¡°National Comprehensive Liability¡±
Measuring the Financial risk of China with Comparison of some Asian Economies

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China is already well known for its high ratio of non-performing loans (NPL) over GDP. Although people have to guess what the ratio be, 20%, 25%, 30%, 40%, etc., one thing may be certain: China may have one of the highest ratios as such in the world, even higher than the pre-crisis situation of some Southeast Asian countries which then went suffering financial crisis.

Then the puzzle is: While other countries which has lower NPL/GDP ratio than China have suffered financial crises, why China seems still able to ¡°hold d¡± and continue to grow? seems logical that people come up with prediction that China is going to have financial crisis soon! Assuming there should be no miracles.

This short paper is to make a more comprehensive analysis of Chinese financial situation with comparison with other economies in order to answer above questions.

Non-performing loans and fiscal liability

One of major reasons why China¡¯s SOEs owe so much debt to banks is that the State, th owner of the companies, had put little equity investment into the SOEs at the beginning, and very often up to 100% of investment was made with bank loans.

Meanwhile, when a SOE suffers losses, the State, i.e., the government, now does not give them subsidies from the fiscal budget. Instead, it interferes with banks to arrange more credit to the enterprise, or simply allows the non-performing debt rolling on.

By these ways, the State has been able to shift its financial responsibility for the SOEs from the fiscal budget to the balance sheets of state banks.

Various conclusions can be drawn from above facts. First, the NPL should be viewed as ¡°quasi fiscal deficits¡± as it actually functions as fiscal subsidies to the SOEs. Second, t accumulation of large NPL was actually correlated with smaller fiscal outlet. Therefore, it is predictable that while China may suffer higher ratio of non-performing bank loans, it may enjoy the lower level of fiscal deficits and government debt, if other factors are given.

And that is actually the case. Due to the lower fiscal outlet for enterprise subsidy and the conservative fiscal policy since 1980s, China¡¯s government budget deficits remained as low as under 1% in recent years and the government debt per se was only about 8% at the end of 1997 (see Table 1). Meanwhile, the NPL reached 25% or even higher of total outstanding

bank loans.

Foreign debts

The Southeast Asia financial crisis warns us to pay more attention to the external balance, in particular, to the foreign debts. The short-term foreign debts may be helpful for a developing country to overcome the bottleneck of capital accumulation, but it may turn out to be a source of over-heating and financial bubble (including the assets market inflation), and eventually lead to currency and financial crises. The over borrowing of foreign debt by firms and government (central or local) may be used as a tool to cover the real situation of domestic financial insolvency. The crisis of international balance of payments that happened in East and Southeast economies shows the close relations between the foreign debt and domestic problems. (Thailand borrowed $80 billions or 43% of its 1996 GDP, Indonesia $85 billions or 36% of its 1996 GDP, and South Korea $161 billions or 35% of its 1996 GDP).

China has had borrowed relatively small amount of foreign debt in general, and small amount short term foreign debt in particular (see Table 1). But Chinese borrowers are mainly, if not all, the government institutions and state owned enterprises which are typical inefficient user of resources and therefore with higher possibility to make the loans bad. From this point of view, we may like to estimate higher proportion of China¡¯s foreign debt as ¡ºrisky¡± ass which eventually may need the government to repay them by tax revenue, similarly to both government debt and state bank NPL. For this reason, we may think all China¡¯s foreign deb ($131 billion by the end of 1997[1]) as the government liability. In more detailed study, we may like to have some distinction between inter-governmental debts and some other long-term low-interest debts from the risky short-term borrowings.

¡º National Comprehensive Liability

The above analyses indicate that, to measure the financial liability of Chinese government and the financial fragility of an economy like China, we need not only look at one particular financial liability of the government, but to take all potential responsibilities into consideration. With this purpose, we structure following index as the indicator of China¡¯ ¡º National Comprehensive Liability¡± (NCL

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NCL = \frac{\text{Government debt} + \text{Non-performing loans} + \text{Total foreign debts}}{\text{Nominal GDP}}
$$

For China, NCL in 1997 was about 47% (see table 1).

We may also calculate the NCL for some other economies as a comparison (see table 2). That shows that China¡¯s NCL is actually lower than most crisis-experiencing Asia economies.

It seems that the NCL is a useful analytical instrument as it links all financial liabilities together and indicates various policy options..

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[1] The recent case of GITIC shows that there may be a significant amount of foreign debts unregistered with the central bank. It was estimated as much as $30 billion in total owed by all ITICs.

- When thinking of financing macroeconomic stimulus policy by budget deficits , the government should be warned if the NPL and foreign debt is already too high. The 8% government debt/GDP ratio looks very low, but if we take NPL into account as "quasi government debt" and the foreign debts owed by the SOEs as responsible the government eventually, the total national liability which should be taken care of by the government had already reached quite higher level at 47% at the end of 1998.

- The reason why people may make wrong prediction about the collapse of Chinese economy is that they failed to realize that Chinese government has shifted most of its financial responsibility from the fiscal budget to state banking sector and has kept the fiscal deficits and government debt at an extraordinary low level. The NCL shows that there still some room for the government to use the debt financing approach in short run to deal with the NPL and other financial problems in order to avoid financial crisis and collapse of the state banks.

- China's NCL is relatively low compared to other countries, not only because China government debt is relatively small, but also thanks to the low foreign borrowing. Even if we take all possible itics' unregistered short-term borrowings into account the financial risk may be still remain in a manageable range. If we take all long-term, inter-governmental (including World Bank loans) debt away from the above equation and only take the short-term foreign debt (that only accounts for 1.5% of GDP) into account, China's financial risk measured by NCL may be even lower (See Table 1)

- It is observed that China's NCL has been rising in recent years, due to th deterioration of the performance of the State sectors and the economic slowdown and deflation. Therefore, it is urgent for China to speed up the reform of SOEs and the financial sector and meanwhile to keep the economy growing.

Social Security Debt?

People may argue that there are other "bad things" that should be put into government account as well. For example, the Chinese government also owes state workers for their social security fund as it reinvested all the profits in the past and did not accumulated the pension funds. Similarly, it may be argued that the government owe people housing funds as the wages did not include the income allowing people to pay their housing.

Nevertheless, it is also arguable that the non-performing loans have already captured those "bad things" For example, the pension program is now run in the way of "pay-as-y go" On the other hand, one important reason that SOEs owes so much NPL is just because the actually borrow money from banks to pay people the pension dues and housing constructions (so-called "social burdens"). After the reform of social security system, if a pension fund r in short, it will also borrow to pay the bill. We should not take all future cash flows (that have not yet been spent like NPL and fiscal deficits) as current government debt. And we may run into problem of double counting if we add the unfulfilled pension fund to the NPL. Similarly, we should not count the "housing debt" when we already appreciate the " low la cost" of Chinese industry

The Chili case shows that one way to fulfill the pension accounts is to increase the government debt. But that also means the possible transfer (substitution) from bank non-

performing loans to the government debt. To think this issue in another way (other policy), we may count part of the value of state assets as the potential pension fund if we can sell the state assets to fulfill the funds. The difference between Chili and China is that China has much bigger state sector.

Inflation

Inflation is another factor of financial risk and anti-risk policies we should think about.

Inflation is good for devaluating the existing (already-occured) non-performing loans. This relationship is shown in the NCL in which the inflation is a factor of denominator.

But inflation is bad with regard to the financial risk control:

1. Inflation may cause over evaluation of the currency if under pegging system. Under floating regime, domestic inflation will reduce the competitiveness of the economy in the world market.

2. >From the point of view of policy option, the higher the inflation, the less feasible for the government to deal with the NPL or/and government¡¯s indebtedness problems b printing more money.

To capture the impacts of inflation, we may form a following indicator as ¡**National Comprehensive Financial risk indicator** (NCFR)¡±

$$
NCFR = \frac{\text{Government debt} + \text{Non-performing loans} + \text{Total foreign debts}}{\text{Nominal GDP}} \times GDP\ deflator
$$

According to this, when an economy is suffering the deflation, its financial risk may be higher because the ¡°nominal GDP¡± as the denominator is smaller while the previous occurr debts are all in higher nominal value.. But on the other hand, the government now is in position to deal with the problem by printing more money (and it should be recommended with such a policy as macroeconomic stimulus). That means the risk might be more manageable. However, the net effect depends.

NCFR seems more comprehensive as it captures the public policy factors such as budget deficits and inflation which were much focused by policy discussants before 90s, and other factors as well that have been playing more roles in recent financial turmoil such as private sector borrowings.

More international comparison

The above indicators, NCL and NCFR, may be basically applicable to the developing countries or transition economies, but not the more developed market economies.. The key complication here is how to measure the impacts of overseas investment by the countries. For example, Japan has high government debt and NPL, but it may not be easy for it to run into

serious financial crisis as it has huge amount of overseas investment which may have not suffered much from the burst of ¡°home bubbles¡± but continue to serve as the sources corporate revenues.

Keeping this complication in mind, it may be still meaningful to make comparison between NCL or NCFR of developing countries and the government debt/GDP ratios of the developed countries as a reference.

Conclusions for policy study

China at moment has serious institutional and cyclical problems. Both NCL and NCFR have been worsening. But it may not face immediate financial crisis as both NCL and NCFR indicate. Instead, it should and is able to increase its government debt and money supply to stimulate the growth and inflation, while keeping the short term financial risk in a manageable range. But it should be made clear that such an expansionary policy is not a substitute for institutional reforms which are necessary to reduce the long-term fundamental risks of the economy.

Table 1. China¡¯s Financial Risk Indicator

	1997	1998	1998**
NPL as % of GDP*	25.05	27.19	
Government debt as % of GDP	7.32	8.78	
Total foreign debt as % of GDP	14.70	14.57	
Of Which short term debt as % of GDP	1.53	1.5	
National Comprehensive Liability	**47.07**	**50.53**	**37.45**
Inflation rate	0.8	-2.6	
National Comprehensive Financial Risk	**47.87**	**47.95**	**34.85**

* Estimated.

** This column is based on the ¡°short-term foreign debt¡±, not all foreign deb

Source: China Statistical Year Book, 1998; Materials from People¡¯s Bank of China

Table 2. International Comparison of National Comprehensive Liability (1997)

	JAPAN	Thailand	Indonesia	Korea	
(1)Total foreign debt (Balance, in billion)		91.8	136.2	155.4	WB &ADB data base
(2) Total foreign debt (Balance, (in bn of local currency)		3151.0	412760.0	140170.0	Based on annual average exchange rate
(3)Government domestic debt, balance (in bn of local currency)	508354.3	69.3	6278.5	28543.0	Balance at the end of the year
(4)NPL/total banks¡¯l oans(%	12.3	26.6	32.5	25.2	JPM 1998-2 estimate;
(5)Total Bank loans (in bn of local currency)	624864.0	7723.6	361736.9	558481.0	Merry-Lynch 1998-4
(6)Total NPL, in bn of local currency	76858.3	2054.5	117564.5	140737.2	(6)+(5)　(4)
(7)GDP, in bn of local currency	511864.0	4827.0	578779.0	410647.9	IMF1998 annual report
(8)National Comprehensive Liability Ratio (NCL, %)	**114.3**	**109.3**	**92.7**	**75.4**	**NCL={((2)+(3)+(6))/(7)} ¡Á10**
(9)Inflation (RPI, (%)	1.7	5.6	11.1	4.5	GDP deflator
(10)National Comprehensive Financial Risk Ratio (NCFR, %)	**116.0**	**114.9**	**103.8**	**79.9**	**NCFR = {(8) +(9)}**
* Exchange rate ($1=X local currency)	119.4	34.3	3035.0	902.0	Annual average

Sources:

(1)http://www.boj.or.jp/en/link/link_f.htm

(2)http://www.bi.go.id/

(3)http://www.worldbank.org/html/extdr/data.htm

(4)http://www.bot.or.th/research/public/DataBank/databank.htm

(5)http://bok.or.kr/kobank/owa/stats3_ei_lp=stats&i_top=stats&i_subject