AN EMPIRICAL STUDY ON THE RELATIONSHIP BETWEEN FINANCIAL OPENNESS AND ECONOMIC GROWTH

By

SHEN, Jun

THESIS

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

MASTER OF PUBLIC POLICY

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Committee in charge:

Professor Sang Moon HAHM, Supervisor 

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ABSTRACT

AN EMPIRICAL STUDY ON THE RELATIONSHIP BETWEEN FINANCIAL OPENNESS AND ECONOMIC GROWTH

By

SHEN Jun

By collecting the data of 102 countries over 1970-2009 periods, this paper employs a two-way fixed effects panel data model to study the relationship between financial openness and economic growth. Notice that differences not only exist between developed countries and developing countries, but also within the developing countries, we divide the sample countries into three types which are developed countries, emerging market countries and developing countries for this study. Therefore, this paper analyses the impact of financial openness on economic growth from the perspectives of both overall samples and distinguishing three types of nations which is different from the most present researches.

By analyzing the estimation results, we conclude that: (1) Financial openness plays a significant positive role in promoting economic growth generally, which varies from different capital types. The impact of FDI inflow is the most obvious one, while there is not any significant positive impact on this three nation types exerted by

debt capital inflow; (2) regarding the relationship between financial openness and economic growth, the emerging market economics varies greatly from developed countries and developing countries. Generally, the significant positive promotion impact is mainly from emerging market countries.

Finally, the implication for China's financial openness is that China should promote economic reform by promoting financial openness, because financial openness is the premise, the foundation and the assurance of reform.

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My deepest gratitude goes first and foremost to Professor Sang-Moon Hahm, my supervisor, for his constant encouragement and guidance. He has walked me through all the stages of the writing of this thesis. Without his consistent and illuminating instruction, it is not possible for me to finish this thesis. Secondly, I would like to express my heartfelt gratitude to Professor Wang Shun, Professor Sohn Wook, Professor Nam Il-Chong, Professor Shin Jaeun and Professor Baek Ji Sun, who led me into the world of economic research methodology, I am also greatly indebted. Thirdly, I would like to thank all of the staff in KDI School, as they were always so helpful and nice to me.

I really enjoyed the time I spent in the KDI School, which is one of the most wonderful memory in my life. The knowledge I learned from the KDI School will become the treasure in my career. I sincerely hope that KDI School will be better and better. I will always be proud of you, KDI School.

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INTRODUCTION

1.1 BACKGROUND

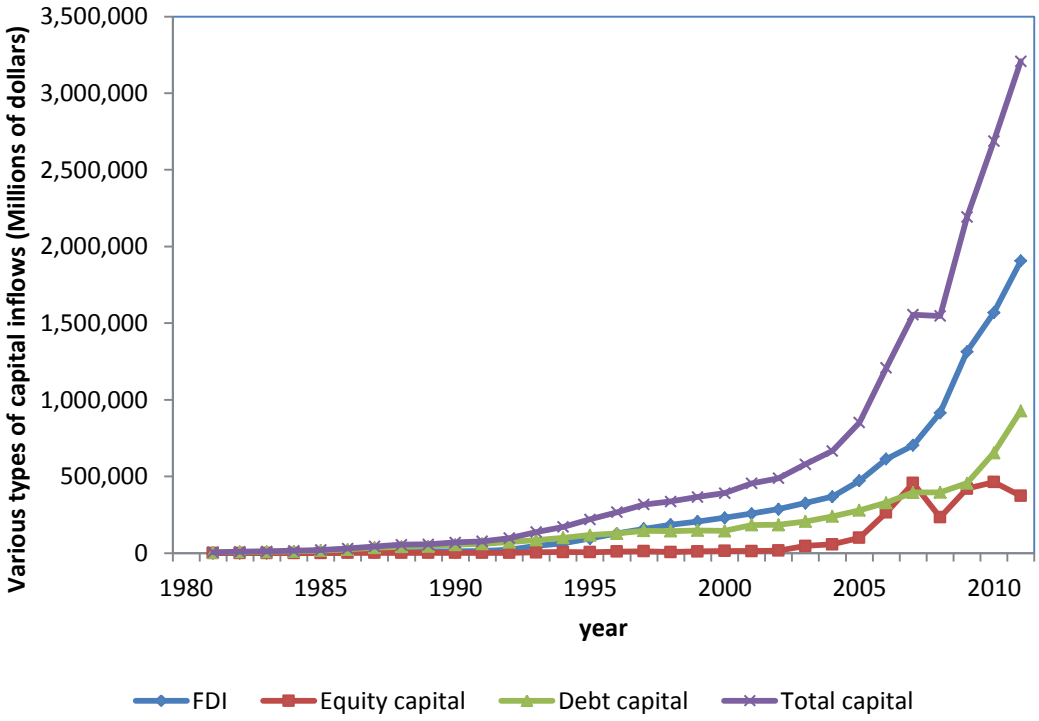
The relationship between financial openness and economic growth has been controversial in the economics circle. Whether will economic growth of a country be more rapid, due to its more open financial markets? Some scholars hold that financial openness can promote economic growth through several indirect and direct channels, which is necessary for some countries from low-income upgrading to middle-income (Fischer, 1998; Summers, 2000), while others argue that financial openness is prone to economic crisis, so they appeal for regulating capital transactions (Rodrik, 1998; Stiglitz, 2002). Especially in the global financial crisis between 2007 and 2009, crisis spread rapidly among the countries through various channels in the international financial market, from the U.S. subprime mortgage crisis at the beginning quickly turning into global financial and economic crisis. Meanwhile, financial openness is also considered to be chief culprit that leads to asset bubbles caused by excessive expansion of credit markets before the financial crisis. Financial crisis pushes question of financial openness to be the focus of debate again, which causes doubt effectiveness of international capital market and insufficient of regulation, and leads to rethink of financial openness. Thus, people face up with two important questions again: (1) why does a country implement financial openness and participate in the financial globalization and whether will economic growth of a country be rapid due to its more open financial markets? (2) whether does the influence of financial openness

on economic growth have a certain regularity and how to understand and grasp financial openness so as to be helpful for economic growth of a country?

1.2 IMPORTANCE OF STUDY

Study of influence of financial openness on economic growth has an important theoretical and practical significance in the current China's economic development. One of the important theory bases of China's export-oriented economic development strategy is the theory relationship between financial openness and economic growth. Since more than 30 years of reform and opening-up, as a part of China's export-oriented economic development strategy, with domestic entity economy opening up and system transforming, financial openness has been also gradually deepened and international capital inflow has increased. From figure 1, it can be seen that since reform and opening up, especially the middle of 1990s, various types of capital inflow has continuously grown, among them, with inflow of FDI flows the fastest.

Figure 1: comparison of four types of capital inflows in China



Data Source: Updated and Extended External Wealth of Nations Dataset, 1970-2011

In 2006, China had performed its WTO commitments to open financial services industry to overseas, and China's financial openness continues to deepen, with the promised provisions realized. From figure 1 it could be seen that since 2005, equity capital inflow had continued to increase rapidly. Since June 2010, RMB internationalization has become dominant strategy of financial reform and financial work in China, and the process of RMB internationalization is being accelerated. On the one hand, RMB settlement amount cross-border trade has grown rapidly, and the scale of currency swap agreement has continued to expand. By the end of the first quarter of 2014, the amount of RMB settlement business cross-border trade had accumulated RMB11.8 trillion Yuan, and 27 central banks such as People's Bank of China and Hong Kong, China, Korea, Malaysia or monetary authorities had signed

currency swap agreement as much as RMB3 trillion Yuan. Moreover, RMB business has made a breakthrough under the capital account, Hong Kong RMB offshore market is developing rapidly, in December 2011, RMB Qualified Foreign Institutional Investors (RQFII) system began to make experiments, by March 2014 the total amount of RMB deposit in Hong Kong banks had been more than RMB930 billion Yuan. With the process of RMB internationalization deepening, it will objectively further promote China to deregulate capital, to speed up the pace of financial openness.

1.3 PURPOSE OF THE PROPOSED STUDY / OBJECTIVES

Financial openness and international capital inflow has injected vitality and power for economic growth in China, however, with strategy transforming from the export-oriented economic development strategy to expand domestic demand and stabilize foreign demand, and with domestic and international economic environment unceasing changing, idea and breakthrough direction of financial openness in China made big changes. How to adjust the economic growth mode and opening-up strategy has become one of the most pressing problems faced up with by China. Therefore, it is necessary to further strengthen to make research on the problems of macroeconomic performance of financial openness, to improve the understanding of regularity of financial openness to promote economic growth. On the base of the empirical research on the positive benefits of financial openness and its influence on economic growth, we plan to draw the conclusions more clearly indicate the source of

the significance positive effects on economic growth given by financial openness, and the inspiration to China's financial openness.

1.4 RESEARCH QUESTIONS AND HYPOTHESIS

This paper collected the latest data, constructed the two-way fixed effects panel data model, and used OLS estimation method from two perspectives of the total sample type and distinguishing different nations to make empirical tests of the relationship between financial openness and economic growth, to answer two main questions: (1) whether will economic growth of a country be rapid due to its more open financial markets? (2) in the relationship between financial openness and economic growth, do the emerging market countries have significant difference?

LITERATURE REVIEW

2.1 THEORETICAL LITERATURE

In theory, economic growth of a country mainly depends on its production factors and allocation efficiency (total factor productivity), mainly manifesting as accumulation of material capital and human capital, production technology progress, the improvement of allocation efficiency of various resources and the improvement of the economic institution. Financial openness makes positive effects on accumulation factors, technological progress, allocation efficiency and institution improvement, as a result to promote faster economic growth and to improve economic welfare. Concretely, financial openness can promote economic growth through various channels that can be summarized as direct channels and indirect channels.

Direct channels can be summarized as two aspects. (1) Increase domestic investment. Limited by low level of national income, many countries have low domestic saving ability, thus many enterprises are generally constrained by financing, and the financial openness can supplement the shortage of the domestic capital to a certain extent to increase domestic investment. Bekaert *et al.* (2001) held that international capital inflows by financial openness, on the one hand, can directly supplement the domestic capital, on the other hand, can reduce the cost of the domestic financing, which will further stimulate investment. Therefore, if the new capital allocation is effective, it will promote economic growth. (2) Disperse investment risk. International capital flows can unify the global financial markets to

make every country able to hold diversified risk investment securities, so as to prompt all participating countries transform from the low returns, risk-free capital investment to high return and high risk investment and to promote economic growth. Obstfeld (1996) constructed the global capital risk dispersion model, and explored the relationship between financial openness and economic growth. This study suggested that technologies and products with high risk have a higher rate of the expected return on investment. Therefore, investment of specialization and innovative products with high risk can promote faster economic growth.

Indirect channels mainly include four aspects. (1) Promote financial development. Financial openness can improve the competition degree of a country's financial market, so as to improve efficiency of financial institutions, to deepen depth and breadth of financial market, to reduce the financing cost, and to improve the efficiency of capital allocation. Levine (2001) believed that the entry of the foreign banks could promote the competition of banking system and can bring the latest bank products and technologies, so as to impel the technology upgrading of domestic financial market, to improve efficiency and supervision of domestic banks, and promote the economic growth. (2) Improve the specialization division of labor and labor productivity. Financial openness can strengthen the capacity of risk share in the international market, helpful to overcome the risk obstacle of specialization division of labor, and to encourage specialization of production, so as to improve labor productivity and promote economic growth. Study of Imbs and Wacziarg (2003) pointed out that financial openness is beneficial to encourage specialization of

production, so as to improve production efficiency and rate of economic growth. (3) Constraint effect of rules and institutions. Financial openness is helpful to improve the credit level of a country's government, to make a government more self-discipline, to reduce the frequency of policy change and the error, to enhance stability of the macroeconomic policy, and to constantly improve the domestic laws and institutions. Gourinchas and Jeanne (2003) pointed out that under the condition of financial openness, the government tends to be self-discipline, and is easier to implement good policies and measures. (4) Display function of signal. Financial openness itself is a good economic signal to show that a country's government is willing to take the good macroeconomic policy and gives up predatory policies like inflation tax, which is beneficial to improve the investment environment and to promote economic growth.

We should notice that though the division of channels is good for understanding how the financial openness promotes economic development, actually the above channels are interactive. In addition, compared with the direct channel, the indirect channel plays a more important role (Kose *et al.* 2009).

However, there are researches (Edison *et al.,* 2002; Agenor, 2003) holding the view that financial openness will bring some costs, which can be divided into four aspects. (1) If a nation's financial infrastructure is imperfect, market financing function is unsound, financial openness may lead to the improper allocation of capital inflows and aggravate the distortion of the domestic original institutions; (2) it is vulnerable to the speculative attacks of international hot money in the financial openness environment, so as to loss the macroeconomic stability; (3) the Herd

behavior and contagion effect of financial market and the pro-cyclicality of short-term capital flows will easily lead to sharp fluctuations of international capital flows, exacerbate macroeconomic instability and increase the possibility of the outbreak of the economic crisis; (4) it will increase the penetration risk of foreign banks. Therefore, financial openness may not only promote faster economic growth, but also bring expensive economic costs.

2.2 EMPRICAL LITERATURE

Therefore, there are both advantages and disadvantages of financial openness theoretically. Therefore, the question about whether will economic growth of a country be rapid due to its more open financial markets becomes an important empirical issue. The present empirical evidence about the question is still inconsistent. Some researches show that financial openness does not have robust and significant effect to economic growth. The research of Rodrik (1998) is the typical representative of these studies. Rodrik (1998) found that there is no connection between economic growth and financial openness. Azman-Saini *et al.* (2010) examined the system relationship between FDI and economic growth by using the data of 85 countries, and found that FDI has no direct effect in promoting economic growth. The research of Bussiere and Fratzscher (2008) found that in 5 years after the capital account opening, capital account liberalization can promote economic growth around 1.5%, and then this growth effect disappeared and the economic growth rate fell back even lower than the original level.

However, there are other researches finding the evidence showing that financial openness promotes the economic growth. Quinn (1997) drew the conclusion that there had positive correlation between financial openness and economic growth. Edwards (2001) found that the effect of financial openness on economic growth depends on the country's economic development level, then financial openness and economic growth rate usually has positive correlation in high GDP per capita countries. Bekaert *et al.* (2001) examined the effect of securities market opening on economic growth, and found that financial integration promoted approximately 1% GDP per capita growth in about 5 years, which was significant. Delechat *et al.* (2009) using the sample including 44 Sub-Saharan Africa nations found that the net capital inflow has positive effect on economic growth. Butkiewicz and Yanikkaya (2008) held that both developed and developing countries could benefit from the capital account liberalization. Adams (2009) empirical analyzed the impact of FDI and domestic investment on economic growth by using Sub-Saharan Africa data from 1990 to 2003 and found that FDI had net positive effects on economic growth by increasing the total factor productivity.

2.3 RELATTED CONCLUSION

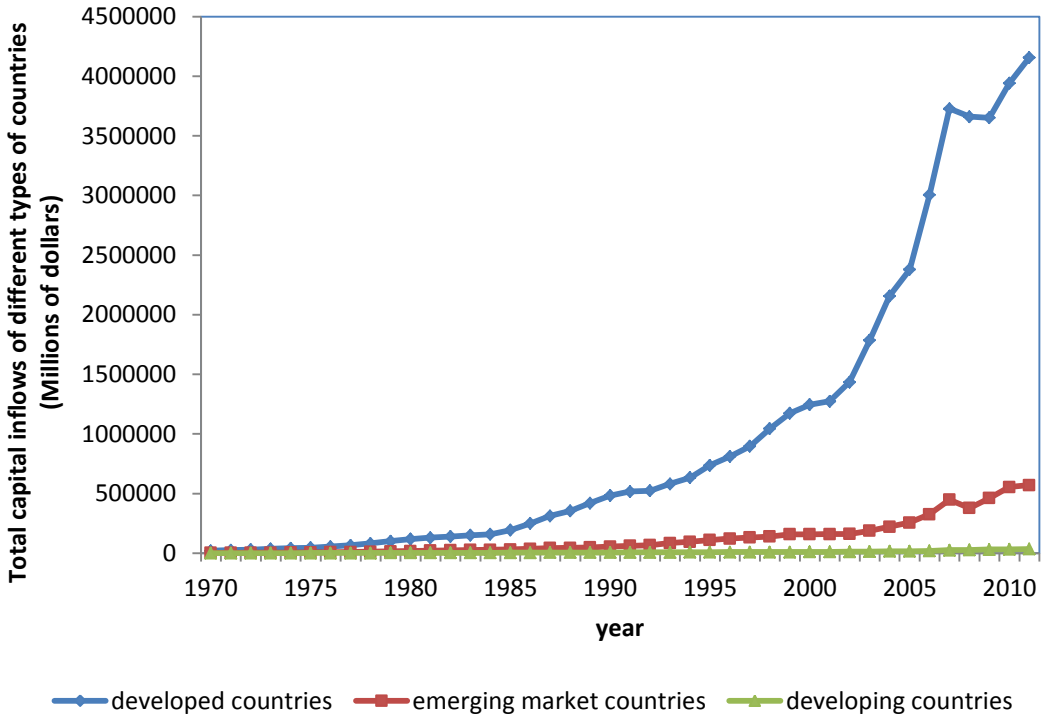
The reason of the difference among various researches conclusions mainly cause by the different financial openness measure indicator, sample range, sample period, model specification and estimation method used in researches. Some studies have noticed that there may be huge difference to the issue between developed and

developing countries. Most of current studies only distinguish between developed and developing countries, while ignoring the huge difference among developing countries. The emerging market countries are prominently different from the other common developing countries, and their economic growth rate were higher than the common developing countries', which has become an important driving force and source of the global economic growth in recent years.

Furthermore, from Figure 2, we can find that since 1970s the emerging market countries play a decisive role, although the developed countries are still the main participators. For their rapid economic growth, the emerging market countries gradually attract the attention from the international capital whose flow has risen up greatly. The cumulative proportion of the total capital absorbed by the emerging market countries for the total global capital has risen from 17% in 2000 to 25% in 2011; moreover the proportion of the external assets held by the emerging market countries for the total global assets has risen from 13% in 2000 to 25% in 2011[1].

[1] Data Source: Melka, Johanna, and Guy Longueville. "Emerging countries' financial integration: strong momentum." *Europe* 10.12: 14.

Figure 2: comparison of total capital inflows (mean) of three types countries



Data Source: Updated and Extended External Wealth of Nations Dataset, 1970-2011

Owing the reasons above, it will not only reduce the bias of the empirical results by separating the emerging market countries from other common developing countries and comparing the different influence of financial openness on economic growth among three kinds of nations, but also make the empirical estimation more meaningful, which is help for revealing the regularity of financial openness to economic growth and obtaining the implication for China's financial opening issue.

DATA AND METHODOLOGY

3.1 FINANCIAL OPENNESS INDICATORS

The sample of this paper consists of 102 countries and regions, including 22 developed countries and regions, 30 emerging market countries and regions (including China: Mainland, China: Hong Kong S.A.R.), 50 developing countries and regions annually observed from 1970 to 2009. The primary purpose of this research is to examine whether financial openness has significant effects on a country's economic growth.

Financial openness is the core concept of this paper. On common sense, financial openness comparatively speaking of financial regulation is an important part of the international economic policy of a country, which essentially can be summarized as the process that financial factors flow cross-border freely, namely financial deregulation. Le (2002) defines the financial openness as the mobility of capital across borders. Carmignani and Chowdhury (2007) held the view that financial openness is the process of removing the legal and administration restriction on the mobility of capital across borders, so as to integrate the domestic financial market to the global capital market.

In empirical studies, two classes of methods generally are used to measure the financial openness degree in a country or region. The first is legal openness (de jure), which measures the financial openness degree by checking a country whether restrained the mobility of cross-border capital flow considering from the policy

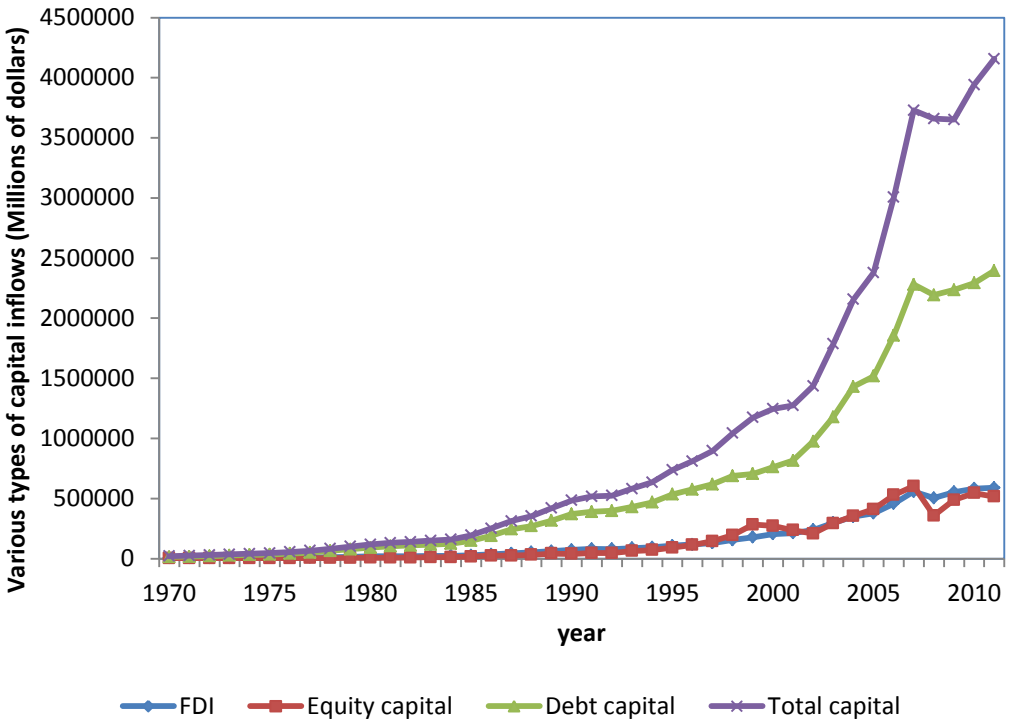
perspective. The representatives of this kind of measure method are IMF "Annual Report on Exchange Arrangements and Exchange Restrictions"（AREAER） and the research of Chinn (2008). The second is practice openness (de facto), which measures the scale of the actual cross-border capital flows as the financial openness degree considering from the actual state perspective. There is no difference between the two measuring methods to some countries. But for other countries, there are significant differences. Mainly because some countries nominally impose restrictions on capital flows, but in practice, they did not carry out or difficult to be implemented. Therefore, some countries have relatively low financial openness degree from the legal openness perspective, while the actual scale of capital flow is huge. On the contrary, other countries have very few legal controls on capital flow, and even encourage the foreign capital inflow; but due to the backward domestic infrastructure, poor investment environment, the international capitals are unwilling to invest. Therefore, it presents the situation of high degree of legal openness but low degree of practice openness.

Therefore, choosing different financial openness measure method will greatly influence the empirical results. In order to maximally eliminate the interference that caused by the different measure methods, this paper adopts two kinds of measuring methods at the same time while our study focuses on the practice openness. When using the practice openness to analysis, different types of capital flows present different characteristics and trends in different types of nations. From figure 3, we find that, for developed, debt capital inflows dominate the total capital inflows, which has risen quickly since the early 21st century. From figure 4, it can be found

that the emerging market countries experienced the debt capital inflow rising period in the mid-1980s. Later, many countries were involved in the financial crises. At the beginning of the 21st century, the debt capital inflows declined. But around 2005, it got a bigger growth again. Experienced the financial crisis in a series of countries, the FDI inflows proportion began rising rapidly, and exceeded the debt capital inflows in the early 21st century. It can be seen from figure 5, in most of the time, the developing countries rely mainly on the debt capital inflows, and the fluctuation is large. At the same time, the FDI inflows began to increase rapidly at the beginning of the 21st Century, and exceeded the debt capital inflows around 2005.

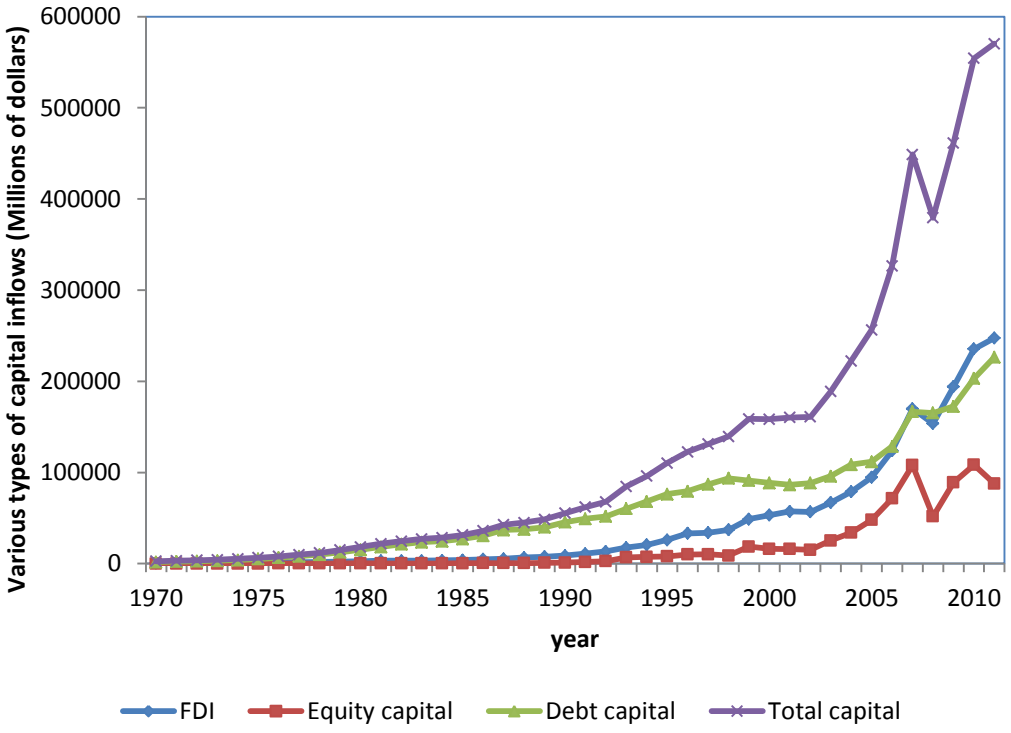
Moreover, the different types of the capital flows may have different influence on economic growth. In order to measure the possible different influences, this paper comprehensively adopts all types of measuring indicators including FDI, portfolio equity capital, debt capital and total capital, and distinguishes the measuring method of the capital inflows and the capital flows (including the capital inflow and the outflow). Therefore, in this paper, the measuring indicators of financial openness can be divided into two categories, namely the inflows and the flows, and each category is divided into four small classes according to the capital type. Some factors that unrelated to financial openness may lead to the short-term fluctuations in capital flows, so as to influence the empirical results. In order to weaken the interference of these factors, this paper use stock data rather than flow data to calculate the capital flows.

Figure 3: comparison of four types of capital inflows (mean) in developed countries



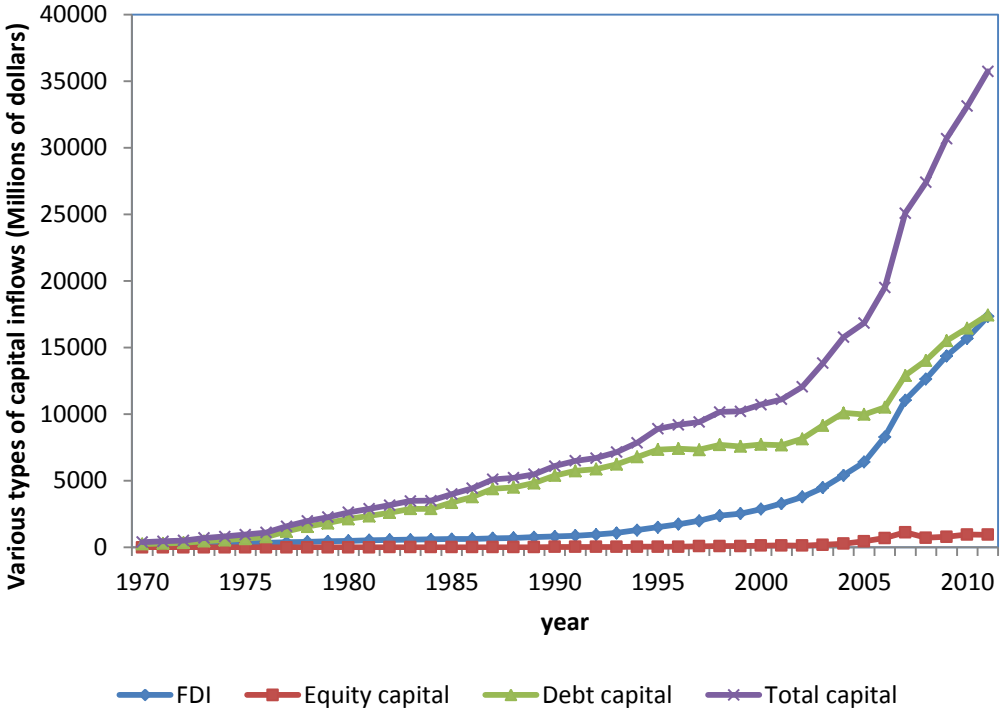
Data Source: Updated and Extended External Wealth of Nations Dataset, 1970-2011

Figure 4: comparison of four types of capital inflows (mean) in emerging market countries



Data Source: Updated and Extended External Wealth of Nations Dataset, 1970-2011

Figure 5: comparison of four types of capital inflows (mean) in developing countries



Data Source: Updated and Extended External Wealth of Nations Dataset, 1970-2011

3.2 VARIABLE DEFINITION AND DATA SOURCE

Therefore, this paper adopts 9 measuring indicators of financial openness, including the legal openness (*kaopen*), and 8 practice openness indicators, which are FDI inflows (*fdi_inflows*) and flows (*fdi_flows*), portfolio equity capital inflows (*portfolio_inflows*) and flows (*portfolio_flows*), debt capital inflows (*debt_inflows*) and flows (*debt_flows*), total capital inflows (*total_inflows*) and flows (*total_flows*). These practice openness indicators are calculated by the proportion of the corresponding type of the capital inflows or the flows scale for GDP. The legal openness indicator data comes from the Chinn-Ito index Database (Chinn and Ito, 2008), and other practice openness indicators data comes from the updated and extended external wealth of nations dataset (Lane and Milesi-Ferretti, 2007) and the world

development indicators database of World Bank (WDI).

The explained variable of our study is *gdppc*—the annual growth rate of GDP per capita—used to represent the economic growth, and the data come from the world development indicators database of World Bank (WDI). As for the selection of explanatory variables, in addition to the core variable —financial openness, this paper select relevant control variables according to the Solow Growth Model theory, especially the research method which explained the economic growth proposed by Sala-i-Martin (1997). Except for financial openness indicators, the other explanatory variables including, *secondary_edu*—lower secondary completion rate—used to represent the level of human capital, and the data come from the WDI database; and *primary_edu*—primary completion rate—used as a substitute variable of *secondary_edu* for robustness test, and the data source same as the indicator *secondary_edu*; and *stock_capital*—stock market capitalization to GDP—used to represent the level of development of the domestic financial market, and the data come from the database of Beck *et al.* (2009); and *stock_trade*—stock market total value traded to GDP—used as a substitute variable of *stock_capital* for robustness test, and the data source same as the indicator *stock_capital*; and *inflation*—inflation as measured by the annual growth rate of the GDP implicit deflator—used to represent the macroeconomic stability level; and *population*—the rate of population growth, these two kinds of data (*inflation* and *population*) both come from the WDI database. The definition and data source of all variables in this paper are exhibited in table 1. The descriptive statistics of these variables are shown in table 2. After the collection

of these indicators data, this paper will construct a two-way fixed effects panel data model for parameter estimation.

Table 1: Variable Definition

Variable	Definition	Data source
gdppc	GDP per capita growth (annual %)	WDI database
secondary_edu	Lower secondary completion rate, total (% of relevant age group)	
primary_edu	Primary completion rate, total (% of relevant age group)	
inflation	Inflation, GDP deflator (annual %)	
population	Population growth (annual %)	
fdi_inflows	Foreign direct investment inflows (% of GDP)	Updated and Extended External Wealth of Nations Dataset, 1970-2011 (Lane and Milesi-Ferretti, 2007)
portfolio_inflows	Portfolio equity inflows (% of GDP)	
debt_inflows	Debt inflows (% of GDP)	
total_inflows	Total capital inflows (% of GDP)	
fdi_flows	Foreign direct investment flows (% of GDP)	
portfolio_flows	Portfolio equity flows (% of GDP)	
debt_flows	Debt flows (% of GDP)	
total_flows	Total capital flows (% of GDP)	
kaopen	The Chinn-Ito Index, a de jure measure of financial openness	The Chinn-Ito index database, 1970-2011 (Chinn and Ito, 2008)
stock_capital	Stock market capitalization to GDP (%)	Financial Development and Structure Dataset (Beck et al. 2009)
stock_trade	Stock market total value traded to GDP (%)	

Table 2: Summary Statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
gdppc	3577	2.258	5.972	-45.330	142.100
fdi_inflows	3471	8.882	26.710	-2.252	523.600
portfolio_inflows	3437	5.178	18.070	-0.233	257.300
debt_inflows	3487	32.900	76.180	0.000	1080.000
total_inflows	3477	0.584	1.194	0.000	14.710
fdi_flows	3471	29.630	54.550	-12.610	1103.000
portfolio_flows	3405	11.580	40.670	0.000	761.800
debt_flows	3484	97.070	139.600	0.000	1988.000
total_flows	3477	1.502	2.200	0.000	30.430
kaopen	3470	0.077	1.545	-1.864	2.439
secondary_edu	1551	63.870	43.150	0.152	266.600
primary_edu	2107	79.260	24.740	1.522	130.600
stock_capital	1406	48.720	58.750	0.010	569.500
stock_trade	1391	31.700	56.080	0.000	726.500
inflation	3577	49.000	474.200	-31.570	15442.000
population	4079	1.513	1.272	-6.494	11.180

3.3 MODEL SPECIFICATION

Formally, the empirical model in this paper has the following panel form with *i* indexing the country and *t* indexing the time period:

$$y_{i,t} = \alpha + \mu_i + \lambda_t + \beta F_{i,t} + \delta X_{i,t} + \varepsilon_{i,t} \quad (1)$$

where $y_{i,t}$ is the annual percentage growth rate of GDP per capita; $F_{i,t}$ is the variable of financial openness which is the key research objective of this paper; $X_{i,t}$ is a set of control variables of economic growth equation, including the lower secondary completion rate (*secondary_edu*), the stock market capitalization to GDP

(*stock_capital*) and overall inflation rate (*inflation*); μ_i is individual country fixed effects; λ_t is the time fixed effects; $\varepsilon_{i,t}$ is an idiosyncratic error; α is intercept.

Therefore, the empirical model employing in this paper is a two-way fixed effects model that allows the intercept to vary over individuals and over time. The two-way-effects panel model has the following two advantages. Firstly, because the sample in this paper includes 102 countries, there are time invariant omitted variables according to different characteristics in different country. Our model captures the heterogeneity of the observations and assumes different individuals have different intercept. Secondly, similarly, our model adopts time fixed effects to solve the omitted variables problem owing to not individual invariant but time varying.

EMPIRICAL RESULTS AND ANALYSIS

4.1 OPENNESS AND GROWTH: IS THERE A RELATIONSHIP?

Table 3 and table 4 exhibit the two-way fixed effects estimation results of the impact of financial openness measured by capital inflow and flow indicators and legal openness indicator (*de jure*) on economic growth. In any regression, the dependent variable is the growth rate of GDP per capita. The *p*-value of Hausman test of every regression leads to strong rejection of null hypothesis that random effects provide consistent estimates.

Comparing the results of table 3 and table 4, we can draw 3 major conclusions.

(1) Financial openness has significant positive promotion effects on economic growth generally for overall sample data. Under 5% significant level, there are 7 financial openness measuring indicators pass the significant test; under 10% significant level, there are 8 indicators pass the significant test. In general, except the debt inflow indicator, the average partial correlation coefficient of the other 8 indicators which pass the significant test is 0.159.

(2) Among the 8 practice openness (*de facto*) indicators, FDI indicators are the most significant with the average partial correlation coefficient reached 0.588; followed by the portfolio indicators with the average partial correlation coefficient reached 0.026; and then is the total scale indicators with the average partial correlation coefficient reached 0.024; the result of debt indicators is the minimum, with the average partial correlation coefficient reached only 0.006. The partial

correlation coefficient of FDI inflows indicator is the highest, 0.744, while debt inflows indicator do not pass the significance test. The legal openness (*de jure*) indicator is significant under 5% significant level with the partial correlation coefficient is 0.867. The estimation results show that in the process of financial opening, the roles of different types of capital flows are different. Many researches hold that FDI has not only brought the long-term capital inflows, but also produce great spillover effect to the host country's productivity. It can improve the technology level and management ability of the host country, further more promote faster economic growth. By contrast, debt inflows, especially short-term debt inflows, due to the strong speculative and fluctuation, it is not conductive to maintaining the macroeconomic stability. Therefore in some ways it cannot promote economic growth, and even lead to economic fluctuations and the outbreak of the economic crisis. This point of view can also be exemplified by Asian financial crisis in 1997 and global financial crisis in 2007. On the eve of the two crises, the debt capital inflows both have rapid growth significantly.

(3) Based on the other explanatory variables, for the indicators of secondary schooling completion rate (*secondary_edu*) , except for the situation of *kaopen* used as the financial openness indicator, the rest are all significant under 5% significant level, and the partial correlation coefficients are from 0.015 to 0.029 with the average value is 0.021. It shows that the human capital has significant positive promotion effect on the economic growth, which is consistent with the economic growth theory. The sign of the partial correlation coefficient of stock market capitalization to GDP

(*stock_capital*) is positive, while is negative to inflation rate indicator (*inflation*) and population growth rate indicator (*population*), which basically accord with the economic growth theory and our expectations. But the indicator of stock market capitalization to GDP (*stock_capital*) is significant under 5% significant level only when FDI and portfolio used as the financial openness indicator. And inflation rate and population growth rate pass the significant test under 1% significant level in all estimations.

Table 3: Panel Two-way Fixed-effects Model Results (1)

Variable	(1)	(2)	(3)	(4)
	gdppc	gdppc	gdppc	gdppc
fdi_inflows	0.744**			
	(2.10)			
portfolio_inflows		0.035**		
		(2.07)		
debt_inflows			0.007	
			(1.07)	
total _inflows				0.034*
				(1.83)
secondary_edu	0.028**	0.021**	0.017**	0.018**
	(2.03)	(2.06)	(2.12)	(2.10)
stock_capital	0.030***	0.024**	0.014	0.020*
	(2.97)	(2.63)	(1.23)	(1.93)
inflation	-0.002***	-0.002***	-0.002***	-0.002***
	(-6.25)	(-5.96)	(-6.52)	(-6.39)
pop	-1.649***	-1.594***	-1.548***	-1.501***
	(-5.79)	(-5.66)	(-5.40)	(-5.35)
cons	5.182**	5.589***	6.047***	5.958***
	(2.59)	(2.80)	(3.07)	(3.00)
Time dummy	Y	Y	Y	Y
Number of obs	648	637	647	647
Number of countries	71	71	70	70
R-sq within	0.357	0.363	0.340	0.351
R-sq between	0.065	0.053	0.025	0.020
R-sq overall	0.192	0.171	0.187	0.181
Hausman-p	0.001	0.000	0.001	0.000

Notes: Hausman-p is the p-value of Hausman test. The t statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 4：Panel Two-way Fixed-effects Model Results (2)

Variable	(1)	(2)	(3)	(4)	(5)
	gdppc	gdppc	gdppc	gdppc	gdppc
fdi_flows	0.432**				
	(2.12)				
portfolio_flows		0.016**			
		(2.03)			
debt_flows			0.005**		
			(2.14)		
total_ flows				0.013**	
				(1.98)	
kaopen					0.867**
					(2.55)
edusec	0.029**	0.018**	0.015**	0.016**	0.026*
	(2.01)	(2.01)	(1.97)	(2.02)	(1.82)
stmktcap	0.028***	0.022**	0.013	0.020*	0.014
	(2.95)	(2.46)	(1.15)	(1.97)	(1.15)
inflation	-0.002***	-0.002***	-0.002***	-0.002***	-0.001***
	(-6.46)	(-6.09)	(-6.43)	(-6.37)	(-4.04)
pop	-1.635***	-1.594***	-1.462***	-1.422***	-1.813***
	(-5.61)	(-5.63)	(-5.16)	(-5.06)	(-5.95)
cons	5.336***	5.804***	6.312***	6.175***	5.992***
	(2.77)	(2.97)	(3.23)	(3.18)	(3.14)
Time dummy	Y	Y	Y	Y	Y
Number of obs	648	636	647	647	638
Number of countries	71	70	70	70	70
R-sq within	0.352	0.361	0.349	0.359	0.345
R-sq between	0.045	0.018	0.036	0.023	0.002
R-sq overall	0.166	0.165	0.200	0.185	0.094
Hausman-p	0.000	0.000	0.002	0.000	0.000

Notes: Hausman-p is the p-value of Hausman test. The t statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

4.2 WHICH COUNTRIES BENEFIT FROM OPENNESS?

The above results indicate that for the overall sample, the financial openness has significant positive effect on economic growth. However, from Table 5, we can find that there are apparent differences among the three different types of nations which are developed countries, emerging market countries and developing countries of overall sample in the aspect of economic development (such as economic growth rate and average income per capita), development of domestic financial market, human capital, growth rate of population and the stability of macroeconomic policy. Then, whether all the three types of nations have the overall apparent positive effect or only one type or some types of nations have such a significant relationship? That is the core problems this paper studies. Therefore, this paper introduces dummy variables of D1, D2 and D3. When the type of nation is developed countries, D1 equals to 1 and the other types of nations are 0; when the type of nation is emerging market countries, D2 equals to 1 and the other types of nations are 0; when the type of nation is developing countries, D3 equals to 1 and the other types of nations are 0. The interactive term between D1 and the indicator of international financial openness means the financial openness of developed countries, the interactive term between D2 and the indicator of international financial openness means the financial openness of emerging market countries and the interactive term between D3 and the indicator of international financial openness means the financial openness of developing countries. When having fixed effects panel estimation, replace the original indicator of international financial openness with the financial openness of three types of nations to inspect whether there are significant differences between financial openness and economic growth of three types of nations.

Table 5：Summary Statistics of Three Types Countries

	Developed country					Emerging market country					Developing country				
Variable	Obs	Mean	S.D.	Min	Max	Obs	Mean	S.D.	Min	Max	Obs	Mean	S.D.	Min	Max
gdppc	876	2.072	2.574	-8.975	13.620	1054	2.867	4.818	-31.180	16.200	1647	1.968	7.666	-45.330	142.100
fdi_inflows	879	20.860	25.960	0.000	198.800	985	11.090	40.890	0.000	523.600	1607	0.979	2.276	-2.252	19.300
portfolio_inflows	874	14.150	26.180	0.000	257.300	988	5.026	20.440	0.000	243.200	1575	0.293	1.493	-0.233	25.580
debt_inflows	878	64.610	101.700	0.918	1080.000	1005	35.870	96.770	0.000	736.000	1604	13.680	13.170	0.000	128.000
total_inflows	878	1.075	1.477	0.061	14.710	1005	0.664	1.604	0.000	13.330	1594	0.263	0.221	0.014	1.403
fdi_flows	879	40.950	47.260	0.490	403.300	985	35.620	86.190	0.000	1103.000	1607	19.760	21.590	-12.610	202.600
portfolio_flows	863	31.540	68.230	0.000	761.800	967	11.100	33.350	0.000	448.100	1575	0.927	3.520	0.000	65.960
debt_flows	878	145.200	186.000	7.613	1988.000	1005	90.920	165.200	0.000	1267.000	1601	74.520	67.150	2.397	1092.000
total_flows	878	2.272	2.905	0.180	30.430	1005	1.518	2.767	0.000	24.280	1594	1.068	0.755	0.110	11.160
kaopen	848	1.298	1.340	-1.864	2.439	972	0.005	1.529	-1.864	2.439	1650	-0.508	1.269	-1.864	2.439
secondary_edu	324	74.530	35.750	0.152	146.500	429	72.410	43.230	0.529	203.000	798	54.950	43.990	0.393	266.600
primary_edu	487	86.900	20.450	1.522	111.600	598	85.950	19.840	21.140	114.600	1022	71.710	26.880	5.561	130.600
stock_capital	445	69.250	48.790	5.550	281.400	532	53.920	73.610	0.010	569.500	429	20.980	29.930	0.180	224.900
stock_trade	443	59.290	65.830	0.460	401.700	529	31.000	56.960	0.030	726.500	419	3.411	12.860	0.000	146.200
inflation	876	6.334	7.172	-5.390	77.310	1057	49.910	273.600	-9.790	5049.000	1644	71.150	663.100	-31.570	15442.000
population	879	0.632	0.531	-0.886	3.800	1200	1.396	1.090	-2.574	6.017	2000	1.972	1.380	-6.494	11.180

According to the method similar to overall sample, Table 6 and Table 7 give the results of fixed effects estimation of the impact of financial openness which is measured by capital inflows indicators and capital flows indicators on economic growth. It can be clearly detected from Table 6 and Table 7 that for the relationship of financial openness and economic growth, the emerging market countries show the features which are totally different from that of developed countries and developing countries and the significant positive effect of overall sample mainly stems from emerging market countries. But for developed countries and developing countries, their financial openness has no significant positive effect on economic growth.

For emerging market countries, with 5% significance level, there are 7 of the 9 indicators of financial openness which are used by this paper passing the significance test except inflow indicator and flow indicator of debt capital. With 10% significance level, there are 8 indicators passing the significance test except inflow indicator of debt capital. And in the aspect of partial correlation coefficient, the average value of inflows indicators is 0.212 which is higher than the average value of inflows indicators of overall sample, 0.205. For developed countries, the signs of partial correlation coefficient of 9 indicators are positive. But under 10% significance level, only 1 indicator passed the significance test. For developing countries, no indicators pass the significance test under 5% significant level. Under 10% significant level, only the legal openness indicator and FDI inflow, portfolio inflow and total flows indicators pass the significance test and the partial correlation coefficient of them are positive. For the other indicators, the partial correlation coefficients are positive but none of them pass the significance test.

Besides, Table 6 again shows that for emerging market countries, the functions of capital inflows of different types are quite different. Among them, the influence of FDI inflow is significant and it has the partial correlation coefficient of 0.741; the second is inflow indicator of portfolio capital and it has the partial correlation coefficient of 0.048; inflows index of debt capital has the least function and it does not pass the significance test under the 10% significance level. Synthesize Table 3 and Table 6, it is found that inflow indicator of debt capital shows no significance positive

effect on any of the types of nations.

Why emerging market countries are so different from developed countries and developing countries in the effect of financial openness on economic growth? The problem can be analyzed in two aspects. Firstly, from Table 5, we can find that there are significant difference between emerging market countries and common developing countries in development of financial market and conditions of human capital; therefore, it may lead to the different absorbing capacity of both countries on international capital inflows to result in the different results of allocation of resources of international capital inflow. Due to the poor domestic infrastructure, common developing countries don't have the corresponding absorption capacity. Thus they could not be benefit from financial openness obviously. However, with great progress in domestic infrastructure and system construction, emerging market countries have absorbing capacity of huge capital inflows which could promote the faster growth in domestic economy. Secondly, different from most of the existing literatures (Klein and Olivei, 2008), the results of this paper show that for developed countries, there is no significance positive effect of financial openness on economic growth which could analyze with the direct channels and indirect channels of financial openness to promote economic growth that are aforementioned. Since most of the developed countries have relatively complete construction of the domestic financial market, fairly sound risk dispersed mechanism and small financing constraints comparing with other types of nations, the effect of financial openness on economic growth is not obvious in direct channels. In indirect channels, because developed countries have relatively advanced technology, higher management and more perfect institution, the indirect growth channels of financial openness are weaker. Therefore, financial openness will not be an important factor to influence economic growth of developed countries neither in direct channels nor in indirect channels. Furthermore, after financial market has developed to a certain degree, the financial sector itself and other entity industry departments may no longer have the relation of benign complementary but the competitive relation. Financial openness may also amplify the credit effect of financial system in developed countries and produce the problems of excessive credit

and debt accumulation which is particularly prominent at the beginning of 21st century. From figure 3, we can find that since the beginning of 21st century, debt capital inflows of developed countries has grown exponentially and the excessive debt capital inflows accelerates the expansion of financial system which leads to improper allocation of resources, produces economic bubble and causes subprime crisis and financial crisis to bring huge losses to economic growth.

Table 6：Panel Two-way Fixed-effects Model for different country types (1)

Variable	(1)	(2)	(3)	(4)
	gdppc	gdppc	gdppc	gdppc
fdi_inflows*d_developed	0.753			
	(0.84)			
fdi_inflows*d_emerging	0.731***			
	(3.07)			
fdi_inflows*d_developing	0.864*			
	(1.78)			
portfolio_inflows*d_developed		0.028		
		(1.63)		
portfolio_inflows*d_emerging		0.038***		
		(3.55)		
portfolio_inflows*d_developing		0.371*		
		(1.88)		
debt_inflows*d_developed			0.011	
			(0.74)	
debt_inflows*d_emerging			1.67e-06	
			(0.00)	
debt_inflows*d_developing			0.094	
			(1.35)	
total_ inflows*d_developed				0.030
				(0.89)
total_ inflows *d_emerging				0.039**
				(1.98)
total_ inflows *d_developing				0.008
				(0.18)
secondary_edu	0.028*	0.023	0.016	0.018
	(1.88)	(1.60)	(1.10)	(1.26)
stock_capital	0.030***	0.025***	0.016	0.020*
	(3.03)	(2.67)	(1.58)	(1.90)
inflation	-0.002***	-0.002***	-0.002***	-0.002***
	(-6.19)	(-5.96)	(-6.58)	(-6.32)
population	-1.750***	-1.617***	-1.511***	-1.499***
	(-5.82)	(-5.48)	(-5.53)	(-5.31)
cons	5.573***	5.508***	6.515***	5.978***
	(2.75)	(2.74)	(3.17)	(2.81)
Time dummy	Y	Y	Y	Y
Number of obs	648	637	647	647
Number of countries	71	71	70	70
R-sq within	0.367	0.364	0.340	0.351
R-sq between	0.039	0.049	0.025	0.020
R-sq overall	0.163	0.168	0.187	0.180

Notes: The t statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 7：Panel Two-way Fixed-effects Model for different country types (2)

Variable	(1)	(2)	(3)	(4)	(5)
	gdppc	gdppc	gdppc	gdppc	gdppc
fdi_flows*d_developed	0.426				
	(0.29)				
fdi_flows*d_emerging	0.425***				
	(3.11)				
fdi_flows*d_developing	2.498*				
	(1.92)				
portfolio_flows		0.012			
*d_developed		(1.27)			
portfolio_flows		0.017***			
*d_emerging		(3.79)			
portfolio_flows		0.007			
*d_developing		(0.23)			
debt_flows*d_developed			0.006		
			(0.07)		
debt_flows*d_emerging			3.09e-05*		
			(1.67)		
debt_flows*d_developing			0.044		
			(0.66)		
total_ flows*d_developed				0.011*	
				(1.71)	
total_ flows*d_emerging				0.020***	
				(4.31)	
total_flows*d_developing				0.094	
				(1.26)	
kaopen*d_developed					0.339
					(0.79)
kaopen*d_emerging					0.850**
					(2.42)
kaopen*d_developing					1.182*
					(1.94)
secondary_edu	0.031**	0.023	0.015	0.016	0.026*
	(2.08)	(1.63)	(1.05)	(1.09)	(1.77)
stock_capital	0.028***	0.023***	0.017*	0.021*	0.014
	(2.95)	(2.71)	(1.83)	(1.96)	(1.16)
inflation	-0.002***	-0.002***	-0.002***	-0.002***	-0.001***
	(-6.45)	(-6.14)	(-7.00)	(-6.55)	(-3.67)
population	-1.665***	-1.578***	-1.312***	-1.374***	-1.691***
	(-5.72)	(-5.60)	(-4.62)	(-4.74)	(-6.04)
cons	5.206***	5.389***	6.998***	7.110***	5.667***
	(2.67)	(2.77)	(3.57)	(3.49)	(2.89)
Time dummy	Y	Y	Y	Y	Y
Number of obs	648	636	647	647	638
Number of countries	71	70	70	70	70
R-sq within	0.353	0.369	0.383	0.370	0.349
R-sq between	0.043	0.015	0.011	0.003	0.013
R-sq overall	0.162	0.170	0.134	0.126	0.122

Notes: The t statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

4.3 ROBUSTNESS TEST

This paper makes use of multiple measurable indicators of financial openness to test and verify. The result of the estimation is relatively robust, which preliminarily demonstrates that the conclusion drawn under the framework of fixed effects panel model by this paper is stable. To further test the stability of the estimation results above, this paper carries out three kinds of robustness test from the following two aspects: (1) switching the sample timeline. Changing the time period of the sample to year 1990~2009, thus each indictor will have 20 observed values; (2) substituting variables. The very first step is to replace the stock market capitalization to GDP (*stock_capital*), which is the tool for measuring financial development level with stock market total value traded to GDP (*stock_trade*), so as to test the robustness. The second step is to replace the lower secondary completion rate (*secondary_edu*), which is used to measure the human capital level with the primary completion rate (*primary_edu*).

Due to the length of this paper, here only lists three kinds of robustness test results on the basis of the inflows indicators to distinguish nation types. Information from Table 8 to Table 10 shows that except some differences in several individual indictors, the partial coefficient of correlation of other results remains about the same in direction, and there is only slight difference in size. For the emerging market economics, the debt capital inflows in Table 9 has passed the significance test at the 10% significance level and the partial correlation coefficient is positive, which has slight difference with results in several other tables. For developing countries, FDI capital inflow in Table 8 & Table 9 has passed the significance test at the 10% significance level, and the partial correlation coefficient is positive. According to the results above, the main conclusion made by this paper basically stays the same.

Table 8：Robust Test (1) : sample period change to 1990-2009

Variable	(1)	(2)	(3)	(4)
	gdppc	gdppc	gdppc	gdppc
fdi_inflows*d_developed	0.740*			
	(1.87)			
fdi_inflows*d_emerging	0.701***			
	(3.22)			
fdi_inflows*d_developing	3.775			
	(0.89)			
portfolio_inflows*d_developed		0.024		
		(1.36)		
portfolio_inflows*d_emerging		0.035***		
		(3.37)		
portfolio_inflows*d_developing		0.375*		
		(1.83)		
debt_inflows*d_developed			0.011	
			(0.63)	
debt_inflows*d_emerging			0.0003	
			(0.06)	
debt_inflows*d_developing			0.112	
			(1.64)	
total_ inflows*d_developed				0.0274*
				(0.82)
total_ inflows *d_emerging				0.035***
				(3.91)
total_ inflows *d_developing				0.002
				(0.04)
secondary_edu	0.026*	0.021*	0.015	0.017*
	(1.85)	(1.87)	(0.96)	(1.86)
stock_capital	0.028***	0.022**	0.014	0.018*
	(2.98)	(2.57)	(1.48)	(1.79)
inflation	-0.002***	-0.002***	-0.002***	-0.002***
	(-6.34)	(-6.09)	(-6.65)	(-6.39)
population	-1.711***	-1.561***	-1.448***	-1.455***
	(-5.98)	(-5.70)	(-5.64)	(-5.63)
cons	3.961***	3.794***	5.096***	4.805***
	(2.98)	(2.95)	(3.58)	(3.45)
Time dummy	Y	Y	Y	Y
Number of obs	624	614	623	623
Number of countries	71	71	70	70
R-sq within	0.375	0.374	0.370	0.363
R-sq between	0.033	0.048	0.001	0.003
R-sq overall	0.162	0.175	0.127	0.148

Notes: The t statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 9：Robust Test (2) : substitute *primary_edu* for *secondary_edu*

Variable	(1)	(2)	(3)	(4)
	gdppc	gdppc	gdppc	gdppc
fdi_inflows*d_developed	0.735*			
	(1.88)			
fdi_inflows*d_emerging	0.661***			
	(3.63)			
fdi_inflows*d_developing	2.026			
	(0.70)			
portfolio_inflows*d_developed		0.024		
		(1.07)		
portfolio_inflows*d_emerging		0.027***		
		(4.21)		
portfolio_inflows*d_developing		0.319*		
		(1.87)		
debt_inflows*d_developed			0.016	
			(0.07)	
debt_inflows*d_emerging			0.004*	
			(1.86)	
debt_inflows*d_developing			0.026	
			(0.47)	
total_ inflows*d_developed				0.033
				(1.31)
total_ inflows *d_emerging				0.031***
				(4.78)
total_ inflows *d_developing				0.048*
				(1.69)
primary_edu	0.004	0.001	0.018	0.015
	(0.16)	(0.02)	(0.70)	(0.60)
stock_capital	0.025***	0.023***	0.016*	0.019***
	(4.39)	(3.89)	(1.98)	(2.79)
inflation	-0.003***	-0.003***	-0.003***	-0.003***
	(-4.52)	(-4.64)	(-10.75)	(-10.96)
population	-1.029***	-1.003***	-0.901***	-0.993***
	(-6.05)	(-5.96)	(-4.89)	(-6.40)
cons	4.644*	5.184*	4.083	4.116
	(1.68)	(1.73)	(1.59)	(1.58)
Time dummy	Y	Y	Y	Y
Number of obs	867	854	866	866
Number of countries	76	76	76	76
R-sq within	0.335	0.336	0.321	0.326
R-sq between	0.005	0.005	0.018	0.014
R-sq overall	0.188	0.195	0.199	0.202

Notes: The t statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 10：Robust Test (3) : substitute *stock_trade* for *stock_capital*

Variable	(1)	(2)	(3)	(4)
	gdppc	gdppc	gdppc	gdppc
fdi_inflows*d_developed	0.706			
	(0.67)			
fdi_inflows*d_emerging	0.636***			
	(3.37)			
fdi_inflows*d_developing	1.314			
	(0.28)			
portfolio_inflows*d_developed		0.018		
		(0.93)		
portfolio_inflows*d_emerging		0.022**		
		(2.26)		
portfolio_inflows*d_developing		0.323*		
		(1.72)		
debt_inflows*d_developed			0.013	
			(0.57)	
debt_inflows*d_emerging			0.003	
			(0.55)	
debt_inflows*d_developing			0.108*	
			(1.75)	
total_ inflows*d_developed				0.022**
				(2.52)
total_ inflows *d_emerging				0.020**
				(2.47)
total_ inflows *d_developing				0.005
				(0.10)
secondary_edu	0.0304*	0.0259*	0.0177	0.0215
	(1.95)	(1.81)	(1.31)	(1.58)
stock_trade	0.00772	0.00586	0.00286	0.00630
	(1.06)	(0.94)	(0.49)	(0.98)
inflation	-0.00181***	-0.00182***	-0.00178***	-0.00180***
	(-6.60)	(-6.16)	(-6.51)	(-6.44)
population	-1.852***	-1.701***	-1.547***	-1.592***
	(-5.49)	(-5.08)	(-5.16)	(-5.19)
cons	6.150***	5.980***	6.990***	6.399***
	(3.03)	(2.97)	(3.46)	(3.03)
Time dummy	Y	Y	Y	Y
Number of obs	638	627	638	638
Number of countries	70	70	70	70
R-sq within	0.336	0.340	0.346	0.335
R-sq between	0.038	0.054	0.027	0.044
R-sq overall	0.166	0.186	0.159	0.175

Notes: The t statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

CONCLUSION

5.1 MAIN CONCLUSION

This paper collected related indicator data from year 1970 to 2009 from 102 countries including China, and carried out empirical tests on the relationship between financial openness and economic growth from two points—overall sample and nation type division, by means of building two-way fixed effects panel data model and utilizing OLS evaluation method. This paper drew main conclusions as follows: (1) Generally speaking, financial openness plays a significant positive role in promoting economic growth, which varies from different capital types. The impact of FDI inflow is the most obvious one, while there is not any significant positive impact on this three nation types exerted by debt capital inflow; (2) regarding the relationship between financial openness and economic growth, the emerging market economics varies greatly from developed countries and developing countries. Generally, the significant positive promotion impact is mainly from emerging market countries.

Empirical results of this paper demonstrate that financial openness can promote economic growth significantly especially for the emerging market economics given certain condition is satisfied. If we blindly impose restrictions on financial openness at this moment, economic growth loss will be incurred. In the meanwhile, we should realize that financial openness is not an important tool to promote economic growth when the economic development level has come to a certain stage. The impact of financial openness is historic. During the process of financial openness, we should notice that different types of capital inflow have different influences on economic growth whether it’s a developed country, emerging market country or developing country. We should also pay special attention to controlling the inflow proportion of debt capital reasonably.

5.2 THE IMPLICATIOMS TO CHINA'S FINANCIAL OPENNESS

The above conclusions have remarkable policy implications to China's financial openness issue. Currently it seems that China's financial openness especially the openness of capital account has fallen into a vicious circle. Financial openness and financial reform have the risks of "two-way locking". On one hand, financial openness especially capital account openness has the tendency of locking by financial reform. The underdeveloped financial system and the potential fragility impede our financial openness process severely, leading to a timid and stumbling situation in our capital account openness process. According to statistics from IMF, it takes about 7 to 10 average years for general economics to convert from current account convertibility to capital account convertibility. However, China realized its current account convertibility in 1996, which is 16 years ago. One of the most important reason lying behind the slowdown process in financial openness is our financial system is not mature, and our low efficiency of financial system and poor risk resistance ability. In such circumstances, Economic decision-making departments still hesitate to carry out reform towards various institutional illnesses. They would rather carry out capital controls to postpone, even avoid necessary reforms. This tendency is extremely serious considering the economic reform has stepped into the "deep end".

In return, long-term capital control also hinders the development of domestic financial market and financial industry in a relatively closed environment. At the same time, insufficient financial marketization, high degree of monopoly and low efficiency have also restrict a balanced and healthy development of various financial market and cross-border financial transactions. Financial repression has existed for a long time in our financial system and cross-border asset trading in China. Small and medium-sized enterprise are faced with extremely difficult financing challenges as well as saving and investment conversion challenges, which forces capitals to flow into real estate industry excessively, leading to a series of distorted situations of entity economy, such as real estate bubbles, etc,.

In addition, China's current capital inflow type proportion is rather reasonable. FDI and portfolio capital inflow proportion is rising continuously, while debt capital

inflow is quite slow, which coincides the research conclusion of this paper. In the further step of financial openness, we should continue to manage this proportion reasonably. Great attention should be paid to preventing a large-scale inflow of debt capital as well as encouraging the inflow of FDI and portfolio capital. However, from the perspective of the direct and indirect channels of financial openness towards economic growth, currently China presents a malposed tendency in the process of financial openness, which is featured by excessive pursuit of capital inflow to expand domestic investment. However, a lack of attention to indirect channels can hardly promote further development for the financial market, or breakthrough in technological innovation.

Based on the research of this paper, we believe that we should specify the strategic goal of financial openness, set out and implement a more reasonable financial openness policy to realize a sound interaction between financial openness and financial reform, on the basis of dealing the relationship between financial openness and financial reform in a right way. China should promote financial reform, even economic reform through financial openness, because financial openness is the premise, the foundation and the assurance of reform, which doesn't mean that we should not promote financial reform. On the contrary, we should deepen financial and economic reform during the process of financial openness, so as to continue to improve market environment, legal system, human capital, etc,. Moreover, on the emphasis of financial openness situation and the long-term goal, there should be more deep financial reform in the short and medium term, so as to enable the financial system to provide a better service for the development of the entity economy, to further improve the condition of financial openness, and to promote a sound interaction between financial reform and openness. In this way, we can achieve the goal of financial marketization, and promoting a sustainable healthy development of China's economy.

APPENDIX

SAMPLE COUNTRIES

	Country	Type
1	Albania	Developing country
2	Algeria	Developing country
3	Argentina	Emerging market country
4	Australia	Developed country
5	Austria	Developed country
6	Bangladesh	Developing country
7	Belarus	Developing country
8	Belgium	Developed country
9	Bolivia	Developing country
10	Bosnia and Herzegovina	Developing country
11	Botswana	Developing country
12	Brazil	Emerging market country
13	Cambodia	Developing country
14	Cameroon	Developing country
15	Canada	Developed country
16	Chile	Emerging market country
17	China,P.R.: Mainland	Emerging market country
18	Colombia	Emerging market country
19	Congo, Republic of	Developing country
20	Côte d'Ivoire	Developing country
21	Croatia	Developing country
22	Czech Republic	Emerging market country
23	Denmark	Developed country
24	Dominican Republic	Developing country
25	Egypt	Emerging market country
26	El Salvador	Developing country
27	Equatorial Guinea	Developing country
28	Estonia	Emerging market country
29	Ethiopia	Developing country
30	Finland	Developed country
31	France	Developed country
32	Gabon	Developing country
33	Georgia	Developing country
34	Germany	Developed country
35	Ghana	Developing country
36	Greece	Developed country
37	Guatemala	Developing country
38	Guinea	Developing country
39	Haiti	Developing country
40	Honduras	Developing country

SAMPLE COUNTRIES (CONTINUES)

	Country	Type
41	Hong Kong S.A.R.	Emerging market country
42	Hungary	Emerging market country
43	Iceland	Developed country
44	India	Emerging market country
45	Indonesia	Emerging market country
46	Iran, Islamic Republic of	Developing country
47	Ireland	Developed country
48	Israel	Emerging market country
49	Italy	Developed country
50	Jamaica	Developing country
51	Japan	Developed country
52	Jordan	Developing country
53	Kazakhstan	Developing country
54	Kenya	Developing country
55	Korea	Emerging market country
56	Kyrgyz Republic	Developing country
57	Latvia	Emerging market country
58	Lithuania	Emerging market country
59	Macedonia	Developing country
60	Madagascar	Developing country
61	Malaysia	Emerging market country
62	Mexico	Emerging market country
63	Morocco	Developing country
64	Mozambique	Developing country
65	Nepal	Developing country
66	Netherlands	Developed country
67	New Zealand	Developed country
68	Nicaragua	Developing country
69	Nigeria	Developing country
70	Norway	Developed country
71	Oman	Developing country
72	Pakistan	Emerging market country
73	Papua New Guinea	Developing country
74	Paraguay	Developing country
75	Peru	Emerging market country
76	Philippines	Emerging market country
77	Poland	Emerging market country
78	Portugal	Developed country
79	Romania	Developing country
80	Russia	Emerging market country
81	Senegal	Developing country
82	Singapore	Emerging market country

SAMPLE COUNTRIES (CONTINUES)

	Country	Type
83	Slovak Republic	Emerging market country
84	Slovenia	Emerging market country
85	South Africa	Emerging market country
86	Spain	Developed country
87	Sri Lanka	Developing country
88	Sweden	Developed country
89	Switzerland	Developed country
90	Syrian Arab Republic	Developing country
91	Tanzania	Developing country
92	Thailand	Emerging market country
93	Tunisia	Developing country
94	Turkey	Emerging market country
95	Turkmenistan	Developing country
96	Uganda	Developing country
97	Ukraine	Developing country
98	United Kingdom	Developed country
99	United States	Developed country
100	Uruguay	Developing country
101	Venezuela, Rep. Bol.	Emerging market country
102	Vietnam	Developing country

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