ECON4033: Money and Finance in China

Assignment 1: Short Answer

Please submit your report at the beginning of Week 7's class on (Friday) Oct. 22, 2021. Input your answers in the answer sheet provided on the iSpace if you so wish. Assignment 1 accounts for 30% of your final mark of this course.

1. The following table presents, at the provincial level, the top three and bottom three loan-to-deposit ratios and the respective shares of SOEs in output value and employment. It is argued that the information given in the table indicates a symptom of financial repression. Explain the logic behind this argument based on your understanding of the financial market in China.

Loan-to-Deposit Ratios and SOE Shares in Selected Provinces, 1988 and 1993

	Loan-to-deposit ratio		SOE percentage shares (1993)	
Provinces	1988	1993	Industrial output value	Industrial employment
Top three[a]				
Jilin	1.9	1.9	75	100
Inner Mongolia	1.5	1.6	82	70
Heilongjiang	1.6	1.5	83	71
Bottom three[a]				
Fujian	1.2	1.0	40	42
Zhejiang	1.2	0.9	31	28
Guangdong	1.3	0.8	34	32

[a] Refer to ranks in loan-to-deposit ratio in 1993.

Sources:

i. Loan-to-deposit ratios are from Lardy, Nicholas R. (1998). China's Unfinished Economic Revolution. Washington, D.C.: Brookings Institution.
ii. SOE's output and employment shares are calculated from China Statistical Yearbook (1994).

Total: 10%

Answer:

Financial repression describes a situation in which governments use any measure to channel funds to themselves that, in a free market (a deregulated market environment), would go elsewhere. **(2%)** One of the ways the Chinese banking system has been used to support SOEs is through the interbank lending system. The banking system generally channels resources from provinces with a large nonstate or private sector to provinces with a large state sector. Thus, loan-deposit ratios vary across different provinces. **(2%)** Banks in rich and more reformed provinces are not able to loan more than their deposits, whereas banks in provinces with a large state sector are allowed to do so. **(2%)** As shown in the above table, the top three provinces all have very high SOE shares in output value and

employment, whereas the bottom three provinces, Fujian, Zhejiang, and Guangdong, the most reformed provinces, have a small state sector. **(2%)** The Chinese banking system, in effect, acts as a giant redistributive mechanism to transfer savings from the private sector to finance the investment and social obligations of the state sector. **(2%)**

2. This question is related to investment in China.

   a. Visit either of the following websites to download investment shares of GDP (%) of China and the U.S.. Generate a line chart to plot these two time series variables over time. **(3%)**

      https://databank.worldbank.org/source/world-development-indicators
      https://databank.worldbank.org/home.aspx

      Note that, apart from the recent pandemic, the U.S. was officially in recession in 2001, 2008 and 2009, whereas China's economy also slowed down in 2002-2003 and 2008-2009 because of the SARS outbreak and the global financial crisis, respectively.

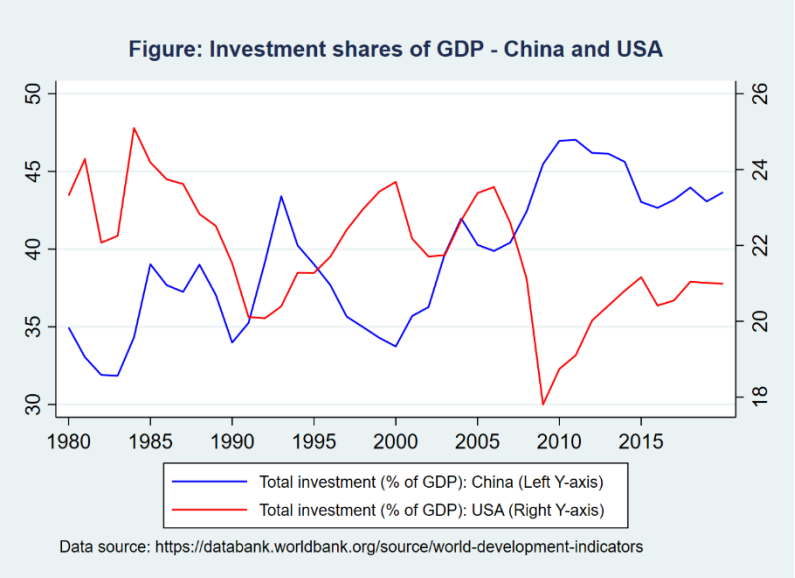
   b. Discuss the changes in the investment shares of GDP of the U.S. during recessions and link that to the traditional cash flow net present value approach discussed in the lecture notes. **(3%)**

   c. How can you explain the change in China's investment shares of GDP during economic downturns? Discuss whether the approach in (b) is applicable to China. Do you think that this is important to the economic development of the coming years? **(6%)**

Total: 12%

Answer

a. The following diagrams show China's and the U.S.'s investment (gross capital formation) shares of GDP. **(3%)**



b. During recessions, the investment share in the U.S. decreases. Investment is more sensitive to the macroeconomic environment than consumption. **(1%)** Many firms revised their expected future cash flows downward. The net present value of many investment projects would become negative. As a result, these investment projects would not be carried out. **(2%)**

c. Investment as a share of GDP in China roses when the growth rate slows down. It appears that the net present value approach to investment does not apply here. **(2%)** In the bad years, the expected cash flow of most investment projects should be scaled down, and thus, profit-maximizing firms would reduce their investment. In China, however, investment went up, largely because of the counter-cyclical policy of the government. **(2%)** Investment is still heavily influenced by government policy in China. Many state-owned firms and local governments are not mainly driven by the profit motive. Rather, they have a strong incentive to enhance the growth of the economy and the sizes of the firms. In normal times, they are often rationed in the credit market. During recessions, however, the central government would loosen the credit constraints and encourage local governments and state-owned firms to borrow to invest. **(2%)**

3. Consider the saving behavior in China.

a. China's population during the next fifty years will become, on average, older. It is estimated that, by 2050, about 24 percent of the population will be over the age of sixty-four compared to only about 6.8 percent today. How would this affect the saving rate of China according to the life cycle theory of savings? **(3%)**

b. What is the limitation of using household consumption theory alone to explain the high saving rate in China? **(2%)**

c. A major theme in corporate finance is that when firms have "excess" cash they should pay it out to their shareholders. What are the implications of this concept for China's dividend policy and national savings and consumption? **(3%)**

Total: 8%

Answer:

a. In the life cycle hypothesis (LCH), an individual recognizes three ages — youth, working-age, and retirement. Before retirement, we save money; during retirement, we dissave. Roughly speaking, the saving that is undertaken during our employment years matches the consumption undertaken during years of retirement. Youth and retirees neither earn nor save — only consume and dissave. **(2%)** Consequently, as China's population ages, the household saving rate decrease based on the life cycle theory of savings. **(1%)**

b. The focus on consumption in explaining savings is, to some extent, misguided since the larger part of China's savings comes from institutions rather than private individuals. That is to say, the sum of profits of SOEs and private companies and government budget surpluses are larger than individual savings. **(1%)** The rural and urban households on

average save about 30 percent of their disposable income. Consequently, it is nearly impossible to explain China's national savings rate of over 50 percent through savings and consumption by individuals alone. **(1%)**

c. The dividends payouts are very low in China. Game theory and corporate finance offer a possible explanation: Due to asymmetric information, firms find it costly to conduct external financing. Potential investors would ask for risk premium since they feel they do not have the full information about the underlying investment project and thus are disadvantaged. Consequently, firms go for a less costly option, i.e., internal financing through increasing retained earnings (corporate saving). This raises the corporate saving and reduces household income and consumption. **(3%)**