# Секция 4 СОЦИАЛЬНО-ЭКОНОМИЧЕСКИЕ АСПЕКТЫ РАЗВИТИЯ ЭКОНОМИКИ КИТАЙСКОЙ НАРОДНОЙ РЕСПУБЛИКИ

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## THE THEORETICAL BASIS OF THE IMPACT OF THE MACROECONOMIC VARIABLES ON THE NON-PERFORMING LOANS IN CHINA

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This article clarifies the theoretical aspects of the influence of macroeconomic variables on problem loans, formulates the author's definition of the concept of "problem loans" based on research by Chinese and foreign scientists. A SWOT analysis is constructed that reflects the impact of macroeconomic variables on problem loans in China. The influence of macroeconomic variables on problem loans is reflected.

*Keywords:* non-performing loans, macroeconomic variables, Gross Domestic Product, the Consumer price index.

As an inevitable trend of the development of global commercial banks, the problem of nonperforming assets has aroused widespread concern in the financial circles and further affected the stability and core competitiveness of banks. The sub-prime housing credit crisis in the United States proves that excessive non-performing loans in the banking sector may even trigger a financial crisis. Based on the actual situation of China, it is of great practical significance to consider the influence of macroeconomic factors on the credit risk of commercial banks. This paper studies the related theories and methods of non-performing loan of commercial banks, studies the impact of macroeconomic factors on non-performing loans.

Bernanke (1983) studied the relationship between non-performing loans and the economic environment of the country as a whole. He found that changes in the economic environment indirectly affect the ability of enterprises to repay loans, which may eventually lead to non- performing loans. Bercoff (2002) argues that GDP is directly linked to non-performing loans, and that a fall in GDP per capita would cause companies to run out of money to repay their loans, which would then turn into non-performing loans. Mwanza Nkusu (2011) found that as the exchange rate for exports increased, exports became weaker and economic growth flattened, non-performing loans increased and non-performing loans decreased when the reverse was true. A survey of 25 more developed countries by Debock and Demyanets (2012) also showed a negative relationship between economic conditions and non-performing loans. Economic growth has slowed, the level of non-performing loans has deepened, and the quality of loan assets has declined. Li Sihui and Yan Xiangnong (2007) found that the non-performing loans will decrease with the increase of GDP, total retail sales of consumer goods, total investment in urban fixed assets and total import and export, that is, there is a negative relationship. Research by Jia Haitao and Qiu Changrong (2009) shows that non-performing loans decrease with the increase of GDP growth rate, fiscal expenditure and unemployment rate, that is, there is a negative relationship, at the same time, nonperforming loans will increase with the increase of human capital and consumer price index, that is, there is a positive relationship, and non-performing loans will not be significantly affected by the savings rate.

The economic essence of the concept of non-performing loans is shown in table 1.

Table 1 Approaches to the definition of the essence of the co	oncept of "non-performing loans"
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Author / Year	Definition
1	2
Zhang Chuhan, 2020	A non-performing loan is one in which the borrower fails to comply with the terms of the loan contract, fails to repay the principal or interest of the loan on time, and exceeds the specified period of time, or where there are indications which clearly show that the borrower has failed to repay the principal or interest of the loan, when the agreed time comes, the borrower cannot repay the principal and interest of the loan [1]
Tang Ting, 2020	Non-performing loans refer to loans that fail to repay the principal or interest of the loan to a commercial bank in accordance with the original loan agreement [2]
Feng Zheng, 2020	A loan made when a borrower fails or has indicated that it is unable to repay the principal and interest of the bank on time in accordance with the original loan agreement is called a non-performing loan [3]
Li Hanyun, 2020	Non-performing loans are the general term of overdue loans, dull loans and bad account loans. Late loan refers to the loan that failed to be returned after the extended term is due in the loan contract, the delayed loan is overdue (beyond the extended period) beyond the specified peri- od, or the production and operation has terminated; the loan is listed as bad loan according to relevant regulations [4]
Li Xiang, Huang Yu, 2020	A non-performing loan (NPL) is a loan in which the borrower is in default due to the fact that they have not made the scheduled payments for a specified period. Although the exact elements of nonperforming status can vary depending on the specific loan's terms, "no payment" is usually defined as zero payments of either principal or interest. The specified period also varies, depending on the industry and the type of loan. Generally, however, the period is 90 days or 180 days [5]
Dai Hua, 2019	A non-performing loan (NPL) is a loan in which the borrower is in default and has not paid the monthly principal and interest repayments for a specified period [6]
Cai Hejun, Wei Yujie, 2019	NPL or a non-performing loan is a bank loan, which will not be repaid by the borrower in full or is subject to late repayment. The Non-performing loans meaning presupposes that the borrower is in default and does not pay the monthly interest or principal repayments for a specified period. The terms of a non-performing status can vary, however, "no payment" is usually defined as zero payment of either interest or principal [7]
Yi Linzhao, 2020	Non-performing loan ratio refers to the proportion of nonperforming loans by financial institu- tions in the total loan balance. Non-performing loans refers to that when evaluating the quality of bank loans, the loan is divided into normal, attention, secondary, suspicious and loss accord- ing to the risk basis, among which the latter three categories are collectively known as non- performing loans [8]
Xin Guanchu, 2020	Non-performing assets is a general concept, it is for the bad debt accounts in the accounting subjects, mainly but not limited to the non-performing assets of banks, the non-performing assets of the government, the non-performing assets of securities, insurance and funds, and the non-performing assets of enterprises. Financial enterprises are the source of non-performing assets [9]
Huang Wenqing, 2020	Non-performing loans are those in which the borrower has failed to meet its repayment obliga- tions on the date agreed upon in the contract, and where the borrower has refused or is unable to meet its repayment obligations despite timely notification of the situation by the bank, that would create a record of bad loans. In practice, commercial banks. Typically refer to loans that are three months overdue and still have not repaid their principal and interest as non- performing loans. When a commercial bank has no way of knowing whether these overdue loans can be successfully redeemed, it must prepare for bad loans, and when the bank has made it clear that the loans cannot be redeemed, the proceeds of the loan would then be applied to the corresponding write-off treatment from the related profit calculation [10]

The ending of table 1

1	2
Guo Tiankun, 2020	A non-performing loan is one in which the borrower is unable to repay the loan on time as agreed in the loan agreement, or where there are indications that the borrower is unable to repay the principal and interest of the bank loan on time as agreed in the loan agreement, thus causes the commercial bank to suffer the certain loss but forms the loan. If you want to assess the quality of a bank's loan assets, the NPL ratio is undoubtedly the most important indicator. The NPL ratio represents the amount of non-performing loans as a proportion of the total loan amount of the bank. If the nonperforming loan ratio is higher than before, without an increase or decrease in the total loan amount of a bank, the more bad loans the bank has, the more loans the bank may not be able to recoup the principal [11]

*Note*: own elaboration based on the study of special economic literature.

Thus, after conducting a study, the author gives his own definition of non-performing loans. Non-performing loan is a loan that the borrower cannot repay the principal and interest of the bank in time according to the loan contract or agreement, thus causing the commercial bank to suffer certain losses.

The SWOT analysis of the impact of macroeconomic variables on non-performing loans in China is presented in the table 2.

Table 2. – SWOT analysis of the impact of macroeconomic variables on non-performing	5
loans in China	

Strengths (S)	Weaknesses (W)
1. The loan reserves of commercial banks can com-	1. When the size of the macro economy increases, result-
pletely cover the losses caused by loan default.	ing in an increase in bank credit, the non-performing loan
2.The central bank relies on policy tools to regulate	balance will not increase proportionately and the non-
the economy, such as the benchmark lending rate, the	performing loan ratio of banks will decrease.
statutory reserve requirement and the money supply.	2. When the economy goes down, the bank shrinks the
Macroeconomic regulation and control said. Enter-	credit scale along with the macroeconomic change, be-
prise expansion of reproduction. At this time the	cause the bank non-performing loan balance will not de-
bank's credit policy will become loose, the credit loose	cline proportionately, thus causes the non-performing
has further promoted the enterprise's profitability, the	loan rate to increase significantly.
enterprise credit risk reduces, reduced the non-	3. When the economic policy is negative, the supply of
performing loan	funds in the market drops, and the enterprises' working
	capital is difficult, which makes the financial situation de-
	teriorate gradually and raises the credit risk, thus causes
	the non-performing loan of the bank
Opportunity (O)	Threats (T)
1. The active monetary policy currently in place is de-	1. The credit assets of commercial banks will be seriously
signed to meet the market demand for funds and to	affected if the economy is hit by a more severe and sus-
maintain a moderate level of inflation in the social	tained shock.
economy, which is conducive to economic growth as	2. China's economy is facing the transition of economic
well as to the stabilization of non-performing loans of	growth rate and the adjustment of economic structure, as
commercial banks.	follows: the transition of economic growth rate from high
2. The fiscal policy to be implemented by the govern-	growth rate to high growth rate, the decline of population
ment can not only maintain a certain growth rate of	dividend, the emergence of savings rate inflection point,
fixed asset but also coordinate with monetary policy	and the decline of potential growth rate, the loss of the
to keep the economic growth rate within a certain	comparative advantage of the labor force, the reduction
range and prevent excessive fluctuations in the econ-	of the demand for goods in foreign markets, the dissolu-
omy, all this has helped lower nonperforming loan	tion of the production capacity, the cultivation of new
rates for commercial banks.	industries, and the coordinated development of the re-
3. The active economic policy, ample supply of funds	gional structure will lead to the increase of the non-
in the market, easy access to bank loans, liquidity can	performing loan rate
enhance the profitability of enterprises can help re-	
duce non-performing loans	

*Note*: own elaboration based on the study of special economic literature.

According to the results of the above analysis, although the loan reserves of commercial banks can completely cover the losses caused by loan defaults, however, commercial banks still need to pay attention to the non-performing loan rate of banks will still change with the changes in the macro-economy. To seize the opportunity of the fiscal policy to be implemented by the government, commercial banks can not only maintain a certain growth rate of fixed asset investment, but also coordinate with monetary policy to keep the economic growth rate within a certain range, to prevent excessive economic fluctuations, which are conducive to lower non-performing loan ratio of commercial banks.

Impact of macroeconomic variables on non-performing loans:

1. The Gross Domestic Product (GDP) growth rate can better reflect the macroeconomic situation. That is, the more prosperous the economy, the higher the operating efficiency of enterprises, the higher the profitability of enterprises, can improve the repayment ability of enterprises, and promote the reduction of non-performing loan rate of banks. But when the economy is in a recession, so that every business situation setback, profit decline, the enterprise did not repay funds, resulting in non-performing loans continue to increase. Therefore, the growth rate of GDP can accurately reflect a country's economic development level. Due to the influence of the external environment, the operating conditions of enterprises are good or bad. Therefore, the operating efficiency of the enterprise will directly affect whether the company can repay bank debt, and ultimately directly reflect the situation of non-performing loans.

2. The money supply is the amount of money that the central bank puts into the financial markets. There are three levels of money supply in China: MO = currency in circulation, which is called to call cash. M1 = MO + demand deposits. M2 = M1 + time deposits + savings deposits + other deposits + securities company customer margin. As a rule, it is called M1 the narrow money quantity, M2 the broad money quantity, and M2 the scope of this thesis.

The non-performing loan rate of China's commercial banks has been rising year by year. The central bank has taken corresponding measures to cope with the rise in the non-performing loan rate. Up to now, the central bank has observed the rising trend of the non-performing loan rate of commercial banks, and adopt policies to stimulate economic growth, through the reduction of deposit interest rates to stimulate consumer spending, while the reduction of loan interest rates is conducive to reducing the financing costs of enterprises, conducive to investment growth, and stimulate economic development, the central bank hopes to boost growth by stimulating investment and consumption. But the increase in the central bank's money supply is part of an already rising trend in banks' nonperforming loan ratio, and the increase in the supply of goods helps to reduce the downward trend in the economy, but does not immediately change the direction of the economic decline, with the increase of money supply, the economy is still in a downward state, that is, the non-performing loan rate of banks is still on the rise, that is, the growth rate of money supply is positively correlated with the non-performing loan rate ofbanks.

3. The benchmark interest rate is a measure of the borrower's financing cost. The higher the benchmark interest rate is, the higher the borrower's financing cost is, the more likely the borrower will default. Therefore, there is a positive correlation between the benchmark interest rate and the non-performing loan rate of commercial banks.

4. The Consumer price index reflects changes in prices of consumer goods and services purchased by residents. It can also be used to measure changes in the price level, or the level of inflation. The change of Consumer price index has a positive correlation with the non-performing

loan rate of commercial banks, that is, the higher the price level, the more serious the inflation, the higher the non-performing loan rate of commercial banks.

5. There is a negative correlation between the total amount of imports and exports and the non-performing loan rate of commercial banks. The higher the total amount of imports and exports, the better the state of economic development, the higher the level of investment income of enterprises, and the smaller the risk of default of enterprises, in turn, the level of non-performing loans of commercial banks will be reduced.

6. There is a positive correlation between the total amount of fixed assets investment, the total amount of real estate investment and the non-performing loan rate of commercial banks, that is, the larger the total amount of fixed assets investment, the larger the non-performing loan rate of commercial banks, because the larger the investment amount, the greater the likelihood that bad loans will occur, and therefore the non-performing loan ratio will rise.

The impact of macroeconomic variables such as Consumer price index, total imports and exports, total fixed asset investment, and total real estate investment on the non-performing loan ratio of commercial banks is not significant, that is, the growth rate of GDP, the growth rate of money supply rate and the level of benchmark interest rate on the impact of non-performing loan rate of commercial banks.

Thus, the problem of non-performing loans of banks has always been one of the concerns of the financial industry. From the micro point of view, the problem of non-performing loans directly affects the profitability, stability and core competitiveness of commercial banks. From a macro point of view, the accumulation of non-performing loans reached a certain level, and even become the fuse of the financial crisis. Therefore, it is of great practical significance to analyze the influence of macro factors on the non-performing loan rate of commercial banks in China and put forward corresponding policy measures and management norms.

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## ТЕОРЕТИЧЕСКИЕ ОСНОВЫ ВЛИЯНИЯ МАКРОЭКОНОМИЧЕСКИХ ПАРАМЕТРОВ НА ПРОСРОЧЕННЫЕ КРЕДИТЫ В КИТАЕ

В данной статье уточняются теоретические аспекты влияния макроэкономических переменных на просроченные кредиты, формулируется авторское определение понятия «просроченный кредит» на основе исследований китайских и зарубежных ученых. Построен SWOT-анализ, отражающий влияние макроэкономических переменных на просроченные кредиты в Китае. Отражено влияние макроэкономических переменных на просроченные кредиты в китайских коммерческих банках.

Ключевые слова: просроченные кредиты, макроэкономические переменные, валовой внутренний продукт, индекс потребительских цен.