The Research on Financial variables' Influence on Net Foreign Assets

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Abstract

Based on the rapid development of the financial integration and the emergence of global imbalances, this paper takes 49 countries multinational panel data from 1980-2011 as research samples and the state net foreign assets as the research object. In the perspective of financial integration, in order to find out the effect of financial variables on the net foreign assets, we also introduce the financial development, financial structure and financial opening variables. Through research, we can conclude that financial integration and financial opening both supplement each other, the optimization of financial structure helps to improve a country's foreign net imbalance situation, and a country's financial structure can be optimized with the improvement of integration. So we believes that China should (1) increase the diversification of foreign exchange reserves and promote the internationalisation of the renminbi. (2) Improve domestic savings-investment mechanism, develop the multi-level financial market, and improve the efficiency of the financial system and the level of innovation. (3) Reform the system of capital controls and strengthen cooperation with emerging economies, thus improving our foreign net imbalance, and achieving a smooth transition of developing countries to developed countries.

Keywords: net foreign assets, financial integration, financial development, financial opening, financial structure

1. Introduction

With the development of economic globalization and financial integration, the global economic pattern has been separated and become abnormal. Especially since the beginning of the 21st century, the trade surplus of developing countries represented by China has sprung up and accumulated huge trade surplus, While the United States as a representative of some developed countries, the current account has a serious deficit, the traditional theory of international economics that a country's asset-liability position should be equal to the country's current account balance, a country's economic external imbalance is the current account Imbalance, but now there is imbalance with the current account balance of assets and liabilities, indicating that the traditional theory has been unable to explain the existing economic phenomenon.

From Figure 1 we can know that China's net foreign assets is from negative to positive since 2000, in 2008 it reached the highest, accounting for 31.93%, after the financial crisis, still accounted for a relatively high value, in 2011 reached 20.98%, while the United States from 14.15% in 2000 to 27.4% in 2011. According to the traditional theory of international economics - the neoclassical growth model, the emerging economies with higher economic growth rate are more likely to absorb long-term capital in the process of economic globalization and can attract more capital inflows. But the reality is the result of capital flows from developing countries to developed countries, developed countries, foreign assets from positive to negative, emerging economies from negative to positive anomalies. Lucas (1990) study also pointed out that capital from the developed countries into the developing countries of the capital is very small. Prasad et al (2006) also confirmed the capital from the developing countries to the developed countries of the strange, some scholars call this anomaly "capital configuration mystery". In the context of economic globalization, the emergence of international balance of payments imbalance is not only the imbalance of the country's own economic problems, but also with the national economic growth and economic policy options are closely related.

Therefore, in order to alleviate the external imbalance in China and reduce the loss of valuation effect of China's net foreign assets through the financial adjustment channel, this paper takes the transnational panel data of 49 countries from 1980 to 2011 as the research sample, the net assets as the research object, the financial integration as the perspective, the introduction of financial development, financial structure, financial liberalization and other financial variables so as to understand the reasons for the sustainability of China's external imbalances, to

prevent the currency crisis, to promote the process of internationalization of the RMB and make recommendations.
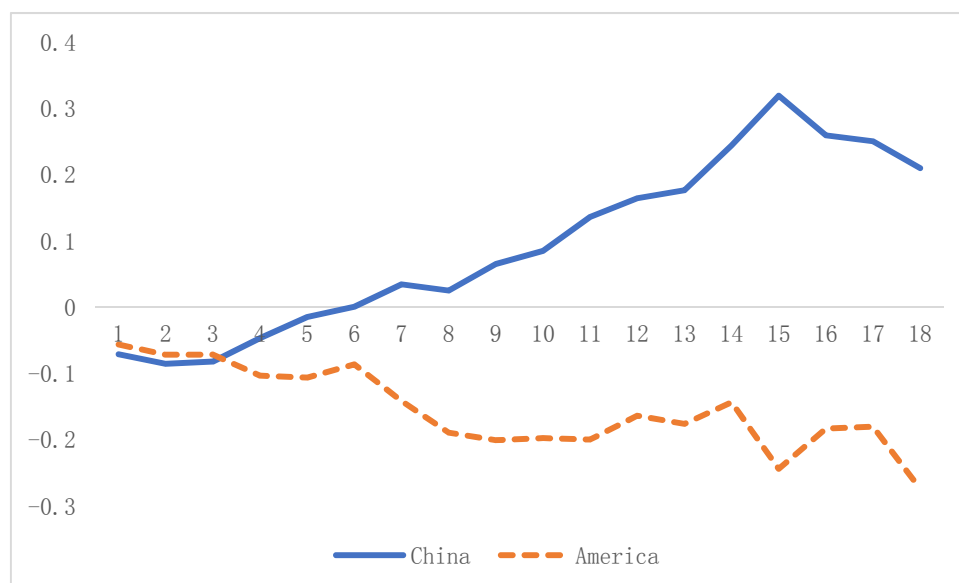

Figure 1. China and the United States net foreign assets

Resource: Lane and Milesi-Ferretti (2012) Database.

2. Related Studies

At present, scholars at home and abroad have studied more about the net assets in the financial factors, focusing on the financial development and financial structure and the interactive research in the context of financial integration.

First, the impact of financial integration on net foreign assets. From the direct impact, Liu Jian, Song Wenwen (2014) find that the higher the level of financial integration in the country, the lower the level of external net assets, which is due to the level of financial integration, corporate finance and investment in the choice of more Diversification and transparency in the international financial markets are increasingly open case, the investment will increase, reduce the restrictions on financing, savings and other low-risk will decline, will lead to lower net asset level. Xiao Li Shen, Wang Bo (2011) argues that although developing countries are in the process of high growth and innovation, they will introduce more long-term capital to meet the needs of national development, but because of the low efficiency of financial markets, The level of development can not meet the level of investment and financing, but will result in the return of funds. Cao Qiang and Yu Wenmei (2014) show that financial integration has both beneficial and negative aspects of the external assets and liabilities structure of a country, and has a beneficial effect in developed countries, while developing countries have both advantages and disadvantages.

Second, the impact of financial development on net foreign assets research. At present, the majority of such literature. Ju and Wei (2010) through the construction of the two models of financial development on the relationship between capital flows analysis, find that the higher the level of financial development, the capital inflows and increase foreign direct investment, while countries that the level of financial development is low will lead to capital outflows and reduce external direct investment. Mendoza et al. (2009) are in agreement with Caballero et al. (2008) that financial market perfection has a direct impact on savings. Emerging market countries, despite rapid economic growth, are still lacking financial market development and efficiency, leading to domestic investment and financing channels, so residents and businesses will tend to seek investment opportunities from abroad, which accumulated a huge amount of external net assets, while the developed economies are just the opposite.

Third, the impact of financial structure on net foreign assets. At present, there are few such documents, Cao Qiang and Yu Wenmei (2014) use Kao and Chiang (2001) dynamic least squares method to study the financial integration background by analyzing the data of 131 countries from 1970 to 2011 The changes in financial

structure and the impact on the external assets and liabilities structure. The empirical results show that the optimization of financial structure can improve the external imbalance of a country, and with the deepening of financial integration, the financial structure can play a greater role, so as to effectively regulate the international capital flows and solve external imbalances.

The impact of the last financial factor cross-variables on net foreign assets. Caballero et al. (2008) pointed out that in the context of financial integration, traditional domestic investment and savings patterns are different due to differences in the supply capacity of financial assets between countries. Countries with high levels of financial development and high financial efficiency the continuous improvement of financial innovation, the quality of financial products and diversification has attracted a large number of foreign capital inflows, resulting in increased external debt, reduce the scale of external net assets. Xiao Li Shen, Wang Bo (2011) found that the developing countries are in the process of high-speed growth and innovation, they will introduce more long-term capital to meet the state Development needs, but because of the low efficiency of the financial market, the level of financial development can not meet the level of investment and financing, but will result in the return of funds. That is, the lower level of financial countries, the two cross-term by the negative impact, while the higher level of financial countries, the two cross-term effect is positive.

Based on the previous literature, we find that the valuation effect of the financial adjustment channel based on the financial integration has an important influence on the net foreign assets of a country. The financial factors can be either through the monetary adjustment channel's valuation effect or through direct action affect net foreign assets. However, the current financial factors to consider the analysis, only one of the variables (such as financial structure or financial development) and financial integration on the impact of external net assets analysis, this paper on the basis of previous studies, the introduction of financial open indicators , and the financial integration, financial development, financial structure, financial open four factors combined to analyze the external net assets, so as to comprehensively analyze the financial factors on the external net assets of the way.

3. An Empirical Study on Net Foreign Assets

3.1 Measurement Model Setting

In this paper, we use the panel data multiple regression model to analyze the variables, the model is set as follows:

$$NFA_{it}=c+\alpha_1*FI_{it}+\alpha_2*FS_{it}+\alpha_3*FD_{it}+\alpha_4*FO_{it}+\beta*control_{it}+\varepsilon_{it} \qquad (3-1)$$

Among them, the explanatory variable is the ratio of the net assets of the i-th country to the country's GDP in the period t, Financial integration (FI), financial structure (FS), financial development (FD) and financial openness (FO) are important explanatory variables. The control variables mainly include population structure, total dependency ratio, economic structure and resource export.

3.2 Variable Selection and Data Description

In order to study the influence of financial factors (financial structure, financial opening and financial development) on the net assets of the state under the background of financial integration, this paper sets the net assets as explanatory variables, with the annual data of 49 countries Sample, sample interval from 1980 to 2011.

(1) Explained variables: Net foreign assets (NFA). This paper uses Lane and Milesi-Ferretti (2007) to measure the net foreign assets of a country, using the ratio of net foreign assets to GDP (ie, NFA / GDP) as a measure.

(2) Explain variables: financial integration (FI). This paper uses the sum of foreign total assets and total liabilities divided by the country's GDP, the specific data from Lane and Milesi-Ferretti (2007) database.

(3) Explain variables: financial development (FD). As the way of corporate financing both direct financing and indirect financing, so the level of financial development should be measured from the bank credit and capital markets to study, this paper uses the bank's private credit of GDP as a measure of data from Beck et al (2009).

(4) Explain variables: Financial structure (FS). This variable mainly reflects the proportion of the total assets of the financial intermediaries to the total assets of the financial market. Because the stock market can reflect the active degree of the financial market in the country, this paper uses the stock market value to represent the total assets of the financial market. The bank's private credit represents the total assets of the financial intermediary. The financial market is more developed, the smaller the FS coefficient of the financial structure, Data from Beck et al. (2009).

(5) Explain variables: financial open (FO). The degree of financial openness of a country determines the degree of influence of the country in the context of financial integration. This paper uses the capital account opening

degree (KAOPEN) constructed by Chinn-Ito, which gives the financial open value to the range of 0-1, The higher the degree of financial openness, the closer the value of 1.

(6) Control variables: The control variables used in this paper mainly include economic development level, economic structure, population structure, natural resources and so on. The level of economic development is per capita GDP, and its logarithm. This paper takes the proportion of dependents as a measure of population structure, which is equal to the sum of the population aged below 14 and over 65 to populations between the ages of 14 and 65. About economic structure this paper adopts the financial market - manufacturing comparative advantage index, which is based on the international division of labor. It is equal to the ratio of the total market capitalization of the financial market to the proportion of the annual GDP of the manufacturing industry. Since the export of resources from some oil exporters and resource exporters has an important impact on net foreign assets, this paper uses fuels, ores and precious metals as the measure of natural resources as the ratio of exports to commodities.

3.3 Panel Data Model Regression

Table 1. Empirical model regression results

Viriables	coefficient	Standard error	t	p	
FI	0.144	0.005	27.000	0.000	***
FD	-0.008	0.001	-7.440	0.000	***
FS	0.012	0.009	1.370	0.170	
FO	0.242	0.099	2.450	0.014	***
PGDP	0.154	0.059	2.630	0.009	***
AGE	-0.004	0.004	-0.900	0.367	
ES	-0.050	0.017	-2.920	0.004	***
RS	-0.005	0.003	-1.890	0.059	**
_cons	-1.208	0.649	-1.860	0.063	**
R2_W	0.377				

Standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

From the results of the regression model of the empirical model in Table 1, it can be seen that the coefficient of financial integration is positive for the net foreign assets of a country, which means that the higher the degree of financial integration, the more the enterprises and residents can be affected by the global economic structure financing and investment from abroad, reducing capital mismatch, investment will be strengthened, savings will weaken, external net assets increased. The coefficient of financial development is negatively negative for the net assets of a country, indicating that with the development of a country's financial industry, it is easier to attract a large amount of foreign capital, thereby increasing external liabilities, reducing capital outflow and reducing external net assets scale. The coefficient of financial openness is positively positive for the net foreign assets of a country. This is because with the deepening of financial opening, the global investment pattern is more transparent and diversified, and the choice of residents is diversified. Residents can find through various open channels their own appropriate investment channels, capital inflows and outflow of higher activity, capital flows more easily abroad, resulting in external net assets increased.

The financial structure of this article is positive for the net assets of a country, the effect is not significant, which is made by Cao Qiang (2014) is not very consistent with the positive effect, the reason may be that the financial structure (2014) text only introduces the financial structure and financial integration variables, and on this basis, it has joined the financial development of a measure of the development of a country's financial industry, the financial industry and the financial market, so the effect is not as obvious as the financial development, but the coefficient is positive, indicating that the financial structure of a country's net assets is positive, which is consistent, indicating that if a financial intermediary scale relative to the larger financial market size. The stronger the role of banks, resulting in stronger savings in the country's residents, thereby increasing net foreign

assets.

In addition, the impact of control variables on external net assets is also consistent with expectations. The per capita GDP (PGDP) coefficient is significantly positive, indicating that with the growth of a country's economy, the increase in per capita income, the residents of the savings and investment will be stronger, external net assets increased. Economic structure (ES) variable is significantly negative, this paper is mainly used in the ratio of financial services and manufacturing. ES higher, indicating that the country's financial industry more developed, the greater the financial position in the international, resulting in capital inflows, reduce external net assets. Natural resources (RS) coefficient is significantly negative, natural resources measure the country's natural resources exports accounted for the proportion of the country's exports of goods. RS, the greater the income on behalf of the country's dependence on natural resources stronger, first with people on the bulk Goods and other investment expectations of the upgrade, more likely to capital inflows, thereby reducing the external net assets.

3.4 Empirical Analysis of the Introduction of Interactive Items

This paper mainly studies the influence of various financial factors on the net assets of a country under the background of financial integration. The paper mainly discusses the respective effects of each variable on the net assets of foreign investors. Liu Jian (2014) and Cao Qiang (2014) puts forward the cross of financial integration, financial structure and financial opening in financial integration, so as to further analyze the relationship between financial integration and financial development, financial integration and financial structure. The specific impact on net foreign assets.

The empirical model for introducing interactive items is modified as follows:

$$NFA_{it}=c+\alpha_1*FI_{it}+\alpha_2*FS_{it}+\alpha_3*FD_{it}+\alpha_4*FO_{it}+\alpha_5*INTERACTIVES_{it}+\beta*control_{it}+\varepsilon_{it} \qquad (3\text{-}2)$$

Among them, INTERACTIVES that the financial variables and financial integration of the interaction variables.

Table 2. The model regression after the introduction of the cross terms

	Model 1	Model 2	Model 3
FI	0.300079***	0.183992***	-0.1983***
	(21.72)	(19.14)	(-6.86)
FD	-0.00023	-0.00718***	-0.00702***
	(-0.2)	(-7.03)	(-7.18)
FS	0.011014	0.048911***	0.020049**
	(1.29)	(4.25)	(2.33)
FO	0.237277***	0.220251**	-0.61651***
	(2.53)	(2.25)	(-5.23)
FI_FD	-0.00172***		
	(-12.18)		
FI_FS		-0.019***	
		(-5.04)	
FI_FO			0.382914***
			(12)
PGDP	0.094209**	0.189983***	0.212553***
	(2.08)	(4.08)	(4.75)
ES	0.007925	-0.06568***	-0.0714***
	(0.47)	(-3.79)	(-4.34)
RS	-0.00342	-0.00395	-0.00181
	(-1.44)	(-1.59)	(-0.76)
cons	-1.5106***	-1.82606***	-1.37996***
	(-4.26)	(-4.93)	(-3.88)
R2_W	0.4375	0.3878	0.4359

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 2 describes the results of the regression of the variables after the introduction of the cross terms. The models 1, 2 and 3 respectively represent the regression results of the cross-entry of financial development, financial structure, financial opening and financial integration. From the results of the model can be seen in the introduction of cross-term, the financial development of the regression results are not significant, the role of cross-significant, which means that financial integration can have a negative effect on external net assets through the role of financial development. In the model 2 results, it can be seen that after the introduction of the cross term, the regression results of the financial structure are not significantly changed from the initial ones, and the effect of the cross term is significant, which verifies the positive correlation between the financial structure and the net assets , But the financial structure through the role of financial integration on the impact of net foreign assets, then the coefficient is negative, indicating that with the development of financial integration, can improve the financial structure of a country, which has an opposite impact on net foreign assets. In the three results of the model, it can be seen that the introduction of cross-term, financial openness and cross-term are significant, but the opposite sign means that the financial opening can affect the external net assets through two channels, proposed financial open due to financial integration of the economy Positive role, the financial opening itself on the role of net foreign assets is indeed negative, indicating that the increase in financial openness alone, may attract foreign investment, thereby reducing the external net assets.

To sum up, under the premise of controlling other variables, considering the synergistic effect of financial integration and financial variables, it is found that with the deepening of financial integration, the financial structure of a country can be improved and the financial opening can change capital outflow, attracting capital inflows.

4. Conclusion

Based on the global imbalances, this paper takes the transnational panel data of 49 countries from 1980 to 2011 as the research object, and takes the state net assets as the research object. From the perspective of financial integration, this paper introduces the financial development, financial structure and financial opening And other financial variables to study the different levels of development of financial factors on the country's external net assets generated by the impact. Through the study, this paper argues that financial integration and financial openness complement each other, and the degree of deepening can reduce the capital mismatch, leading to the outflow. The optimization of the financial structure will help to improve the imbalance of the net assets of a country, and financial integration can promote a country's financial structure can be improved. Financial integration has a double-edged sword role for developing countries, both to promote the country's economic development, but at the same time from the financial factors to promote capital outflow.

Since the reform and opening up, with the process of global integration, China's rapid economic development, the accumulation of wealth, but the economic growth does not mean that the financial market will have the same pace of development. China's financial market services are still relatively backward, which prompted now the accumulation of wealth and financial services do not match, and because of financial integration, the liberalization of international capital markets, China's capital began to turn to financial markets developed countries, capital outflow, there is a substantial loss of valuation effect. If this situation continues for a long time, the external assets and liabilities of China's adverse effects, resulting in the appreciation of the renminbi pressure, thereby reducing exports, the corresponding rate of return on assets will be lower. Therefore, based on the conclusion of this paper, we put forward the following three policy recommendations: First, to promote diversified foreign exchange reserves, reduce dollar dependence, promote the internationalization of the RMB. Second, improve the domestic savings investment transformation mechanism, the development of multi-level financial markets. Third, improve the efficiency and innovation of the financial system to meet people's demand for financial products and financial services. Fourth, reform the capital control system, strengthen cooperation with emerging economies, reduce financial integration and financial open negative impact. So in order to achieve a smooth transition from developed countries to developed countries, China can build ultra-sovereign or diversified international monetary system in the emerging economies, and strengthen cooperation with emerging economies, appropriate reduction of dependence on developed countries, To promote the flow of capital from emerging economies to our country, to make our country a sovereign creditor.

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