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Economic Adjustment in the Aftermath of 2008

Financial Crisis:

**A Case Study on the Chinese Economy under
the Stimulus Package**

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Abstract

The Chinese economy has been increasingly integrated into the global market, and thus has been severely hit by the outbreak of the Global financial crisis. With the introduction of the stimulus package that was launched in 2008, the economy has been affected by the stimulus package and the changes in macroeconomic policy significantly. The aim of the research is to provide a thorough analysis and assessment of the effects of the package on the economy, and possible policy recommendations and insights to the future development pattern will be provided in the thesis.

Key words: Crisis management, adjustment policy, stimulus program

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Table of Contents

1. Introduction	3
1.1 Aim And Research Question	4
1.2 Limitations	5
2. Methodology and Theory	6
2.1 Research design	7
2.2 Theory.....	8
2.3 Data.....	10
3. The Stimulus Package – General Review and Assessments	12
3.1 Facts and assessments of the stimulus plan	12
3.2 Literature review on crisis management.....	18
4. Thematical Discussion on the Stimulus Package	23
4.1 Effects on general economy and money market.....	23
4.2 Effect on labor market and employment.....	29
4.3 Effects on trade and investment.....	30
4.4 Effects on social protection – welfare system.....	32
5. Summary and forward-looking analysis of the Chinese economy	35
References	40

Economic Adjustment in the Aftermath of 2008 Financial Crisis:

A Case Study on the Chinese Economy under the Stimulus Package

1. Introduction

In recent years, the Chinese economy started to be increasingly involved in the global market under the ongoing process of globalization. Due to its close link with the global economy, the great impact of the international processes on the Chinese economy can be easily observed. The Economic stimulus plan, introduced as a response of the global financial crisis by the State Council of the People's Republic of China on 9th November 2008, has played an important role in shaping the country's economy in the subsequent few years, bringing changes that are both positive and negative viewed from different perspectives.

With the outbreak of the Global financial crisis in 2008 the Chinese economy experienced rather strong shocks. In the period between 2003 and 2007 the growth rate in China has reached unprecedented level, sustaining more than 10% of annual growth of GDP over the years. However, the crisis has influenced the economy to a large extent, where the downturn in export was the contributing factors to the slowdown of the growth. Furthermore, the investment rate has decreased significantly as well, while the industrial production has been reduced.

The economic situation in China is characterized by unprecedented complexity especially since the domestic slowdown caused by the global financial crisis. The initial response from the government to the shock has been exceptionally vigorous. In order to prevent the further downturn of the Chinese economy, the introduction of the stimulus plan was considered to be of great necessity. The stimulus plan is combined with the implementation of the expansionary monetary policy as the major method of combating the increasing unemployment level and bringing the growth rate back to the desired level. The large investment brought through the stimulus package is aimed at building basic infrastructure and constructing the social welfare safety net. Overall, the stimulus program can be viewed to be consisting of three interrelated components: an investment plan, a set of funding mechanism, and a series of industrial policies.

At the first stages after the introduction of the stimulus package the overall economic performance of the Chinese economy was rather satisfactory. However, with a range of problems existing in the management of the package many backdrops started to be revealed subsequently. Thus in this research emphasis will be given to assessing the appropriateness of the economic adjustment policy after the crisis in general, as well as analyzing and weighting the pros and cons it has brought along.

1.1 Aim And Research Question

The main issue being analyzed in the thesis concerns the economic adjustment of the Chinese economy in the aftermath of the 2008 Global economic and financial crisis, which included a range of policies aimed at macroeconomic stabilization and the stimulation of the domestic economy.

The focus of the research will be devoted to showing that although the stimulus package is considered to be necessary for bringing the economy back to the right track, there are also certain problems within the stimulus plan, which led to some harmful results to the general economy, and thus a thorough discussion will be presented in the discussion in the parts. The research can be viewed as a state of art study, where efforts will be given to present evidence arguing that despite a range of merits the stimulus package has brought along, there are certain imperfections about the plan in general, and a significant part of the research will be based on reviewing the assessments of the stimulus package.

The thesis will make an attempt to answer the question of whether the stimulation package was bringing more benefits or rather harms to the Chinese economy in the recent years. Both positive and negative aspects of the adjustment policy will be brought forward. Whereas there is a range of benefits, including the sustained growth of economic development, high level of employment in the sectors both directly and indirectly related to the construction, there are also backdrops such as the emergence of the bubble economy with incredibly fast growth in real estate prices leading to increasing levels of inequality and debt on the regional level. At the same time, issues such as the appropriateness of high level of government intervention against market

regulations and natural business cycles, and subsequent sectorial crisis remain to be unsolved and debated problems. It will be argued through a thorough discussion that there are limitations within the stimulus package that should be stressed and dealt with. In the concluding part of the thesis a brief policy recommendation will be presented based on the conditions already existing in the Chinese economy.

The research is devoted to analyze the stimulus package and its impacts on the general economy of China based on the already existing literature dealing with the problem. The subsequent discussion will bring the topic up to a theoretical level to reach a deeper understanding of the issue in question, which will be seen as the contribution of the whole research.

1.2 Limitations

The first biggest challenge of the whole research is the fact that the adjustment policy is an ongoing process, where the scholars around the world are still having many intensive discussions and debates about the outcomes of the rescue package. As the effects are still on the way and the country's economy is still under its influences, it may be difficult to draw some explicit conclusions regarding the true implications of the policy, albeit even the things that happened in the past, nevertheless, always require continuous studies, which is the significance of Economic History. Nevertheless, the explanations that are considered to be valid will still be argued and justified throughout the research based on the evidence from the past few years.

There is a second challenge in conducting the research. The economic theories will be used extensively in a simplified manner. However, as we know, the reality is never the same replication of the theory and things are much more complicated in the real world than it is in theory, it may be an ambitious work to assess such a complicated economic process under the policy package.

Furthermore, in this research no empirical estimation will be made, but rather, there will be a thorough discussion brought up to a theoretical level. There is large number of studies done analyzing the nature and the impact of the stimulus package, all from

different perspective, ranging from impacts on macroeconomic to labor market and beyond. The research is carried out based on a review of the already existing studies and statistics collected by different organizations and institutions, and there are no new estimations throughout the research.

There is one limitation in using the official statistics, as it was mentioned above, cannot be “trusted” totally due to the fact that even the data published by the major institutions may be revised and changed. In this regard, it may be good to collect even more data from different sources to avoid the biased data presented by a single institution due to its own needs.

Regarding the statistical data, the focus will be placed on presenting the data from the years immediately following the introduction of the stimulus package. However, there will not be an update till recent days, since there are quite a number of other factors that have influenced the economy, which would make the picture more complicated, and that is beyond the topic of the direct effects of the stimulus package on the Chinese economy.

2. Methodology and Theory

The methodological choice made here is to have an investigating and exploring way of carrying out the research, where the numerical data play a major role in the research process. But the main reason justifying the use of the chosen method is that the research is evaluating and discussing the research topic rather than testing some possible hypothesis. In the research there is a need to have measurable data that examines the case and effect of a specific context, as a consequence, the research question is rather specific and quite open-ended, and the data presented in the thesis will be used as a means to prove the validity of the observed phenomena.

In this specific research, data presented in the form of numbers are needed in order to show the relevance and correctness of the main arguments. For instance, in order to see the economic outcomes as a result of stimulus package, evidence about the

changes in labor market including the employment/unemployment rate, investment level, interest rates, and other indicators are required to gain the understanding of the country's situation.

As noted above, the research is rather theoretically speculative. Within the paper the relationship between theory and research is examined in a not deductive manner as it is not hypothesis testing. Theoretical issues serve as the driving force towards the formulation of a research question, and the subsequent collection and analysis of relevant data feed back into the theory and the observations.

2.1 Research design

In order to understand the effects of the stimulus package on the functioning of the Chinese economy and assess it based on the macroeconomic theories and the already existing research on this topic, backed up by the economic indicators in the form of numerical data, the research has taken the form of a case study to give an answer to the research question regarding whether the stimulus package has brought more benefits or rather harms to the economy, and of a consistent analysis of the main argument presented in the beginning of the paper.

To clearly examine the effects of the stimulus package, the research is carried out on the basis of analyzing the issue using a quantitative approach. To be more explicit, quantitative data will be analyzed and used as a tool to support the arguments presented in the thesis. Since the research is devoted to analyze the stimulus package and its effect on the general economy in a thorough manner, the chosen method of interpreting numerical data can be considered to be appropriate.

In order to carry out the research and bring the discussion on a higher theoretical level, a number of already existing literature dealing with different aspects of the influence of the package on the economy has been reviewed and discussed. Studies have been done by many researchers on the influence of the stimulus package on the general economy, the labor market, trade and investment, as well as social welfare sector. The literature was classified according to the themes and has been discussed based on the

theoretical ground. In this thesis the different views backed up by numerical data are discussed in a thorough manner. In this connection, the contribution of this research is to critically assess the direct impact of the stimulus package on the Chinese economy in the years immediately following its implementation, which brings it up to a higher level, digging in the original explanations of the existing phenomena as an outcome of the introduction of the stimulus package. The understanding of the topic and the forward-looking analysis in the final part of the paper will bring more room for discussion which will in a way provide directions for future development.

2.2 Theory

In this part of the thesis the most important macroeconomic theories, which can be applied when discussing the Chinese economy under the stimulus package, will be brought forward. These theories represent the most prominent processes that are happening in the economy, and are used as the tool to analyze the issue by looking at the fundamental rationales behind the economic processes. As it has been mentioned above, this will bring the whole discussion up to a theoretical level.

In this thesis several macroeconomic theories will be used to show the development patterns the Chinese economy has been going through in recent years. With the implementation of the stimulus package, monetary policy, which was adjusted to the period of economic recovery, has been characterized as expansionary, where the money supply has increased and also the lending conditions have been eased. Such adjustments in the monetary policy were meant to support the implementation of the stimulus package to reach its highest potentials. In the long run, the inflation rate is determined by the rate of growth of money stock, thus the faster the growth rates of money supply, the greater the level of inflation (Burda & Wyplosz, 2009: 219). Even though the main task of a country's monetary policy is to sustain the price stability over the long run, money is not neutral in the short-run, where "A lower interest rate or more abundant money supply leads to an expansion of output and employment" (ibid). Conversely, a tighter monetary policy results in output slowdown and a rise in unemployment. In practice, the expansionary monetary policy has boosted the economic growth but also caused the occurrence of the bubble economy in China.

The expansionary monetary policy and its effects on the Chinese economy will be further discussed in the following parts of the thesis.

The introduction of the stimulus package and the changes in monetary and fiscal policy in accordance with the package aimed at helping to realize its full potential has its theoretical background based on the multi-dimensional and multi-phase Keynesian-type stimulus package. According to the Keynesian theory the fiscal and monetary stimulus can boost up output production. The fiscal policy is appropriate when the unemployment rate is persistently on a high level. The stimulus is considered to be efficient for raising the output level and increasing the flow of money to accelerate the circulation which is beneficial for spurring business optimism.

Under the effects of the stimulus domestic production level can be raised, subsequently leading to the increase in income and savings, which in its turn results in higher investment level. Furthermore, the accompanied government spending in investment of public goods such as education, healthcare provision and infrastructure can contribute to sustaining high economic performance in the long run.

When analyzing the goods market the theory with IS curve can be used, since the growth pattern in the Chinese economy follows the theory clearly. The downward sloping IS curve depicts the negative relationship between the interest rate and equilibrium output (Burda & Wyplosz, 2009: 243). Under the IS scheme, the higher the interest rate is, the more it is capable of reducing the private spending on investment, which consequently reduces demand and, via the multiplier, equilibrium output. On the contrary, as it is in this specific case, the easy credit conditions and the increased volume of money supply raises the output level significantly, which was the objective of the stimulus plan to stimulate the economy and bring it back to the right track and sustain the high growth rate in continuation to the pre-crisis time.

When it comes to the labor market, the stimulus package was aimed to reduce the unemployment rate which was rather high under the negative effects brought by the crisis. However, certain sacrifices should be made when aiming to achieving some results in other fields. As it turns out, there is a clear negative interdependence observed between the wage inflation and the rate of unemployment. Such pattern can be depicted by the Philips Curve, which is commonly viewed to be an practical tool

for policy-making, where with its help the policy-makers can aim either at low unemployment but having substantial inflation, or either targeting at lower inflation but at the cost of high employment (Burda & Wyplosz, 2009: 258). Once decided, it is possible to reach the desired point on the Philips curve through the regulations in monetary and/or fiscal policy). According to the interpretation of the supply curve, in order to boost the wage and profits, an increase in inflation is necessary (Burda & Wyplosz, 2009: 353). Specifically in this case, once again, its validity is proofed, since with the increase in employment rate the inflation was observed to be rather high during the recent years.

At the same time, the expansionary monetary policy can be transmitted via interest rate, asset prices, bank credit, as well as exchange rate. Under the stimulus package the monetary policy was transmitted through all these channels. Such transmissional mechanisms can be noticed in the Chinese economy, where the interest rate was reduced, while the market value of assets was being affected by the interest rate. When the central bank reduces the interest rate, the stock and bonds prices, as well as the housing price tend to increase as a result.

It is argued by some researchers that there is a certain “China model”, which contributed to the rapid recovery of the Chinese economy. The reason behind that fact that China succeeded to be among the first countries that managed to escape from the economic downturn by demonstrating strong tendency for recovery is that the Chinese system is characterized by a unique mechanism of resource allocation, macroeconomic decision-making process, which served as a rather powerful tool when it comes to withstanding the economic recession that hit the world economy severely (Ji, 2010). Furthermore, the unique features of the Chinese economy with the large number of state enterprises that are compatible with a market-oriented economy are of great importance when it comes to stimulating the economic activity (ibid).

2.3 Data

To carry out the research successfully, two main data sources will be employed, namely, data derived from the major institutions and data collected from secondary materials in the form of peer-reviewed works.

In the research secondary sources of data collection were used, where the already existing studies served as a major source of the data used in the discussion. Large amount of statistical data are collected by economists and are summarized, interpreted and presented in their own works, and these data were used extensively throughout the research process. Moreover, data are also collected by government departments and their various representatives in the statistical form and can be used for the research. For instance, the annual report published by the Chinese national bureau of statistics can be viewed as a reliable source of data extraction.

In this research secondary analysis is used, where there is a discussion of previously collected and analyzed data. It is argued that there is a number of advantages to employ this method, both in terms of the fact that it is cost- and time-saving, and also in terms of quality and accessibility. Furthermore, such data are considered to be sufficient to make a contribution to proving the presented arguments, confirming the validity of the arguments by showing it on real examples (Bryman, 2012).

However, since the research topic concerns a process that has occurred rather recently and the process is still ongoing, the reference sources are rather limited both in quantity and might be in quality, since many of the sources are quite unofficial, ranging from both reliable scientific articles and government reports to news articles in journals or internet. Nevertheless, attempt will be made to explore more reliable sources of data and avoid the occurrence of possible biased data.

The argumentation within the research is based on the data from officially published statistics, thus there are not so many concerns regarding the ethical principles. The main issues in the ethical principles are defined as the harm to participants, lack of informed consent, invasion of privacy and the problem of deception. The research will be carried out in a simple, widely used manner. More discussion on the data collection and methodological choice will be presented in the following parts of the paper.

As it was noted above, the research is rather specific and rather open-ended, and which is one argument justifying the use of data as the important source of data for

conducting the research successfully. In this research its data collection is constructed depending on the presented hypothesis and the process is described as entailing the collection of data.

In this specific research, theoretical issues serve as the driving force towards the formulation of a research question, and the subsequent collection and analysis of relevant data feed back into the theory and the main research question of the research. In this specific research emphasis is given to show that due to a number of problems existing in the stimulus package, the economic performance was influenced by the package extensively, however, the stimulus package has not explored its whole potential due to the mismanagement, but it was of great importance and the main contributing factor of the successful and rapid recovery from the crisis. In this case, macroeconomic theories and data will be tied up to back up the presented arguments.

At the same time, however, in this research the data will be used in the form as they are collected, and no econometric analysis will be used to interpret the data in a new way. Rather, as it was noted above, the research will present the information in a descriptive way to validate the discussions and analysis.

3. The Stimulus Package – General Review and Assessments

3.1 Facts and assessments of the stimulus plan

In recent years the question of sustaining high rates of economic development in China has become a widely discussed issue, and the Chinese government has been working hard to realize sustainable development over years by adopting and implementing a range of policies aimed at stabilizing the economy and maintaining the growth. Prior to the crisis China's economic development was remarkable judging from the growth rate sustained over years with its unique features. GDP growth was as high as 13% (National Statistical Bureau of China, cited 18 May 2015). Private

consumption was quite low at the level of 35% compared to other countries while public consumption constitutes 13% of GDP. At the same time, net exports accounted for 20% and gross capital formation contributed 41% of GDP growth (Schmidt & Heilmann, 2010).

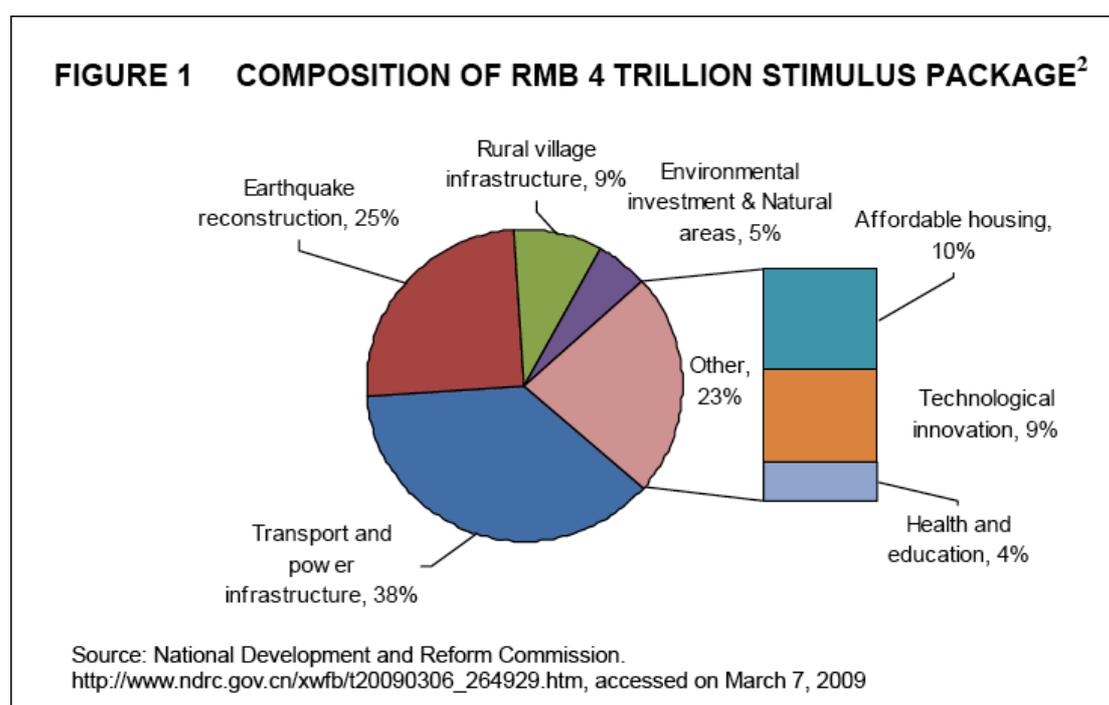
However, with the outbreak of the global financial crisis the economic downturn that came along has brought some significant impact on the Chinese economy. As a consequence of the close link with the global economy the Chinese economy was severely hit by the crisis, resulting in a decrease in GDP growth from 10.6% in the first quarter of 2008 to 6.8% in the fourth quarter (National Bureau of Statistics, cited 11 May, 2015) and subsequently to 6.1% in the first quarter of 2009 (Ji, 2010). While in 2008 the growth rate in both exports and imports was still kept on a two-digit level, in the first half of 2009 export and imports decreased dramatically. The growth in trade volume fell from 23.3% in December 2007 to as low as -11.1% only a year later (ibid). At the same time, the trade surplus at the end of the first half of 2009 was 97 billion US\$. Not only the net export level fell, so was the incoming FDI that experienced a downturn since October 2008 and in the first half of 2009 it amounted 43 billion US\$ which was 18% lower than in 2008 (Schmidt & Heilmann, 2010). Moreover, the CPI was -1.5% in the second quarter of 2009 compared to 8% in the second quarter of 2008 (Ji, 2010). The unemployment rate, although according to the official statistics had only a slight increase from 4.2% to 4.3%, evidence show that in fact the number is much larger.

Based on the evidence from the general economy, it was clear that adjustment in economic policy, or more precisely, rescue package was needed in order to help the country's economy to recover from the crisis and be back on the right track. In this connection, the focus of the thesis will be placed on analyzing the benefits and backdrops brought by the stimulation package in the amount of 4 trillion Chinese Yuan directed to constructing railways, highways and basic infrastructure as a means of economic stimulation of the domestic economy and bringing up the level of employment.

China adopted one of the world's largest stimulus packages, and its macroeconomic policy framework was well tested throughout the period of global financial crisis.

Evidence show that the stimulus package was undoubtedly considered to be necessary and effective in terms of helping the economy recover from the crisis, and empirical evidence show that the package has stimulated economic growth after the outbreak of the crisis significantly, adding approximately 2 to 3 percent to the level of GDP in both 2009 and 2010 (McKissack & Xu, 2011). While it is obvious that the package has been playing a major role in coping with the negative effects brought by the crisis, the stimulus package is generally argued by a number of researchers that certain imperfections in the design of the package exists, judging from the distribution of funding and the allocation of resources. There are challenges facing the Chinese economy after the implementation of the stimulus package, including controlling the overheating of the economy, addressing future structural transformation having the current structural imbalances. It is generally accepted that there are pressures to rebalance Chinese growth and integrate China further into the world economy will facilitate the further policy changes in China's macroeconomic policy framework.

The investment plan on structural adjustment and social policy was officially launched in November 2008, where 4 trillion RMB was expected to be spread over 9 quarter, from the fourth quarter of 2008 to the fourth quarter of 2010. The distribution of the funding can be found in Figure 1 below:



Source: Tong & Zhang (2009)

The central government plays an increasingly active role in shaping the economic and social development trajectory, where it has committed to fund directly 1.18 trillion RMB of the investment, which constitutes approximately 30 percent of the overall program (Shen, 2011). According to the budget report presented at the National People's Congress, China started to experience budget deficit after the outbreak of the global financial crisis, where China has been affected severely. Based on the estimation in 2008, where China was forecasted to experience an increase a budget deficit to increase from the insignificant 0.1 percent of GDP to the deficit of 2.9 percent of GDP in 2009, it was considered to be appropriate to introduce a fiscal stimulus corresponding to 3 percent of GDP, to go along with the 10 percent of GDP credit stimulus (ibid). The stimulus package was thus introduced subsequently with the aim of minimizing the negative impact of the global financial crisis on the Chinese economy. However, there are many critics pointing out that the excessive investment led to the overheating in the economy.

The funding of the projects went through stages. During the investment allocation process the center gives the local governments the investment quota, i.e. the permission to include projects into the plan, or a list of approved investments, and then the funding is directed at the investment to implement the plans. However, the funding provided by the government is far from sufficient for funding all the local projects that have been approved. In order to reach enough funding for the projects, the central government has approved the following measures. First, given the fact that the local governments are not allowed to borrow money on their own the center has decided to issue 200 billion worth of treasure bonds, where the central government remains to be the issuer and sponsor of the bonds, while the revenue and the repayment obligations are incorporated into the local government budgets (Naughton, 2009). Also, a program of extra-long-term, concessionary interest rate bank loans has been implemented in order to provide paid-in capital for funding the projects. Furthermore, the issuance of corporate debt by the local government is increased. In the last quarter of 2008 and first two months of 2009, 130 billion RMB of corporate bonds were issued, and in March 2009, 25 billion of medium-term notes were issued in Beijing, Shanghai and Guangdong (ibid).

The stimulus plan is invested in the key areas including infrastructure, transport, housing, health and education, environment, disaster rebuilding, income-building, tax cuts. The 4 trillion RMB has been distributed among these sectors quite unevenly, and this problem will be at the center of discussion in the findings part where the problem of inefficient allocation of resources is dealt. The share of investment on infrastructure is as large as 38 percent of the stimulus package, while 25 percent is allocated to disaster rebuilding, 9 percent on rural infrastructure, 5 percent on environment protection, 10 percent on housing, 9 percent on structural innovation, and 4 percent on health and education (Tong & Zhang, 2009).

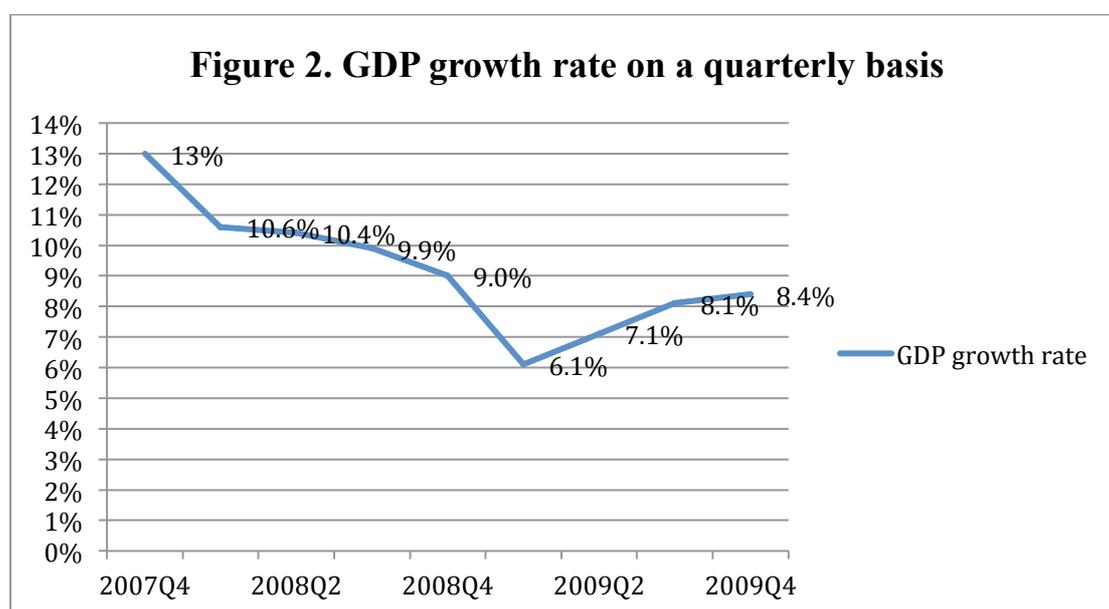
The state intervention was quite extensive as it has always been in China, realized in the form of public investment to stimulate economic growth. The same practice is widely adopted by the western developed countries alike for dealing with economic and financial crises since the time of Great Depression of the 1930s, following Keynes' theory focusing on the demand side.

The funding mechanism of the stimulus package is rather unique compared to the common practice used in the western countries. Compared to other countries where the funding is usually derived from the national government, most commonly as part of the regular budget raised through on government bonds, China is implementing the stimulus plan based on a large extent on the financing from local authorities with the help of the state-controlled banks (Schmidt & Heilmann, 2010). Unlike the common international practice of stimulus funding, the underlying financial risks are not actually included in China's state budget or in the balance sheet of the central bank. Rather, the underlying risks might only be noticed in the recordings of banking institutions. As it was pointed out by Schmidt & Heilmann, "In China we have witnessed a highly unusual role of the central bank that has in effect acted as a transmission belt for government orders to flood the country with liquidity" (2010).

A dynamic computable equilibrium model was developed by a research assessing the impact of the stimulus package by designing and presenting two scenarios of the economy, where the first one is with and the other one without the stimulus package. The model displays that GDP growth rate in 2009 could have decreased to 2.9% if there was no stimulus package introduced, while under the stimulus package the

Chinese economy grows 8 to 10% in 2009 and subsequent years, since additional demand on investment good was generated (Diao et al., 2012). Furthermore, the model shows that the overall gains of the stimulus package amount RMB 76 trillion of cumulative GDP growth between 2009 and 2015.

Being hit severely by the global financial crisis due to the high level of integration of the Chinese economy in the world market, it has bounced back rapidly after reaching its bottom and showed fast recovery from the second quarter of 2009, where the GDP growth rate was 6.1% in the beginning of 2009 but increased rapidly to 7.9% in the second quarter of 2009 (National Bureau of Statistics, data extracted on 10 May, 2015). The growth rate of industrial value-added increased from 5.7% in December 2008 to 12.3% in August 2009 (Ji, 2010). Moreover, investment in real estate grew up to 14.7% during 2009 and the import growth rate went up from -43.1% in January 2009 to -17% in August 2009 (ibid). Empirical evidence shows that the Chinese macroeconomy has displayed a V-shaped recovery in the past few years, which can be depicted in Figure 2 below:



Data source: National Bureau of Statistics

The stimulus package, generally speaking, has fulfilled its major tasks at least in the short term. However, it has so far considered to be not been enough in addressing the medium and long-term structural deficits faced by the Chinese economy. Furthermore,

it has even brought up some more issues – some of its “most salient imbalance” (Schmidt & Heilmann, 2010).

3.2 Literature review on crisis management

This section provides a review of the discussed topic will be presented. The literature being analyzed are seen as the core material in order to carry out the research successfully, and different themes within the topic are defined. There is a number of researchers who see the introduction of the stimulus package as beneficial for the Chinese economy, both in raising the output production and export level as well as in providing more job opportunities due to the infrastructure building. At the same time, many studies agree on the fact that the stimulus package could be more effective if more attention was placed on building the social protection system.

The Chinese economy has been growing over the years, thus attracting the attention of the researchers and policy-makers all over the world. A number of studies have been carried out on the topic of Chinese economic development, its growth pattern as well as the performance of the economy during and recovering from the global financial crisis. In this part of the thesis emphasis will be given to present different views existing in academia, where the economic performance prior and after the implementation of the stimulus package have been discussed from different perspectives.

Some studies show their optimism about the growth pattern of the Chinese economy and believe that has great potentials in growing further. It is argued by Ji (2010) that despite the fact that Chinese economy has been growing extensively over years, China will still manage to grow at high speed even if there will be a transition to the intensive growth pattern “that is sustainable at least in the intermediate term”. Moreover, Ji is pointing to the fact that China’s response to the financial crisis was “fast and successful”. Furthermore, it is considered that China is able to play an active role in implementing solutions to the current financial difficulties originating from the western countries, since China, being one of the largest economies in the world is in an increasingly larger extent integrated into the world economy in the recent years (Overholt, 2010).

In the study conducted by Diao et al. it is argued that without the introduction of the stimulus package the Chinese economy would not have been so successful at stepping out of the crisis in the relatively short period of time. The stimulus plan not only helped the economy to recover from the negative effects due to the global financial crisis, but also “provided China with a different engine for future growth through an enhanced domestic market” (Diao et al., 2012).

The understanding of the effect of the financial crisis on the Chinese economy and the way it reacted to eliminate the negative effects is very important when it comes to providing further insights for policy-makers and researchers alike. However, there is a lack of a common view on this topic regarding the model of China’s economic growth and its recovery process from the global financial crisis. On one hand, it is argued that the economic growth of the Chinese economy during the crisis was rather risky, which might bring some severe consequences to the further development (Makin, 2009). On the other hand, optimism is revealed in Woo’s study (2009) when it comes to China’s growth potentials. Based on the data from National Bureau of Statistics, China’s economic indicators have demonstrated that there is an accelerating process of recovery in the economy.

The stimulus package as the measure to handle the problem of the sudden deteriorating economic conditions as the result of the global financial crisis was the first and foremost program dealt by the Chinese People’s Political Consultative Conference and the 11th National People’s Congress. It was argued that China has responded to the crisis “swiftly and vigorously by putting in place a host of expansionary fiscal and moderately loose monetary policies” (Tong & Zhang, 2009), where the first two inputs were made between November 2008 and February 2009 in the amount of 230 billion RMB. In their criticism Tong and Zhang (2009) pointed out that the stimulus was heavily biased towards the infrastructure building and investment into the industrial sector, and the package can be considered as an efficient means to restore the pre-crisis economic development pace in the short run, but it might have become a factor for a less balanced development in the long run. The government made efforts in stimulating the increase in consumption by extending the household purchasing subsidy for home appliance scheme covering rural residents of

the country, as well as launching a graduate trainee program, encouraging the placement of university graduates through the provision of subsidies and social insurance (ibid). However, it is argued that “Policy initiatives addressing social security, pension and healthcare have so far been rather scattered. To correct the structural imbalance of China’s economy, a more fundamental shift in orientation might be necessary in the long run” (Tong & Zhang, 2009).

It has been argued by the authors that the distribution of the funding within the stimulus package should be paid more attention, where the main focus was placed on the investment expenditure, while only a comparatively very small fraction of the funding was directed at social security, pension commitments and healthcare: “Questions remained as to whether a more direct injection of funding into the social safety net should command more attention” (Tong & Zhang, 2009). Besides, having investment as the top priority and taking into consideration some other factors that are relevant to the distribution of funding such as a higher profit level the local governments and businesses are generally less interested on such important issues as medical insurance as well as environmental protection.

In general, Tong and Zhang are not very optimistic about the stimulus package and cast a shade of doubt regarding the efficiency of resource allocation within the stimulus package, where they argue that with a lack of focus placed on social safety net the effectiveness of a range of other consumption stimulating policies would have rather limited effect: “The scale and magnitude of the stimulus plans from both central and local government inevitably invite skepticism on efficiency and highlight issues of potential waste, suboptimal planning, unnecessary or meaningless projects and even corruption” (2009). Furthermore, it is argued that in order to correct the structural imbalances existing in China, a “more fundamental economic reorientation might be necessary in the long term” (ibid).

At the same time, Stiglitz is quite pessimistic about the effectiveness of stimulus package in general. It has been noted that monetary stimulus is considered to be rather ineffective, since over the years expansionary monetary policy usually leads to the bubble economy to sustain the consumption boom, which is in fact not desired (2008). And Zheng and Chen (2009) point out that consensus exists among Chinese scholars

and policymakers that there is a range of problems within the economy that expect an effective solution, where unemployment, market volatility, rapid slowdown of the growth rate and social security are included. It was said that even though the intention of the central government is directed at improving people's livelihood by boosting up the growth rate and thus increasing income and saving level, the local government and state enterprises are generally viewed to be preferring investing in more profitable infrastructure projects, like it was also pointed out by Tong and Zhang (2009). Furthermore, there is another problem associated with the intensive investment into infrastructure building, which is the potential for irregularities and corruption. In Zheng and Chen's point of view, in order to realize the highest potential of stimulating domestic demand, more attention should be given to carrying out radical reform of the social welfare system. It is argued that the stimulus package would achieve better results "if preference was given to projects related to securing people's livelihood instead of infrastructure construction" (2009). Nevertheless, the study shows that the stimulus package was indeed a necessary tool coping with the economic slowdown.

The view about China being the cause of global imbalances in the pre-crisis period was denied in Bibow's study. China has been successful in sustaining a high growth rate over years and played a rather positive role in driving the global economy out of the crisis. According to Bibow (2010), the biggest challenge faced by China is the task of rebalancing domestic demand toward private consumption that should be done through increasing household disposable incomes. Also, it is pointed out that "RMB stability and capital account management should continue to play their crucial role in maintaining policy space for implementing heterodox macroeconomic policies with a proven track-record of supporting growth and development.

In the research done by Ji the merits of the unique conditions within the Chinese economy were shown. Based on the indicators from the National Bureau of Statistics, there are clear signs of the accelerating economic recovery of the Chinese economy which was hit by the global financial crisis. It was argued that it is important to understand the specific institutional arrangement and decision-making process within the country.

In Ji's point of view, the main reasons for China's outstanding economic performance lies in the unique Chinese-style resource-allocation system, as well decision making process based on the gradualist approach, and moreover, "China's state enterprises are also able to take advantage of its market-oriented economy, and the combination of the two segments of the economy embodies an efficient transmission mechanism for crisis management and for stimulating economic growth" (2010). The China model suggested by Ji displays that the reason for Chinese fast recovery from the global financial crisis is not due to the implementation of the expansionary fiscal and monetary policies as it is commonly accepted as a means of crisis management, but thanks to the fact that "Chinese development policies and macro-regulations had made the economy largely immune to massive market failures" (Ji, 2010), including solid material foundations due to fast growth rate during the past few decades, the institutional arrangements where many forms of ownership exists combined with market-oriented resource allocation system with appropriate government intervention. Furthermore, China's banking system is effective at executing the decisions distributed from the central monetary authorities that ensure rapid and efficient transmission for the monetary policies. It was pointed out that evidence show the new economic activities within the market can be characterized as exhibiting a countercyclical pattern.

The target of sustaining growth rate at 8% in 2009 was the motivation to keep the trend of rapid growth from 2009 and thereafter, and China has succeeded to escape from the financial crisis. However, the negative effects of such enlarging measures under the stimulus package have resulted in raising inflation pressure and "going against the structure adjustment of three industries" (Shen, 2011).

In the point of view of Schmidt and Heilmann (2010), the stimulus program should be understood as a means of political signaling, where the strong commitment of the government to reverse course in 2008 aimed to stop the contractionary fiscal and monetary policies "designed to prevent overheating in the economy and instead mobilize all available resources to jumpstart growth again" at the same time. It was pointed out that the whole stimulus package was based on the investment-led growth patter which proved to be rather productive in the past.

4. Thematical Discussion on the Stimulus Package

In this part of the thesis a thorough discussion will be devoted to analyze the effects of the stimulus package on the Chinese economy. The effect will be classified into four sections, namely the effect on the general economy and the money market, effects on labor market and employment, effects on trade and investment, as well as effects on social welfare.

4.1 Effects on general economy and money market

The stimulus package has had a great impact on the general economy and the money market. It has been effective in sustaining China's GDP growth at a rather high level at 8%. In the first half of 2009 China's industrial output increased by 10%, and on the quarterly basis the second achieved 16.5% growth compared to the previous one, which is a rather dramatic shift (Schmidt & Heilmann, 2010).

The stimulus package with the focus on infrastructure building has played an important role in sustaining economic growth in China. Infrastructure development is proved to have positive contribution to growth, and through constructing it has indirectly benefited the labor market by creating more jobs. Judging from China's experience it can be sad that it is of great importance to design economic policies that improves both the physical infrastructure and human capital formation for sustainable economic growth (Sahoo et al., 2010). The positive role of infrastructure for economic development has been assessed in many researches. The economic and social infrastructure development is very important for achieving high economic performance. Investment on infrastructure is argued to create production facilities and stimulates economic growth, while at the same time reduces transaction costs, thus improves competitiveness. Moreover, it also leads to higher provision of employment opportunities (Sahoo et al., 2010). Overall the infrastructure development has contributed to improving the economic conditions, and especially in manufacturing sector and attracting foreign direct investment.

The rescue package was focused on stimulating the investment projects despite the significant dependence on investment and export demand. However, criticism was addressed to such focus, as there is the fear that a bias towards investment may occur instead of the increasing level of consumption, which is against the desired pattern of

development and the long-term objective of sustaining a more balanced development model in the Chinese economy (Tong & Zhang, 2009). Household consumption in China has been for a long time very low, where it accounted for around 50% of GDP in the late 1970s, but declining subsequently to 35% after 2000, compared to 70% of GDP in the US. Moreover, the government spending in China remains to be rather modest.

Significant changes took place in the composition of aggregate demand since the crisis due to the impact of the crisis and the subsequent policy responses to it. The net export declined after reaching the peak of 9% in 2007 to 3% forecast for 2010. In the years prior to the crisis the investment rate increased from less than 30% in early 1980s to around 40% in mid-2000s as the growth rate of the real capital stock exceeded GDP growth over years (Bibow, 2010). With the introduction of the stimulus package the investment share rose to 48%, almost half of GDP. Over time the private consumption level decreased from over 50% to only 35% in 2010, which is rather low compared even to other developing countries.

The Chinese economy was not severely hit through financial linkages, unlike the trade collapse it has experienced. Tight financial regulation and capital account management had prevented the economy from being vulnerable to the external circumstances. The low level of exposure of the Chinese banking system to credit risks helped the economy to avoid the effects of the global financial crisis. According to Bibow, “Together with the protection provided by huge ‘self-insurance’ reserve holdings, China enjoyed sufficient policy space to embark on its large stimulus program while keeping the RMB stable to the US dollar throughout the crisis” (2010).

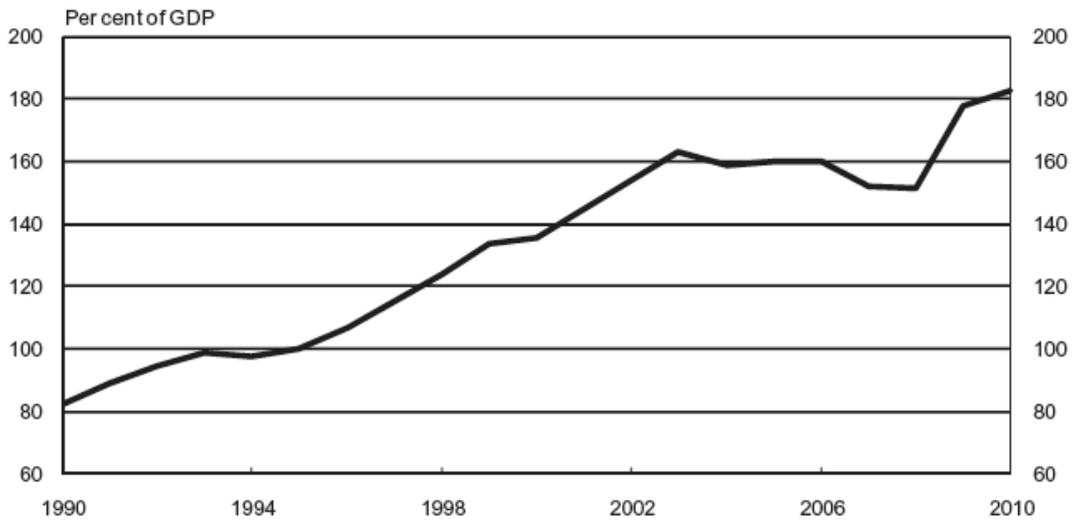
The moderately loose monetary policies introduced to complement the stimulus program played an active role in coping with the economic slowdown of the Chinese economy. The interest rates were lowered for the first time in over six years in September 2008, where the benchmark one-year lending rate fell by 0.27 percentage point to 7.2% (Tong & Zhang, 2009). Connecting this to the macroeconomic theory, it clearly follows the pattern depicted by the IS curve with the negative interdependence between the interest rate and output production (Burda & Wyplosz, 2009), which means that the lower the interest rate, the more output it brings along.

However, the overheating and the creation of the bubble economy are left to be among the most serious consequences the stimulus package has brought along. Since the transmission of the expansionary monetary policy can be transmitted via interest rate, asset prices, bank credit, as well as exchange rate, in the Chinese economy all these transmission channels were applied. Thus when the central bank reduced the interest rate, the stock, and bonds prices along with housing prices increased as the direct outcome. The expansionary monetary policy that was accomplishing the stimulus package has provided an increase in the money supply and easing credit condition, which resulted in the growth of broad money M2 to 28.6% in 2009, more than 10% of that in the end of 2008. The bank credit has grown very rapidly since the introduction of the stimulus plan. In the first quarter of 2009 the banking loans increased to a surprisingly high 4.6 trillion RMB. For comparison, the annual increase in bank credit in 2006 was just 3.18 trillion yuan and 3.63 trillion in 2007 (Sharma, 2012).

It can be viewed that the increase in bank credit during three months in 2009 equals to the total stimulus package over more than two years (Tong & Zhang, 2009). Such a rapid growth in credit is considered to be normal in the times of growing economy. As a result of the easy credit condition and increased money supply, where according to macroeconomic theory, under expansionary monetary policy the money supply is increased, the high rate of inflation has brought along asset price bubbles, and since 2008 the housing market in some key regions of China including a range of big cities signs of bubble inflating can be observed (ibid). This corresponds to the economic theory, in which in the long run, it is said that the inflation rate is determined by the growth rate of money supply. At the same time, the lowered interest rate and increased money supply are considered to be useful to stimulate the expansion of output and employment level. In the figure below the increase in China's money supply can be easily observed:

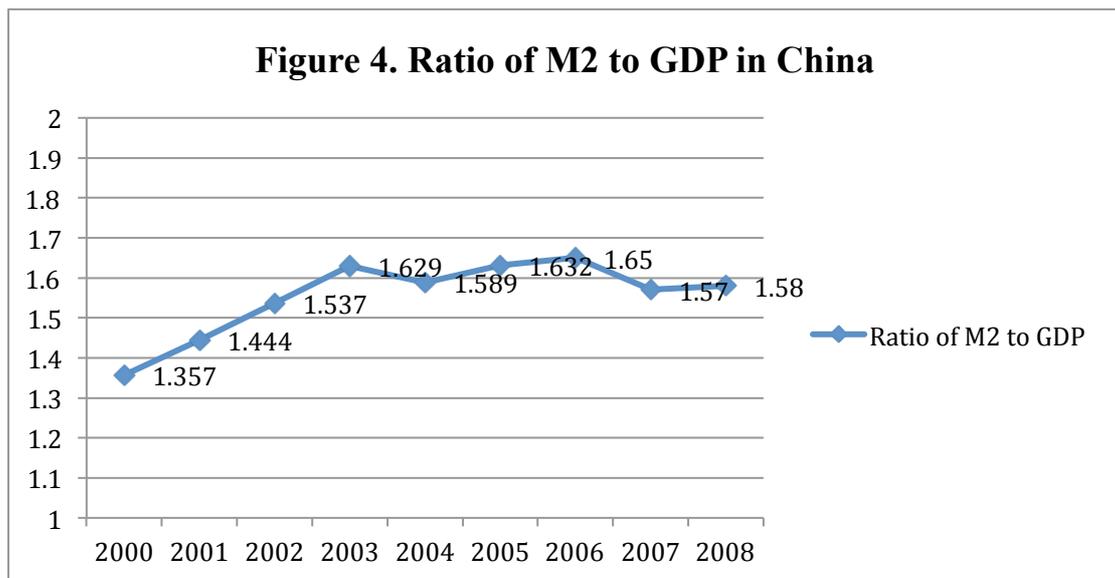
Figure 3. China's Money Supply

China's money supply (M2)



Source: McKissack & Xu (2011)

Further, the ratio of M2 to GDP has also a raising pattern:



Data source: China's Monetary Policy and Performance Report, 2002-2008

The fiscal policy implemented in China is considered to be well placed to direct large amounts of spending quickly into the economy. There is a high level of regulation of the financial sector and the banking sector is dominated by state-owned banks, where massive resources are controlled by the central government, since financial stability and economic security are viewed as part of the political goals. As it noticed by Yao and Wu (2011), “Intervention will play a role as a firewall to counterbalance losses

caused by financial volatility when confronting internal and external financial fluctuations”. This provides relatively good conditions for the newly adopted policy to be most effectively and efficiently implemented. The lending guidance is the main source for controlling liquidity in the economy. The People’s Bank of China (PBoC) is the key institutions in setting the annual overall lending quota for the banking sector (McKissack & Xu, 2011). Another policy tool, the Reserve Requirement Ratio (RRR), which is defined as the amount of bank reserves over the sum of deposits and notes, “reduces the amount of capital on the banks’ balance sheets available for lending” (ibid).

China had a large amount of cash already at the time it entered the crisis. The money supply (M2) as a percentage of GDP was 82% in 1990, and by the time of the outbreak of the crisis it already reached as high level as 150%. According to McKissack and Xu, such high money supply compared to other developing countries indicates the under-development of China’s capital markets: “China’s very high ratio is related to the dominance of the banks in the financial system – over half of private wealth exists as bank deposits” (2011). While the level of M2 reflects the capital market development level, the growth in M2 has created increased liquidity within the economy.

Between the years 2001 and 2007, prior to the crisis, a contradictory or tight monetary policy was adopted to control inflation as well as cooling down the asset-price bubbles (World Bank: China Quarterly Update, 2008). With the economy being hit by the crisis and when there was a need to implement new policies, the People’s Bank of China introduced a highly expansionary monetary policy, or the so-called “moderately loose” to support the equally highly expansionary fiscal policy. Beginning from the fourth quarter of 2008, the central bank started to increase liquidity into the banking system by increasing the money supply and easing the credit conditions. The easy credit policies led to massive credit expansion in the economy (Sharma, 2012).

The stimulus turned out to be effective to the macroeconomy in general and created large fixed asset investment. The growth rate of investment in fixed assets increased rapidly, with over 30% in the second half of 2009 (McKissack & Xu, 2011).

Figure 5. China's Fixed Asset Investment



Source: McKissack & Xu (2011)

However, although the stimulus package was designed only for a relatively short period of time, where it was playing a contributing factor in boosting the growth rate by 2 to 3% of GDP, the challenge of how to sustain such growth rate in the subsequent years, while unwinding the stimulus, remains. As McKissack and Xu pointed out, “Continuing to pull on the levers that supported growth over 2009 and 2010 would likely exacerbate growing imbalances in the economy” (2011). Furthermore, the increased liquidity with the economy has helped the Chinese economy extensively throughout the crisis, however, evidence show signs of excess liquidity started to appear. Prices for real estate have reached unprecedented levels far

more beyond the reach of average income earners in a wide range of major cities of China, especially in Beijing and Shanghai, leading to the creation of property price bubble (ibid).

4.2 Effect on labor market and employment

The stimulus package has had an impact on the labor market at the same time. The unemployment rate increased due to the crisis. According to the theory about unemployment, men are involuntarily unemployed if the aggregate supply of labor willing to work for the available money-wage and the aggregate demand for it at that wage would be great greater than the existing volume of employment, given a small rise in price of wage-goods relatively to money-wage (Keynes, 1936). This is just the case with the Chinese economy, which was very dependent on the export sector and thus manufacturing sector, when it was severely hit by the global financial crisis.

Facing serious challenges in terms of increase in unemployment rate, the stimulus package was expected to create more job opportunities for the labor force in the market. According to the survey conducted by the Ministry of Agriculture there were around 20 million workers have returned to their hometowns from the urban areas due to job losses (He et al., 2009). However, the real picture of the labor market was even worse than it was presented in the official statistics, since a large number of unregistered labor from the rural areas and marginalized in the cities where they seek jobs have been neglected and not included in the official statistics. Furthermore, alongside with rural migrants, job-searching university graduates, laid off workers and others amount for up to 42 million, compared to the fact that inly around 15 million new jobs could have been created by introducing the stimulus package (Schucher, 2009). Evidence show that the true amount of unemployed is difficult to measure but one can be certain about that the actual number of unemployed is much higher than it is announced. Nevertheless, the stimulus package has influenced the conditions in the labor market positively, and an at least temporary shift in the economic policy from capital-intensive to labor-intensive growth could be tracked, which, on the other hand, was not beneficial for the structural transformation within the economy in the long run. In Schucher's view, judging from the reactions of the

Chinese government made in response to the effects the crisis had on employment it can be noticed that the adaptability of the government is adequate.

The effects of the fiscal stimulus package on employment on the economy are quite positive, and the aggregate effect on output and employment depends on a large extent on how the spending is distributed among the sectors. The macroeconomic theory shows that there is a negative relationship between the wage inflation and the rate of employment. With the increase in wage inflation in the Chinese economy the rate of unemployment have been indeed reduced, even though the inflation in wages has led to the fact that the Chinese products are no more as competitive for export as it was before. The non-farm sectors the stimulus could generate 18-20 million new job opportunities. However, it should be pointed out that even though the effect is large, but the displaced workers may need to move into sectors where higher skills are required. Thus it is very important task for the policy-makers to make sure that policies facilitating the transition to be appropriate in order to achieve its most potential in job creating (He et al., 2009).

Based on the assessments done by the World Bank, it can be observed that the infrastructure related employment helped reduce the negative impact brought by the crisis. The employment and wage growth slowed down in 2009, while remaining positive. Generally speaking, the stimulus played a positive role for improving the conditions of the labor market, where it has been noticed that “Taken together, the stimulus package <...> as well as lower interest rates and greatly increased lending by state-owned banks, has helped China weather the crisis and recovery forcefully” (World Bank, Infra Update, cited 10 May 2015).

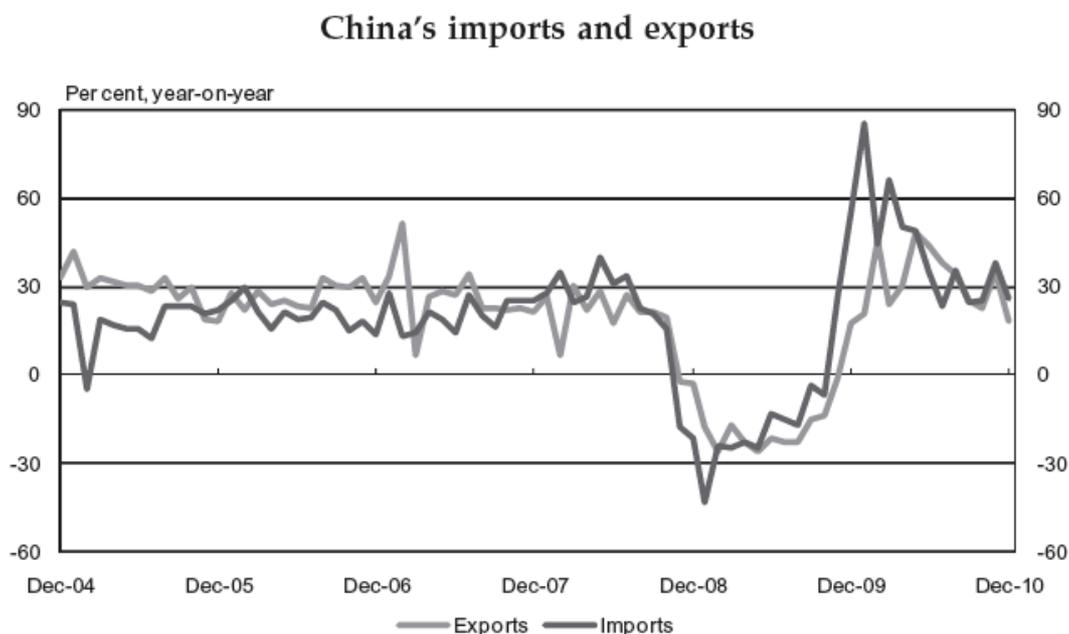
4.3 Effects on trade and investment

The stimulus package has generated higher economic growth and helped overcome the economic downturn primarily due to the reduced exports since the Chinese economy was on a large extent dependent on the export. Compared to 6.8% in the last quarter of 2008 and 6.1% of economic growth in the first quarter of 2009, the growth rate already reached 11.9% in the first quarter 2010, back to the two-digit growth rate, which shows clear signs of recovery since the introduction of the stimulus package.

The stimulus program has achieved remarkable success from the point of view of a wide range of researchers and policy-makers. GDP growth slowed down significantly in 2008 and subsequently has resumed the previous fast growth rate within two years. With the growth rate rebounding to the pre-crisis level, the investment fully offset the large negative growth contribution of net exports (World Bank, Infra-update). It is viewed by World Bank that “In this process, China assumed the role as global leader in the policy-driven global recovery from crisis, its industrialization and urbanization-driven hunger for commodities and capital goods and rising import demand in general spreading throughout much of the world” (World Bank, Infra-update).

Following the pattern of GDP growth rate, the growth rate of exports and imports declined since November 2008 up until November 2009. The trade sector was on of the major channel that transmitted the crisis into the economy and was severely hit (Yao & Zhou, 2011), even though luckily the relatively closed capital markets protected the Chinese economy from being too much affected by it (McKissack and Xu, 2011).

Figure 6. China’s Imports and Exports



Source: McKissack & Xu (2011)

Even though it is generally viewed that the Chinese economy is highly dependent on the export sector, the export dependency is actually lower than implied by the headline export-to-GDP ratio. The high proportion of the export sector within the economy comes mainly from the supply perspective rather than from the demand perspective, due to its impact on total factor productivity growth, where the pattern is more obvious in the more developed coastal areas than the remote areas in the western part of the country (He & Zhang, 2010).

In the short term the boost of export level is good for bringing the economy back to the right track, however, in the long term there is an increasing need for the Chinese economy to stimulate the domestic demand rather than being too export-dependent, if the growth rate is expected to be sustained on a high level. According to McKissack and Xu, “Investment supported growth during the global financial crisis and will continue to be an important driver of growth in the short term. China faces a difficult balancing act as public investment seeks to support growth while credit is being reined in to control inflation, with a dampening effect on private investment” (2011).

The exports grew on a high speed between 2000 and 2005, which was one of the major reasons behind the increase in employment. The export sector was very important in terms of generating more employment opportunities but the same gains could be achieved by increasing the domestic demand. Evidence show that the rise in domestic demand and especially for investment was able to generate employment gains which are three times larger than those for exports (Feenstra & Hong, 2007). This confirms once more the importance of stimulating the domestic demand than sticking to the export-led economic development mode.

4.4 Effects on social protection – welfare system

The social welfare system is very important for sustaining economic growth. It affects the well-functioning of the society and indirectly provides basic and solid foundation for economic growth. The size of social provision and the quality of it is thus of great importance, and in this section the effect of the stimulus package on the social welfare system will be assessed.

The size of social protection is a very essential issue since it could directly help the groups in the society who are in need by ensuring enough income for life-essential consumption, shedding the assets, or providing wellbeing, to be brief. On a larger scope, the developed social protection system is generally argued to be beneficial for long-term development and offers a foundation for more sustainable and resilient economy. Based on the research conducted by Zhang et al., 35 countries that introduced stimulus programs have around 25% of the stimulus measures devoted to social protection, which in total constitutes around 653 US\$ billion, almost 1 percent of 2008 global GDP (He et al., 2009).

The consumption level has been quite low for such a major economy as the Chinese economy. The government has been working hard on placing the attention to increasing the domestic consumption level to rebalance the economy. However, the high and increasing level of saving rate leads to rather low level of consumption. This can be explained by the fact that the social protection system in China is still not very well developed, and the stimulus package did not distribute much of its funding to the social protection sector either, and the households are saving as a response to the uncertainties over provision of pension, healthcare and education costs that has become higher and higher in recent years since mid-1990s. However, this is not the only reason behind this phenomenon. The declining share of household income in national income has been one of the contributing factors, which can be observed in wages, investment income, and government transfers (Aziz & Cui, 2007). As Aziz and Cui put it, “The financial sector weaknesses, by restricting firms’ access to bank financing for working capital, have played quantitatively a major role in keeping wage and investment income shares low and on a declining trend” (2007).

Applying the theory developed by Keynes (1937), the effective demand in an economy consists of two parts, namely investment-led expenditure and consumption-expenditure, which mainly depend on the income level. Thus the low level of investment of the stimulus package to the social welfare system combined with rather low level of household income cannot ensure the high and sustained level of consumption at the given interest rate.

Based on the research by Devarajan et al. (1996), the data from 43 developing countries over 20 years show that an increase in the share of current expenditure plays an important role in stimulating economic growth. At the same time, the relationship between the capital component of public expenditure and per-capita growth is negative, implying that when used in excess, the expenditure may turn out to be unproductive. In this connection, it can be noticed that many developing countries have been misallocating public expenditures in favor of capital expenditures at the cost of current expenditure. This indicates that, as it is also the case with the Chinese economy, not sufficient resources have been allocated to provision of social welfare, pension, etc. when the resources are spend at increasing capital expenditures, there can be an waste of resources, while increasing the current expenditure, in contrast, will be beneficial for the development. Thus it can be said that since the stimulus package did not concentrate on the social protection sector, its potentials haven't been fully realized.

To fully realize the expectations of stimulating the domestic demand, it is very important to the government to implement a radical reform in the social welfare system. As it is in the case of China, low consumption demand and uncommonly high savings rate is resulted from low level of development of social security services provided by the state (Zheng & Chen, 2009). In this connection the criticism of the stimulus package is that it relies on “pumping up” government investment while in the long run the economy needs precisely the opposite (Tong & Zhang, 2009). However, it might be quite challenging for the government to start investing more heavily in the social welfare, since it is generally considered to be more profitable for the interest groups to invest in infrastructure. Based on current observations, the 4 trillion yuan stimulus package may have been much more effective than it turned to be.

Generally speaking, the stimulus plan is considered to be necessary and beneficial for the economy, but with the government having little control over directing the use of funds, since the local governments are required to finance up to 70% of the projects, the local government would prefer investing into more profitable infrastructure projects. It is pointed out that with little power over the funding allocation the

government was not able to ensure the building of a secure social welfare system that would motivate the increase in domestic consumption.

5. Summary and forward-looking analysis of the Chinese economy

After having a thorough discussing the impact of stimulus package it is time to make a conclusion and present some policy recommendations based on the discussion from above. The stimulus package, judging from the positive effects it has on the Chinese economy in general, was definitely a right decision made to help the economy recover from the crisis. Without the introduction of the stimulus package the Chinese economy could have been more severely affected by the global recession and the low level of growth would have maintained for more years. The stimulus program in general has not only benefited the economy to recovery rapidly from the continuous decline in economic growth, but also provided a basis for future development through building better conditions for domestic market.

The stimulus package has brought back the high growth rate. The GDP growth has returned to its previous growth rate and with the help of the supplement expansionary monetary policy through an increase of money supply and easing credit conditions the liquidity of the economic transactions and investment has been increased significantly. However, this has led to an emergence of bubble economy, especially reflected in real estate prices.

Through large proportion of the investment funding directed at infrastructure building the stimulus has created many job opportunities, thus benefiting the labor market by reducing the unemployment rate which increased since the outbreak of the crisis. However, the situation in the labor market still remains to be a problem expected to be addressed since the unemployment rate remains to be quite high due to a number of newly emerged issues connected with the structural transformation of the economy which requires labor with better professional skills.

When it comes to trade and investment, it has been clear that there has been a V-shape growth pattern, where the export level has dropped significantly but subsequently increased due to the effects of the stimulus package. However, it is argued that in order to sustain high growth rate in the long term, the macroeconomic policy should be directed more to stimulating domestic demand rather than focusing the export-led model. This is connected with the social protection system. The stimulus package did not finance much to building a better welfare system, and thus the domestic demand cannot be boosted fully because of the fear of the population to spend, but rather saving money for healthcare and education and other possible expenditures.

Generally speaking, the 4 trillion yuan stimulus package is a necessary tool in the face of global recession, but the allocation of funding remains to be a topic worth discussion. With more focus on investing into the welfare system and thus stimulating the domestic demand.

The challenges that face the Chinese economy are to solve the problematic issues which affect the economy greatly, including the large excess production capacity, factor price distortions.

Evidence suggests that infrastructure development can be view as a contributing factor for achieving better economic growth. The intensive investment on infrastructure, which amounts around 15% of GDP, is proved to have positive impact on the economic recovery. However, in order to sustain the high growth rate one of the main tasks facing China is to invest in human capital, which will benefit the Chinese economy in the long run. According to Sahoo et al. the results in the case of China shows that there is a necessity for the policymakers to design an economic policy that improves human capital formation and physical infrastructure (2010).

For the Chinese economy there are three major drivers for economic growth, which are namely consumption, investment and net export. The Chinese economy has long been very export-dependent and the investment level was rather high in recent years, the primary task for the Chinese economy is viewed by many researchers to be

stimulating the domestic consumption level, which has been extraordinarily low compared to other developing economies around the world, not to say to US, where the domestic consumption level reaches around 70% of GDP. According to McKissack and Xu, in order to boost domestic demand certain reforms will be required, including social security and healthcare provision, which will encourage consumption and reduce the saving rate, as well as policies designed to increase the wage and capital incomes of households (2011).

It is very important for the government to ensure the sustainability of the current economic growth, since in the medium term the Chinese economy is expected to cope with the problem of growing imbalances: “China’s macroeconomic levers will need to evolve to ensure the current growth trajectory is sustainable” (McKissack & Xu, 2011).

In terms of policy recommendation it has also been pointed out by Feenstra and Hong that it is very important for the Chinese economy to be oriented more towards developing the domestic market instead of focusing too much on the export sector as an engine to stimulate employment and output: “This transition from export-led growth to domestic demand would undoubtedly rely on many economic and policy actions that are now only beginning: a real appreciation as the prices of non-tradable goods begin to rise, shifting domestic demand towards both imports and exportable goods; accompanied by some nominal appreciation of the yuan; fiscal policies that allow for greater security of income in old age, allowing higher expenditure today; reform of the banking sector” (Feenstra and Hong, 2007). It is of utmost importance to improve the distribution of national income, where the household income is the important factor in raising the consumption level (Aziz & Cui, 2007). Furthermore, it has also been pointed out by N’Diaye (2009) that it is necessary to promote productivity gains and more private spending to sustain the economic growth in the long term.

The two major imbalances existing within the Chinese economy are the so-called domestic imbalance caused by high-investment, representing the investment-led growth, as well as low level of household consumption, and the external imbalance due to the country’s dependence on the export-led strategy of development, which

relies largely on exchange rate undervaluation and the intervention in the foreign exchange rate market to sustain the high export level (Sharma, 2012). The domestic imbalances have caused rapid and massive capital accumulation, as well as imbalances between the level of expenditure and production, and also the overall income gains do not correspond to the growth rate of the country's GDP. At the same time, the external imbalances has generated significant surplus in current account of balance of payments. In Sharma's view, "A transition or rebalancing away from exports and investment-driven growth towards 'consumption-driven growth' was declared to essential to the long-term dynamism of the Chinese economy.

However, these all discussions lead to a question of whether China is able to meet the Keynesian demand-side model. The consumption level in China has long been very low, and by building a better social welfare system such picture can be improved, but this will be a rather gradual process and will need a certain amount of time to fully realize it. In the study conducted by Dollar (2013) it has been noted that China has 15-20 percentage points of GDP less in household consumption compared to other East Asian economies, while the investment rate being high and in the early stages of development the growth has been sustained by trade surplus. However, a wide range of China-specific features, including the *hukou* registration system limiting the rural-urban migration, the large role of state enterprises and the financial repression, heavy bias against household income and consumption increase were created. In Dollar's opinion, "Reform of these institutional features provides the best hope of smooth adjustment of China's economy away from investment towards consumption" (2013).

China is agreed to have reached the point of development where rebalancing of the economy towards consumption is needed, since the people's desires also changed throughout years. These all point to the question of whether the Chinese government is able to implement practical steps in the reform process to rebalance the economy, which may include disclosing local government budgets to put pressure on the local government to increase spending on social services and the environment, which would be beneficial for the economic development in the long run (Dollar, 2013).

It has been pointed out by Dollar based on the analysis made on the conditions of the Chinese economy that if China fails to stimulate domestic consumption level, "it is

likely that market oriented investment will continue to slow because of overcapacity in many sectors and diminishing returns. If China tries to maintain a very high growth rate via continued reliance on investment as the main source of demand, it is likely that overinvestment would produce a fiscal and financial crisis further down the road, and that would cause growth to fall even more sharply". At the same time, the structural transformation, which was hindered in some extent by the introduction of the stimulus package, remains to be an unsolved issue that would determine the future development trajectory of the Chinese economy.

Nevertheless, a more recent study by Dollar (2014) indicates that the shifts in rural-urban migration condition and social services reflect that China is gradually rebalancing its economy towards a new model relying more on innovation as a preconditions for further growth, as well as consumption as the source of demand. The Chinese reform agenda focused on liberalizing the household registration system, financial liberalization as well as opening up China's service sector to competition is bringing more perspectives for future development. Since the process has just started, the whole issue leaves room for future discussion and studies, and the future of Chinese economy will provide an answer for that in the upcoming years.

References

Aziz, J. and Cui, Li (2007), “Explaining China’s Low Consumption: The neglected Role of Household Income”, *IMF Working Paper, WP/07/181*

Bibow, J. (2010), “How to Sustain the Chinese Economic Miracle? The Risk of Unraveling the Global Rebalancing”, *Levy Economic Institute, Working Paper No. 617*

Bryman (2012), *Social Research Methods, 4th edition*, Oxford University Press, Oxford

Burda and Wyplosz (2009), *Macroeconomics: A European Text*, Oxford University Press, Oxford

China Statistical Yearbook (中国统计年鉴) 2007, accessed on <http://www.stats.gov.cn/tjsj/ndsj/2007/indexeh.htm>

Diao, X., Zhang, Y. and Chen, K.Z. (2012), “The Global Recession and China’s Stimulus Package: A General Equilibrium Assessment of Country Level Impacts”, *China Economic Review 23*, pp.1-17

Devarajan, S., Swaroop, V. and Zou, H. (1996), “The Composition Of Public Expenditure And Economic Growth”, *Journal of Monetary Economics 37*, pp.313-344

Dollar, D. (2013), “China’s Rebalancing: Lessons from East Asian Economic History”, *John L. Thornton China Center, Working Paper Series, October 2013*

Dollar, D. (2014), “China’s rebalancing opens new opportunities for developing Asia”, *Finance and Development, Sino Shift*

Feenstra, R.C. and Hong, C. (2007), “China’s Exports and Employment”, *National Bureau of Economic Research, Working Paper 13552, Cambridge*

He, D. and Zhang, W. (2010), “How dependent is the Chinese economy on exports and in what sense has its growth been export-led?”, *Journal of Asian Economics 21*, pp.87-104

He, D., Zhang, Z. and Zhang, W. (2009), “How large will be the effect of China’s fiscal stimulus package on output and employment?”, *Pacific Economic Review, 14:5*, pp.730-744

Ji, B. (2010), “China’s economic recovery and the China model”, *Journal of Chinese Economic and Business Studies, Vol. 8, No.3*, pp.215-226

Keynes, J.M. (1936), *The General Theory of Employment, Interest and Money*, MacMillan, London

Keynes, J.M. (1937), “The General Theory of Employment”, *The Quarterly Journal of Economics, Vol.51, No.2*, pp. 209-223

Makin, J. (2009), “China: Bogus boom”, *Working paper, American Enterprise Institute for Publish Policy Research*

McKissack, A. and Xu, J.X. (2011), “Chinese macroeconomic management through the crisis and beyond”, *Asian-Pacific Economic Literature, Crawford School of Economics and Government, Canberra*

National Bureau of Statistics of China, accessed on <http://www.stats.gov.cn/>

Naughton, B. (2009), “Understanding the Chinese Stimulus Package”, *China Leadership Monitor 28, no.5*, accessed on <http://www.hoover.org/research/understanding-chinese-stimulus-package>

N’Diaye, P., Zhang, P. and Zhang, W. (2009), “Structural reform, intra-regional trade, and medium-term growth prospects of East Asia and the Pacific – Perspectives from a new multi-region model”, *Journal of Asian Economics 21*, pp.20-36

Overholt, W. (2010), “China in the global financial crisis: Rising influence, rising challenges”, *The Washington Quarterly 33*, pp. 21–34

Sahoo, P., Dash, R.K. and Nataraj, G. (2010), “Infrastructure Development and Economic Growth in China”, *Institute of Developing Economies Discussion Paper No. 261*

Schmidt, D. and Heilmann, S. (2010), “Dealing with Economic Crisis in 2008-09: The Chinese Government’s Crisis Management in Comparative Perspective”, *China Analysis 77*, accessed on http://www.chinapolitik.de/resources/no_77.pdf

Schucher, G. (2009), “China’s Employment Crisis – A Stimulus for Policy Change?”, *Journal of Current Chinese Affairs, 38, 2*, pp.121-144

Sharma, S.D. (2012), “Aftermath of the Global Financial Crisis” Challenges to Macroeconomic Rebalancing”, *International Journal of China Studies, Vol. 3, No.2*, pp.115-149

Shen, L. (2011), “Simulate the Contribution of 4 Trillion-Yuan Investment Acting on the National Economy”, *The Journal of Quantitative Economics, Vol.2, No.2*

Stiglitz, J.E. (2008), “Responding to the crisis”, *Paper prepared for a meeting on Financial Regulation sponsored by the Initiative for Policy Dialogue and Brooks World Poverty Institute, Manchester, July, 2008*

Tong, S.Y. and Zhang, Y. (2009), “China’s Responses to the Economic Crisis”, *East Asian Institute 1 (2)*, pp.20-31

Woo, W. (2009), “China in the current global economic crisis”, Testimony before the U.S.-China Economic and Security Commission

World Bank (2008), *China Quarterly Update*, December, Beijing: World Bank Office, accessed on <http://www.worldbank.org/china>

World Bank Infra Update (2010), “Supporting China’s infrastructure stimulus under the infra platform”, accessed on <http://www.worldbank.org/infra>

Yao, X. and Wu, X. (2011), “Transition of China’s Financial System after the Global Financial Crisis”, *The World Economy*, Vol.34, No.5, pp.792-804

Yao, X. and Zhou, M. (2011), “China’s Economic and Trade Development: Imbalance to Equilibrium”, *The World Economy*, Vol.34, No.12, pp. 2081-2096

Zheng, Y. and Chen, M. (2009), “How effective will China’s four trillion yuan stimulus plan be?”, *China Policy Institute, Nottingham, Briefing Series – Issue 49*