connect program on various subsets of both markets using a regression model event study analysis. The impact of the event on the Northbound eligible A shares was found to be positive at the 1% level of significance. Depending on the assumptions regarding the return equation and event window, the average cumulative abnormal return arising from the event range between approximately 4.12% - 6.02%. On the other hand, the data suggested a negative impact from the program on the Southbound eligible shares ranging from approximately -3.32% to -4.91% , with a 5% level of significance. Lastly, the impact on the Northbound B shares was statistically insignificant, indicating that the program did not affect the B share market.

The Shanghai-Hong Kong Stock Connect program has been a significant step forward in the PRC's financial reform process. The PRC is now one step closer to more developed capital markets and openness; key factors for the internationalization of the RMB.

Chapter 7: Recommendations for Further Study

Further study could involve extensions to the analysis of the Shanghai-Hong Kong Stock Connect program or analysis of new financial reform policies that arise over time as the PRC continues to place a policy emphasis on financial liberalization and the internationalization of the RMB. As the PRC implements new pilot programs, similar to that of the Shanghai-Hong Kong Stock Connect program, a number of research avenues will arise.

First of all, an interesting characteristic between the A share and B share markets on the SSE is that the B shares tend to trade at a discount relative to their A share equivalents(Sun & Tong, 2000). However, the law of one price suggests that the A shares and B shares should trade at the same price. A compelling extension to this study would be to look at the impact of the Shanghai-Hong Kong Stock Connect program on the discrepancy between the A share and B share prices following foreign investment in the A share market. One could also look at the difference in the B share trade volume after the A share market opened to foreign capital.

Another extension to this study could be to analyze the impact of financial liberalization on the corporate governance of firms following the increased foreign ownership in the local A share market. As well, one could look at the trend in shareholder activism in the PRC upon foreign ownership in the A shares to see if there is a rise in activity or success rates.

Lastly, as the PRC plans to launch another Stock Connect program in Shenzhen, a comparative analysis of the market impact of each program would be intriguing. Yang (2015) states that the main difference between the two programs is that Shenzhen-Hong

Kong Stock Connect program is targeted to small growth companies whereas the Shanghai-Hong Kong Stock Connect program targeted large blue chip companies. The expectation from the Shenzhen-Hong Kong Stock Connect program is a positive impact on the price of the small growth firms in Hong Kong due to increased trading from Mainland investors of otherwise illiquid stock (Yang, 2015). Determining the impact of the Shenzhen-Hong Kong Stock Connect program on both the SEHK and the Shenzhen Stock Exchange, and comparing the results with this study's results would be of interest.

The PRC is an ever changing environment, with new opportunities arising from each policy change. Over the next decade, it will be interesting to study the impact of new financial reforms, and to follow the PRC's journey to greater financial openness and liberalization.

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Appendix A

The lists of shares that met the requirements to be considered for analysis in this study are presented in the tables below. Table A1 lists the eligible A shares for Northbound trading, Table A2 lists the B shares on the SSE, and Table A3 lists the eligible shares for Southbound trading.

The full list of eligible shares for both Northbound and Southbound trading can be found on the HKEX website at:
http://www.hkex.com.hk/eng/market/sec_tradinfra/chinaconnect/Eligiblestock.htm.

The full list of B shares can be found on the SSE website at:
http://english.sse.com.cn/listed/bshare/companylist/

Daily stock price data for the shares listed in the tables below were retrieved from Yahoo! Finance at https://ca.finance.yahoo.com/ This data was provided to Yahoo! Finance by Morningstar, inc. Copyright (c) 2015 Morningstar. All rights reserved.

Table A1: Northbound Eligible A Shares

Company Name	Ticker
Shanghai Pudong Development Bank	600000
Guangzhou Baiyun International Airport	600004
Wuhan Iron And Steel	600005
China World Trade Center	600007
Beijing Capital	600008
Shanghai International Airport	600009
Inner Mongolia Baotou Steel Union	600010
Huaneng Power International	600011
Anhui Expressway	600012
Hua Xia Bank	600015
China Minsheng Banking	600016
Rizhao Port	600017
Shanghai International Port	600018
Baoshan Iron & Steel	600019
Henan Zhongyuan Expressway	600020
Shanghai Electric Power	600021
China Shipping Development	600026
Huadian Power International	600027
China Petroleum And Chemical	600028
China Southern Airlines	600029
Citic Securities	600030
Sany Heavy Industry	600031
Fujian Expressway Development	600033
China Merchants Bank	600036
Beijing Gehua Catv Network	600037
Avicopter	600038
Sichuan Road & Bridge	600039
Poly Real Estate	600048
China United Network Communications	600050
Huangshan Tourism Development	600054
China Meheco	600056
Minmetals Development	600058
Zhejiang Guyuelongshan Shaoxing Wine	600059
Hisense Electric	600060
China Resources Double Crane Pharma	600062
Anhui Wanwei Updated High-Tech Material Industry	600063
Nanjing Gaoke	600064
Zhengzhou Yutong Bus	600066
Citychamp Dartong	600067
China Gezhouba	600068
Shanghai Maling Aquarius	600073
Jiangsu Chengxing Phosph-Chemical	600078
Humanwell Healthcare	600079
Ginwa Enterprise	600080
Dong Feng Electronic Technology	600081
Beijing Tongrentang	600085

China Television Media	600088
Tbea	600089
Guangzhou Development	600098
Tsinghua Tongfang	600100
Sichuan Mingxing Electric Power	600101
Saic Motor	600104
Chongqing Road & Bridge	600106
Gansu Yasheng Industrial	600108
Sinolink Securities	600109
China Northern Rare Earth High-Tech	600111
Guizhou Changzheng Tiancheng Holding	600112
Nbtm New Materials	600114
China Eastern Airlines	600115
Chongqing Tgwcep	600116
China Spacesat	600118
Y U D Yangtze River Investment Industry	600119
Zhejiang Orient Holdings	600120
Jiangsu Hongtu High Technology	600122
Shanxi Lanhua Sci-Tech Venture	600123
China Railway Tielong Container Logistics	600125
Chong Qing Brewery	600132
Lucky Film	600135
China Cyts Tours Holding	600138
Hubei Xingfa Chemicals	600141
Kingfa Sci	600143
China Cssc Holdings	600150
Xiamen C&D	600153
Wintime Energy	600157
China Sports Industry	600158
Zhejiang Juhua	600160
Beijing Tiantan Biological Products	600161
Shenzhen Heungkong Holding	600162
Beiqi Foton Motor	600166
Luenmei Holding	600167
Wuhan Sanzhen Industry Holding	600168
Taiyuan Heavy Industry	600169
Shanghai Construction	600170
Shanghai Belling	600171
Henan Huanghe Whirlwind	600172
Wolong Real Estate Group	600173
Meidu Energy Corporation	600175
China Jushi	600176
Youngor	600177
Ccs Supply Chain Management	600180
Shengyi Technology	600183
Gree Real Estate	600185
Yanzhou Coal Mining	600188
Jinzhou Port	600190
China Animal Husbandry Industry	600195
Shanghai Fosun Pharmaceutical	600196
Xinjiang Yilite Industry	600197
Jiangsu Wuzhong Industrial	600200
Inner Mongolia Jinyu	600201
Grinm Advanced Materials	600206
Xinhu Zhongbao	600208
Shanghai Zijiang Enterprise	600210
Zhejiang Medicine	600216
Shandong Nanshan Aluminium	600219
Hainan Airlines	600221
Guangxi Guiguan Electric Power	600236
Yunnan Metropolitan Real Estate Development	600239
Beijing Homyear Capital Holdings	600240
Shaanxi Yanchang Petroleum Chemical Engineering	600248
Xingjiang Guannong Fruit & Antler	600251
Guangxi Wuzhou Zhongheng	600252
Ahhui Xinke New Materials	600255
Guanghui Energy	600256
Dahu Aquaculture	600257
Hubei Kaile Science And Technology	600260
Zhejiang Yankon	600261
Beijing Urban Construction Investment& Development	600266
Zhejiang Hisun Pharmaceutical	600267
Guodian Nanjing Automation	600268
Jiangxi Ganyue Expressway	600269
Sinotrans Air Transportation Dev't	600270
Aisino	600271
Zhejiang Jiahua Energy Chemical Ind.	600273
Jiangsu Hengrui Medicine	600276
Inner Mongolia Elion Energy	600277
Orient International	600278
Nanjing Central Emporium Stocks	600280

Shanghai Pudong Road & Bridge Const.	600284
Henan Lingrui Pharmaceutical	600285
Bright Oceans Inter-Telecom	600289
Huayi Electric	600290
Cpi Yuanda Environmental—Protection	600292
Inner Mongolia Eerduosi Resources	600295
Angel Yeast	600298
V V Food & Beverage	600300
Jiangshu Hengshun Vinegar	600305
Gansu Jiu Steel Group Hong Xing Iron & Steel	600307
Wanhua Chemical	600309
Henan Pinggao Electric	600312
Shanghai Jahwa United	600315
Jiangxi Hongdu Aviation Industry	600316
Yingkou Port Liability	600317
Anhui Chaodong Cement	600318
Sichuan Guodong Construction	600321
Grandblue Environment	600323
Huafa Industrial	600325
Wuxi Commercial Mansion Grand Orient	600327
Tianjin Zhongxin Pharmaceutical	600329
Guangzhou Baiyunshan Pharmaceutical Holdings	600332
Sinomach Automobile	600335
China Fortune Land Development	600340
Yang Quan Coal Industry	600348
Shandong Hi-Speed	600350
Yabao Pharmaceutical	600351
Zhejiang Longsheng	600352
Jiangxi Copper	600362
Jianxi Lianchuang Opto-Electronic Science&Technology	600363
Ningbo Yunsheng	600366
Southwest Securities	600369
China Avionics Systems	600372
Chinese Universe Publishing And Media	600373
Hualing Xingma Automobile	600375
Beijing Capital Development	600376
Jiangsu Expressway	600377
Sichuan Tianyi Science & Technology	600378
Joincare Pharmaceutical Group Industry	600380
Guangdong Mingzhu	600382
Gemdale	600383
Beijing Bashi Media	600386
Zhejiang Haiyue	600387
Fujian Longking	600388
Nantong Jiangshan Agrochemical & Chemicals	600389
Sichuan Chengfa Aero Science&Technology	600391
Guizhou Panjiang Refined Coal	600395
Shenyang Jinshan Energy	600396
Anyuan Coal Industry	600397
Heilan Home	600398
Fushun Special Steel	600399
Henan Dayou Energy	600403
Beijing Dynamic Power	600405
Nari Technology	600406
Tangshan Sanyou Chemical Industries	600409
Beijing Teamsun Technology	600410
Zhejiang China Commodities City	600415
Xiangtan Electric Manufacturing	600416
Anhui Jianghuai Automobile	600418
Shanghai Shyndec Pharmaceutical	600420
Kpc Pharmaceuticals	600422
Xinjiang Qingsong Building Materials And Chemicals	600425
Shandong Hualu-Hengsheng Chemical	600426
Cosco Shipping	600428
North Navigation Control Technology	600435
Zhangzhou Pientzehuang Pharmaceutical	600436
Tongwei	600438
Henan Rebecca Hair Products	600439
Shenzhen Kingdom Technology	600446
Ningxia Building Materials Group	600449
Zhuzhou Times New Materials Technology	600458
Sino-Platinum Metals	600459
Hangzhou Silan Microelectronics	600460
Shandong Homey Aquatic Development	600467
Tianjin Benefo Tejing Electric	600468
Hunan Corun New Energy	600478
Zhuzhou Qianjin Pharmaceutical	600479
Lingyun Industrial	600480
Shuangliang Eco-Energy Systems	600481
Fengfan Stock	600482

Beijing Xinwei Telecom Technology Group	600485
Jiangsu Yangnong Chemical	600486
Hengtong Optic-Electric	600487
Zhongjin Gold	600489
Pengxin International Mining	600490
Long Yuan Construction	600491
Jinxi Axle	600495
Changjiang & Jinggong Steel Building	600496
Yunnan Chihong Zinc&Germanium	600497
Fiberhome Telecommunication Technologies	600498
Keda Clean Energy	600499
Sinochem International	600500
Aerosun	600501
Anhui Water Resources Development	600502
Deluxe Family	600503
Fangda Special Steel Technology	600507
Xinjiang Tianfu Energy	600509
Black Peony	600510
China National Medicines	600511
Jiangsu Lianhuan Pharmaceutical	600513
Fangda Carbon New Material	600516
Shanghai Zhixin Electric	600517
Kangmei Pharmaceutical	600518
Kweichow Moutai	600519
Zhejiang Huahai Pharmaceutical	600521
Jiangsu Zhongtian Technology	600522
Guizhou Guihang Aotomotive Components	600523
Changyuan	600525
Zhejiang Feida Environmental Science &Technology	600526
Jiangsu Jiangnan High Polymer Fiber	600527
China Railway Erju	600528
Shandong Hongda Mining	600532
Tasly Pharmaceutica	600535
China National Software & Service	600536
Eging Photovoltaic Technology	600537
Xinjiang Urban Construction	600545
Shanxi Coal International Energy	600546
Shandong Gold Mining	600547
Shenzhen Expressway	600548
Xiamen Tungsten	600549

Time Publishing & Media	600551
Anhui Fangxing Science & Technology	600552
Jiangsu Kanion Pharmaceutical	600557
Hebei Hengshui Laobaigan Liquor	600559
Glarun Technology	600562
Xiamen Faratronic	600563
Chongqing Dima Industry	600565
Hubei Jumpcan Pharmaceutical	600566
Anhui Shanying Paper Industry	600567
Zhongzhu Holding	600568
Hundsun Technologies	600570
Sunyard System Engineering	600571
Zhejiang Conba Pharmaceutical	600572
Tongling Jingda Special Magnet Wire	600577
Beijing Jingneng Power	600578
Wolong Electric	600580
Tiandi Science & Technology	600582
Offshore Oil Engineering	600583
Jiangsu Changjiang Electronics Technology	600584
Anhui Conch Cement	600585
Shandong Jinjing Science & Technology	600586
Shinva Medical Instrument	600587
Yonyou Network Technology	600588
Guizhou Yibai Pharmaceutical	600594
Zhejiang Xinan Chemical Industrial	600596
Bright Dairy & Food	600597
Tsingtao Brewery	600600
Founder Technology Group	600601
Dazhong Transportation	600611
Lao Feng Xiang	600612
Shanghai Dingli Technology Development	600614
Shanghai Jinfeng Wine	600616
Shanxi Guoxin Energy	600617
Shanghai Chinafortune	600621
Double Coin Holdings	600623
Shanghai Fudan Forward S&T	600624
Shanghai Shenda	600626
Shanghai New World	600628
Zhejiang Daily Media	600633
Shanghai Zhongji Investment Holding	600634
Shanghai Dazhong Public Utilities	600635

Shanghai 3f New Materials	600636
Shanghai Oriental Pearl	600637
Shanghai New Huang Pu Real Estate	600638
Shanghai Jinqiao Export Processing Zone Development	600639
Besttone Holding	600640
Shanghai Wanye	600641
Shenergy	600642
Shanghai Aj Group	600643
Zhongyuan Union Cell & Gene Engineering	600645
Shanghai Wai Gaoqiao Free Trade Zone Development	600648
Shanghai Chengtou Holding	600649
Shanghai Jin Jiang International Industrial Investment	600650
Shanghai Feilo Acoustics	600651
China Security & Fire	600654
Shanghai Yuyuan Tourist Mart	600655
Cinda Real Estate	600657
Fuyao Glass Industry	600660
Shanghai Xin Nan Yang	600661
Shanghai Qiangsheng Holding	600662
Shanghai Lujiazui Finance & Trade Zone Development	600663
Harbin Pharmaceutical Group	600664
Aurora Optoelectronics	600666
Wuxi Taiji Industry	600667
Zhejiang Jianfeng	600668
Guangdong Hec Technology Holding	600673
Sichuan Chuantou Energy	600674
China Enterprise	600675
Shanghai Jiao Yun	600676
Nanjing Xinjiekou Department Store	600682
Guangzhou Pearl River Indusrial Development	600684
Cssc Offshore & Marine Engineering (Group)	600685
Gansu Gangtai Holding	600687
Sinopec Shanghai Petrochemical	600688
Qingdao Haier	600690
Dashang	600694
Chang Chun Eurasia	600697
Zhejiang Material Industrial Zhongda Yuantong	600704
Avic Capital	600705
Shanghai Haibo	600708
Chengtun Mining Group	600711
Jiangsu Phoenix Property Investment	600716
Tianjin Port Holdings	600717
Neusoft	600718
Gansu Qilianshan Cement	600720
Ningbo Fuda	600724
Chongqing Department Store	600729
China Hi-Tech Group	600730
Suzhou New District Hi-Tech Industrial	600736
Liaoning Chengda	600739
Huayu Automotive Systems	600741
Changchun Faway Automobile Components	600742
Huayuan Property	600743
Dalian Daxian Enterprises Holdings	600747
Shanghai Industrial Development	600748
Jiangzhong Pharmaceutical	600750
Shanghai Jin Jiang International Hotels Development	600754
Xiamen International Trade	600755
Inspur Software	600756
Anhui Heli	600761
Avic Heavy Machinery	600765
Tibet Urban Development And Investment	600773
Nanjing Panda Electronics	600775
Eastern Communications	600776
Top Energy	600780
Luxin Venture Capital	600783
Luyin Investment	600784
Yinchuan Xinhua Commercial	600785
Cmst Development	600787
Zhejiang China Light&Textile Industrial City	600790
Zhangjiagang Freetrade Science And Technology	600794
Gd Power Development	600795
Insigma Technology	600797
Huaxin Cement	600801
Fujian Cement	600802
Dr	600804
Jiangsu Yueda Investment	600805
Shenji Group Kunming Machine Tool	600806
Maanshan Iron & Steel	600808
Orient	600811

Hangzhou Jiebai Group	600814
Anxin Trust	600816
Zhonglu	600818
Shanghai Tunnel Engineering	600820
Shanghai Shimao	600823
Shanghai Yimin Commercial	600824
Shanghai Xinhua Media	600825
Shanghai Lansheng	600826
Shanghai Friendship	600827
Chengshang	600828
Sunny Loan Top	600830
Shaanxi Broadcast & Tv Network Intermediary	600831
Shanghai No	600833
Shanghai Mechanical & Electrical Industry	600835
Haitong Securities	600837
Sichuan Changhong Electric	600839
Shanghai Baosight Software	600845
Shanghai Tongji Science & Technology Industrial	600846
Shanghai East-China Computer	600850
Silver Plaza	600858
Beijing Wangfujing Department Store	600859
Beijing Jingcheng Machinery Electric	600860
Inner Mongolia Mengdian Huaneng Thermal Power	600863
Harbin Hatou Investment	600864
Tonghua Dongbao Pharmaceutical	600867
Far East Cable	600869
Sinopec Oilfield Service Corporation	600871
Jonjee Hi-Tech Industrial & Commercial Holding	600872
Meihua Holdings	600873
Tianjin Capital Environmental Protection	600874
Dongfang Electric	600875
Luoyang Glass	600876
China Aerospace Times Electronics	600879
Chengdu B-Ray Media	600880
Jilin Yatai	600881
Ningbo Shanshan	600884
Sdic Power Holdings	600886
Inner Mongolia Yili Industrial	600887
Xinjiang Joinworld	600888
Avic Aviation Engine Corporation	600893
Shanghai Zhangjiang Hi-Tech Park Development	600895
Xiamen International Airport	600897
China Yangtze Power	600900
Yueyang Forest & Paper	600963
Fortune Ng Fung Food (Hebei)	600965
Baotou Beifang Chuangye	600967
Sinoma International Engineering	600970
Anhui Hengyuan Coal Industry And Electricity Power	600971
Baosheng Science And Technology Innovation	600973
Wuhan Jianmin Pharmaceutical	600976
Guangdong Yihua Timber Industry	600978
Whirlpool China	600983
Anhui Leimingkehua	600985
Zhejiang Hangmin	600987
Chifeng Jilong Gold Mining	600988
Anhui Sun Create Electronics	600990
Mayinglong Pharmaceutical Group Stock	600993
Yunnan Wenshan Electric Power	600995
Kailuan Energy Chemical	600997
Jointown Pharmaceutical	600998
China Merchants Securities	600999
Tangshan Port	601000
Datong Coal Industry	601001
Gem-Year Industrial	601002
Chongqing Iron & Steel	601005
Daqin Railway	601006
Bank Of Nanjing	601009
Wenfeng Great World Chain Development	601010
Ningbo Port	601018
Sailun Jinyu Group	601058
China Shenhua Energy	601088
China South Publishing & Media	601098
Beijing Haohua Energy Resource	601101
China First Heavy Lndustries	601106
Sichuan Expressway	601107
Air China	601111
China National Chemical Engineering	601117
China Hainan Rubber Industry	601118
Beijing Sifang Automation	601126
Shenzhen Gas	601139

Chongqing Water	601158
Industrial Bank	601166
Western Mining	601168
Bank Of Beijing	601169
China Xd Electric	601179
China Railway Construction	601186
Jiangsu Jiangnan Water	601199
Sichuan Em Technology	601208
Inner Mongolia Junzheng Energy & Chemical Industry	601216
Jiangsu Sinojit Wind Energy Technology	601218
Jiangsu Linyang Electronics	601222
Universal Scientific Industrial	601231
Tongkun	601233
Guangzhou Automobile	601238
Pang Da Automobile Trade	601258
Agricultural Bank Of China	601288
Camel Group	601311
Sjec	601313
Ping An Insurance	601318
Bank Of Communications	601328
Guangshen Railway	601333
New China Life Insurance	601336
Xi'an Shaangu Power	601369
Industrial Securities	601377
China Railway	601390
Industrial And Commercial Bank Of China	601398
Shantou Dongfeng Printing	601515
Soochow Securities	601555
Ninbao Sanxing Electric	601567
Beijing North Star	601588
Aluminum Corporation Of China	601600
China Pacific Insurance	601601
Shanghai Pharmaceuticals Holding	601607
Metallurgical Corporation Of China	601618
China Life Insurance	601628
Great Wall Motor	601633
Zhuzhou Kibing	601636
Pingdingshan Tianan Coal Mining	601666
China State Construction Engineering	601668
Power Construction Corporation Of China	601669
Befar	601678
Huatai Securities	601688
Shanxi Lu'an Environmental Energy Development	601699
Changshu Fengfan Power Equipment	601700
Zhengzhou Coal Mining Machinery	601717
Jihua	601718
Shanghai Electric	601727
Crrc Corporation	601766
Lifan Industry	601777
Everbright Securities	601788
Ningbo Construction	601789
Lanpec Technologies	601798
Changzhou Xingyu Automotive Lighting Systems	601799
Anhui Xinhua Media	601801
China Oilfield Services	601808
China Everbright Bank	601818
Petrochina	601857
Zhejiang Chint Electrics	601877
Dalian Port (Pda)	601880
Jangho	601886
Zijin Mining	601899
Founder Securities	601901
Beijing Jingyuntong Technology	601908
China Cosco Holdings	601919
Jiangsu Phoenix Publishing&Media	601928
Jishi Media	601929
Yonghui Superstores	601933
China Construction Bank	601939
Jinduicheng Molybdenum	601958
Bank Of China	601988
China Shipbuilding Industry	601989
Datang International Power Generation	601991
Bbmg	601992
Guangxi Fenglin Wood Lndustry	601996
China Citic Bank	601998

Table A2: Northbound B Shares

Company Name	Ticker
Inesa Electron Co., Ltd.	900901
Shanghai Shibei Hi-Tech Co.,Ltd.	900902
Dazhong Transportation（Group）Co.,Ltd.	900903
Shanghai Shenqi Pharmaceutical Investment Management Co., Ltd.	900904
Lao Feng Xiang Co.,Ltd.	900905
Shang Hai Zhong Yi Da Co.,Ltd	900906
Shanghai Dingli Technology Development Group Co.,Ltd	900907
Shanghai Chlor-Alkali Chemical Co.,Ltd.	900908
Double Coin Holdings Ltd.	900909
Shanghai Highly(Group) Co.,Ltd.	900910
Shanghai Jinqiao Export Processing Zone Development Co.,Ltd.	900911
Shanghai Wai Gaoqiao Free Trade Zone Development Co.,Ltd.	900912
Shanxi Guoxin Energy Corporation Limited	900913
Shanghai Jin Jiang International Industrial Investment Co.,Ltd	900914
Zhonglu Co,.Ltd.	900915
Jinshan Development & Construction Co., Ltd.	900916
Shanghai Haixin Group Co., Ltd.	900917
Shanghai Yaohua Pilkington Glass Group Co,Ltd.	900918
Shanghai Greencourt Investment Group Co., Ltd.	900919
Shanghai Diesel Engine Company Limited	900920
Danhua Chemical Technology Co., Ltd.	900921
Shanghai Sanmao Enterprise (Group) Co.，Ltd.	900922
Shanghai Bailian Group Co., Ltd.	900923
Shang Gong Group Co., Ltd.	900924
Shanghai Mechanical & Electrical Industry Co., Ltd.	900925
Shanghai Baosight Software Co., Ltd.	900926
Shanghai Material Trading Co., Ltd.	900927
Shanghai Automation Instrumentation Co.,Ltd.	900928
Shanghai Jinjiang International Travel Co., Ltd	900929
Shanghai Potevio Co.,Ltd.	900930
Shanghai Lujiazui Finance & Trade Zone Development Co.,Ltd.	900932
Huaxin Cement Co., Ltd.	900933
Shanghai Jin Jiang International Hotels Development Co.,Ltd.	900934
Shanghai Young Sun Investment Co,Ltd	900935
Inner Mongolia Eerduosi Resources Co.,Ltd.	900936
Huadian Energy Company Limited	900937
Tianjin Tianhai Investment Co., Ltd.	900938
Shanghai Huili Building Materials Co., Ltd.	900939
Greattown Holdings Ltd.	900940
Eastern Communications Co.,Ltd.	900941
Huangshan Tourism Development Co.,Ltd.	900942
Shanghai Kai Kai Industrial Co.,Ltd.	900943
Hainan Airlines Company Limited	900945
Hunan Tyen Machinery Co., Ltd	900946
Shanghai Zhenhua Heavy Industries Co.,Ltd.	900947
Inner Mongolia Yitai Coal Company Limited	900948
Jiangsu Future Land Co.,Ltd.	900950
Dahua Group Dalian Chemical Industry Co.,Ltd.	900951
Jinzhou Port Co.,Ltd.	900952
Kama Co., Ltd.	900953
Shanghai Nine Dragon Tourism Co.,Ltd.	900955
Huangshi Dongbei Electrical Appliance Co.,Ltd	900956
Shanghai Lingyun Industries Development Co., Ltd.	900957

Table A3: Southbound Eligible Shares

Company Name	Ticker
CKH HOLDINGS	0001
CLP Holdings Ltd.	0002
The Hong Kong and China Gas Co. Ltd	0003
The Wharf (Holdings) Limited	0004
Power Assets Holdings Limited	0006
PCCW Limited	0008
Hang Seng Bank Limited	0011
Henderson Land Development Co. Ltd.	0012
Hysan Development Company Limited	0014
Sun Hung Kai Properties Limited	0016
New World Development Co. Ltd.	0017
Swire Pacific Limited	0019
Wheelock and Company Ltd.	0020
The Bank of East Asia, Limited	0023
Galaxy Entertainment Group Limited	0027
First Tractor Co. Ltd.	0038

Great Eagle Holdings Ltd.	0041
Hopewell Holdings Ltd.	0054
MTR Corporation Limited	0066
Shangri-La Asia Limited	0069
China Overseas Grand Oceans Group Ltd.	0081
Sino Land Company Limited	0083
Sun Hung Kai & Co. Limited	0086
HANG LUNG PPT	0101
Sichuan Expressway Company Limited	0107
Poly Property Group Co., Limited	0119
Yuexiu Property Company Limited	0123
Kunlun Energy Company Limited	0135
First Pacific Company Limited	0142
China Merchants Holdings (International) Company Limited	0144
Kingboard Chemical Holdings Ltd.	0148
Want Want China Holdings Ltd.	0151
Shenzhen International Holdings Limited	0152
CHINA EB LTD	0165
Tsingtao Brewery Company Limited	0168
K. Wah International Holdings Ltd.	0173
Geely Automobile Holdings Ltd.	0175
Jiangsu Expressway Co. Ltd.	0177
Sa Sa International Holdings Ltd.	0178
Johnson Electric Holdings Ltd.	0179
Beijing Jingcheng Machinery Electric Company Limited	0187
Melco International Development Ltd.	0200
Hutchison Telecommunications Hong Kong Holdings Ltd.	0215
Uni-President China Holdings Ltd	0220
Alibaba Health Information Tech. Ltd.	0241
Shun Tak Holdings Ltd.	0242
China Everbright International Ltd.	0257
CITIC Limited	0267
Guangdong Investment Ltd.	0270
Shui On Land Limited	0272
Goldin Properties Holdings Limited	0283
BYD Electronic International Co. Ltd	0285
China Resources Enterprise Ltd.	0291
Cathay Pacific Airways Limited	0293
Sinofert Holdings Ltd.	0297
Vtech Holdings Ltd.	0303
China Travel International Investment Hong Kong Limited	0308
SmarTone Telecommunications Ho. Ltd.	0315
Orient Overseas International Ltd.	0316
Tingyi Cayman Islands Holding Corp.	0322
Maanshan Iron & Steel Co. Ltd.	0323
Esprit Holdings Ltd.	0330
Huabao International Holdings Limited	0336
Sinopec Shanghai Petrochemical Co. Ltd.	0338
Jiangxi Copper Company Limited	0358
Shanghai Industrial Holdings Limited	0363
Beijing Enterprises Water Group Limited	0371
China Gas Holdings Limited	0384
China Petroleum & Chemical Corp.	0386
Hong Kong Exchanges & Clearing Limited	0388
China Railway Group Limited	0390
Beijing Enterprises Holdings Ltd.	0392
Soho China Ltd.	0410
Minth Group Ltd.	0425
Dah Sing Financial Holdings Limited	0440
Dongfeng Motor Group Company Limited	0489
GOME Electrical Appliances Holding Limited	0493
Li & Fung Limited	0494
China Foods Limited	0506
Television Broadcasts Limited	0511
ASM Pacific Technology Ltd.	0522
Guangshen Railway Co. Ltd.	0525
Goldin Financial Holdings Limited	0530
Shenzhen Expressway Co., Ltd.	0548
Yue Yuen Industrial Holdings) Limited	0551
China Communications Services Corporation Limited	0552
Nanjing Panda Electronics Co. Ltd.	0553
Hanergy Thin Film Power Group Limited	0566
Beijing North Star Company Limited	0588
Luk Fook Holdings (International) Limited	0590
Shenzhen Investment Ltd.	0604
China Agri-Industries Holdings Limited	0606
Shougang Fushan Resources Group Limited	0639
Fosun International Limited	0656
NWS Holdings Ltd.	0659
Techtronic Industries Company Limited	0669

China Eastern Airlines Corp. Ltd.	0670
Kerry Properties Ltd.	0683
China Overseas Land & Investment Ltd.	0688
China Shanshui Cement Group Ltd.	0691
Tencent Holdings Limited	0700
China Telecom Corp. Ltd.	0728
Truly International Holdings Ltd.	0732
Hopewell Highway Infrastructure Limited	0737
Skyworth Digital Holdings Ltd.	0751
Air China Limited	0753
Hopson Development Holdings Ltd.	0754
China Unicom (Hong Kong) Limited	0762
Shimao Property Holdings Ltd.	0813
Franshion Properties (China) Ltd.	0817
Shenguan Holdings (Group) Ltd	0829
China Resources Power Holdings Co. Ltd.	0836
Mingfa Group International) Co., Ltd.	0846
PetroChina Co. Ltd.	0857
Digital China Holdings Limited	0861
China Medical System Holdings Ltd.	0867
Xinyi Glass Holdings Ltd.	0868
Guangzhou Baiyunshan Pharmaceutical Holdings Company Limited	0874
SJM Holdings Limited	0880
Zhongsheng Group Holdings Limited	0881
CNOOC Ltd.	0883
Huaneng Power International, Inc.	0902
Anhui Conch Cement Co. Ltd.	0914
China Longyuan Power Group Corporation Limited	0916
Brightoil Petroleum Holdings Limited	0933
Sinopec Kantons Holdings Limited	0934
China Construction Bank Corporation	0939
China Mobile Limited	0941
Longfor Properties Co., Ltd.	0960
China Taiping Insurance Holdings Company Limited	0966
Semiconductor Manufacturing Intl. Corp.	0981
Datang International Power Generation Co., Ltd.	0991
Lenovo Group Limited	0992
Anhui Expressway Co. Ltd.	0995
Carnival Group International Holdings Limited	0996
China CITIC Bank Corporation Ltd.	0998
Cheung Kong Infrastructure Holdings Ltd.	1038
Hengan International Group Company Limited	1044
Chongqing Iron and Steel Company Limited	1053
China Southern Airlines Co. Ltd.	1055
Alibaba Pictures Group Limited	1060
Tianjin Capital Environmental Protection Group Company Limited	1065
Shandong Weigao Group Medical Polymer Co., Limited	1066
Huadian Power International Corporation Limited	1071
Dongfang Electric Corporation Limited	1072
Towngas China Company Limited	1083
China Shenhua Energy Co. Ltd.	1088
CSPC Pharmaceutical Group Limited	1093
Sinopharm Group Co. Ltd.	1099
China Resources Land Limited	1109
Chong Hing Bank Limited	1111
Biostime International Holdings Limited (China)	1112
Brilliance China Automotive Holdings Ltd.	1114
China Modern Dairy Holdings Ltd.	1117
Wynn Macau Ltd.	1128
TCC International Holdings Ltd.	1136
China Shipping Development Co. Ltd.	1138
Shunfeng International Clean Energy Ltd.	1165
Haier Electronics Group Co., Ltd.	1169
Yanzhou Coal Mining Co. Ltd.	1171
Sino Biopharmaceutical Ltd.	1177
China Railway Construction Co. Ltd	1186
China Resources Gas Group Limited	1193
Cosco Pacific Ltd.	1199
CITIC Resources Holdings Ltd.	1205
MMG Limited	1208
Lifestyle International Holdings Ltd.	1212
Yashili International Holdings Limited	1230
Agricultural Bank of China Limited	1288
AIA Group Limited	1299
China Resources Cement Holdings Ltd.	1313
China Zhongwang Holdings Limited	1333
China Hongqiao Group Ltd.	1378
Pacific Textiles Holdings Limited	1382

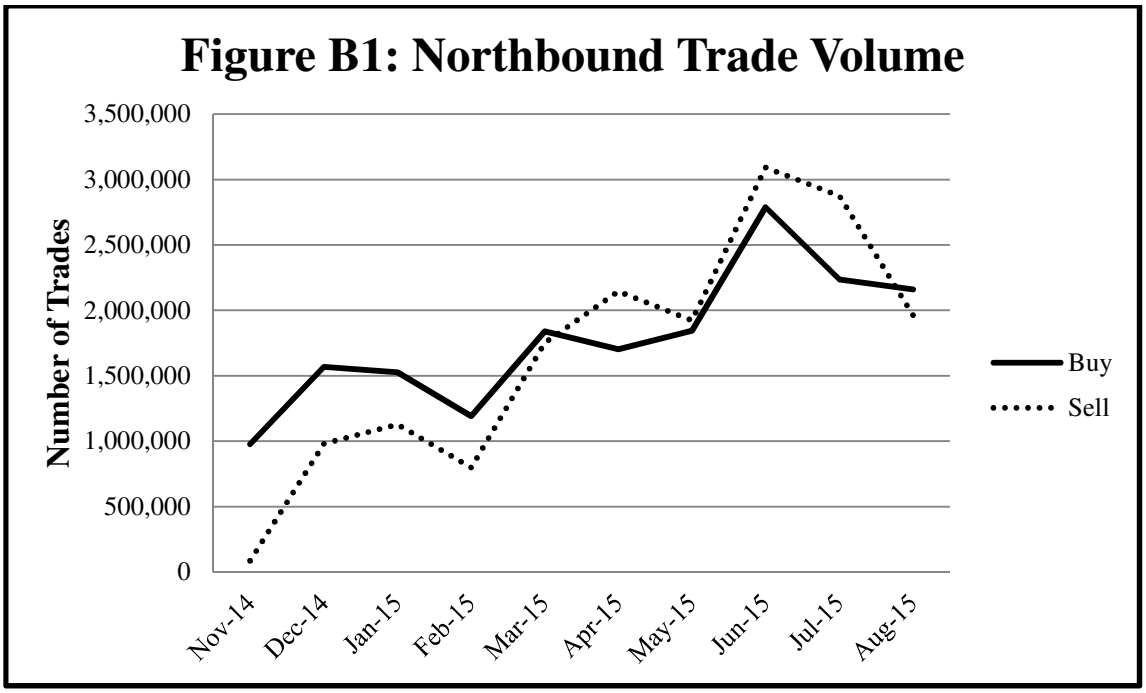
Renhe Commercial Holdings Co Ltd	1387
Industrial and Commercial Bank of China Limited	1398
Metallurgical Corporation of China Ltd.	1618
China South City Holdings Limited	1668
China Zhengtong Auto Services Holdings Limited	1728
CRRC Corporation Limited	1766
China Communications Construction Company Limited	1800
KWG Property Holdings Ltd	1813
Dah Chong Hong Holdings Limited	1828
Intime Retail (Group) Company Limited	1833
Belle International Holdings Limited	1880
Haitian International Holdings Limited	1882
Kingboard Laminates Holdings, Ltd.	1888
China Coal Energy Company Limited	1898
Sunac China Holdings Limited	1918
China COSCO Holdings Company Limited	1919
Sands China Ltd.	1928
Swire Properties Limited	1972
China Minsheng Banking Corp. Ltd.	1988
Man Wah Holdings Ltd	1999
Country Garden Holdings Company Limited	2007
Phoenix Satellite Television Holdings Ltd.	2008
BBMG Corporation	2009
AAC Technologies Holdings Inc.	2018
Fidelity RMT-Fidelity SaveEasy 2020	2020
FIH Mobile Limited	2038
China Lesso Group Holdings Limited	2128
Yingde Gases Group Co Ltd.	2168
Guangzhou Automobile Group Co., Ltd.	2238
Shenzhou International Group Holdings Ltd.	2313
Lee & Man Paper Manufacturing Limited	2314
Ping An Insurance (Group) Company of China, Ltd.	2318
China Mengniu Dairy Co. Ltd.	2319
PICC Property and Casualty Co. Ltd.	2328
Great Wall Motor Company Ltd.	2333
Dah Sing Banking Group Limited	2356
AviChina Industry & Technology Company Limited	2357
China Power International Development Ltd.	2380
Sunny Optical Technology (Group) Company Ltd.	2382
BOC Hong Kong Holdings Ltd.	2388
Aluminum Corporation Of China Limited	2600
China Pacific Insurance (Group) Co., Ltd.	2601
Shanghai Pharmaceuticals Holding Co. Ltd.	2607
China Life Insurance Co. Ltd.	2628
ENN Energy Holdings Limited	2688
Nine Dragons Paper (Holdings) Ltd.	2689
Shanghai Electric Group Company Limited	2727
Guangzhou R&F Properties Co., Ltd.	2777
China Shipping Container Lines Co. Ltd.	2866
China Shineway Pharmaceutical Group Limited	2877
Dalian Port (PDA) Company Limited	2880
China Oilfield Services Ltd.	2883
Zijin Mining Group Co. Ltd.	2899
Golden Eagle Retail Group Ltd.	3308
China State Construction International Holdings Ltd	3311
China National Building Material Company Limited	3323
Bank of Communications Co., Ltd.	3328
Vinda International Holdings Limited	3331
Evergrande Real Estate Group Limited	3333
Far East Horizon Limited	3360
Sino-Ocean Land Holdings Ltd.	3377
Agile Property Holdings Limited	3383
Chongqing Rural Commercial Bank Co Ltd	3618
GCL-Poly Energy Holdings Ltd.	3800
Sinotruk (Hong Kong) Limited	3808
Kingsoft Corporation Limited	3888
Zhuzhou CSR Times Electric Co., Ltd.	3898
CIMC Enric Holdings Limited	3899
Greentown China Holdings Limited	3900
China Merchants Bank Co., Ltd.	3968
Bank of China Limited	3988
China Molybdenum Co., Ltd.	3993
Bosideng International Holdings Limited	3998
CITIC Securities Company Limited	6030
Sun Art Retail Group Limited	6808

Appendix B

The pattern of monthly trades throughout the Shanghai-Hong Kong Stock Connect are presented in the figures below. Figure B1 and Figure B2 show the monthly trade volume through the Shanghai-Hong Kong Stock Connect program for Northbound trading and Southbound trading, respectively. Figure B3 and Figure B4 show the monthly value of trades for the Northbound and Southbound trading, respectively. The monthly data for trades entered through the Shanghai-Hong Kong Stock Connect program can be found on the HKEx website at http://www.hkex.com.hk/eng/csm/chinaconnmstat.asp?langcode=en

More general information on the Shanghai-Hong Kong Stock Connect program, such as rules, procedures, announcements, investor information, and risk management can be found on the HKEx website at:

http://www.hkex.com.hk/eng/csm/chinaConnect.asp?LangCode=en



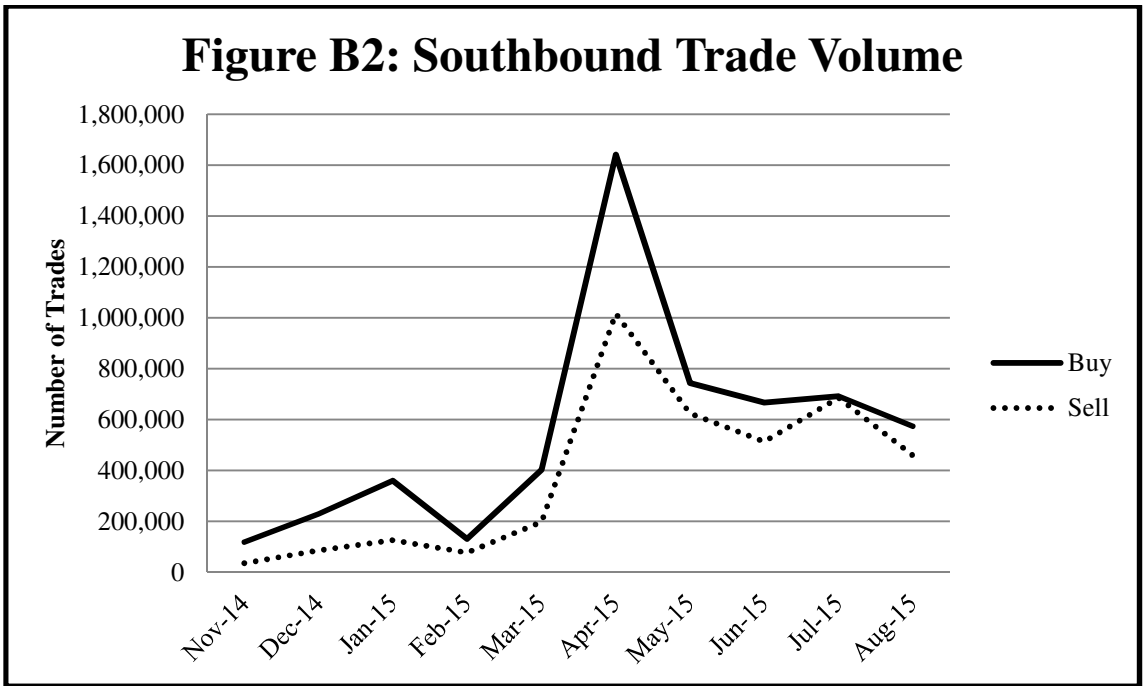


Figure B2: Southbound Trade Volume
Number of Trades
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
Nov-14
Dec-14
Jan-15
Feb-15
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Buy
Sell

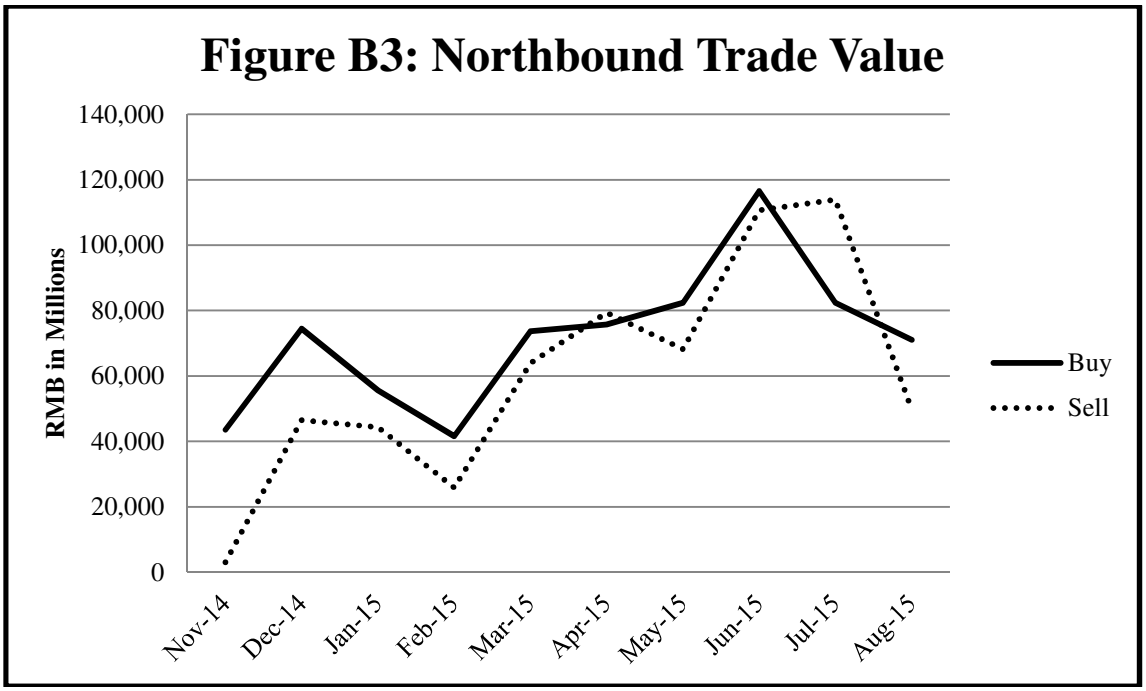


Figure B3: Northbound Trade Value
RMB in Millions
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Nov-14
Dec-14
Jan-15
Feb-15
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Buy
Sell

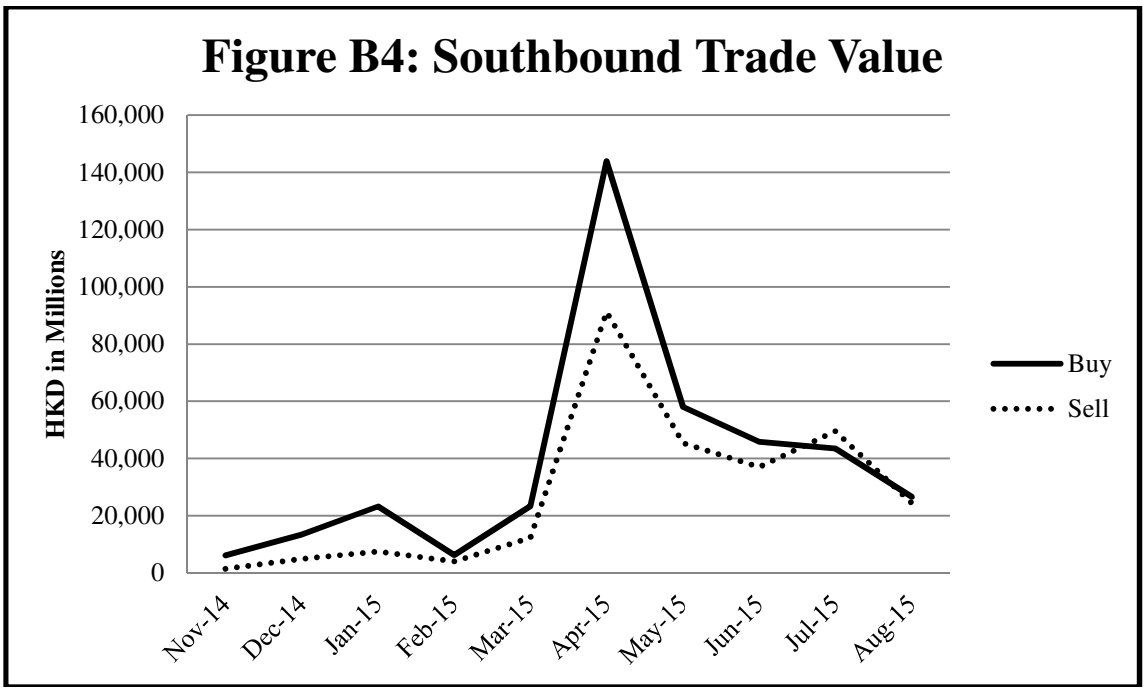


Figure B4: Southbound Trade Value
HKD in Millions
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Nov-14
Dec-14
Jan-15
Feb-15
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Buy
Sell