Summary of doctoral thesis

China and the challenges of its exchange rate policy in the context of the global financial and economic crisis

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# TABLE OF CONTENTS:

*List of publications* .................................................................................................................. 7

*Index of figures* ......................................................................................................................... 8

*Index of tables* .......................................................................................................................... 11

**Introduction** ............................................................................................................................ 12
  - The subject and context of research ......................................................................................... 12
  - Purposes and objectives ............................................................................................................. 15
  - Methodology and typology of research .................................................................................... 16
  - Notational clarifications ........................................................................................................... 18
  - Shortcomings of Chinese statistics .......................................................................................... 18
  - The present stage of knowledge ............................................................................................... 19

**CHAPTER I: The evolution of the main international currencies under the impact of the financial crisis** .................................................................................................................. 23

1. Introduction ............................................................................................................................... 23

2. A short monetary history .......................................................................................................... 25
   - 2.1. The emergence of the dollar ............................................................................................. 25
   - 2.2. The first monetary unions in Europe ............................................................................... 26
   - 2.3. The gold standard ............................................................................................................. 26
   - 2.4. The First World War heritage: monetary instability ....................................................... 27
   - 2.5. After the war: Bretton Woods ......................................................................................... 28
   - 2.6. The collapse of Bretton Woods system and „the monetary snake” ............................... 28
   - 2.7. The European monetary system ..................................................................................... 30
   - 2.8. The creation of The Economic and Monetary Union .................................................... 32

3. Conditions, advantages and disadvantages of an international currency ............................... 33
   - 3.1. What is and how a currency becomes international ....................................................... 33
   - 3.2. The advantages of an international currency ................................................................. 36
   - 3.3. The risks of an international currency ............................................................................. 38

4. The use of the main international currencies in the world .................................................... 39
   - 4.1. The public use .................................................................................................................. 40
   - 4.2. The private use ................................................................................................................ 45

5. The impact of the financial crisis on the euro-dollar exchange rate ....................................... 54
5.1 The role of fundamental variables on the evolution of exchange rate......... 54
5.2 The impact of the present crisis on the euro-dollar exchange rate ........ 62
5.3 Challenges and perspectives on the euro-dollar exchange rate in the context of Eurozone crisis.................................................. 66
5.4 Forecasts concerning the euro-dollar exchange rate............................. 72
6. Conclusions .......................................................................................... 73

Chapter II: China in the international economic context............................ 75
1. Introduction ........................................................................................... 75
2. Political China ......................................................................................... 77
   2.1 Political system ................................................................................. 77
   2.2 Corruption in China ......................................................................... 83
   2.3 The democratic future of China ....................................................... 85
3. Economical China.................................................................................... 87
   3.1 Economic development in China: past, present and future ............... 87
   3.2 The energetical problem and degradation of environment ............... 98
4. International China .................................................................................. 104
   4.1 China and the U.S. .......................................................................... 105
   4.2 China and Asia ................................................................................. 108
   4.3 China and the rest of the world ....................................................... 110
5. Conclusions ........................................................................................... 112

Chapter III: China`s exchange rate policy and the international role of renminbi ................................................................................... 115
1. Introduction ........................................................................................... 115
2. The evolution of chinese exchange rate policy ........................................ 116
   2.1 The pre-reform period (before 1978) ................................................. 116
   2.2 The reform era (1978 - 2005) ............................................................ 117
   2.3 From fixed to floating (after 2005) .................................................... 119
3. Estimation of equilibrium exchange rate of renminbi ............................ 123
   3.1 Purchasing power parity theory ....................................................... 126
   3.2 The monetarist approach ............................................................... 135
   3.3 Fundamental Equilibrium Exchange Rate - FEER ................................ 142
4. The use of renminbi in the world and perspectives ................................... 146
   4.1 Parameters influencing the use of an international currency ............... 147
   4.2 The use of renminbi in the world .................................................... 156
4.3 Scenarios of the future of the International Financial System ........................................ 160
5. Conclusions ................................................................................................................................. 165

CHAPTER IV: Possible evolutions of chinese exchange rate policy. Case study: The currency and comercial conflict between U.S. and China seen from the perspective of game theory .......................................................... 169
1. Introduction .................................................................................................................................. 169
2. Game theory in economy ............................................................................................................... 170
   2.1 Fundamental concepts ............................................................................................................. 171
   2.2 Types of strategies .................................................................................................................... 174
   2.3 Equilibrium in game theory .................................................................................................... 175
   2.4 The prisoner’s dilemma .......................................................................................................... 176
   2.5 Game theory and international economic relations ................................................................. 177
   2.6 Strategic commercial policy and the optimal tariff controversy .............................................. 178
3. From currency wars to commercial wars ..................................................................................... 179
   3.1 What are the currency wars? .................................................................................................... 179
   3.2 Currency war and the dezechilibrium of current account ...................................................... 181
   3.3 Main losers ............................................................................................................................... 183
   3.4 From currency war to commercial war – a historic approach ................................................. 183
   3.5 Possible ways of adjusting dezechilibrium ............................................................................. 185
4. China, U.S. and the possibility of a commercial conflict break out. An approach from game theory perspective ................................................................................................................................ 187
   4.1 Recent evolutions of the chinese monetary policy ................................................................. 187
   4.2 The currency and commercial war between U.S. and China from game theory perspective ..................................................................................................................... 191
5. Conclusions ..................................................................................................................................... 204

General conclusions ..................................................................................................................... 206
   The necessity and opportunity of the doctoral thesis ................................................................. 206
   The scientific novelty of the doctoral thesis ................................................................................. 206
   General conclusions ...................................................................................................................... 207
   Future directions of research ....................................................................................................... 215

Bibliography ..................................................................................................................................... 216

Anexes ............................................................................................................................................. 238
SUMMARY

Keywords: China, renminbi, international currency, dollar, monetary policy, euro, currency war, game theory

If we should characterize China in one single word, this would be uniqueness. China is unique in its own way: it’s the only giant country in history that met a growth rate so spectacular; it’s the only country that successfully adopted the „state capitalism” system, considered by some an alternative to the capitalist system of developed countries; it’s the second richest nation of the world while big part of it’s population lives on the edge of subsistence; it’s one of the biggest commercial partners of the world while it’s currency is not fully convertible, and in the end, it’s the only communist country of such kind.

The reasons that determined us to start this academic project and turn attention on China and its monetary policy can be summed up so: there is a growing public curiosity in the world, and also in Romania, connected to China’s spectacular growth and evolution. We can actually discuss some prevailing notes of this curiosity as the „secret” of China’s spectacular economic evolution, the implications of the evolution of Chinese currency over the other international currencies and over the whole International Financial System or China’s role in the context of the recent global economic and financial crisis. Certainly, there are numerous books, studies and scientific articles which treat in a more or less detailed fashion certain aspects of China’s evolution and its monetary policy. Nevertheless, we considered that none of the works consulted until the present day managed to reveal Chinese economic mystery under all it’s aspects, didn’t managed to convincingly integrate the evolution of China’s currency inside the International Financial System and to pinpoint it’s growing importance. Moreover, in Romania, works of such kind are almost absent, the most part of the information on China coming from a limited number of translated foreign books, which contain general information on China’s economy and politics, or from newspapers
This is why we have, in our country a mixed representation of information concerning Chinese spectacular economic performances, incorrect practices and conflicts with the western world.

The purpose of the academic endeavor is constituted by the identification of the impact of Chinese monetary policy on the International Financial System. The present work proposes to analyze the ways in which the actual global financial crisis redefined the roles of the main international currencies (euro and dollar) as well as the perspectives of a new configuration of the International Financial System, in which renminbi will rival the euro-dollar scheme.

To fulfill the proposed purpose, we identified the following specific objectives:
- The analysis of the global financial crisis impact on the main international currencies (euro and dollar)
- Tracing China’s political, economical and international evolution in the last three decades in the global context
- Outlining the ways in which Chinese economy was affected by the global financial crisis
- The analysis of the Chinese monetary policy evolution and identification of renminbi equilibrium value
- Outlining the role of Chinese currency in the International Financial System framework in the present and future
- Identifying possible evolutions of China’s monetary policy in the framework of the currency and commercial conflict between the U.S. and China

The scientific research supposes the use of an elaborate set of methods and techniques of research. Between the methods and techniques used in the carrying out of the doctoral thesis there are bibliographical research (books, articles, studies published in internationally indexed databases, articles published by research institutes or „think-tank” organization like Peterson Institute for International Economics, NBER, Brookings etc., reports, monthly or yearly reports from BCE, FMI, World Bank, BIS, etc.), forecasting (using scenario method to construct, under the form of possible variants, the perspective of a reconfiguration of the International Financial System in which renminbi could be a constituent part in a predictable future; using the method of forerunner events in identifying the dominant tendency concerning the evolution of the exchange rate), modelling (using a model of game theory to analyze the monetary and commercial conflict between the U.S. and China and to clarify the way in which the two interact in the real world).
The need to debate on this topic derives from the present interest shown to it, as well as from the desire to understand and anticipate the way in which China and its currency will continue to assert itself internationally. Given the current situation of the international economy it seems pertinent to write a dissertation on China's role and renminbi in relation to the other currencies in the International Financial System, as well as the potential positions adopted by the two great powers (USA and China) in case of a potential currency and trade conflict.

The scientific innovation of this dissertation derives from the underdevelopment and under-use of the game theory within the international economy. Most articles are especially based on the fundamental, conceptual, theoretical research and very little on an applied, empirical one. If we narrow down the research area and consider the currency or trade conflicts between two countries, we can say that the works and articles that deal with this topic are practically inexistent. Most of the few works available in this area date back from the 80s-90s and relate especially to the optimum tariff theory and trade liberalization. In other words, this dissertation aims at filling a gap in regard to the research of the (trade and currency) conflict relationships between the USA and China.

The dissertation consists of four chapters and conclusions.

Chapter I - The evolution of the main international currencies under the impact of the financial crisis analyses the history of the main currencies of the International Financial System, as well as their current development on the financial markets. I have noticed that, despite the controversies regarding its stability, the dollar continues to be seen as the main international currency, without any significant competitor at the moment. The price of the main goods and financial assets is denominated in dollars, while this currency is predominantly used by private agents in international transactions, and as reserve currency by the central banks worldwide. Though the Euro zone can be compared with the United States both in terms of economic dimension and development of the financial markets, the single currency failed to clearly assert itself on the international markets. Moreover, the current sovereign debt crisis in the Eurozone, as well as the controversies regarding its potential collapse have seriously reduced the possibilities of the single currency becoming the next international currency.

Thus, the American dollar currently holds the largest share in the currency reserves of central banks. Though the dollar’s share decreased since the introduction of the single currency in 2002 and up to the present, it was not caused by the rise in the Euro's share in
international reserves, but rather by the increase in the importance of other currencies, such as those of the emerging countries. Furthermore, the dollar has maintained its dominant position as anchor currency, in the foreign exchange regimes, although the number of the countries that use the dollar as anchor currency has decreased over the past 5 years. However, this evolution is not correlated with the increase in the use of the single currency, but rather in the modification of some foreign exchange regimes. The dollar is still the most popular currency of the international transactions, one major argument for the dollar demand being that oil can be bought in this currency. Though various OPEC countries have tried many times to avoid the invoices in dollars, the euro-invoicing of the OPEC oil is still not a viable option. The analysis of the foreign exchange market shows that the dollar is also the main currency used in foreign exchanges, with the single currency lagging far behind.

Generally, the regional analysis continues to support the idea that the international role of the euro currency is mainly geographically determined: the internationalization of the single currency is strongly concentrated in the Euroland-neighbouring area and on the mature markets. In reality, its international relevance has barely increased, being, however, the second most important currency in the world. It seems that the dollar continues to be the main international currency and the occurrence of a change in the International Financial System in the foreseeable future is rather unlikely, whereas the Euro currency is presently somewhat overshadowed (at least in theory) by the evolution of the Chinese currency.

The analysis of the evolution of the euro-dollar exchange rate in the wake of the international financial crisis reveals interesting information. Thus, if it is generally considered that the evolution of the exchange rate can be explained based on the fundamental, conventional variables, their analysis becomes irrelevant during the financial crisis, as the markets become extremely volatile and, therefore, unpredictable. However, during the analysis of the euro-dollar relationship I have identified some factors that influenced the evolution of the exchange rate ever since the beginning of the crisis, atypical factors such as: the repatriation of the capital belonging to U.S. investors from the Eurozone to the USA, a refuge in stable, safe assets of the U.S. investors and the Eurozone and an increasing need for liquidities in U.S. dollars of the European banks. They all played a decisive role in the noticeable trend of appreciation of the U.S. dollar after Lehman Brothers collapsed. The current economic and political situation in the Eurozone has put even more pressure on the exchange rate, threatening even the mere existence of the single currency.

In the first chapter I highlighted the fact that a weaker euro currency is not necessarily a negative aspect, because it determines an improvement in the competitive character of the
exports in the Eurozone. Moreover, the price of oil and other commodities will drop on the long term as a consequence of the negative correlation between the price of commodities and the dollar price. However, the deepening of the public debt crisis in the Eurozone has led to inconsistencies in the political and economic support to the Eurozone, which demonstrated that these convergence criteria were unable to defeat the conflicting historical and geographical issues. Several scenarios have been issued regarding some members that were likely to leave the Eurozone; the prospect of a separation in the Eurozone is highly improbable, as the costs for the separation of the single currency would be tremendous. Given these circumstances, the attempt to predict the evolution of the exchange rate may be challenging. Finally, I believe that the most plausible alternative is to rescue the Eurozone by means of a slightly depreciated euro.

Chapter II – *China in the international economic context* is an “X-ray” of China, which clearly details the main political, economic and international characteristics of this new world superpower. China’s spectacular evolution over the last three decades, from a secluded “three-world” country to the second largest economy in the world has led to many controversies at national and international level.

Thus, from political point of view, China continues to be a communist country led by a single party, highly involved in the daily life of the Chinese people, which practically controls everything. Although the power seems to be clearly delimited, most political leaders hold positions in all three systems which makes it very hard to determine China’s decision-making process. The absence of an open, democratic political system has favoured the development and extension of corruption, one of the biggest challenges of the Chinese government being corruption among the local governments. It is assessed that corruption level amounts between 10 and 20% of the country's GDP, though China has evolved from one of the most corrupt countries worldwide in the 90s to 75th out of 183 in 2011, thus outpacing countries like India or Russia.

Numerous debates on the democratic future of the country are being carried out outside China's borders, as it is believed that the current political system is no longer viable from political and economic point of view. There is an increasingly higher pressure at international level for the liberalization of the financial market and the reformation of the financial system, while the renminbi is expected to become one of the main reserve currencies. However, studies show that in the absence of a significant external shock, the Communist Party of China will retain power in the near future.
China’s economic model is unique: China is the only gigantic country in history that managed to report such a significant growth under a communist regime. The Chinese economy increased more than 20 times over 1978-2010, reporting a significant growth even during the economic crisis. Although it is the second largest economy in the world, China is still a country included in the middle income category as regards the GDP per capita. In order to avoid the “middle income trap” specific to developing countries, the Chinese government must find alternative sources of economic growth in order to be included in the category of developed economies.

Over the last decade, China’s spectacular growth was triggered by two main factors: exports of cheap products and investments financed by debts. At the same time consumption decreased gradually, while the savings rate, thus generating an imbalance of the growth model that might jeopardize the Chinese economy in the future. Due to the so-called butterfly effect, this slowdown of the growth pace would have a major impact also on several other regions, such as the United States or Asia. On the other hand, an economic decline is necessary in order to report a healthier and more balanced economic growth. The Chinese government must adopt a new rebalancing strategy based less on investments and exports and more on the stimulation of internal consumption. It may also support a rise in consumption by adopting several measures that grant free access to the healthcare system, education and retirement scheme, which would temper the uncertainty regarding future expenses. Another solution for rebalancing the economy would be the stimulation of the services sector, which extensively uses human capital; this could prevent an increase in the unemployment rate in the wake of a potential slowdown. In other words, China must adopt several measures that may be painful, but necessary in order to lay the foundation of sustainable growth in the future.

China’s spectacular economic growth over the past three decades also generated a significant rise in the energy demand at international level. It is the largest producer and consumer of primary energy and the forecasts for the next 25 years show that China’s energy demand may double, with major economic and political implications. The increasing demand will put pressure on the energy price on the international markets, especially on the oil price. Moreover, China will become increasingly more dependent on the external markets as regards energy acquisition, thus encouraging totalitarian regimes such as Iran, Venezuela or Sudan.

In addition to the economic and political implications mentioned above, China's increasingly higher energy demand also has consequences on the environment. China is currently the most polluted country in the world, outrunning the United States in terms of the greenhouse gas emissions. The answer of the authorities to all these problems should mainly
focus on the energetic sector, by diversifying the energy generation sources, reducing the coal consumption and intensifying the use of alternative sources.

From the international relations viewpoint, China adopted an increasingly more active position over the past years, by establishing strategic partnerships and by strengthening the diplomatic relations with the main world powers. China’s relationship with the United States, marked in the past by numerous diplomatic tensions, is currently a cooperation relationship and the United States is its main trading partner. Nevertheless, there are still many divergent points between the two powers, starting from China’s exchange rate policy, the Chinese products’ security, the silent support for North Korea’s and Iran’s nuclear programmes and the violation of the human rights and ending with the Taiwan and Tibet issue. China’s relationship with Asia, especially with the ASEAN countries, is both economic in nature, but mainly strategic. 6 of the first 10 trading partners of China are located in Asia, but it is also interested in maintaining a good relationship with its neighbours, fearing possible conflicts at its borders. The relationship with Japan, considered as being its most “sensitive” external relationship, is currently one of economic cooperation and Japan is the second largest partner of China. China and the European Union are currently forming the largest economic cooperation in the world, although the relationship between the two recorded certain difficulties after 2005, which were caused by the problems relating to intellectual property rights, to violation of the human rights and of product security, the increasingly greater trade deficit of the EU towards China, as well as the foreign exchange policy of the latter. China’s cooperation with the countries under development in Africa, Latin America and Middle East is especially based on economic interests, due to the increasing demand of China for raw materials (especially from Africa, as well as from Latin America) and for petroleum (Middle East provides approximately half of the petroleum imported in China).

All these reveal that China’s attitude towards its economic and social responsibilities did not always succeed in keeping the pace with its economic influence upon the world. Today we do not speak about “what if” China would influence the international system, but about “when” it will happen. The following question arises: will this new superpower be able to overcome its condition and to accept the responsibilities specific to the developed world?

Chapter III – *China’s exchange rate policy and the international role of renminbi* deals with the main controversies of the Chinese currency policy and analyses the role of China’s currency within the International Financial System. The analysis performed shows that the reformation of the foreign currency regime in China represented the main factor that determined its growing importance on the world trading market after 1978. The exchange
rate’s role changed with the “open doors” policy and the transition towards a system where the currency’s value on the foreign exchange markets should be determined by the supply and the demand occurred gradually, over a period of 15 years. The decision that influenced decisively the use of renminbi on the international markets was the introduction, on July 21st, 2005, of a managed exchange rate regime, linked to a currency basket, thus ending a decade of the renminbi’s fixation in relation to the dollar. The authorities raised the exchange rate by 2.1% (from 8.28 to 8.11 RMB per one dollar) and promised a greater flexibility of the same in the future. By the end of 2008, the nominal dollar-renminbi exchange rate reached 6.83, meaning a growth by 21%, as compared with July 20th, 2005.

Nevertheless, after 2005, on the grounds of approaches based on the purchasing power parity or FEER, most empirical studies for the assessment of the equilibrium exchange rate highlighted the significant underestimation level of the Chinese currency. The analysis I performed with the help of the purchase power parity, of the currency model and of the fundamental equilibrium exchange rate method shows us a similar result: underestimation of the renminbi by 5-10 percent, on average.

All these evolutions of China’s currency policy brought into discussion the possible role of the Chinese currency on the international financial markets. Thus, renminbi’s future on the international financial markets as an alternative to the dollar depends on the Chinese government’s capacity and availability to promote the currency convertibility and the development of the domestic financial market. Nevertheless, for renminbi to fulfil the role of international currency, China must meet all these vital conditions, because they have the role of supporting China’s currency on the financial market and of offering reliability for the international investors. Even though it is the second economy according to the GDP value, the development of the Chinese financial markets still remains behind other large economies, judging by two aspects: the domestic financial markets are still subjected to a set of restrictions and the domestic market is still closed for foreign investors, in large part. Under such conditions, it is preferred to gradually and carefully liberalize the capital account. Without a sufficient institutional development, there are numerous major risks associated to with the exposure to capital flows, especially in the financial sector.

Moreover, the status of a currency is usually changing on a gradual basis, with time. Given the situation of the Chinese currency and of the reforms initiated by the present moment, there will still be decades by the moment it shall become a real international currency. Consequently, it is difficult to forecast how soon will this happen. It is necessary that renminbi becomes a major currency in the international trade invoicing in order to be
accepted into the foreign currency reserves of another country and to become a vehicle-currency widely spreaded in the external financial transactions. Besides, from a political viewpoint, it is not sure if other countries will accept renminbi in confidence for the various international uses, as it is a currency released by a country ruled by a communist party. Only time can show the role this currency will play within the international financial system.

Given these limitations and restrictions, the renminbi currently has a limited international use, a rather regional one, in trade and to some extent on the international bond market. Although significant progress has been made, in order to use it outside the Asian continent, substantial reforms are needed so as to be accepted on a wide scale. Thus, it is less probable for the renminbi to become an international currency before 2020. By then, the dollar will continue to be the main international currency, especially due to its inertia: everybody uses the dollar because everybody else uses it. Even though there are scenarios regarding a possible multipolar system, where the main role is played by the euro-dollar-renminbi pair, DST or Bitcoin, the shortages of such a system make me state that the International Financial System will not suffer a significant change in the near future.

Chapter IV – Possible evolutions of Chinese exchange rate policy. Case study: The currency and commercial conflict between U.S. and China seen from the perspective of game theory is dedicated to the analysis of China’s exchange rate policy evolution, in the context of the recent exchange rate and trading disputes between China and its main partner, the USA. The spectacular evolutions that occurred on the world’s economic and financial plans led to numerous conflicts between the great powers. The battle for supremacy at global level determined certain governments to resort to incorrect practices, such as the manipulation of the exchange rate in order to maintain export competitiveness. China was repeatedly accused by its trading partners, especially by the United States, that it artificially maintains its currency at a low level, thus accruing an excessive level of foreign currency reserve in dollars. In its turn, the USA threatened to impose an additional customs tariff for all imports coming from China in case the latter fails to adjust its currency.

History showed us that a period featuring competitive underestimates and currency wars can be followed by trading disputes, customs tariffs and finally, by a trading war. Under such conditions, I decided to build a game through which I would analyse USA’s decision to threaten China with the taxation of an additional customs tariff upon all imports, in case the latter refuses to increase the value of its currency, as well as China’s possible responses to the USA’s actions. The game theory is defined as the study of the mathematical models of conflict and cooperation between decisional factors. Practically, it uses mathematical tools in
order to express its ideas formally. Nevertheless, in this particular study, I used the game theory not as much as a branch of mathematics, but as a branch of social sciences, of which purpose is to understand the behaviour between two actors (deciding) who interact in a certain context. Due to this reason, I did not use complicated mathematical calculations, considering that the results obtained as a consequence of applying the game theory are interesting only if confirmed by intuition.

I hereby indicated, less formally, the way in which two important players within the international economic relationships – the USA and China – interact within the strategic trading policy. With the help of the instruments provided by the game theory, I studied the opportunity of USA’s decision to threaten China with the taxation of a customs tariff upon all exports, in the event the latter refuses to increase the value of its currency, as well as China’s possible responses to USA’s actions. The game’s result demonstrated that the initiation of a trading war would bring under-optimum benefits for both the players. Although the USA would obtain maximum benefits if the Chinese government responded to its recommendations and let the national currency to gradually gain value, the balance of the game is given by the strategy in which the USA threatens, but decides not to impose an additional customs tariff. Thus, the game’s result makes us think about a rather psychological than currency-related war. Besides, the game’s result is very close to reality, insofar as the USA threatened China in the past with the use of protection instruments in case the latter failed to increase its currency’s value. The US Congress submitted a draft law that provided China to be sanctioned through the taxation of a customs tariff of 27.5% in May 2005.

All these make us state that, given the need of the Chinese government to continue China’s foreign currency reform and to let renmibi gain value until it reaches the equilibrium value, it is possible that we assist in the future to an increase of the Chinese currency’s value, as well as to a relaxation of the tensions between the two states, even without (or especially without) an intervention of the US government.
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