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**ECO2014-1208**

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This paper should be cited as follows:

**Han, H., Xu, K., (2014) "The Political Game for U.S. RMB Currency Policy towards China", Athens: ATINER'S Conference Paper Series, No: ECO2014-1208.**

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URL Conference Papers Series: [www.atiner.gr/papers.htm](http://www.atiner.gr/papers.htm)

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ISSN: **2241-2891**

3/09/2014

## **The Political Game for U.S. RMB Currency Policy towards China**

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### **Abstract**

The currency issue with China has become hot on Capital Hill in the U.S., which hinders the trade between the two biggest economies in the world. From a perspective of Political Economics, this paper explores the U.S. RMB currency policy during this decade. One Probit model is used to analyze empirically the voting of Currency Reform for Fair Trade Act as a sample, and the empirical result has an accurate predict rate of over 88 percent.

The empirical study shows how the contributory factors play their roles in this issue. Firstly, interest groups influence congressional political attitudes by providing political contributions, including business contributions, labor's contributions and ideological contributions. Every category of political contributions leads to a tougher congressional position on the RMB exchange issue. Secondly, the huge trade between U.S. and China has brought considerable impact on the local economic conditions, especially in the area of labor market. This puts pressure on the constituency representatives on Capital Hill. A congressman tends to hold a tougher position on the RMB exchange issue if his or her constituency has a higher unemployment rate. More imports from China in a constituency toughens the representing congressman's position against the RMB in the exchange issue, but more exports to China lead to a more favorable attitude towards the RMB exchange issue. Thirdly, demographic factors also play a significant role. The younger the constituency population, the less is the effect of the tough attitude of congressional representatives on the RMB exchange issue. In addition, the increase of Asian American population in a constituency causes the congressional representative to have a more friendly attitude towards China. In conclusion, the U.S. RMB currency policy towards China is the result of political game participated by different players. The special trade policy making system of the U.S. matters in this issue.

**Keywords:** currency policy; political economics; China

## **Introduction**

In recent decade U.S. has pressured China on the RMB exchange rate issue frequently, which has hindered the bilateral trade and brought uncertainties to the economic and political cooperation between the two large countries. The U.S. House and Senator always raise bills on currency issues to blame China for manipulating the RMB. In 2003 congressmen Charles Schumer and Lindsey Graham raised Schumer and Graham Amendment, which is also called the Exchange Rate Revenge Bill. The bill asked China to appreciate RMB virtually for the reason of unfair trade. Otherwise, U.S. would impose a tariff rate of 27.5% on China's exports to the US. In 2007 congress put forward the Currency Exchange Rate Oversight Reform Act, which mainly referred to China and stated the country should adjust its currency system if U.S. identified that a fundamental bias existed in its currency. Otherwise, the U.S. government would intervene in the currency market. In 2010 the Currency Reform for Fair Trade Act was passed which adds terms of currency revaluation on the assessment of anti-dumping and countervailing subsidy procedures, the issue of RMB exchange rate was enlarged accordingly.

Why is the U.S. keen to pressure China on the currency issue? The popular explanation is that RMB exchange rate is held down, this position is support by many scholars and politicians. Krugman(2010) criticized China's government for manipulating the currency which is thought to hold back the world economy's recovery. It is suggested by Krugman to pose a tariff such as a level of 25% on China's exports to U.S.. Besides Krugman there are many scholars such as Goldstein, Williamson from IIE and Frankel from Harvard University who hold the same position. But most Chinese scholars deny the point and most research focuses on the currency issue on political incentives.

This paper explores the U.S. RMB exchange rate policy towards China, based on the perspectives of Political Economy of Trade Policy. We categorize the influential factors into four forms, namely political contributions, economic conditions in constituency, partisan tendency and demographics. Then we use the Probit model to analyze empirically the typical congress bill of the Currency Reform for Fair Trade Act. The result of empirical study shows that the four kinds of factors all impact on the U.S. RMB exchange rate policy. The conclusion is drawn in the final part of the paper that U.S. RMB policy towards China is the result of political game played by congressmen, interests groups and the constituencies.

## **Literature Review**

The mainstream international trade theories, including the classic Theory of Comparative Advantage and recent New-New Trade Theory (Melitz, 2003; Helpman, Melitz, Yeaple, 2004), indicate that free trade brings benefit to all the participators. However there exists widely protectionism in reality, which illustrates the complexity of the trade policy. Bhagwati (1988) regards trade

policy as the result of inter-influencing and interacting by the different interests, ideologies and institutions. Recent decades are witnessing the developing of the Political Economy of Trade Policy, there are some main disciplines. Findlay and Wellisz (1982) put forward the Tariff Formation Model, they point out that the export industry lobbies for free trade, and the import industry lobbies for tariff. The government's trade policy is a function of the resources input by the two kinds of lobbyist, and the country's trade protection level is decided by the result of Nash equilibrium. Hillman (1982) put forward the Political Support Model which regards the government's protection for declining industries as motivated by political support instead of seeking for social welfare objective. Grossman and Helpman (1994) put forward the Protection For Sale Model which regards constituency's welfare and interest groups as endogenous factors in the government's objective function, and the lobbyist's contribution level is based on the expectation of trade policy chosen by the government, and the government choose a trade policy which maximize the weighted sum of social welfare and total contribution. The Political Economy of Trade Policy provides a new perspective on the research of U.S. foreign trade policy issues.

As for RMB exchange rate issue, academic researches focus on whether the currency is over-devalued. Goldstein(2004), Frankel(2005), Subramanian(2010) held the views that RMB's value is deviated from the level of its real purchasing power parity. Krugman(2010) vigorously alleged that Chinese government is manipulating RMB exchange rate, the U.S. government should take punishing measures such as a tougher tariff rate on the imports from China. However there are scholars who opposed these views. Engel(2009), Mckinnon(2010) thought there are not obvious evidences for RMB exchange rate's deviation from the reasonable level.

The current researches focus on whether the RMB exchange rate is reasonable and whether it is manipulated, there lacks researches on the political incentives of the U.S. RMB currency policy towards China. This paper explores this issue based on the perspectives of Political Economy of Trade Policy.

### **Mechanism Analysis**

We summarize the factors that influence the U.S. currency exchange rate policy according to economic politics frame.

#### *Political Contributions*

Political contribution is the main form through which the interest groups influence the government in the choice of trade policy. According to OPENSECRETS website, the political contribution scale in U.S. is large with lobby expenditure amounting to 3.3 billion USD in 2012. Political contributions are significant in U.S. political activity. Table 1 lists the main political contributions in key fields. Commercial contributions are larger than

other categories. Since the contribution amount of labor and ideological contributions is relatively small, we wonder whether it plays an active role in the U.S. currency policy toward China. This will be checked by the later empirical analysis.

**Table 1.** *Political Contribution in Main Fields in 2012*

Sector	Total (M USD)	Rate (%)
Misc Business	550.9	16.8
Health	489.0	14.9
Finance/Insur/RealEst	487.6	14.8
Communic/Electronics	391.2	11.9
Energy/Nat Resource	381.1	11.6
Transportation	243.2	7.4
Agribusiness	139.2	4.2
Defense	131.7	4.0
Ideology/Single-Issue	127.1	3.9
Construction	47.3	1.4
Labor	46.2	1.4
Lawyers & Lobbyists	24.4	0.7
Other	225.0	6.9
total	3284.0	100.0

Source: calculate the data in opensecrets website (<http://www.opensecrets.org>)

#### *Economic Conditions in Constituencies*

In the representative system the trade policy is influenced both by interest groups and factors in constituency. The economic conditions of the constituency determines directly the voter confidence in the government and whether the government will be supported for the next terms by the voters. These factors become another important constraint to the trade policy. Price and Sanders (1994) analyzed empirically the government's popularity after World War II and obtained the result that the government's popularity relates to domestic inflation rate, unemployment rate, real interest rate, etc. In the U.S. it will be more evident because of the particular political structure. The congress is constituted by representatives coming from and representing local states, and has become the game center for local interests.. During the past decades the trade between U.S. and China has developed very fast, but in a micro-sense different states may get different trade benefits as economic conditions vary across states. The impact of the divergence will be reflected in the juggling of trade policy towards China in the congress. The winner will play positive role and on the contrary the loser will play negative role accordingly. Based on this logic we assume the states' economic conditions should be considered as variables in the mechanism of U.S. currency policy toward China.

To illustrate the above analysis, we list some states of U.S. and their trades with China in 2012. According to the data in table 2, it is obvious every state varies significantly for the data of export and import with China, no matter it is

in term of trade volume or share of the state's whole trade with world. The export of Alaska to China accounts for nearly on third, by contrast the export of Florida to China just accounts for 1.9%. The difference can be easily seen in import data of states. The reasons of the trade difference with China of states deserve researching, but it is not the emphasis of this paper. We just focus on impact on the currency policy towards China caused by trade difference of states. It is assumed that the states with a strong export dependence degree on China will lead to the representing congressman's positive attitudes on the currency policy towards China. As for the import dependence on China, it is assumed the higher of the degree, the more negative attitudes of the representing congressmen are. However the assumptions need verification by empirical approach.

**Table 2.** *Trade between Typical States of U.S. and China in 2012*

State	Export to China (M USD)	Share of the Export(%)	Import from China (M USD)	Share of the Import(%)
ALASKA	1354	29.8	201	9.5
WASHINGTON	14156	18.7	8465	17.8
LOUISIANA	9310	14.8	1149	1.4
HAWAII	71	9.8	310	4.6
CALIFORNIA	13970	8.6	127741	33.9
NEW YORK	4293	5.3	22614	18.2
TEXAS	10306	3.9	40688	12.3
NEW MEXICO	77	2.6	757	32.5
FLORIDA	1267	1.9	11604	16.3

Source: from the U.S. International Trade Administration website.

#### *Partisan Tendency*

Magee (1989) raised the Partisan Competition Model which illustrates partisan trade choice can be obtained from the possible equilibrium of maximized benefit expectancy for interest groups and maximized the possibility for the partisan elections. The U.S. has a significant bipartisan political structure and the trade policy signifies the partisan character. Seo (2010) even researched the congressional actions between the years of 1990 and 2000 and concludes that partisan character imposes influence significantly on the decision of trade policies towards China. Thus, we absorb the partisan factors into our analysis frame.

#### *Demographic Influence*

The traditional economic politics models lack consideration of the demographic factors. The U.S. is a country composed of immigrants from all over the world. According to data from the Labor Investigation Bureau, the U.S. total population grew at 9.7% from 2000 to 2010. However, in the

population structure there exists an imbalance, just in one decade white American people had a low growth rate of 5.7%, the Hispanic Americans grew at a rate of 43.0% and Asian Americans grew at the rate of 43.3%. These demographic factors may influence the trade policy also.

## Methodology

To analyze the effect of variables to the U.S. RMB exchange rate policy, we select the relevant bill voting record in the congress and use the Probit model. The Probit model is used in discrete response situations and thus suits the bill voting analysis.

We assume the dependent variable  $y$  is the result of interaction of vector  $X$ :

$$y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k = \alpha + \beta X \quad (1)$$

The response possibility  $P$  is an accumulation function of standard normal distribution:

$$P = \Phi(y) \equiv \int_{-\infty}^y \phi(v) dv \quad (2)$$

In the above equation  $\phi(y)$  is standard normal distribution density function :

$$\phi(y) = (2\pi)^{-1/2} \exp(-y^2 / 2) \quad (3)$$

For vector  $X$  the possibility  $P$  will strictly confined between 0 and 1. By the Probit model we can simulate the parameters in equation (1).

Next we build the regression equation. As analysis in part three we get the following form:

$$Vote_i = C + \alpha Contribution_i + \beta Economy_i + \gamma Party_i + \lambda Population_i + \varepsilon \quad (4)$$

In the formula (4),  $i$  represents congressman,  $Vote$  represents the result of voting, there are two results of 1 and 0 representing pro and con of the bill, respectively. *Contribution* represents the amount of political contribution accepted by the congressman individually. *Economy* stands for economic condition in constituency from where the congressman comes. *Party* represents the party to which the congressman belongs. *Population* represents the demographic factors in the constituency.  $C$  is a constant term and  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\lambda$  are coefficients of the variables,  $\varepsilon$  is the residual error.

For every kind of variable we choose the detailed ones. There are three kinds of political contributions referring to commercial contribution, labor contribution and ideological contribution, thus we choose the three variables for political contribution using the form of *Bus*, *Lab* and *idl* separately.

As for economic condition in constituency, we include the relevant variables linked to the currency policy issue. One is trade impact on the local economy. We use the Sino-U.S. export and import amount of the state from where the congressman comes, represented by the variables of *Exp* and *Imp*. The second is impact on local employment. We use unemployment rate of the



state from where the congressman comes, represented by the variable of *Une*. The third is industrial structure of the state. We select the two main industries of manufacture and agriculture, represented by the variables of *Man* and *Agr*.

The dummy variable of *Par* is used to represent the party to which the congressman belongs. If the congressman is republican, *Par* will be 1 and if the congressman is democratic, *Par* will be 0. According to the research of Hiscox (2005) and Deisler (2005), Republicans tend to support free trade and Democrats tend to support protectionism. We will observe whether it will be reflected by the currency policy towards China.

We choose two variables to represent the demographic factors, one is median age of the state from which the congressman comes, using *Med*. The other is Asian American population of the state, since Asian Americans share culture close to China's, we expect the more Asian Americans a state has the more likely the representative congressman will hold a positive attitude toward China on currency policy.

### **Data and Regression Result**

The data of Vote is from US Library of Congress. The contribution data and party information for congressman came from the opensecrets website. Export and import amounts are from website of American International Trade Administration. Unemployment rate, median age and Asian American population are from American Labor Statistic website. The output of manufacturing and agriculture are from BEA (U.S. Bureau of Economic Analysis).

In Sept. 29 of 2010 the House passed the Currency Reform for Fair Trade Act, which is typical bill to pressure China on RMB exchange rate issue in recent years. We use this bill's voting as the sample to analyze empirically. The main clauses in the bill involve amendment regarding the Tariff Act in 1930 that add currency assessment into the judgement of anti-dumping and countervailing, obviously enlarging the currency dispute between U.S. and China. The voting result is 348 versus 79 for voters to approve the bill, illustrating the tough position in general held by Congress. Altogether there are 427 samples including 173 Republicans and 254 Democrats.

For the three political contribution variables, there will be a problem of collineation if we use the all in regression, considering the individual congressman varies in fund-raising ability and the three political contribution amount maybe appear the same level to one certain congressman. To avoid the spurious regression because of the collineation, we input the three variables separately in the regression process. We use maximum likelihood method to regress and ultimately we get the following result as table 2.

**Table 3. Regression Result**

Viarables	Without political contribution (1)	Including comercial contribution (2)	Including labor contribution (3)	Including Ideology contribution(4)
Bus		0.104* (1.72)		
Lab			0.092*** (2.75)	
Ide				0.108* (1.86)
Imp	0.090* (1.75)	0.098* (1.88)	0.085* (1.62)	0.089* (1.71)
Exp	-0.113 (-0.68)	-0.129 (-0.78)	-0.179 (-1.07)	-0.126 (-0.77)
Une	1.418** (2.26)	1.533** (2.40)	1.754*** (2.69)	1.521** (2.39)
Man	0.401* (1.67)	0.417* (1.73)	0.411* (1.67)	0.458* (1.91)
Agr	-0.109 (-0.68)	-0.124 (-0.77)	-0.097 (-0.60)	-0.126 (-0.78)
Par	-2.066*** (-8.76)	-2.152*** (-8.59)	-1.742*** (-6.52)	-2.092*** (-8.58)
Med	6.239*** (3.52)	6.234*** (3.48)	4.798*** (2.61)	6.066*** (3.39)
Asian	-0.330*** (-2.83)	-0.344*** (-2.91)	-0.341*** (-2.85)	-0.347*** (-2.97)
C	-22.488*** (-3.46)	-23.764*** (-3.59)	-18.585*** (-2.81)	-23.314*** (-3.55)
Log likely samples	-117.95 427	-116.52 427	-114.12 427	-116.21 427
Predict accuracy	87.35%	88.76%	88.52%	88.06%

marks : \*\*\*,\*\*,\*represent separately the coefficient is significant on the level of 1%, 5% and 10%; the numbers in parentheses stand for Z data.

After adding the three political contributions, the regression results are better since the likelihood ratio is higher than the result of model (1), which illustrates the latter three regressions explain more strongly the voting activity. The other index to describe the explanation degree is Accurate Predict Rate, the logic of the calculation of the index is that if the stimulated response possibility rate is above 0.5 and the real rate is 1, we can say the model's prediction is correct. If the stimulated response possibility rate is less than 0.5 and the real rate is 0, we can say the model's prediction is correct also. From Table 1, all of the results of the model including political contribution is above 88%, then it ensure the model's fitness degree to the reality.

As to the details of the variables, we analyze below.

The coefficients of the political contributions are all positive and significant, which demonstrate the political contributions strengthen the pressure laid on China by the U.S. government. The role of business contributions are in dispute, since some commercial interest groups such as international enterprises favor free trade policy to enlarge their business abroad, while the less advantaged domestic firms favor protectionism. This

paper shows the comprehensive effect is negative on the RMB exchange rate issue. As for the labor contributions and ideological contributions, though the contribution amount is not large, the coefficient is positive and significant, which illustrates these categories of interest groups are playing active role in the U.S. trade policy drafting.

The coefficients of imports variable are positive and significant, which illustrate the import trade from China has brought obvious impact on the views of RMB exchange rate issue. The result is understandable since the mainstream opinions in U.S. are unfriendly toward bilateral trade between China and U.S., and many Americans consider the depreciated RMB is key reason to the flooding of Chinese cheap commodities. However the coefficients of export variable is not significant, the reason maybe the smaller amount of exports to China compared to the imports from China. According to data of American International Administration, the import volume to China in 2012 amounts to 425 billion USD and the export volume from China amounts to just 111 billion USD, the export volume is much less than the import's. The other explanation for the non-significance is that the beneficial partners always keep silent and the loser always voice fiercely, which is a typical comment in economic politics.

As expected the coefficients of unemployment variable is positive and significant, which illustrates the unemployment conditions in the constituencies play a critical role in pressuring the congressman to react in currency policy making. To some extent the critics of RMB exchange rate issue in the congress are created by the local economic conditions.

For industrial variables, the coefficients of manufacturing sector variable is positive and significant, which demonstrates the mounting impact on the U.S. manufacturing industry cause by the challenge from China's counterweight. The coefficients of agriculture sector variable is negative but insignificant, the feasible reason is that the efficiency of U.S.' agriculture sector is high and the employment is not much, so the political voice is less than other industrial interest groups.

Both of the coefficients of the partisan dummy variables are significant, which means the partisan characteristic imposes importantly on the congressman in voting. From the results, the positions are different for the two parties. The Republicans are more inclined to deny the proposal to punish China by the currency excuse, but the Democrats are more inclined to punish China by the currency excuse. The result is consistent to the normal observation that the Republicans tend to support free trade policy and the Democrats tend to support protectionism in trade.

As for the demographic factors, it is indicated that the higher a state's median age is, the more inclined is the representing congressman to vote yes for the blaming RMB exchange rate bill. On the other hand, the younger a state's population is, the more friendly is the attitude of the local people. It is a positive sign. The coefficient of the Asian American is negative and significant, which accords with the expectancy and illustrates the Asian American plays active role in the trade policy toward China.

## Conclusion

Based on the economic politics perspective, this paper analyzes the mechanism of U.S. RMB exchange rate issue and use of the Probit model to test the influence effect of interest groups, economic conditions, partisan characteristics and demographic factors, etc. The empirical result supports the main idea that the interest groups actually play a role in the U.S. currency policy making, mainly by political contributions. No matter what category of the political contribution and no matter the volume of the political contribution, the effect is the same, namely to intensify the congressman's attitude for holding a tough position in the RMB exchange rate policy. Also the economic conditions in a constituency influence the congressman's attitude such as the impact of importation, the industrial structure, unemployment rate and so on. The Republicans tend to be friendly on the RMB exchange issue as compared to the Democrats.

In conclusion, the RMB policy issue is the game played by the interest groups, congressmen, and constituencies. The special trade policy making system of the U.S. is the original reason.

## References

- Krugman, P. 2010. *Taking on China*. *New York Times*. 2010-03-14. Doi= <http://www.nytimes.com/2010/10/01/opinion/01krugman.html>
- Bhagwati J. 1988 *Protectionism*. Massachusetts Institute Technology.
- Findlay, R., Wellisz, S. 1982. *Endogenous Tariffs, the Political Economy of Trade Restrictions and Welfare*. in Bhagwati J., *Import Competition and Response*. University of Chicago, 223-243.
- Hillman, A. L. 1982. *Declining Industries and Political Support Protectionist Motives*. *J. American Economic Review*. 72, 5, 1180-1187.
- Grossman, G. M., Helpman, E. 1994. *Protection for Sale*. *J. American Economic Review*. 84, 4, 833-850.
- Price, S., Sanders, D. 1994. *Economic Competence, Rational Expectations and Government Popularity in Post-war Britain*. *J. The Manchester School*. 62, 3, 296-312.
- Magee, S. P., Brock, W. A., Young, L. 1989. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. MIT Press.
- Seo, J. 2010. *Vote Switching on Foreign Policy in the U.S. House of Representatives*. *J. American Politics Research*. 38, 6, 1072-1101.
- Melitz, M. J. 2003. *The Impact of Trade on Intra-Industry Reallocations on Aggregate Industry Productivity*. *J. Econometrica*. 71, 6, 1695-1725.
- Helpman, E., Melitz, M. J., Yeaple, S. R. 2004. *Export versus FDI with Heterogeneous Firms*. *J. American Economic Review*. 94, 1, 300-316.
- Engel, C. 2009. *Exchange Rate Policies*. Staff Papers, Federal Reserve Bank of Dallas.
- Goldstein, M. 2004. *China and the Renminbi Exchange Rate*. In C. Fred Bergsten and John Williamson eds., *Dollar Adjustment: How Far? Against What?* Special Report No. 17, Washington, D. C.: Institute for International Economics.

- Frankel, J. 2005. *On the Renminbi: The Choice between Adjustment under a Fixed Exchange Rate and Adjustment under a Flexible Rate*. NBER Working Paper. No. 11274.
- Subramanian, A. 2010. *New PPP-Based Estimates of Renminbi Undervaluation and Policy Implication*. Policy Brief PB10-18, Washington, D.C.: Peterson Institute for International Economics.
- McKinnon, R. 2010. *A Reply to Krugman; What Manipulation? J. The International Economics*. (Winter), 37-39.