## Risk Assessment for the China's Banking System in View of Growing Total Accumulated Debt

The statistical data indicate the end of ultra-high growth pace of economy in the PRC. In 2014, the growth of China's GDP amounted to 7.4%, having gone down below the target level of 7.5% established by the government for the first time since 1998. The growth of GDP in 2014 has become minimum since 1990. In 2015 the economy growth rate has continued to slow down. Following the results of the first six months of 2015, GDP has increased by 7.0%. The slowdown of GDP growth rate fuels fears of "rough landing" scenario for the economy of the PRC. Therefore, high level of debt load achieved by China's economy raises specific concerns. In the light of outlined slowdown of economy growth rate, the accumulated high level of debt load threatens stability of China's banking system. The crisis in the banking system in case of its occurrence may slow down the economy growth rate in China even more.

 ${\it Table~1}$  Total debt of some countries as of Q2 2014 (debt/GDP, %)

	State debt	Corporate debt	Household debt	Financial sector debt	Total
China	55	125	38	65	283
South Korea	44	105	81	56	286
Australia	31	69	113	61	274
USA	89	67	77	36	269
Germany	80	54	54	70	258
Canada	70	60	92	25	247

Source: McKinsey Global Institute Debt...

After the international financial crisis that started in 2008, the total debt of China increased sharply. As reported by McKinsey Global Institute, the total debt of the state, households, financial and corporate sectors during the period from 2007 until 2014 grew 3.8 times from \$ 7.4 trillion to \$ 28.2 trillion. The debt grew 1.9 times against GDP (from 158% in 2007 to 282% in 2014. [McKinsey Global

<sup>\*</sup> Youri A. Makeev, Ph.D.(Economics), Senior researcher of the economic research department of the Institute for Oriental Studies of the Russian Academy of Sciences

Institute Debt...]). The debt load level exceeded that in most developed countries. (See Table 1) The economists of the Hong Kong Monetary Authority estimate that the vigorous growth of the total debt has been stipulated by the measures implemented by the Chinese authorities to stimulate the economic growth after the beginning of the international financial crisis. In their opinion, unlike Western countries, the measures stimulating economic activity were financed not by means of increasing the budget deficit, but by means of growing bank lending. [Corporate Leverage in China...]

In fact, direct debt of central government in the post-recessionary period grew in a rather slow pace (average annual growth rate from 2007 to Q2 2014 amounted to 11%). At the same time, we should take into account that the same period was characterized by the outrunning growth of borrowings by local authorities (including quick growth of indirect debt, i.e. guarantees under the loans received by the companies specially established for the implementation of regional infrastructural projects). The average annual growth of provincial authorities' debt reached 27%. Therefore, quick debt growth was the result of the governmental policy towards economic activity stimulation by means of extended lending and growing budgetary expenditures at a regional level. The PRC's total debt dynamics are shown in Table 2.

The PRC's Total Debt Structure (debt/GDP, %)

Table 2

	2000	2007	Q2 2014
State debt	23	42	55
Corporate debt	83	72	125
Household debt	8	20	38
Financial sector debt	7	24	65
Total % of GDP	121	158	283
Total, \$ trillion	2.1	7.4	28.2

Source: McKinsey Global Institute Debt...

Before the international financial crisis of 2008, quick growth of the Chinese economy was accompanied by rather slow growth of debt load. From 2000 to 2007 the total debt was not growing much faster than GDP, and reached 158% of GDP (in 2000 this figure stood at 121%). The governmental policy towards economic growth stimulation resulted in the increase of the share of savings in GDP to 47.1% (throughout 2008–2013 on average). In 2000–2007 this figure stood at 39.8% on average. The share of private consumption in GDP during the said periods decreased notably, from 56% on average in 2000–2007 to 48.9% on average in 2008–2013. [Statistical database. National Bureau of Statistics of China] The increased

level of savings provided for the conditions for speeding up the growth of debt load of the Chinese economy. The banking system remains the main path for the transformation of savings into investment in China. In 2002–2014, as calculated by the People's Bank of China, loans in the PRC's economy accounted for 87.4% of the total external financing from internal sources; the share of bonds within that period made only 9.5%, direct equity participation accounted for 3.1%. [China Monetary Policy Report 2014] At the same time, in the USA the banking assets account for only 22% of external economy financing. The backwardness of the PRC's stock exchange enhances risks of the banking system in the light of initiating slowdown of the economic growth. Investment mistakes made during the credit boom initiated by the Chinese authorities to stimulate economic activity may cause growth of "bad debts" share on the books of Chinese banks.

As reported by the China Banking Regulatory Commission, in 2004 the amount of defaulting loans increased by 42.3% and amounted to 842.6 billion yuans. As a result, the share of defaulting loans in the assets of the banking system increased by 0.25 percentage points and reached 1.25%. [CBRC Annual Report 2014]. In the light of high capital adequacy ratios of Chinese banks, the problem of "bad debts" at this moment does not look significant enough. However, in conditions of observed slowdown of the economic growth, the share of defaulting loans in assets will obviously continue its growth. Therefore, special attention shall be paid to the structure of accumulated debt.

Corporate debt makes the biggest part in the total debt structure. The debt of Chinese companies as of the end of the first half of 2014 reached 125% of GDP. Since 2007 this figure has grown by 53 percentage points (from 72% of GDP). Such hasty growth of debt to a large extent became the result of the reduction of profitability of Chinese corporations after the international financial crisis. In light thereof the companies had to focus more on the credit sources of capital investment financing. As a result, the corporate debt to GDP ratio appeared to be much higher than the corporate debt level in other countries. In the USA the corporate debt makes 67%, in Germany 54%, in South Korea 105% of GDP.

At the same time, according to IMF calculations, the total debt load (calculated as total debt to equity ratio) for the corporate sector is at the acceptable level. The debt level is distributed unevenly within the corporate sector. Rather high debt load is typical for the companies with the state participation in the equity. Furthermore, private companies managed to reduce debt load significantly. From 2006 to 2013 the median value of debt to equity ratio of private companies decreased from 125% to 55%. At the same time, debt load of the state-owned companies did not change significantly. The median value of debt to equity ratio of public companies in 2006–2013 remained at the approximate level of 110%. [Assessing China's Corporate...] It should be mentioned that participation of public companies in lending to subsidiaries and affiliates is a rather popular practice in China. Availability of bank loans for small and medium business in China is still not high. Besides, public companies receive loans at lower rates. In these conditions, public

companies often raise funds not for their own needs, but for the provision of inhouse loans. The amount of in-house loans reached 8.3 trillion yuans at the end of 2013. The popularity of the practice of financial mediation of public companies results in significant overrating of their debt load indicators. In general, debt load of the corporate sector may be evaluated as comfortable. By comparison, in the countries of Southeast Asia the debt to equity ratio a year before the financial crisis of 1998 reached 240% in Thailand, 190% in Indonesia, and 350% in South Korea. [Corporate Performance...]

According to the studies made by Hong Kong Monetary Authority, the biggest debt load is borne by development companies and industries that suffer from significant excess of production capacities. Thus, debt to total assets ratio as of the middle of 2014 is the following: 0.76 for the development sector, 0.7 for ship building industry, 0.7 for coal-chemical industry, 0.68 for aluminum industry, 0.67 for solar battery manufacturers, 0.66 for ferrous metallurgy, and 0.57 for cement industry. [Corporate Leverage in China...]. High debt load of the companies in the development sector is combined with a big amount of debt accumulated by the enterprises associated with the real estate market.

McKinsey reports that 45% of total debt (not including debt of the financial sector) in China is one way or another related to construction, real estate, and adjacent segments (in absolute terms the figure makes \$8.5–9.5 trillion as of the end of H2 2014). A fourth to a third part of this debt falls on the development companies, almost the same part on the sectors adjacent to the construction segment (cement, metallurgical etc.), about 20% falls on household mortgage loans, and the remaining part comprises debts of provincial authorities raised to finance construction of social housing and infrastructural facilities. [McKinsey Global Institute Debt...]

After the lasting boom, the real estate market in China entered its cool-down period. From 2005 to 2014 the average annual growth of the aggregate price for real estate in 60 largest cities of China reached 8.4%. In conditions of low yield on bank deposits, poor choice of other alternative investment instruments, and restrictions on the capital flow, the real estate market has reasonably become the most popular investment tool among the Chinese citizens. As a result of speculative capital inflow, the real estate market has run hot; the supply of new housing has significantly exceeded the demand, and its price started to go down. In 2014, the sales of housing real estate decreased by 9%. In January-February 2015 the decrease rate reached 18%.

The research done by IMF shows that the Chinese real estate and construction companies will not face any problems in debt servicing, if their revenue goes 10% down. However, 20% reduction of revenue will not only cause fast growth of the risk of facing the problems with debt servicing by the enterprises of this segment, but will also negatively affect the borrowing capacity of the enterprises from adjacent sectors. [Assessing China's Corporate...] Yet, the scenario of such rapid revenue fall in the real estate and construction enterprises seems to be hardly proba-

ble. Excessive supply of new housing real estate is observed in small towns and in Northeast China, where the prices for housing real estate are rather low. Therefore, the slump in sales of housing real estate in physical terms in these territories will produce a less adverse effect on the companies' revenue. Besides, the PRC authorities have a wide range of opportunities to support the real estate market, including further mitigation of restrictions related to the use of mortgage loans to purchase housing real estate (at the moment a minimum down payment for the mortgage is limited to 30%), reduction of interest rates on mortgage loans etc. A continued urbanization process in China shall be taken into account as well. The urbanization level achieved in China is still not high, and a stable inflow of migrants from rural areas to the cities will still create additional demand for real estate.

Expected increase in the earnings of the population alongside with a highly probable further mitigation of cash and credit policy (and, therefore, reduction of interest rates on mortgage products), will ensure an effective demand for real estate. In such conditions the probability of significant reduction of the borrowing capacity of real estate and construction companies in China seems to be very low in the foreseeable future. Therefore, the scenario of China's banking system destabilization as a result of growing share of defaulting loans of construction and real estate enterprises may be estimated as not high.

In general, we should hardly expect rapid growth of "bad debts" in the corporate sector. At the same time, a number of sectors with high debt load level are likely to undergo restructuring using public funds, upon occurrence of troubles with debt servicing. Therefore, the banking system is not expected to face fast growth of defaulting loans in the corporate sector in the foreseeable future.

The China's state debt, including direct and indirect debts of local authorities. makes 55% of GDP and 19.4% of the total debt. The central government's debt makes only 27% of the total state debt (and 15% of GDP). Most of the state debt falls on the local authorities' debts. After re-allocation of tax proceeds between the tiers of authority in 1994, the central government's share in tax proceeds grew from a little below 30% to about 50%. [Fiscal Vulnerabilities...] At the same time, no significant re-allocation of expenses between different tiers of authority has been done. In conditions of rapid growth of the urbanization level, local authorities were in need of funds for developing urban infrastructure. The Budget Code prohibited direct debt financing of local authorities (except when there was a permission from the State Council). For the purpose of financing the infrastructural projects, local authorities created trust and investment companies, which ensured fund raising from different sources. However, in the end of 1990-s the PRC's central government decided to close thousands of such trust and investment companies. The international financial crisis that broke out in 2008 facilitated the recovery of such trust and investment companies in the form of so-called "financial

For the purposes of stimulating economic activity, local authorities drastically increased the investment expenses into creation and development of infrastructure

and social housing construction. For these purposes local authorities created thousands of specialized companies ("financial platforms"), and invested significant assets (in the form of land, shares of public companies, and real estate) and cash funds into their equity. Such assets secured the loans raised by such companies. Besides, local authorities often issued warranty obligations for the loans received by "financial platforms". By the middle of 2009 there were about 3,800 companies of that kind. By 2012, the amount of loans granted to the "financial platforms" reached 9.2 trillion yuans. About 80% of local authorities' debt comprises bank loans. [Fiscal Vulnerabilities...].

The majority of "financial platforms" are unprofitable, and are financed by the subsidies of local authorities. Low credit quality of "financial platforms" threatened the banking sector. Recognizing this problem, the State Council of the People's Republic of China took a number of measures in September 2014 to enhance transparency of financing of the infrastructural projects implemented by local authorities. In particular, in accordance with the decisions of the State Council of the People's Republic of China, "financial platforms" will soon be forbidden to make new borrowings, and their debt (which local authorities are liable for) will be transferred directly to local authorities. Local authorities were allowed to issue bonds to finance budget deficit. Therefore, within the next couple of years the banking sector will substitute most of the loans issued to "financial platforms" with the assets of higher quality, i.e. bonds issued by local authorities. It should be noted that, even if a full amount of debt of "financial platforms" is transferred to local authorities, the total state debt will remain at an acceptable level.

Household debt used to grow rapidly after the international financial crisis. As of the end of 2014 the household debt to the banks totaled 15.1 trillion yuans, having grown from 5.5 trillion yuans in the end of 2009. The average annual growth made about 27%. The amount of consumer loans showed the quickest growth. In Q3 2014, the accumulated amount of consumer loans reached 3.2 trillion yuans, having grown 5.4 times since 2009. During the same time, the amount of mortgage loans issued grew 2.1 times and reached 10.2 trillion yuans. The debt on credit cards and car loans showed the outstripping growth rate. Rapid growth of household debt has become the result of improved availability of bank loans for the population. For the purposes of stimulating consumer demand, China established the first specialized consumer lending companies in four largest cities in 2009. In 2013, it was allowed to established such companies in another 10 large cities. In spite of rapid growth of consumer lending, a relative amount of household debt remains not big. In the middle of 2014, the total household debt made only 38% of GDP. In the USA this indicator reached 77%, in South Korea 81%, in Germany 54%.

In the mid-term a rapid growth rate of lending to the population shall remain at the same level. The growth of consumer demand remains an important factor of retaining dynamic development of the Chinese economy. Re-allocation of lending resources to the households is one of the measures taken to stimulate consumer activity. A debt load of the households remains not big (the ratio of available income to debt servicing expenses stood at 58% in 2014). Reduction of interest rates on loans issued to the population as a result of mitigated cash and credit policy of the People's Bank of China alongside with the extension of consumer lending terms will allow to keep debt load of the households at an acceptable level within the next couple of years. Therefore, household loans will hardly become a point of trouble for the Chinese banking system in the foreseeable future.

Evaluation of debt accumulated in certain sectors allows for the conclusion that there are no prerequisites for drastic worsening of the situation in the banking sector of China. Compared to other countries, the household debt and the public debt are at a low level. A rather high level of debt load in the corporate sector is concentrated in a number of industries characterized by excessive production capacities and in the industries associated with construction and real estate. High debt load is also typical for the companies which main owner is the state. Debt load level in the companies with the private capital is not high and continues to decrease. Upon occurrence of the problems with debt servicing, the enterprises of the troubled sectors and public companies may expect support from the state, which has the opportunities for increasing its own debt significantly. A number of leveraged public companies may improve their debt load indicators by using an opportunity for fund raising at the equity capital market.

At the present time the banking system of China does not experience any problems with the capital adequacy. Capital adequacy of the Chinese banks as of the middle of 2015 has made 12.95%, core capital adequacy ratio made 10.489%. [Supervisory Statistics of Q2 2015] At the same time, if the share of "bad debts" increases, the state may support the banking system again (as it happened in 2006–2007), both by means of direct infusion of funds into banks' equity, and by means of repurchasing troubled loans for the specialized management companies. Therefore, the probability of a grand-scale crisis in the banking system of the PRC in the mid-term appears to be low. The structure of accumulated debt characterized by a rather low level of household and state debt will favor the transition of the role of the main growth driver in the Chinese economy from industry to the sphere of services and consumer market.

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