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Chaoyang Liu†

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1 . Introduction

The United States is the most developed and powerful country and also it owns the most FDI in the world today. So far, the history of FDI in the U.S. has gone through about 140 years. There're some striking characteristics and trends for the FDI in the U.S.

International trade is the processes of goods and services exchange among different countries. And it is an important channel for the distribution of the economic interests between countries. It is the basis and also an important content of the international economic relations. International trade not only plays a huge role on promoting the production, but also helps to improve the level of science and technology and promoting economic development. In the 200 years from 1870 to the present, in addition to the special periods of the two world wars, the annual average growth rate of the merchandise trade is much higher than the average annual growth rate of the GDP of the world. This is particularly in the case of the United States.

In this essay, based on the analysis of the history, characteristics and promoting factors of the FDI and the analysis on the history and characteristics of foreign trade in the U.S., we will obtain

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the realistic relationship between the FDI and the foreign trade in the U.S.. For further demonstration on their relationship, we will use the Granger causality analysis approach to analyze the FDI and the foreign trade data during 1975 to 2010 in the U.S., which will reach the conclusion that the import and export trade in the U.S. plays a significant role in promoting the growth of the FDI and it also plays a significant role in promoting the import and export trade in the U.S..

2 . The history and characteristics of the FDI in the U.S.

2.1 The history of FDI in the U.S.

The United States with a long history of FDI owns the largest stock of FDI in the in the world. After the Civil War, the economy of the U.S. was in a rapid developing period and its foreign direct investment was also into a rapid expansion period. According to the statistics information on the history of the United States, in 1897, the accumulative total of FDI in the U.S. had been up to $ 600 million; and in 1908, it was increased into $ 1.6 billion; and further it was up to $ 2.632 billion in 1914, which was more than half of the total of foreign direct investment amount of the developed capitalist countries (Chen Jiyong, 1996). In this period, direct investment has become an important way of foreign economic expansion of the U.S., but seen from the history of the foreign investment of the U.S., economy of the U.S. did not have the unprecedented development until World War II. According to the statistics of the U.S. Department of Commerce, during 1914 to 1940, which is before World War II, the average growth rate of the direct investment to developed countries in the U.S. is 4.3% and to developing countries is 3.2%. While during the post-war period from 1951 to 1989, the average growth rate to developed countries is 10.5% and to developing countries is 7.4%. The outbreak of World War II provides a good opportunity for the rapid development of the U.S. economy. During World War II, the United States received a large amount of capital as it did in the World War I; and the rise and development of the third technological revolution in the post-war period brings the efficient and convenient transportation and communication. Above two provide the possibility and the necessary conditions of the rapid development of the foreign direct investment in the post-war U.S.. Meanwhile, the United States makes good use of the opportunity that Europeans and Japan were in urgent need of capital and technology to restore their economies to accelerate its expansion of direct investment in developed countries. While establishing the financial center position for the U.S. dollar, the United States also became the largest exporter of capitals for the first time. After the World War II, among the developed capitalist countries, the foreign direct investment of the United States grew the fastest and its scale was the largest. Not only the scale of investment expanded rapidly, but also its growth rate was amazing which exceeded the domestic industrial production growth rate

in the same period. Until the late 1980s, the balance of foreign direct investment of the U.S. remained the highest in the world which makes the U.S. become the leader of the countries of the foreign direct investment. On the contrary, led by Japan, including West Germany, Britain, Canada and some other countries increased the proportion of the direct investment to the world. In 1985, Japan, instead of the U.S., became the biggest foreign direct investment country in the world. In the 1990s, the economy of the U.S. continued prosperity. The United States regained the status of the largest economy in the world in 1991. While due to the long-term recession, foreign direct investment of Japan came into the overall reduction period. Since the 1990s, due to the expand of the foreign direct investment of developing countries and the decentralization of the foreign direct investment of developed countries, the United States became the largest investor in the world again. In 2009, the accumulated balance of foreign direct investment of the U.S. is $ 430,285.1 billion, which accounting for 22.7% of the stock of the global FDI. The U.S. maintained the dominance of the superpower of the foreign direct investment all over world.

2.2 Characteristics of foreign direct investment of the U.S.

(1) The foreign direct investment of the U.S. always set obtaining high profits and greater market share as the primary objective

In the 100 years, the foreign direct investment of the U.S. expanded around the objective with a surplus of capital type or chasing profits type. The early manifestation of this goal is shown as controlling the global resource supply and foreign manufactured goods market through competition and occupation of the global production market and sales market. With the development of economic globalization and the strengthening of the competitors, today the performance of this goal manifest as the global market strategy.

(2) The foreign direct investment of the U.S. has a comprehensive and powerful competitive advantage

On the advantage of the ownership, the United States has a strong financial strength to invest on research, development and production, the advantage on intellectual assets such as the most advanced science and technology, patents and trademarks all over the world, the perfect production management system, organizational system and sales system, the wide range of information and world-class IT technique. On the advantage of internalization, just only those 160 large multinational companies of the United States who are the Fortune 500 companies establish about 13 thousand subsidiaries in foreign countries. They effectively bypass the quota restrictions, tariff barriers, stock control, tax differences and uncertain risk and conflict of the host country, and they get full grasp of the market forces through price discrimination. On the advantage of location, the United States, through the long-term business about 100 years, has occupied the most favorable locations in the global market and occupied the industry advantages for a long time by

virtue of its unmatched advantage of ownership and the advantage of internalization. So the U. S. has formed the most favorable pattern of international division of labor.

(3) Acquisition and merger are the major types of the foreign direct investment of the U.S.

After World War II, monopoly capital kept accumulating and expanding. Some multinational companies began to grow quickly and became an important force for the international direct investment. 1/3 of the Fortune 500 companies are from the United States, who are formed by the five merger waves in American history. Multinational acquisitions and mergers, compared with new investment, have the unparalleled speed and the advantage to gain the strategic assets in the host country. Since the late half of the 1980s, the proportion of multinational acquisitions and mergers in the foreign direct investment of the U.S. was on the accelerated rise.

(4) The distribution of the foreign direct investment of the U.S. is relatively stable

The distribution of the total stock of the foreign direct investment of the U.S. is relatively stable, that is, the most investments are in Europe, followed by investing in Canada, Latin America and the Asia-Pacific region, while only a small proportion of investments are in Africa and the Middle East. Except Europe, Latin America and Canada is the area where the direct investments of the U.S. are the largest and most concentrated. This fully reflects the geopolitical economic strategy of multinational investments. The United States, Canada and Mexico all belong to NAFTA, and the latter two countries are rich of resources and own vast markets. Mexico is always the focus of the direct investment of the U.S., and it once was the largest foreign investment country of the United States and in a very long term it was the second largest U.S. foreign investment country which was only behind to Canada. The investments of U.S. in Asia Pacific only take a small proportion of its total investments. Those investments in Asia Pacific are mainly concentrated in developed countries such as Japan, Australia or the Four Asian Tigers regions. However, since the 1990s, the United States began to increase the investments in Asia Pacific and the investments in developing countries and regions were increased particularly. In Asia Pacific, there are broad market capacity, big market potential and abundant cheap labors. Many countries are in the critical period of adjusting and changing their industrial structures. They are eager for the high-level production technology of the United States. So those are all the main forces which boost the investments of the U.S..

(5) The industry structure of the foreign direct investment of the U.S. is changing constantly and turned into moving to the light and high-level type gradually

The changing of the industry structure of U.S. foreign direct investment is closely link with the domestic economic structural adjustment. The foreign direct investment is the expansion and complement of the domestic economic development. The statistical analysis on the accumulative total of the U.S. foreign direct investment shows that there is a big change in industry structure of U.S. foreign direct investment and the is a very clear trend that the investment type

is changing into the light and high-level one. After the war, foreign direct investments of the U. S. on mining and oil industry are declining and the proportion of manufacturing industry investments is increased steadily.

3 . The history and characteristics of the trade of the U.S.

The United States is not a powerful trading country at the very beginning. Before the Civil War, the United States promoted economic development by its domestic demand primarily. The internal trade plays a vital role and has a great significance in the overall economic development of the United States. Between the Civil War and the First World War, there were undergone fundamental changes in the foreign trade volume and the trade structure of the U.S.. From 1860 to 1914, the value of the exports of the U.S. increased from $ 0.333 billion to $ 8.228 billion, nearly increased about 24 times.

During the two World Wars, the U.S. foreign trade has been developing rapidly. In the Great Depression of the 1930s, the United States has taken an isolationist economic policy and in 1930 the U.S. passed Hollie-Smoot Tariff Act and implemented trade protectionism. The Great Depression made the U.S. foreign trade in the ups and downs. But the measures which the United States took ensured the good condition of the overall development of the foreign trade of the U. S. Seen from the trade balance, in this period the U.S. has maintained a surplus of its foreign trade. Its dominant position had been gradually emerging in the international arena; while seen from changes of the trade structure, during this period, in the categories of the U.S. export commodities, the proportion of the primary products dropped substantially and the proportion of the manufactured goods increased.

After the Second World War, the United States tried to carry out foreign economic expansion and find international markets for its capital and commodities by virtue of the economic and political power expanded in World War II. In the meantime, the United States put forward the free trade policy which forced other capitalist countries opened their doors for American goods and capitals. However, since the late 1960s, the economic development of the major Western industrial nations and Japan gradually be restored and their industrial structure adjustment and upgrading are ongoing. At the same time, the foreign trade of the U.S. has also developed rapidly, but its trade balance gradually changed from the surplus to the deficit. Nevertheless, in the 30 years after the war, the growth rate of the U.S. foreign trade exceeded the one of its GDP.

In the 1990s, the U.S. foreign trade, especially its export trade reappeared a strong growth momentum. This kind of growth speed makes the United States regain the crown of the world's largest exporter from Germany. Thus, the status of the U.S. in the world trade remained unshakable in this period. During this period, the United States launched trade reform measures

named “national export strategy”, while it took a multilateral trade strategy. The United States took advantage of multilateral trade negotiations, regional trade mechanisms and bilateral trade negotiations to promote the development of the trade liberalization. And the trade liberalization supplied the convenience to the good and service exports of the U.S..

4 . The analysis of American foreign direct investment and foreign trade real relationship

There is a close tie between the foreign direct investment and foreign trade. And replacement and complementary can't summarize the relation character of the investment and trade now. Facing so much domestic trade from many Multi-national Corporation, the investment and trade have become two means of integrating the global resource. On one hand the investment needs the support of the trade. On the other hand, the trade is influenced by the investment. Two of them depend on each other and are close to one. Based on the former separate analysis to the development course of American foreign direct investment and foreign trade, this paper will analyze the relation between American foreign direct investment and foreign trade from the real prospective.

4.1 The influence to the foreign trade from American foreign direct investment

Since the 70th, with tripartite confrontation of America, West Europe and Japan, the competition of the international merchandise market has become more and more violent. And the trade prospected has become more and more normal. In this situation, the important aim of foreign direct investment from American Multi-national Corporation is to try to occupy more foreign market. After the World War II, American Multi-national Corporation has done 3/4 of the foreign direct investment to West Europe, Canada and Japan, the developed capitalism countries with large market capacity. More than 30 thousand various production and sales branch organizations have been founded there. Its aim is to control the local market and occupy the other market which is good to the export of American merchandise.

(1) 1975-2010, American foreign direct investment encourages the scale of American foreign trade to expand. In the export, 1990-2001, American export annual growth rate is 8.4% to the overseas subsidiary companies of the Multi-national Corporation. Among them the trade annual growth rate is 8.9% in the company, which is obviously higher than that of American export merchandise, 7.8%. In the importation, the rate of importing from the overseas subsidiaries is going down since 1980th. The rate of 1990 is 20.6%, and that of 2001 is 18.6%. However, during that time the part of importing from the overseas subsidiaries is 19.70% of the whole importation part. Consequently American foreign direct investment has encouraged the promotion of the

importation and exportation more or less.

(2) The foreign direct investment of the U.S. promotes the structure change of the foreign trade. Since the war, they have been a significant change in the industrial structure of the U.S. foreign direct investment. There is a sharp decline in the proportion of the mining and oil industry of the foreign direct investment. And the proportion of the manufacturing sector is steadily rising. Changes in the industrial sectors of the foreign direct investment directly impact and restrict on the structure of the foreign trade in the United States. It makes the proportion of manufacture trade increase and ranks the dominant position in the post-war America.

(3) The U.S. foreign direct investment and its foreign trade keep the consistency in regionalism. According to the statistics by U.S. Commerce Department, the regional configuration of the post-war U.S. foreign direct investment occurred significantly tilt. The regional distribution of the investment gradually changes from in both developing and developed countries to mainly in the developed countries. Associated with the flows of the foreign direct investment, the geographical distribution also has been changed. It's means that the proportion of the other developed countries has been raised and the proportion of the United States to the developing country has been declined.

4.2 The influence from U.S. Foreign Trade to Foreign Direct Investment

From the traditional and historical perspective, the international trade comes after the direct in the transnational environment activities. And until now, that order is obeyed by many enterprises when they open up the international market. Compared with the foreign direct investment, the trade has less risk and more flexible scale. On the other hand, the more knowledge and experience are needed by the enterprise to the direct investment. Besides the ability of translational distant range organization, coordination, management, control and supervision is also necessary. Then if we do the direct investment to the strange overseas market rashly, it will be easy to cause the sunk cost. As a result of it, to the investment and expansion, the overseas market cognition must come first that can go with the export. With the progress of the export, enterprises will come to understand the demand condition, market scale, the obvious and latent competition and the laws and regulations to the operation of the overseas market. Based on the information from the export, we can do a comprehensive assessment. If we get a feasible result to the investment, the overseas investment will be pushed forward. Although not all of the enterprises do the overseas investment through the course of export, in a sense, the export is able to push the overseas direct investment forward.

Because the additional fixed cost is very high to the overseas factory foundation, the enterprises always impose the input by the trade. But with the expansion of the production and import, the assets specificity has been enhanced, the uncertainty has been greater, the trading

frequency has been promoted. If the import volume is so much as to enable the production get an effective scale in the overseas foundation factory, the purpose of the import will become a driving force that helps the enterprises to do the vertical integration or the interiorization in the overseas. The integration can make the enterprise to get the effective support in short supply, avoid the changing of the price from the input, and reduce the attack to the production. Moreover there are some other reasons for the pushing to the foreign direct investment from the import. The international trade import countries will find that importing the merchandise and labor force is more expensive than that doing the international direct investment and getting the merchandise and labor force from other countries. To this, there are two reasons. First we will get the profit reciprocation of the international investment. And second we could bring down the trade cost by shifting the price. In addition, most investment country will not collect tax to the international trade. If the country collects tax for the merchandise and labor force from its own international investment, the tariff income will still belong to its own country.

Lipsey and Weiss(1981 and 1984) has done a empirical study according to American data. And they found that American foreign direct trade investment has a positive influence to the export trade. At the same time, the trade between American general export and foreign subsidiary companies has a positive correlation. Among the 14 developed countries researched, 10 countries have got a promotion action to the export trade from American foreign direct investment; among the 11 developing countries, 9 countries get the promotion action. Robert E. Lipsey, Eric D. Ramstetter and Magnus BlomStrom(1999) has analyzed the relation among the foreign direct investment, export trade and getting a job of U.S., Japan and Sweden by the data empirical study. According to their survey, they find that the production of the branch organization and the export of the home country have an obvious encouragement relation. Among the 13 developed countries researched, 10 countries have got a promotion action to the export trade from American foreign direct investment. Among the 9 developing countries researched, 7 countries have got the promotion action. Blomstrom, Lipsey and kulChycky(1988) have analyzed the relation between the investment and export of American foreign direct investment sections in 1982. The sections which have the positive influence comprise textile and clothing, printing and publishing, agriculture and chemicals, office and compute equipment, electrical component, apparatus and other production industry. And most of these sections are the production sections with high technology. On the other hand the sections which have the passive influence comprise other woodwork, medicine, non ferrous metal materials, wood and furniture. And most of these sections are the sections with the lower technology.

5 . Econometric Tests and Results

Based on the analysis above, the appearance and expansion of the deficit of the international balance of payments cannot fully explain the reason of the declining U.S. foreign trade competitiveness. The foreign economic expansion mode of the U.S. changed from the single mode by developing the foreign trade to the combined mode by both developing the foreign trade and expanding the foreign investments. The deficit of the U.S., to some extent, is the inevitable result lead by the transformation of the foreign economic expansion mode. A considerable number and varieties of imported products which cause the huge trade deficit of the U.S. are not the ones that the U.S. companies cannot produce. While it's the result of the transfer of the production facilities and production base due to the economic interests of the U.S. companies and many other factors. The transfers of those relative productions do not reduce the demand of the U.S. market and consumers, but to some extent, increases the import cost of the United States. Thus, it expands the foreign trade deficit of the U.S..

For further analysis on the relationship between the foreign direct investment and foreign trade of the U.S., this article will do the empirical analysis.

5.1 Sample selection

Select the foreign direct investment and the foreign trade data of the United States from 1975 to 2010 for analysis. The data of the foreign direct investment flows are from the United Nations Conference on Trade; the data of the foreign trade are from the "international trade statistic".

5.2 Test methods and principles

The principle of the Granger causality analysis approach using in this paper is that if the change in X cause the change in Y, then X should contribute to predict Y. That is while do the regression of Y based on the past value of Y, if append the past value of X can significantly enhance the explanatory power of the regression, then X is a Granger cause of Y, otherwise X is known as the non-Granger cause. Test X whether is the cause which lead to the change in Y. And the basic testing process is as follows: The test model is:

$$y_t = C + \sum_{t=1}^{p} \alpha_i \triangle y_{t-i} + \sum_{j=1}^{q} \beta_j \triangle x_{t-j} + \varepsilon_{t1}$$

Test the null hypothesis is: X is a non-Granger cause of Y. That is, H0: $\beta 1 = \beta 2 = \cdots = \beta q = 0$. If the null hypothesis was satisfied, there will be:

$$y_t = C + \sum_{t=1}^{p} \alpha_i \triangle y_{t-i} + \varepsilon_{t0}$$

Set the residual sum of squares of equation (1) to SSE_1 and set the residual sum of squares of Equation (2) to SSE_0,

Then: $F = \frac{(SSE_1 - SSE_0)/q}{SSE_0/(T-q-p-1)}$ should be subject to the F distribution with the degrees of freedom (q, $T-p-q-1$). T is the sample size, p and q are the lag order for the y and x respectively. The determination o the lag order can be according to the Akaike Information Criterion (AIC). The test result can be obtained from comparing the F statistic with the critical value. If F is greater than the critical value, the null hypothesis H0 should be rejected. It means that x is a Granger cause of y; if F is less than the critical value, the null hypothesis should not be rejected. It means that x is not the Granger cause of y.

Similarly, in order to test "Y is not the cause which lead to the changes of X ", just exchange variable Y and X in the above regression model. Then do the same regression estimates and statistical tests, we will get the result.

Therefore, the relationship between the two economic variables is whether there is a causal relationship between them or not. If there is a causal relationship between them, the relationship may be one-way causal or interactional. In this article, just for the causal relationship between the U.S. foreign direct investment and its imports and exports, there may be three outcomes. First, the foreign direct investment affects the changes of its imports and exports respectively; Second, the changes of the imports and exports of the U.S. affects its foreign direct investment respectively; Third, the foreign direct investment and the changes of the imports and exports are reciprocal causations; Fourth, there is no causal relationship between the foreign direct investment and the changes of the imports and exports.

5.3 Empirical Analysis

In this paper, we choose Granger causality analysis approach to examine whether there is a clear causal relationship between the U.S. foreign direct investment and its exports and imports. Since the variables examined by Granger causality analysis approach should be is a smooth data sequence, we must test the smoothing of these variables first by using ADF test method.

Since taking the logarithm of the time series would not change the nature and the relation, in order to eliminate the effects of heteroscedasticity, we take the logarithm of each sequence to analyze in the actual testing. Ln (FDIF) stands for the foreign direct investment flows; Ln (FDIS) stands for the stock of foreign direct investment; Ln (EX) stands for the exports; Ln (IM) stands for the imports. The details of the results of the smoothing test are shown in Table 1.

Analyze the results in the table above and it can be concluded that the level of sequences of Ln

Table 1 Stationary test results

Variable	ADF test value	Test level	Conclusion
LNFDIF	-1.367705	-2.615817 (10%)	Non-stationary
D (LNFDIF)	-7.486070	-3.661661 (1%)	Smooth
LNFDIS	0.631583	-2.612874 (10%)	Non-stationary
D (LNFDIS)	-5.396963	-3.639407 (1%)	Smooth
L, NEX	-1.290379	-2.612874 (10%)	Non-stationary
D (NEX)	-4.668049	-3.639407 (1%)	Smooth
LNIM	-2.213304	-2.612874 (10%)	Non-stationary
D (NIM)	-5.958531	-3.639407 (1%)	Smooth

(FDIF), Ln (FDIS), Ln (EX) and Ln (IM) are all not stable. And the first order differential of them, D (LNFDIF), D (LNFDIS), D (L NEX) and D (L NIM), are all stable on the 1% significance level. The result of the test is shown in Table 2.

Analyze the results in Table 2 and it can be concluded that the growth of the U.S. export trade can significantly promote the development of foreign direct investment in Lag Phases 1. While it can't significantly promote the development of foreign direct investment from Lag Phases 2 to Lag Phases 4; the growth rate of the foreign direct investment flows can promote the growth of

Table 2 Testing the causal relationship between the U.S. foreign direct investment flows and its import and export

The null hypothesis	Lag phases	F-value	P-value	Conclusion
D (LNEX) does not Granger Cause D (LNFDIF)	A	5.45282	0.0267	Granger cause
	2	1.58332	0.2252	non-Granger cause
	3	2.17531	0.1211	non-Granger cause
	4	2.01019	0.1387	non-Granger cause
D (LNFDIF) does not Granger Cause D (LNEX)	A	4.90482	0.0348	Granger cause
	2	2.68322	0.0880	Granger cause
	3	2.19819	0.1183	non-Granger cause
	4	1.66285	0.2048	non-Granger cause
D (LN IM) does not GrangerCause D (LNFDIF)	A	6.60003	0.0156	Granger cause
	2	1.87898	0.1737	non-Granger cause
	3	0.82497	0.4948	non-Granger cause
	4	0.88277	0.4950	non-Granger cause
D (LNFDIF) does not Granger Cause D (LNIM)	A	1.56358	0.0211	Granger cause
	2	1.74088	0 0960	Granger cause
	3	1.04027	0.3952	non-Granger cause
	4	1.27040	0.3201	non-Granger cause

the export trade on the 5% and 10% significant level, in Lag Phases 1 and Lag Phases 2. But it can not significantly promote the growth of the export trade in Lag Phases 3 and Lag Phases 4. The growth of the import trade can significantly promote the development of foreign direct investment in Lag Phases 1. While it can't significantly promote the development of foreign direct investment from Lag Phases 2 to Lag Phases 4; the growth rate of the foreign direct investment flows can promote the growth of the import trade in Lag Phases 1 and Lag Phases 2. But it can't significantly promote the growth of the export trade in Lag Phases 3 and Lag Phases 4.

Analyze the results in Table 3, the growth of the U.S. import and export trade and the growth rate of the stock of the foreign direct investment do not exist in a two-way causality. That is to say that the growth of the import and export trade cannot significantly promote the development of the foreign direct investment and the development of the foreign direct investment also cannot significantly promote the growth of the import and export trade.

It can be seen from the analysis results in Table 2 and Table 3 that there is no causal relationship between the stock of the U.S. foreign direct investment and its foreign trade. While there's a causal relationship between the flows of the foreign direct investment (ie, growth of the foreign direct investment) and the foreign trade. Therefore, combined with the results in Table

Table 3　the causality test on the stock of the U.S. FDI and its import and export

The null hypothesis	Lag phases	F-value	P-value	Conclusion
D (LNEX) does not Granger Cause D (LNFDIS)	A	1.05125	0.3132	non-Granger cause
	2	0.57694	0.5681	non-Granger cause
	3	0.53656	0.6615	non-Granger cause
	4	0.58342	0.6779	non-Granger cause
D (LNFDI S) does not Granger Cause D (LNEX)	A	0.55289	0.4627	non-Granger cause
	2	0.98602	0.3856	non-Granger cause
	3	0.49915	0.6862	non-Granger cause
	4	0.24623	0.9089	non-Granger cause
D(LN IM) does not Granger Cause D (LNFDIS)	A	0.06574	0.7993	non-Granger cause
	2	0.15312	0.8587	non-Granger cause
	3	0.23524	0.8709	non-Granger cause
	4	0.22304	0.9226	non-Granger cause
D(LNFDI S) does not Granger Cause D (LNIM)	A	2.12280	0.1552	non-Granger cause
	2	0.69331	0.5083	non-Granger cause
	3	0.53262	0.6641	non-Granger cause
	4	0.40597	0.8023	non-Granger cause

2 and using Douglas production function for reference, we found a double logarithmic model for the growth of the U.S. foreign direct investment and the changes of its import and export trade in Lag Phase 1 as follows:

$$D(LNFDIF)=c+b*D(LNEX)+u$$
$$D(LNFDIF)=c+b*D(LNIM)+u$$
$$D(LNEX)=c+b*D(LNFDIF)+u$$
$$D(LNIM)=c+b*D(LNFDIF)+u$$

In those equations above, c stands for the intercept; b stands for the elasticity modulus (regression coefficients) of the explanatory variable to the dependent variable; u stands for the statistical error. The regression results and the regression equation are as follows:

$$D(LNFDIF)= -0.035254+1.869413*D(LNEX)+u \quad (1)$$
$$(22.9513) \qquad (5.1021)$$
$$R2=0.6521 \qquad F=23.0769$$
$$D(LNFDIF)=-0.135738+2.733083*D(LNIM)+u \quad (2)$$
$$(14.1569) \qquad (5.0421)$$
$$R2=0.7114 \qquad F=20.0961$$

It can be seen from the results that the fitness of equation (1) and equation (2) is just indifferent, although the coefficient passes the t-test. It just can be concluded preliminary that the import and export trade of the U.S. can promote the growth of the U.S. foreign direct investment. That is to say that each additional one percentage of the value EX and IM in Lag Phases 1 will promote the growth of the U.S. foreign direct investment by 1.869413% and 2.733083% respectively.

$$D(LNEX)=0.063516+0.035007*D(LNFDIF)+u \quad (3)$$
$$(7.4122) \qquad (8.2309)$$
$$R2=0.5901 \qquad F=34.1578$$
$$D(LNIM)=0.076873+0.061302*D(LNFDIF)+u \quad (4)$$
$$(8.6109) \qquad (5.7411)$$
$$R2=0.4791 \qquad F=63.0912$$

It can be seen from the results that the fitness of equation (3) and equation (4) is also indifferent, although the coefficient passes the t-test. It can be concluded preliminary that the growth of the U.S. foreign direct investment can promote the development of the import and export trade of the U.S.. That is to say that each additional one percentage of the value FDIF in Lag Phases 1 will promote the growth of the imports and exports by 0.035007% and 0.61302% respectively.

The quantitative analysis above showed that the impact of the foreign direct investment to the development of the import and export trade is far greater than the impact of the import and export trade to the foreign direct investment. This conclusion is consistent with the causality test results above.

It can be considered that the U.S. import and export trade plays a significant role in promoting the growth of the foreign direct investment, while the foreign direct investment also play a significant role in promoting the development of the import and export trade. This conclusion fits the realistic relations of the U.S. foreign direct investment and foreign trade.

According to the empirical analysis above, we can find that American import and export trade has an obvious encouragement action to the promotion of the foreign direct investment. What's more, the foreign direct investment has an obvious encouragement action to the export trade. Because American foreign direct investment doesn't obey completely the traditional international course, the investment comes after the trade. American foreign trade is not all the reasons that lead to the increase of the foreign direct investment. To occupy the international market, most of American foreign direct investments will do the overseas investment directly without the trade course. Besides the foreign direct investment does not only meet the need of the domestic market but also meet the need of the global market. The reason why the foreign direct investment will promote the import and export trade obviously is mainly the development of the foreign direct investment. The development helps American Multi-national Corporation to occupy the international market and encourages the promotion and adjustment of American domestic industry structure. All of then could promote and enhance American international balance of payment status; all of them are good to the optimal allocation of American means of production and the supply of the raw material; all of them could push the development of American foreign trade forward directly or indirectly.

6 . Conclusions

This paper reviews the development history of the U.S. foreign direct investment and its foreign trade. Through the analysis of the development process, we summarize the characteristics of the U.S. foreign direct investment and its foreign trade. First, the foreign direct investment of the U.S. always set obtaining high profits and greater market share as the primary objective; Second, the foreign direct investment of the U.S has a comprehensive and powerful competitive advantage; Third, Acquisition and merger are the major types of the foreign direct investment of the U.S.; Fourth, the distribution of the foreign direct investment of the U.S.is relatively stable; Fifth, the industry structure of the foreign direct investment of the U.S. is changing constantly and turned into moving to the light and high-level type gradually. The foreign trade of the U.S. developed rapidly in the period between the two World War. After the World War II, the balance of the U.S. foreign trade gradually changed from the surplus into a deficit. But the export trade of the U.S. reappear a strong growth momentum in the 1990s. At the same time, this article also analyzes the driving factors of the development of the U.S. foreign direct

investment from external and internal parts.

In addition, this article analyzes the relationship between the U.S. foreign direct investment and its foreign trade deeply and meticulously. The analysis can be divided into two parts, realistic analysis and empirical analysis. On the one hand, according to the historical data, the article analyses the realistic relationship between the U.S. foreign direct investment and its foreign trade. On the other hand, by using Douglas production function and the software Eviews6.0, through the Granger causality test method and combined with the data of the foreign direct investment and the foreign trade from 1975 to 2010, the article analyzes the empirical relationship between the U.S. foreign direct investment and its foreign trade. It can be concluded that (1) there is no causal relationship between the stock of the U.S. foreign direct investment stock and its foreign trade, while there's a causal relationship between the flows of the foreign direct investment (ie, the growth of the foreign direct investment) and the foreign trade; (2) the impact of the foreign direct investment to the development of the import and export trade is far greater than the impact of the import and export trade to the foreign direct investment. Finally, this article come to the conclusion that the import and export trade of the U.S. plays a more significant role in promoting the growth of the foreign direct investment of the U.S.. And this conclusion matches their realistic relationship.

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