THE ROLE OF SAVINGS RATE IN DEEPENING MACROECONOMIC IMBALANCES IN CHINA

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Abstract: *It is well known that China is a growing power and its impressive economic indicators have been the subject of numerous studies along the years. China's impressive economics growth in the years 2000 based on one hand by an expansionary monetary policy, on other hand by promoting export growth had also brought into discussion another factor: that of the high savings rate. This article brings into light China's high savings rate -household, corporate and governmental- each with its role played in the entire equation of China's growth. There have been a lot of studies concentrating on this relationship between savings rate and economic growth. It appears that, in the case of China there is a positive relationship between high savings and high economic growth at least on the short run. This is due to the national savings rate which contributed to current account surplus that facilitated outflow and inflow of capital. Domestic investments and foreign growth had contributed to rapid economic growth despite the low level of consumption. If we add here the low demand for imported goods and the growth of households saving rate in the last year we have an image of deep macroeconomic imbalances. Furthermore, if we add to this analysis the idea of an external saving rate that proved to grow quicker than the world capacity to absorb this flows we have a vivid image of an empire as „rich country, poor population". This high savings rate in the long run will deepen macroeconomic imbalances. As a spiral this would have to accelerate reforms in the field of pensions, healthcare, social security. On top they would have to encourage the development of the banking system in order to create an image of a powerful country also in the long run. With these internal reforms the savings rate for households will encourage consumption and a normal level of savings, for corporations it will boost investments and for government it will lead to a balance account closer to reality and better use of the incomes.*

Keywords: savings rate, current account, monetary policy, macroeconomic imbalances.

JEL classification: E21, F32, H62, J11

1. Backgrounds

In 1957 Friedman created the permanent income hypothesis in which he stated that a rational consumer will save only when their current income is higher than anticipated future permanent income. China is one of the Nations with a rapid economic growth rate, but at the same time it has one of the highest rates of saving. And that's highly due to the high rate of household saving.

Conventional perception is that saving contributes to an increase in investment and GDP growth in the short term, as demonstrated by several authors over time such

as DeGregorio, Jappelli and Pagano (1994). The basic idea was induced by Lewis (1995) - a sustained increase in the rate of savings will lead to an acceleration of economic growth. Caroll, Overland and Weil (2000) concluded that "if utility is partially dependent of the way in which consumption is assimilated by a habit stock determined by a past habit then a standard economic growth model can cause increase in consumption rate". There are also several studies that show an interdependent relationship between this two variables, like an increase in economic growth will lead to higher savings rate and vice-versa. Carol and Weil in 1994 proved this relationship between OECD countries, the exception was a study realized by Baharumshah in 2003 for Asian countries - an econometric study between 1960-1997 for North Korea, Thailand, Malaysia, Singapore. The only country that proved the original causality relationship was Singapore.

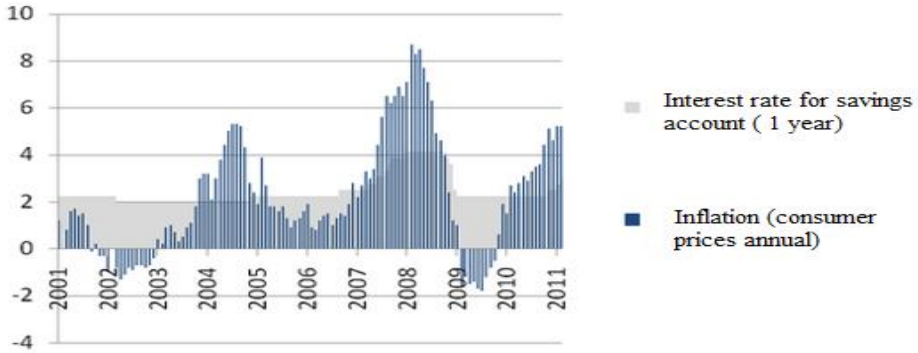
2. The savings rate in China – facts and figures

It is well known that a country like China has a high level of savings rate and determined not only by the household savings, but also corporate and governmental. In regards to the rate of household saving, there have been many reasons over the years listed as the explanation of the high rate of growth. The population in China were taught to save over the years. One of the main reasons might be due to the regime and their caution. There might also be considered pollution-related problems, an underdeveloped social system, and high rates of poverty, limited medical insurance and low access to the healthcare system. The efforts of the authorities to reduce the savings rate will prove unsuccessful if prior to these, a more advanced social, healthcare system will not be created.

So, there are three main elements in sustaining China's high level of savings rate: education, pension system and health. The pension system needs reform. The demographic policy adopted in late 1970s "one child per family" resulted in strengthening the idea of self-sustaining after retirement. In this context, a study conducted by Modgliani and Cao (2004) demonstrated that households saved around 5% of income before 1978. In contradiction with the elderly, people at middle age rely upon revenue growth to achieve a target saving rate. In 2010, another study by Charmon and Prasad, showed that populations at middle age in China, in contrast with other states save less compared to young or old population. This demographic policy would lead to a decrease in household saving rate due to the fact that by 2050 there will be an increase in the elderly population.

Apart of these demographic and social factors, we might add the lack of competition in regards to the bank services offered to the population. Figure 1 shows the evolution of inflation and the interest rate for 1 year saving deposits between 2001 and 2011:

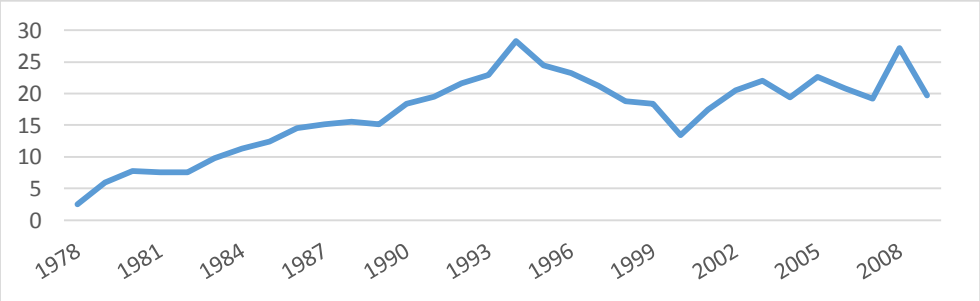
Figure 1. Evolution of interest rate (saving deposits) and inflation 2001-2011



Source: People Bank of China, National Bureau of Statistics

Due to the increase of inflation between 2007 and 2008 and again in 2010-2011, the household savings rate decreased. It was also the objective of the government that tried to increase consumption in order to boost the economy. Although the overall countries savings rate increased from 37,3% to 52,4% between 2002 and 2008, in the last decade the percentage of the household savings rate decreased by 10%. These statics however showed that the population saved less at banks, and the international banking liquidity crisis highly also contributed.
There were a lot of reforms during the years that we consider important in determining the level of saving. Between 1950 and 1978, all the houses were given by the authorities at affordable prices. Between 1982 and 1985, a program of privatization of public houses was lunched, that proved to be a failure due to the lack of financial incentives to sustain the credits. In 1991, Shanghai developed a public system to finance the cost of buying a house which granted fund to the real-estate developers in order to build new houses. The most important reform was in 1998 when the state adopted a new Directive in order to increase the number of households that lead due a real " housing bubble".

Figure 2: Evolution of overall household saving rate (1978- 2009) %



Source: Authors' calculation after Federal Reserve Bank of Saint Louis, 2012

We can compare this percentage with the state reforms. When the state was responsible with household granting, the savings rate was only 2.5%. At the beginning of 1990 it was 20 and 25%. The more important raise was registered between 1994 and 2008. 2008 marked the year of the fiscal package stimulus

implemented by the government as a response to the financial crisis. As a result, a large number of people gained access to credits in order to acquire a house.
In regards to corporate savings, an important factor is the tendency of firms to retain earnings. According to data from Worldscope, more than half of China's listed companies in the industries have not paid any dividend over the past decade. In comparison, in countries like India, Singapore, Korea, Japan the percentage was around 30%. In 2008, only, the profit reported by Chinese listed companies was of only 36 percent of the total profits recorder by all companies. The same authors argued that the high rate of corporate saving is due to the high rate of State-owned companies because of the fact that leadership and corporate savings are a key element in achieving the current account surplus. The rate of payment of dividends, which reflects the percentage of earnings paid out as a dividend to shareholders decreased by 10% since 2001. Due to the role played by these gains, increase corporate savings withheld are closely linked with the growth of corporate profits. Their earnings were around 30% per year, from 2000 onwards, the wage growth rate of 15% per annum. One of the explanations for this increase in profits could be caused by a surplus of rural labor capital factor that increases wages and outlasted wages increase and boost profits. The assumptions regarding the causes of earnings were retained. Here we mention as possible causes, few dividends paid by Chinese firms. And as explanation of why most net gains have been retained by these companies - namely underdeveloped financial system and poor corporate governance, low access to credits of small companies that could lead to a decrease in wages that brings low productivity and low profits. Other reason might be the entry barriers that limit the development of services in which labor is very important. We also have to consider the fixed exchange rate and the interest rate. There are other economists that say that this exchange rate leads to an increase in household savings and other that state that it is a confusing role between the exchange rate and current account because China’s exchange rate fluctuated along the years and renminbi is stronger than other currencies from emerging countries(Chinn and Wei, 2009).
Sources of disposable income and governmental savings (million Yuan) are, according to Central Bank of China value added in production (1), labor compensation (2), net taxes on production (3), net income from production (4), net current transfers (5), disposable income (6), consumption (7). We calculated the total net income as (1) + (3)+ (4) + (5)- (2) and savings as Savings (6)- (7)
The percentage of Government saving rate has fluctuated quite a lot, at a level below the 4.4% between 1992 and 1999, reaching a minimum of 2.6% in 1999 to a level of 10.8% in 2007. Disposable incomes of the Government, composed mainly of Government production, property income, taxes on production, income from taxes and social security income without compensation on the labor increased from 1608.9 billion Yuan in 1999 to 6308.4 billion Yuan in 2007. The increase in revenue from taxes on production contributed most to the increase in government revenues during this period. This was mainly due to the increase of investment in that country as a result of cheap labor and aid offered by the authorities to increase the use of the labor cooperatives in the country. It also led to an increase in the number of branches created by multinational companies in the country. It also lead to an increase in net taxes to 65% in government incomes. The main foundation was the1994 fiscal reform. Thus, from a low level of net income as a percentage of GDP at the beginning of the 1990’s, effective system of tax collection, along with a growth of approximately

10% per year growth led to an increase in Government revenues from 1999 to 2007. The second largest contributor to government revenues are net current transfers. According to the data provided by the Central Bank, the Government has shown a consistent increase in revenue, and an increase in government savings. All of these contributed to China's image of "rich country, poor population". However, although we note a striking change in relation to the revenue collected by the Government and as a result an increase in the rate of accumulation, tax collection percentage remains low compared with other economies such as Japan, the US and Germany (Yang et al., 2011).

It is obvious that the aggressive growth policy has facilitated the increase in saving. And monetary policy, which is supposed to have a decisive role and a strong impact on long-term interest rates and economic activity in general will affect corporations largely through the establishment of future revenues and dividends paid. It therefore directly affects savings rate of corporations. Monetary policy by determining the interest rates on deposits will directly affect the population and their saving rate. It led to the increase in government revenue.

There were a lot of voices during the years that talked about the effects of high rates of savings in the long run. Under the terms of 50% savings rate, consumption was sacrificed. Keynes said that "consumption-to repeat the obvious-is the goal and the ultimate objective of all economic activities". The high saving rate has allowed the Government to adopt policies of rapid growth. Unlike other developing States with high volume of imports the promotion of exports (partly due to the high level of savings) it allowed the development of several industries and also the creation of preconditions for technological development. There are voices, such as the Economist (2008) in which the economist Lardy highlighted the fact that the level of savings helped save the banking system, blamed for the large number of non-performing loans. Furthermore, it argued that the revenue brought in by households savings has helped to sustain the banking system by boosting savings deposits.

A lot of economists have expressed concern over this increase in current account surplus from China. They warn that it grows more than the world's capacity to absorb. Meanwhile these flows are likely to become even more dangerous in the context of all the austerity measures adopted by several countries that made the aggregate demand to decline. This has left many countries under the threat of „liquidity trap" in which the Chinese trade surplus could be interpreted as a policy of so-called "beggar-thy-neighbor". This exports the unemployment from China as a country in the period of economic boom to countries with already high levels of unemployment and low rate of GDP growth.

Among the most notable and obvious developments of Chinese economy there were impressive growth rates on both saving and exports, thus the current account surplus. These indicators have had an upward trajectory, especially after China's accession into the World Trade Organization (WTO). And this impressive accumulation of capital, including during the crisis have resulted in an increase of foreign reserves, almost 3 times higher than those of Japan, the second place in the world in this perspective. It is obvious that with WTO, China's business climate has become more attractive, and the profitability of firms has increased. However, due to the institutional rules that were meant to facilitate the promotion of exports, a large part of these gains have been saved in the corporate sector or collected by the Government, which has led to higher savings rate. This, along with low consumption,

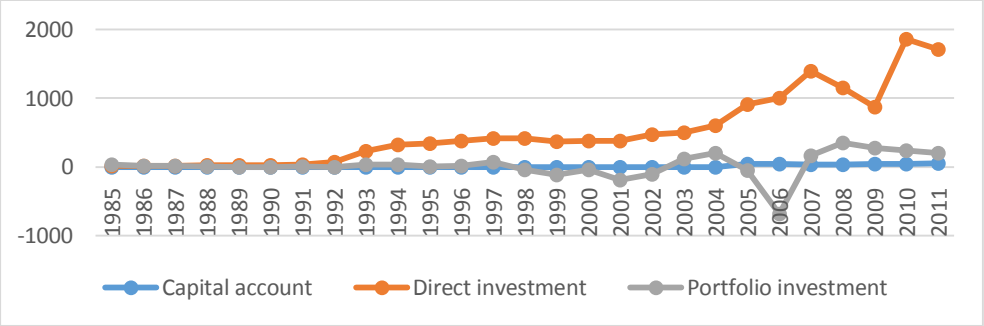
low demand for imported goods and the growth of households' saving rate has resulted in deepening macroeconomic imbalances.
Furthermore, these imbalances are a real danger, particularly for an economy like that of China. Low consumption rate as a percentage of GDP implies that the rapid economic growth of China in recent years has been encouraged by domestic investments and foreign growth. And this practice by supporting increased growth and trying to avoid external shock and limiting unprofitable investments will become more and more difficult in light of the current economic crisis and the turbulence generated by the euro zone crisis. Moreover, due to massive foreign reserves in dollars or bonds denominated in euros, China is subject to major risks in case the euro and the dollar depreciates (Sheng and Liugang, 2011).

3. The external account balance of China – the present situation

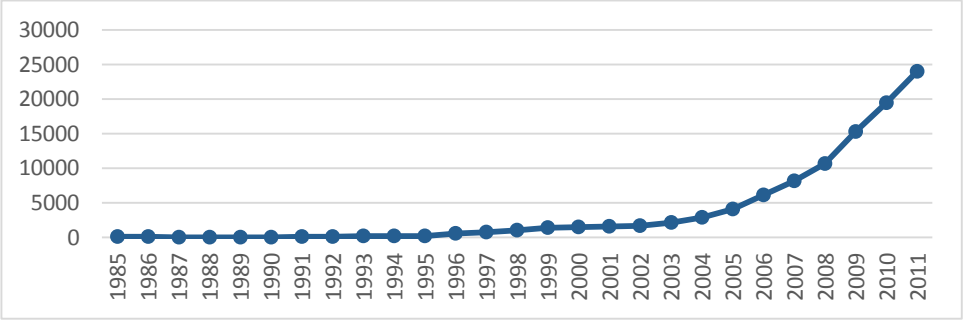
The balance of payments includes payments and revenues made by a country that reflects all stock flows across the border of a country with the rest of the world over a period of time. To analyze China's foreign imbalances we consider this flows as being most representative of the current account, foreign direct investment and foreign currency reserves.
We will analyze the most important trends of China in the external account balance. Thus, we will consider the evolution of the balance of the current account, the capital account and the foreign currency reserves during 1985-2010.

Figure 3: International balance of payments of China 1985-2010
2.1. Current account evolution (100 million USD)

2.2. Capital and financial account evolution (100 million USD)



2.3. Foreign reserve evolution (100 million USD)



Source: Authors' calculation after State Administration of Foreign Exchange

In regards to trade development, we note that there are undetectable imbalances at the beginning of the 1990, even deficit being recorded in some years. A significant change is noted as from 2001, the surplus grew considerably, especially in the years 2005-2007. On the other hand we have highlighted the development of trade in goods and services. There is a similar, sometimes identical to the developments in the current account surplus.

Although we note an increase in the surplus in the beginning and middle of 1990, we can say that the capital account was more or less balanced even before the entry of China into WTO (2001). After this event, however, the current account recorded a surplus due to the opening of the economy. We also have a large increase in foreign direct investment since the beginning of the 1990. Moreover, China has become the second most attractive country for such investment, after the United States (according to the data supplied by OECD). In the light of the financial crisis in 2008, both foreign direct investment and portfolio investments decreased, but remained at a high level, reaching in 2010 to a surplus of 4% of GDP. All these major surpluses in the current account and the capital account resulted in an explosion of foreign currency reserves. In 2000, China held 10.9 billion dollars in reserves, equivalent to 0.9 percent of GDP. In 2012, according to the US treasury has reached the level of 45% of the GDP in 2011. Much of China's assets are invested in US Government bonds with a slow recovery.

If balance of payments statistics recorded stock flows across the border in exchanges and capital, net foreign assets statistics provide the capital position in the economy's related to financial assets and liabilities. A surplus in the current account is flagged with an increase in net foreign assets, while a deficit of current account brings a drop in net foreign asset position (Yang, 2012).

And as the current account surplus kept growing after 2001, it became increasingly clear that accumulating foreign reserves is directly connected with the fixed exchange rate policy. Thus, it is a continuous expansion of current account surpluses and capital inflows. With all the efforts of the authorities to limit the increase in reserve requirements by trying some of the stresses and strains of withdrawals capital they proved ineffective in light of the fixed exchange regime.

According to data supplied by the same source, SAFE, in 2011, in just 10 years after the onset of the fulminating expansion of China after the year 2000, China has gradually become a major creditor of the whole world. Thus, in these 10 years the position of foreign net assets grew from a borrower's debt of 6.2% of GDP in 2000

to a net lender about 30.5 percent of GDP. And here, a very important role was played by the foreign currency reserves as it reaches even half of GDP. The top 10 countries in this statistics hold together 2/3 of the total foreign exchange reserves in the world. For a country considered one of the major contesters of the role of the dollar on international markets makes an important job in enhancing this role. Through the enormous quantities of dollars bought, China maintains, artificially the price of the dollar high and the price of its own currency, artificially low- thus promoting the dollar as a reference currency. In order to maintain fix exchange rate the Chinese authorities buys every day 1 billion USD from the exchange market (Bergsten, 2010). The same tactic is observed at Hong Kong, Malaysia, Singapore, Taiwan in order to maintain a competitive position versus that of China.

There are different opinions towards the role played by the surpluses and deficits in realizing economic growth. Imbalances are general considered dangerous. And along the time, the developed countries proved this theory.

According to Figure 2, several imbalances are noticeable along the years. We note, for example, in 2005, that developed States registered surplus, while those emerging states registered deficit. From the beginning of 2000 and until 2010, the situation was reversed. If we look at the situation in 2000 up to the years of the crisis, in 2008 we can say that the developed States' deficit was increasing and the emerging States surplus grew even four times since 2000. However, the developed States registered important economic growth. By the year 2008 China's situation had changed, reaching a surplus of 435.9 billion dollars, 15.1 percent of the total surplus recorded by the entire group in transition. In 2008, the U.S. had a surplus almost double than that of China, and three times as high as that of Germany. As China had the largest surplus of emerging countries, emerging group reached half of the surplus recorded in 2008, and developed countries have reduced the deficit four times as compared to 2008.

Table: Global current account balance (billion USD)

Country	1995	2000	2005	2008	2010
Developed economies	29,8	-270,6	-411,2	-471,8	-95,5
Japan	111,4	119,6	165,7	157,1	194,8
USA	-113,6	-416,4	-747,6	-668,9	-470,2
EURO zone	70,5	-39,4	41,4	-86,7	11,6
Germany	-29,6	-32,6	142,8	245,7	176,1
Spain	-1,8	-23,1	-83,3	-156	-63,3
Other advances nations	-38,5	65,6	129,7	126,7	168,4
Norway	5,3	25,3	49,1	79,9	53,3
Australia	-18,4	-15,3	-41,7	-47,2	-31,7
Emerging countries	-92,2	95,2	443	704,2	378,1
Asia	-36,9	41,7	167,5	435,9	308,1
China	1,6	20,5	160,8	436,1	306,2
India	-5,6	-4,6	-10,3	-24,9	-49
Middle East and North Africa	-1,2	80,4	212,7	343,1	152,8
Sub Saharan Africa	-9,9	2,1	-3,4	0	-24,9
Latin America and Caribbean's	-37,9	-48,4	36,3	-31,2	-56,9
Central and Eastern Europe	-10,2	-28,9	-57,7	-151,3	-76

Former Soviet Union	3,8	48,3	87,6	107,7	75

Source: IMF, World Economic Outlook, 2011.

4. Conclusions

Thus, the most important role that the savings rate will play in creating imbalances in the Chinese economy is the external savings rate. Thus, we analyzed several pathways through which it could achieve a decrease in the short or long term in external savings rate. Even though this rate of accumulation is due to long term causes we believe that in the short term, certain actions may prove successful.

- On the short run:

Considering the fact that the current account surplus is the difference between national investment and national savings, we can say that encouraging private investment can be a solution even though it may not affect national saving rate. If a large portion of those savings would be attracted to the national investment, the result would be a decrease in foreign savings and it will eventually lead to a fall in unemployment, and perhaps even to an increase in the labor productivity.

Encouraging private investment is important, as all short term economic stimulus packages have encouraged domestic investment. A short-term economic policy to encourage public investment from the Government could lead to a fall in unemployment and the rural and urban infrastructure, as example. Other short-term solutions could stimulate private consumption through the granting of tax exemptions for owners of small and medium enterprises to promote investment in new equipment and modernizations. Another way would be to boost household consumption. Because of the reasons listed above in this analysis this could prove difficult due to the consumption habits. However, a solution could be the lowering of fees such as taxes on property or cars or others.

- On the long run:

One of the long-term solutions that could be taken into consideration could be the development of the banking and financial system and to modernize the social security system in order to reduce the rate of saving, which would have a beneficial effect upon encouraging consumption. Carroll (2010) proposes a system of "pay as you go" in order to resolve the problems of the pension scheme. Through it, payments of fees from the active labor force would be used to finance the pensions of current elderly. It would bring a sense of security among people currently employed by creating a secure income in the retirement years and it will lead to a decrease in the rate of saving. Also, we might add here a solid system of insurance in case of loss of employment. There might be introduced a series of limited-term income to encourage finding a new job. Also, we recommend creating a developed and competent social health insurance to cover the cost of daily care problems and some extraordinary costs as well, in order to discourage population to save as to get good health package.

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