

China Perspectives

MACROECONOMIC POLICY AND STEADY GROWTH IN CHINA

2020 DANCING WITH THE BLACK SWAN

Edited by
Zhang Xiaojing



Macroeconomic Policy and Steady Growth in China

Since the appearance of macroeconomics in the 1940s, economists have created many theoretical frameworks to explain the origin and mechanism of economic fluctuations. However, few of these have managed to gain explanatory power over reality; nor can they solve real-life problems. This book proposes a new macroeconomic paradigm that makes breakthroughs in these areas.

Based on a balance sheet approach and macro-financial linkage analysis, this book carries out a comprehensive analysis of the trends within China's macroeconomy in 2020. The author argues that the COVID-19 pandemic created a great degree of uncertainty—therefore, supply-side structural reform and improved total factor productivity have been promoted to ensure a policy of steady growth. Given the declining economic growth rate in percentage terms, China has needed to adapt to a moderate increase in the leverage ratio while applying more effective fiscal policies to achieve a dynamic balance between stable growth and risk prevention.

Scholars and students of economics and finance, especially Chinese economics, will find this book a useful reference.

Zhang Xiaojing is a professor of economics and director of Institute of Finance & Banking (IFB), Chinese Academy of Social Sciences (CASS); director of National Institution for Finance & Development (NIFD); and a member of Chinese Economists 50 Forum. His research interests are open economy macroeconomics, macro finance, and development economics.

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Macroeconomic Policy and Steady Growth in China

2020 Dancing with the Black Swan

Edited by Zhang Xiaojing

Translated by Wang Pinda

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Contents

<i>List of Figures</i>	vii
<i>List of Tables</i>	xii
<i>List of Contributors</i>	xiv
<i>Preface</i>	xv
PART I	
Introduction	1
1 Dancing with the black swan: the balance between economic growth and risk in a new paradigm	3
ZHANG XIAOJING	
PART II	
Stabilizing growth	25
2 The analysis and prospects of consumption	27
LI CHENG AND LIU XUELIANG	
3 The analysis and prospects of investment in fixed assets	53
LIU XUELIANG	
4 The analysis and prospects of external economic development	79
ZHANG YING	
PART III	
Stabilizing leverage	95
5 Analysis of the household leverage ratio	97
ZHANG XIAOJING, CHANG XIN, AND LIU LEI	

vi *Contents*

6	The analysis of the corporate leverage ratio	125
	ZHANG XIAOJING, CHANG XIN, AND LIU LEI	
7	The analysis of the government leverage ratio	143
	ZHANG XIAOJING, CHANG XIN, AND LIU LEI	
8	The analysis of the financial leverage ratio	159
	ZHANG XIAOJING, CHANG XIN, AND LIU LEI	
9	The estimation of local governments' hidden debt and its risks	174
	LIU LEI	
PART IV		
Stabilization policy		209
10	Analysis and outlook for fiscal policy	211
	LIU LEI	
11	Analysis and outlook for monetary policy	234
	CHEN HANPENG	
12	The global economic predicament and the transformation of China's macroeconomic policy	255
	TANG DUODUO	
	<i>Afterword</i>	284
	<i>References</i>	286
	<i>Index</i>	296

Figures

1.1	Growth estimates from the World Bank versus the actual growth rate of China	10
1.2	The Slowdown of Fast-growing Economies	12
1.3	Interest payments and the increase in nominal GDP (2008-19)	17
2.1	The share of e-commerce sale in total consumption goods retail sale (year-to-date)	29
2.2	Household consumption rate (consumption/disposable income)	30
2.3	Year-on-year growth rate of short-term consumption loan	30
2.4	The proportions of major categories of household expenditure (accumulative)	32
2.5	The comparison of urban and rural residents' income and consumption	33
2.6	Household consumption rate (X-axis) and GDP per capita (Y-axis)	35
2.7	The proportion of consumption goods retail sales of China's three regions	36
2.8	Consumption/GDP ratio of several major countries	37
2.9	U.S. household consumption structure (at the end of 2018; seasonally adjusted)	38
2.10	The top 10% earner's share of total household income	39
2.11	Housing asset's share of total household assets	40
2.12	International comparison of housing expenditure's share in total expenditure	43
2.13	The comparison of price indices	43
2.14	The ownership of consumer durables per 100 urban households	45
2.15	The ownership of consumer durables per 100 rural households	46
2.16	The urban-rural comparison of consumer durables ownership (2018)	46

viii *Figures*

2.17	The sales and growth of China's passenger vehicle market	48
2.18	Japan and South Korea's car sales and car ownership per 1,000 people	50
3.1	The change in the growth of fixed asset investment	54
3.2	The growth of private sector fixed asset investment (FAI)	55
3.3	The fluctuation of growth in infrastructure investment	56
3.4	the growth of investment in real estate development	57
3.5	Fixed asset investment growth by sector	58
3.6	The growth of fixed asset investment in the construction sector	58
3.7	Fixed asset investment growth by region	59
3.8	North-south difference in fixed asset investment growth	60
3.9	The change of CPI and its components	62
3.10	The real estate inventory pressure in China (measured by the inventory-sales ratio)	66
4.1	China-U.S. trade disputes and the fluctuation of the yuan's exchange rate with the U.S. dollar	84
4.2	The nominal effective exchange rate (NEER) and the real effective interest rate (REER) of the Chinese yuan	84
4.3	China's external assets and liabilities	89
5.1	Household leverage ratio of selected countries	98
5.2	The short-term and long-term effects of household leverage growth on consumption	99
5.3	The household leverage ratio	109
5.4	The proportion of different kinds of household loans in China	110
5.5	Household saving rate of selected countries	113
5.6	Ratio of household debt to disposable income of selected countries	114
5.7	Household debt-to-asset ratio of selected countries	115
5.8	Household leverage ratio of China's big and medium cities (at the end of 2018)	117
5.9	Comparison of the sum of provincial GDP and the national GDP	118
5.10	Household leverage ratio of selected provinces (2019 Q2)	119
6.1	Non-financial corporate leverage ratio of China	126
6.2	Annual growth of non-financial corporate leverage and PPI	127
6.3	The quarterly growth of non-financial corporate leverage ratio and PPI	127
6.4	Non-standard financing of non-financial corporations as a share of GDP	128
6.5	The scale of corporate bond defaults	129
6.6	Debt-to-asset ratio of SOEs and industrial enterprises	130

6.7	The proportion of SOE debt in total non-financial corporate debt	131
6.8	Debt growth of SOEs and industrial enterprises	132
6.9	Debt-to-revenue ratio of SOEs and industrial enterprises	133
6.10	Components of non-financial corporate debt	134
6.11	The ratio of corporate external debt to GDP	136
6.12	China's saving rate	137
6.13	The share of equity financing in the total existing stock of financing	138
7.1	Government leverage ratio and real GDP growth	144
7.2	China's government leverage ratio	145
7.3	Size of government bonds	147
7.4	Net government debt as a share of GDP	147
7.5	Year-on-year growth of infrastructure investment and its components	148
7.6	Revenue and spending of local government and the gap as a share of GDP	155
8.1	A broad measurement of financial leverage ratio	163
8.2	Growth of commercial banks' total assets, and the share of interbank assets and debts	164
8.3	Financial leverage ratio of selected countries	164
8.4	Financial leverage ratio/real economy leverage ratio	168
9.1	Local governments' explicit debt	186
9.2	The size and components of local governments' explicit debt	186
9.3	Hidden debt incurred by LGFVs	188
9.4	Hidden debt incurred by other financing entities apart from LGFVs	191
9.5	Estimation of local governments' hidden debt according to financing entities (using all LGFV debt)	191
9.6	Bank loans in local governments' hidden debt	192
9.7	Trust loans in local governments' hidden debt	192
9.8	Entrusted loans in local governments' hidden debt	193
9.9	LGFV debt in local governments' hidden debt	193
9.10	Local governments' hidden debt from other financial products (including asset management by securities companies, separately managed fund products, and finance lease)	194
9.11	Local governments' total hidden debt according to financing instruments	194
9.12	The share of different financing instruments in local governments' hidden debt	195
9.13	Annual increase of local governments' hidden debt according to financing gap	197

9.14	Local governments' hidden debt according to financing gap	197
9.15	Local governments' hidden debt (broad definition) as a share of GDP	198
9.16	Local governments' hidden debt (NAO definition) as a share of GDP	199
9.17	Local governments' hidden debt as percent of GDP	199
9.18	Adjusted local governments' hidden debt as a share of GDP	201
9.19	Explicit vs. overall government leverage ratio	202
9.20	Adjusted non-financial corporate leverage ratio	202
9.21	Adjusted leverage ratio of the real economy	203
10.1	Year-on-year growth of general public fiscal revenue	212
10.2	Year-on-year growth of Fiscal revenue and expenditure	212
10.3	Growth of governmental fund revenue and expenditure	213
10.4	The structure of state-owned capital operating revenue	214
10.5	Annual growth of social security revenue and expenditure	215
11.1	Year-on-year change of main asset items on the PBOC's balance sheet	236
11.2	Yield to maturity of one-year interbank certificate of deposits rated AAA and AA	238
11.3	China's M2 growth and money multiplier	238
11.4	The trends of main PBOC interest rates and financial market interest rates	240
11.5	Currency market interest rate and fixed-term deposit rate	241
11.6	Interest rates for private lending and loans from financial institutions	242
11.7	Real interest rate for producers and mortgage interest rate	243
11.8	China's one-year LPR	244
11.9	The supply and demand curves of the monetary base	246
11.10	The rise in price levels and its effect on base money demand	247
11.11	The rise of currency market interest rate	247
11.12	The central bank increases money supply	248
11.13	The actual value, fitted value, and residual of m_t	252
11.14	The leverage ratio in the real economy of China	253
11.15	Trends of China's main interest rates	253
12.1	Economic growth in major economies	256
12.2	Inflation of major economies	257
12.3	Ten-year government bond yields in major economies	258
12.4	Real sector debt-to-GDP ratio in major economies	259
12.5	Google Trends Index of "secular stagnation" and "financial cycle"	260

12.6	Shadow banking in China	266
12.7	Financial deleveraging and financial market fluctuations	267
12.8	The leverage ratio of China's real economy	268
12.9	Financing cost ratio of non-financial businesses in China	270
12.10	Loan-to-asset ratio of China's listed companies	271
12.11	Marketing cost ratio and managing cost ratio of China's non-financial listed companies	273
12.12	China's nominal GDP growth and representative interest rates	276
12.13	China's net added debt as a share of GDP	277
12.14	The new trinity of China's macroeconomic policy framework	279

Tables

2.1	The ratio of major consumption categories among urban and rural residents (%)	34
2.2	Sales growth of selected luxury car brands (%)	48
3.1	The ratio of residential housing inventory to sales in selected countries and regions	68
3.2	Comparison of OECD and China about rooms per capita and living conditions	70
4.1	Important events in the China-U.S. trade disputes	82
4.2	Estimation of China's reserve adequacy (2019 Q3)	86
4.3	Estimates of China's cross-border capital flow in the private sector (\$bn)	88
7.1	The balance of local government debt (¥bn)	146
7.2	Size and proportion of maturity for local government bonds and LGFV debt	149
9.1	Government liability matrix by the World Bank	179
9.2	Number of local governments with governmental debt	181
9.3	The growth of the balance of local governmental debt in 1997–2011 (%)	182
9.4	The size of local governmental debt at the end of 2010 (¥ bn)	184
9.5	The size of local governmental debt in June 2013 (¥ bn)	185
9.6	The size of LGFV debt	187
9.7	Estimates of local governments' hidden debt according to financing entities (¥-trn)	190
9.8	Local governments' hidden debt according to financing instruments (Jun 2013)	196
10.1	Revenue and expenditure of “Four accounts” and their share of GDP, 2018	216
10.2	The change in sectoral balance sheets caused by national bond issuance	226
10.3	The change in sectoral balance sheets caused by government spending	228
10.4	The combined change in sectoral balance sheets	229

11.1	Assets and liabilities of the PBOC, 2019	235
11.2	Description of variables in the model	249
11.3	OLS estimation of m_t	251
12.1	Simulations of China's macro leverage ratio in the next five years (%)	278

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Preface

This book has been reprinted several months after its initial publication in March. The recognition by the market makes me feel very fortunate.

As an annual macroeconomic report, many data in this book are obsolete by now. But our book is more focused on the perspectives and methods (“paradigms”) of analysis, and is broadly right in its basic judgments, which is not an easy achievement. Perhaps this is one of the reasons this book is able to be reprinted.

Here I wish to add the latest developments in the theme of stabilizing growth and preventing risk. First, the Chinese government has exercised restraint in the balance between stabilizing growth and preventing risk.

The macro leverage ratio rose greatly, as expected, because of the COVID-19 pandemic, from 245.4% at the end of 2019 to 259.3%, an increase of 13.9% in just one quarter. But this is still below the historical peak of 14.2% growth in 2009 Q1. The macro leverage ratio rose further to 266.4% in the second quarter of this year, a rise of 7.1%. The reduced growth rate of leverage shows the government’s restraint in expansionary policies, which did not ignore risks. The slowing growth of the leverage ratio in the second quarter is mainly because economic growth turned from negative to positive. If economic growth further recovers in the second half of this year, we can expect a slowing growth or even a quarterly fall of the macro leverage ratio. Of the 13.9% leverage growth in the first quarter, the rise of corporate leverage contributed 70.5%, government leverage contributed 15.8%, and household leverage contributed only 13.7%. Of the 7.1% leverage growth in the second quarter, the contribution of businesses, government, and households was 46.5%, 25.3%, and 28.2%, respectively. Compared with the previous quarter, the second quarter saw the marginal contribution rise for the household and government sectors. This has also facilitated the reasonable adjustment of the internal structure of leverage.

Second, China’s macro leverage ratio may rise to 270% in 2020.

We have conducted a simulation of China’s macro leverage ratio in 2020. We assume that the rise in the level (not the growth rate) of household and corporate debt is the same as in 2019, and government debt increased by an extra ¥5 trillion. The overall debt growth will reach 11.6%, which is the same

as the average debt growth in the past five years (2015–19). We further assume that nominal GDP growth is 3% in 2020 (and real GDP growth is slightly below 2%). Then, the leverage ratio will rise by 20.5% throughout the year. But the authorities have stipulated that this year's financial credit support will be stronger than in 2019. We therefore assume that the growth of real economy financing is 13%, slightly higher than the average of 11.1% in the past five years. The growth of debt is also close to 13% (historical data shows that debt growth is close to financing growth). Assuming nominal GDP still grows at 3%, the leverage ratio will rise by 23.8% throughout the year, reaching 270%. But even though this happened, the rise of leverage in 2020 still does not exceed the historical peak of 31.8% in 2009.

Finally, we should stay alert to the problems and risks arising from the mismatch between credit and real economic activity.

Faced with a once-in-a-century shock brought by the pandemic, the authorities have decreed that credit growth should be significantly higher than in previous years. This is totally reasonable, as the government needs to provide ample support to alleviate difficulties and recover the economy. In fact, the unlimited quantitative easing in major advanced economies are even more expansionary. But because of the pandemic, real economic activity is weak, and can only absorb a limited amount of credit. A lot of credit demand is used for alleviating present difficulties as opposed to the expansion of commercial activities. This will lead to a mismatch between “significantly higher credit growth than previous years” and “significantly lower real economic activity than previous years,” which has two consequences. One is a large increase of the macro leverage ratio, and the other is the risk of arbitrage and a rapid rise in asset prices. This is why we should emphasize that economic policy should be appropriate in size and grasp the long-term balance between stabilizing growth and preventing risk.

The pandemic is still raging, and the world will never be the same. The year 2020 will be remembered in history, and an important reason is that the COVID-19 pandemic is a watershed even at historic proportions. Whatever questions we discuss, and whatever perspectives we choose, the pandemic is something we cannot ignore.

Xiaojing Zhang
3 September 2020

Part I

Introduction



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1 Dancing with the black swan: the balance between economic growth and risk in a new paradigm

Zhang Xiaojing

I A new paradigm of macroeconomic analysis

Every kind of macroeconomic analysis needs a theoretical framework, whether explicit or implicit. A good macroeconomic analysis should at least be theoretically consistent and has strong explanatory power over reality. Mediocre ones, by contrast, merely state the facts. They seem to have grasped the key points, but are fundamentally untenable because their theoretical logic is often self-contradictory. Moreover, macroeconomic analysis concerns predictions of the future. History suggests that the predictions based on theoretical models are prone to errors, some of which may be no better than a crystal ball. They may even make big mistakes by failing to predict a major crisis. Therefore, economists should be humble regarding predictions. The theory and analytical framework of macroeconomics is more focused on the analysis of correlation, structure and mechanism.

There is more than one paradigm of macroeconomic analysis. In fact, since the appearance of macroeconomics in the literatures since the 1940s, traditional Keynesianism, neo-classical economics, and neo-Keynesian economics have been in constant competition. The central task of scholars and policymakers has been to distinguish and choose between those competitive macroeconomic theories. Decades have passed since then, but there is still no consensus regarding whether neo-classical economics, neo-Keynesian economics or some other framework can correctly explain the origin and mechanism of economic fluctuations.

The current mainstream macroeconomic paradigms roughly follow the tradition of Keynesian aggregate demand analysis, and use the DSGE model as the workhorse model to discuss the origin and mechanism of economic fluctuation and provide suggestions of stabilization policies. But these paradigms all fall short regarding the focus on financial complexity, the attention on stock and structural indicators and the depiction of risk. This is the lesson that mainstream economics has drawn since the 2008 financial crisis. In view of that, this book proposes a new macroeconomic paradigm that makes breakthroughs in those areas. The main novelty of this paradigm is to use a stock perspective, such as the balance sheet approach, to reveal

the macro-financial linkages, build the financial foundation of macroeconomics and provide a new analytical path regarding the balance between growth and risk. The change in paradigm contains, to some extent, a critique of mainstream macroeconomics. It also borrows ideas from “heterodox” macroeconomic approaches such as post-Keynesian economics, stock and flow methods and Modern Monetary Theory (MMT).

The authors of this book and their research team have made some useful explorations about the new paradigm of macroeconomic analysis in recent years. Specifically, our progress focuses on the following areas:

First, the research of the national balance sheet. This research was started in 2011 and produced three books in Chinese,¹ two books in English and a number of research papers. The work provides the foundation of the theoretical framework and the application of the balance sheet approach.

Second, the research of macro leverage ratio. The macro leverage ratio, defined as the proportion of debt to GDP, is an important indicator of macroeconomics risk. The analysis of this ratio can contribute to the discussion about the balance of growth and risk.²

Third, the research of the financial cycle. The rise of the financial cycle theory means that the impact of finance, including credit and real estate, on the economy is exceeding that of the business cycle.³ Macroeconomics without the consideration of the financial cycle is like *Hamlet* without the prince.

Fourth, the research of financial stability in a balance sheet perspective. This line of research is largely outside of the mainstream. We used the balance sheet approach (especially the national wealth approach) to redefine financial risk and financial stability using the relation between the real economy and the financial sector.⁴

Fifth, the restructuring of the macroeconomic policy framework.⁵ Since the 2008 financial crisis, economists and policymakers have entered a “brave new world” where problems far outnumber solutions. The new macroeconomic policy framework has yet to emerge, and there is a long way toward consensus. We propose a new direction of restructuring macroeconomic policy framework based on those international discussions and the unique characteristics of Chinese macroeconomic regulation.

Sixth, the research of MMT. This heterodox theory, which originated about two decades ago, has risen in prominence today. One of the main reasons lies in the difficulties in policy responses of rich economics since the 2008 financial crisis. MMT has some inherent theoretical inconsistencies, but it can help us in realizing the essence of currency, improving the macroeconomic paradigms and dealing with real-world economic problems. Also, the “non-mainstream” methods of MMT are also very informative.⁶

Those research perspectives to be sprawling in multiple directions, but they are roughly centered on two themes: macro-financial linkage and the balance sheet approaches. Therefore, these seemingly fragmented research

programs can form a complete picture, which is our new paradigm of macroeconomic analysis. The following sections will discuss those two themes respectively.

1 Macro-financial linkages

Macro-financial linkages have become a focus of both the academia and policymakers since the 2008 financial crisis. The IMF pays especially strong attention to this. Macro-financial linkages, or the relations between the financial sector and macroeconomic growth, is the analytical framework of the *Global Financial Stability Report* (GFSR), one of the IMF's two flagship reports (the other is *World Economic Outlook*). It focuses on how the financial sector spreads and amplifies economic shocks. Before the financial crisis, policymakers and scholars have been ignoring macro-financial linkages. However, we can find such financial vulnerabilities in many crises, such as high leverage or maturity mismatch. GFSR has proposed an indicator of financial risk: GaR (Growth at Risk). GaR depicts the risk of an economic downturn using the lower quantile of GDP growth under given financial conditions.⁷ Empirical results show that a loose financial condition indicator can significantly lower the risk of economic downturn at the margin, but this effect is not sustainable and decreases in the medium term. This result puts an emphasis on the intertemporal substitution effect: loose financial regulations can boost economic growth and reduce fluctuations in the short term, but fluctuations in the medium term increases due to the accumulation of endogenous vulnerabilities.⁸ This is consistent with our recent research findings that accumulating debt can significantly boost economic growth but only in the short term (the effect is no longer significant after only a two-term lag), and that debt accumulation, as measured by the leverage ratio, has a negative effect on future growth. This reveals the complexity of debt-driven economic growth.⁹ The risk in financial stability is often measured by the probability of a banking crisis, but it has not been depicted rigorously in terms of macroeconomic policymakers. GaR, on the other hand, measures the systemic financial risk from a growth risk perspective, and therefore can bring financial stability risk into a broader macroeconomic model.

The macro-financial linkage approach also pays strong attention to the Financial Cycle. The debate about the economic cycle has a long history. And the financial cycle, or economic cycles that take finance into consideration, has gathered attention since the Great Depression of the 1930s, but has waned since the rise of the Real Business-Cycle theory (RBC) in the 1970s. More recently, it has risen in prominence again after the 2008 financial crisis. In the wake of the crisis, people seem to have suddenly “remembered” the Japanese bubble of the 1980s, the Asian financial crisis of the late 1990s, the dotcom bubble and its burst in 2000, which all bear some relations to the financial cycle theory. Research papers with “financial cycle”

as a key word have mushroomed in the recent literature, a lot of which come from international organizations such as the Bank for International Settlements (BIS) and the IMF. Those organizations' focus on this issue highlights the newfound importance of financial cycles on the real-world economy. The patterns of financial cycles have only strengthened since the liberalization and globalization of finance in the 1980s. Economic cycles (or business cycles) loomed large before, but the impact of financial cycles has grown to outweigh business cycles. Moreover, financial cycles have a global impact. The global financial markets are even more closely related with larger spillover effects, creating a "resonance" of global financial markets. Economic cycles are usually measured by output indicators, while financial cycles are measured by credit and asset prices, especially real estate prices. Drehmann et al. has found that a typical economic cycle spans around one to eight years, but a financial cycle spans for more than 16 years.¹⁰ And the amplitude of financial cycles is significantly larger than that of economic cycles. Financial cycles lead to the deterioration of resource mismatch. Its cyclical change is not a direct reflection of changes in the real economy. However, despite the relative independence of the financial cycle, the fluctuations in finance can lead to similarly huge fluctuations in resource allocation, and in turn deliver a negative shock to the real economy. During booms, credit usually expands and the leverage ratio increases, which is a direct consequence of loosening financial constraints. This loosening, coupled with widespread optimism, allocates a lot of resources (including capital and labor) to the sectors that are ostensibly prosperous but in fact inefficient, which leads to resource misallocation and drags down productivity growth. This misallocation is temporarily masked by seemingly strong economic growth. But when boom turns to bust, asset price and cash flow go down. Debt becomes the dominant variable of the economy. Meanwhile, economic entities cut down their expenditures in order to repair their balance sheets. Resource misallocation in financial booms is even more difficult to reverse, because the over-concentration of capital in the boom sectors will impede subsequent recovery.¹¹ The research of financial cycles has deepened our understanding of the macro-financial linkage analysis.

Another front in the macro-financial linkage approach is macro-financial network analysis. The European Central Bank (ECB) has made pioneering research in this field.¹² The research of macro-financial networks aims to combine the analytical methods of financial networks and balance sheets in order to comprehensively analyze systemic risks in both sectors. Theoretically speaking, there are three factors that determine the financial risk in a sector: the risk of the sector itself, its linkages to other sectors and the risk in those related sectors. Jean-Claude Trichet, a former President of the ECB, defines financial risk as a risk that "develops inside the financial system and causes extensive shocks to the financial system and the real economy".¹³ The Financial Stability Board believes that systemically important financial institutions have "a large scale, great complexity and

extensive linkage, therefore the shocks they face will cause significant damage to the wider financial system and economic activity”.¹⁴ Those ideas all put an emphasis on both the risk of the institutions themselves and their outside linkages. The analysis of inter-sector linkages needs a macro-financial network that depicts the extensive linkages among different sectors. Castrén and Kavonius,¹⁵ according to the national balance sheets, divide the economy into households, non-financial businesses, banks, insurance, other financial institutions, government and foreign sectors. They used balance sheet data to build a model depicting intra-sector and inter-sector risks.¹⁶ From a macroprudential perspective, the risk of “too connected to fail” is at least as important as the risk of “too big to fail”.

The macro-financial linkage analysis promoted by the IMF, the financial cycle analysis by the BIS and the macro-financial network analysis by the ECB all aim to improve the analysis of the amplifying effect of finance on the economy in an attempt to build a “finance foundation” of macroeconomics.

2 The balance sheet approach

The balance sheet approach (BSA) provides an important tool for the analysis of macro-financial linkage, such as the macro-financial network analysis mentioned above. And balance sheet data have become an important foundation of the quantitative discussions of macro-financial linkage.

The balance sheet approach is a method that uses the national (or sectorial) balance sheet to conduct economic and financial analysis. The rise of this method is closely linked to economic crises. Paul Krugman, an American economist, began to use this approach in 1979 to analyze the impact of deficit monetization on the fixed exchange rate. This can be seen as the beginning of the use of balance sheet approach in modern economics. From the 1990s, successive financial crises erupted in Latin America (such as Mexico and Brazil) and Asia. Discussions of the compilation and research of national balance sheets have become much more lively. Its function has also gone beyond simple statistic calculations and has the potential to become a fundamental method of macroeconomic analysis. The IMF, especially, has put a lot of effort into promoting this approach. From 2002 to 2005, the IMF published a dozen national balance sheets, significantly driving relevant research. The 2008 financial crisis has increased the acceptance of this approach by the academia, governments and international organizations. Some Chinese scholars have also followed this trend and performed some preliminary analysis of China’s economic issues. Richard C. Koo proposed the famous theory of “balance sheet recession” in his book *The Holy Grail of Macroeconomics: Lessons from Japan’s Great Recession*, which contributed to the further spread of the balance sheet approach.¹⁷

As a new paradigm, the balance sheet approach has the following features and advantages.

First, the balance sheet approach is essentially a “stock analysis”. Traditional analysis and policymaking in the field of macroeconomics are mainly based on “flow” indicators such as GDP, investment, consumption, trade volume, fiscal revenue and expenditures, while neglecting “stock” indicators such as assets, liabilities and wealth. But the flow perspective alone is not enough for policymakers to comprehensively assess the accumulative effects and development path of the economy in the long term. More importantly, in order to assess macroeconomic risk (especially financial risk), policymakers must have an extensive knowledge of the scale of existing economic resources and liabilities, as well as a deep understanding of the logical connections and mechanisms of intra- and inter-sectorial claims and obligations. The balance sheet analysis of the economy as a whole as well as its component sectors provides an irreplaceable “stock perspective” of macroeconomic policy.

Second, the balance sheet approach has unique advantages in financial risk diagnosis. This approach clearly defines four major kinds of financial risks: maturity mismatch, currency mismatch, capital structure mismatch and lack of solvency. Those four issues are the key to understanding the origin of economic crises, the mechanism of crises’ spread, and the responses of economic agents and policy makers to crises.

Third, the balance sheet approach offers a new perspective of understanding traditional monetary and fiscal policies, and provides new policy choices. On the monetary front, traditional policies mainly focus on controlling inflation through the interest rates. But this policy has only one target with one tool in hand, which ignores structural risks such as finance’s high leverage. This is also a major reason for the financial crisis. Only by analyzing the balance sheet can we reveal its structural problems and identify and mitigate risks. The novel policy approaches after the financial crisis, such as quantitative easing (QE), can also be understood as the expansion of central bank balance sheets and a swap of assets between central banks and other sectors. As for fiscal policy, the analysis of government balance sheets can contribute to a more comprehensive assessment of fiscal pressure and its room of maneuver, which would be a useful guide to policy choices.

Fourth, the balance sheet approach helps improve macroeconomic regulations and macroprudential policies. This is because the balance sheet approach offers a comprehensive assessment of the overall risk level of the economy. More importantly, the approach also provides a new line of thinking on the mechanism of risk spreading between sectors. It also improves the policymaking and performance evaluation of regulations.

In addition, the National Wealth Approach (NWA)—the “second generation” of the balance sheet approach—provides yet another new perspective in the research of financial stability. When a bank discovers and writes off a non-performing loan to a non-financial enterprise, the act is reflected in the national balance sheet as a transfer of net asset from the banking sector to the non-financial sector. The total national net wealth is

unchanged; it merely moves around between those two sectors. The core idea of NWA is that financial risk emerges from inefficient investments. Those investments are likely to make the national GDP larger than it should be, because it is a mere transfer of capital from the financial sector to the business sector on the balance sheets. It harms financial stability without producing genuine returns. Therefore, the NWA approach tells us to strengthen regulations on such inefficient investments, and revise GDP figures according to the scale of bad debt. The significance of this approach in financial risk research is as follows: It helps to identify inefficient investment and warn about financial risks in advance. It corrects the traditional methods' overestimation of losses in financial crises. It prevents overreaction in crisis response. Those three features improve policies before, during and after a crisis.

II The debate around the potential growth rate

There has been a lot of debate in the academia and the government about whether China should endeavor to keep the GDP growth rate at above 6%. Those discussions are more or less based on the analysis of the potential growth rate. The authors of this book believe that, according to historical precedents, predictions about the potential growth rate are prone to error. But it is also untenable to just ditch the supply side and abandon potential growth rate analysis. It can be exciting to argue for a new path of robust growth based on the potential of demand, but the experience of rich countries in dealing with the decline in potential growth merits caution. We must respect market forces and caution against impatience when thinking of economic growth in the 2020s and beyond.

1 Theoretical predictions tend to lag behind practice

Theoretical predictions about economic growth more often than not lag behind practice. Economic growth at the current level was unfathomable in the pre-industrial era. Japan's postwar growth was also very challenging to traditional thoughts; it was considered as an exception at that time. Then, at the turn of the century, one of the most significant trend in development is the rapid growth of large emerging economies, starting in China and soon spreading to much of Asia and the rest of the world. The growth of those emerging economies, especially China, was underestimated at that time. There has been a lot of predictions about China's economic growth since the late 1970s, and those tend to fall short of the actual growth rate.¹⁸

The World Bank has made some early efforts at predicting China's growth. In its *China 2020* report,¹⁹ published in 1997, the World Bank reflected upon its previous underestimates of China's growth. As shown in Figure 1.1, the bank's growth estimates were too low in 1982, 1983, 1985 and 1992. China's actual GDP in 1995 is twice as high as the bank's 1985

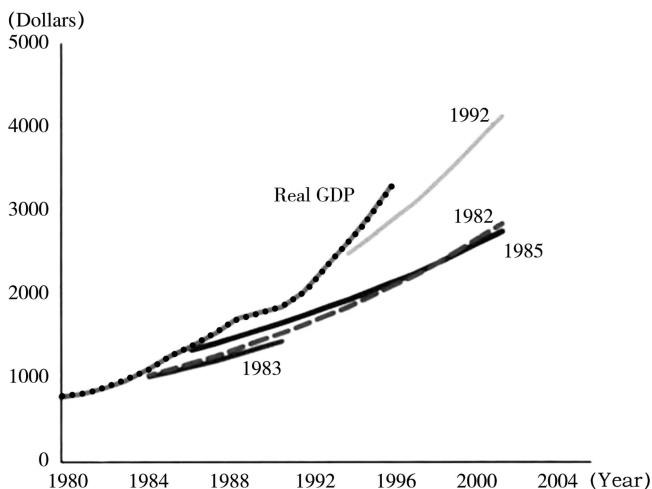


Figure 1.1 Growth estimates from the World Bank versus the actual growth rate of China.

Source: World Bank (1997).

estimate. Even with that experience in mind, the bank's "bold estimates" still failed to catch up with actual growth. Its annual growth estimate of 1996–2000 is 8.4%, very close to the actual 8.6%. But its prediction for 2001–10 was only 7%, while the actual growth rate was 10.5%. It is worth noting that the bank's 1997 report was published before the Asian financial crisis, meaning that its estimate would be even lower if made during the crisis.

Besides the World Bank, Chinese scholars were also overly cautious. This might be because of the influence of the *China 2020* report, but the pessimistic atmosphere in the Asian financial crisis also played a role. After the severe fluctuations of 1998–2001, people became less confident in future growth. Wang Xiaolu, for instance, estimated that China's growth rate would be 6.58% in 2001–10, and 6.21% in 2011–20. This estimate would be suitable to Japan in a similar stage of development, but fell very short in the case of China.²⁰ Jiang Xiaojuan found in international experience that it would be harder to keep a high growth rate after two decades of rapid growth.²¹ She pointed out that no country has achieved a growth rate above 7% for 40 consecutive years before 1960. The 16th National Congress of the Communist Party of China has proposed a goal to quadruple China's GDP from 2000 to 2020. The realization of this target means that China would have to continue its rapid growth in the 20 years, and achieve an average growth above 7% for the past 40 years, a feat that few economies have ever achieved.

Those predictions projected gloom for China's growth in the early 21st Century. The official growth target of 2001–05 was around 7%, but this goal also turned out to be overly cautious. China's growth was only faster

in subsequent years, with an impressive 11.2% in 2006–10, far surpassing predictions.

2 *Is potential growth bound to fall?*

Predictions about China's growth in the 2000s turned out to be overly conservative and failed to predict the new round of economic boom after China joined the WTO and enjoyed the benefits of globalization. Then, as we enter the 2020s, should we be even bolder and think about breaking the "curse" of the falling potential growth rate?

Based on international data, many scholars suggest an "iron law" that a rapidly growing economy will eventually slow down. For example, Pritchett and Summers have proposed a theory of "regression to the mean".²² They believe that any growth level above average is an anomaly, and will eventually regress toward the mean. China's economic growth, according to this prediction, would slow down to 5.01% in 2013–23, and 3.28% in 2023–33. Barro has reached conclusion based on his "conditional convergence", that China's growth will decline significantly to 3%–4%, and fail to meet the official target of 6%–7% in 2016–20.²³ His multiple regressions of economic growth data have yielded an "iron law of convergence", that an economy cannot consistently converge toward more developed economies at a speed of more than 2%. Eichengreen et al. also think that fast-growing economies would eventually slow down.²⁴ An economy would slow down twice in its course of development, first at a GDP per capita of \$10,000 to \$11,000 (measured in 2005 PPP), and then at a GDP per capita of \$15,000 to \$16,000. They also identified some common factors behind the slowdowns, such as the "regression to the mean" effect, an aging population, overly high investment and low returns, and an undervalued currency that hinders the upgrading of industrial structure and technological advance.²⁵

The authors of this book have also conducted extensive research about this issue, and made a chart of changes in economic growth (see Figure 1.2), which shows the economies that successfully overcame the middle-income trap on the left, those who were trapped by the middle-income trap in the middle and China on the right. Our findings are as follows: (1) Successful economies have a higher average growth rate in the 40 years since the start of their booms, while "trapped" economies grow slower on average. (2) The economies shown in the chart did not necessarily slow down in the first three decades, but all of them slowed in the fourth. (3) Japan's growth plummeted from a high rate to below 4%; South Korea's slowdown was smoother, but the only Taiwan, China managed to grow at above 7% in the fourth decade. (4) Compared with the other economies, China's growth was smoother in the first three decades, but also had a downturn in the fourth.²⁶

Although fast-growing economies cannot eventually escape from a slowdown, there are differences in the speed of the slowdown and the

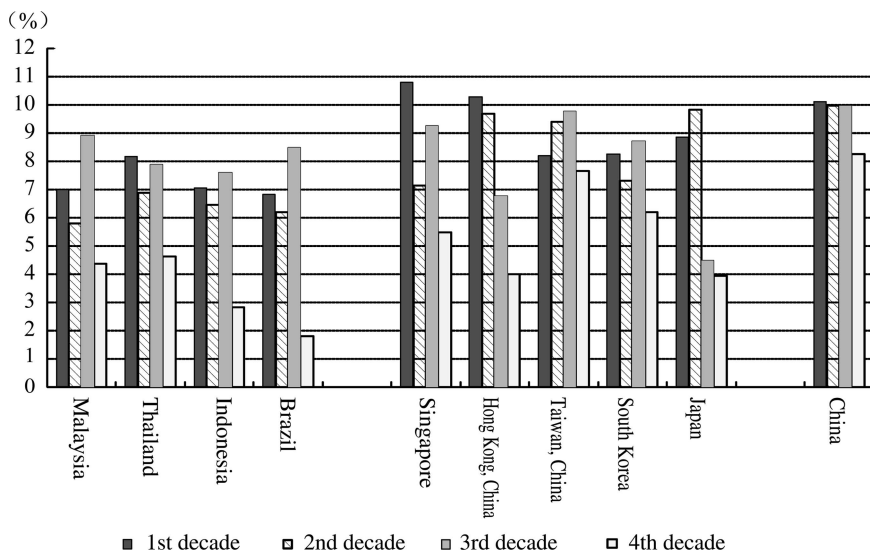


Figure 1.2 The slowdown of fast-growing economies.

Sources: Maddison (for Japan and Brazil in 1951–60), CEIC (for Taiwan, China), China Statistical Yearbook (for China), WDI (for the rest).

Note: The base year was chosen according to the standard of the Commission of Growth and Development, but we chose 1978 instead of the commission's 1961 as the base year for China, because 1978 is the year China started reforming and opening up. See Commission of Growth and Development, 2008, *The Growth Report: Strategies for Sustainable Growth and Inclusive Development*.

possibility to keep a high growth rate for longer. This holds especially true for China, which is undergoing both development and transition. If China can further its supply-side reform and increase total factor productivity (TFP), it is possible to raise the potential growth rate. Cai and Lu show that if TFP increases by 1% annually from 2011 to 2022, the potential growth rate can increase by 0.99%.²⁷

In fact, even the economists who believe in an inevitable slowdown do not deny that there is still a lot of room for China's economic growth. But this depends on the strength of the forces resisting the slowdown. The data in this regard is optimistic. China still has over a billion people who have never taken a plane, and half of the population do not have access to a flushing toilet. A lot of households do not own a car or a decent home. The potential for demand is huge, which will lead to a new round of boom. This analysis of aggregate demand implies that China must adjust its income distribution and reduce income inequality so that the population's potential for consumption can be fully unleashed. The authors of this book agree that income equality is important, but we do not believe that the potential growth rate can stop falling or even increase for this reason. The potential of demand

comes from rising income, rising income comes from GDP growth and GDP growth is ultimately constrained by the supply side. But on the supply side, the working age population is declining. The room for improvement is limited regarding the allocation of resources between urban and rural areas (or the traditional and modern sectors). The growing dominance of the service sector means that raising productivity will be harder. Technological advances will slow as China moves from imitation to innovation. Those developments mean that the potential growth rate is ultimately constrained by the supply side, and that the potential for demand alone is insufficiently persuasive.

3 Lessons of economic slowdown from the USA and Japan

Many rich countries have experienced a fall in potential growth rates before. Therefore, a closer look at those experiences and lessons is beneficial for China. We take the examples of the USA and Japan.

a USA

America's stagflation in the 1970s dragged down its growth rate by 2% from the postwar golden age. But the American government was insufficiently alert to the shock of oil supply, and did not believe that a fall in potential growth rate was imminent. The 1978 *Economic Report of the President* still forecasted a growth rate of 4.5%–5.0% in the following years, and a corresponding fall in unemployment rate by 0.5% annually. In fact, only the year 1978 saw a growth rate of 5.6%. America's growth in 1979–82 was 3.1%, –0.3%, 2.5% and –1.9% respectively, which amounted to a remarkable slowdown. Subsequent research showed that the slowdown in productivity growth started in the 1960s, and was already 1% below historical levels during the oil crisis. The government mistakenly believed that persistently high unemployment is because the economy had not reached the potential level (that is, there were idle resources that could still be put to use), and used monetary policies to stimulate the economy, leading to high inflation. The average inflation rate of 1974–82 was 9.0%, and exceeded 10% in 1979–82. Therefore, the reason for America's stagflation is twofold. Firstly, due to supply shocks, the existing system cannot serve the economic structure well. Secondly, erroneous judgment and ill-advised policy, especially over-expansionary monetary policy, led to high inflation.

b Japan

Japan had an average growth rate of 9.4% in the 1950s, and 10.7% in the 1960s. But growth slowed suddenly to 4.6% in the 1970s. The precipitous fall from high to low growth caught the Japanese government off guard. In fact, the “growth centered” or “GDP centered” mindset underwent some change

in Japan. In the 1960s, the cabinet of Hayato Ikeda put growth as the priority, contributing to the rapid growth at that time. “Economic growth” and “growth rate” became something that the general population outside the academia also talked about, and economists went out of their way to predict growth. There was a consensus at that period to pursue a high growth rate. But the trade-off between growth and welfare rose in prominence in the 1960s. The rise in public hazards and traffic accidents was widely criticized by the public, and that criticism soon spread to economic growth itself; hence the outcry “Go to hell, GNP!” The oil crisis of the 1970s raised costs and inflation, and prices went through the roof. The population craved more stability than growth. The government responded accordingly: it stopped emphasizing economic growth as a policy goal, and lowered its growth target. But old habits of pursuing growth die hard, and miscalculation about the future growth rate was common. The official growth target was 6% for the 1970s, and 4% for the 1980s, while the actual growth rate in those two decades was 4.6% and 3.7%, respectively. The difference between policy targets and actual performance prompted the government to undertake expansionary policy to increase demand. As for the supply side, Japan made progress in corporate governance and energy efficiency after the 1973 oil crisis, but progress was slow in structural reform. Japan failed to reform the dual structure of big conglomerates and small minnows, did not increase efficiency in the financial sector, and failed to clean up “zombie businesses”. The result is that expansionary policies led to the burst of the asset bubble and the hollowing out of industry. “Japan as number one”²⁸ soon turned into “the lost 20 years”.

The key lesson from both America’s stagflation and Japan’s bubble is that their governments made erroneous predictions about the potential growth rate and mainly used demand-side management to stimulate the economy. Demand-side stimulations artificially inflated the potential growth rate, leading to a lack of real growth and a price increase: consumer price increased greatly in America and asset price skyrocketed in Japan. The lesson for China is to keep calm in the face of the falling potential growth rate. More effort should be put into the supply side instead of the demand side in order to raise potential growth or prevent its fall. Thus, consistent supply-side reform is the answer.

III 2020: the difficult trade-off between steadying growth and preventing risk

The lessons of America and Japan mentioned above clearly show the trade-off between steadying growth and preventing risk: risk will rise if stimulus policies are blindly used to push up economic growth without considering the fall in potential growth rate. The “intertemporal substitution effect” of macro-financial linkage analysis also show that loose financial conditions

can only stimulate economic growth in the short term; fluctuation widens and risk increases in the medium term.

Since 2015, bottom-line thinking and risk prevention have taken prominence because China's leverage ratio has skyrocketed. Achieving a dynamic balance between steadying growth and preventing risk has become the main thread in restructuring the framework of China's macroeconomic policy.

China's economy will face a difficult trade-off between steadying growth and preventing risk. During the 13th collective study of the Political Bureau of the Communist Party of China (CPC) Central Committee on 22 February 2019, General Secretary Xi Jinping pointed out that a dynamic financial system leads to a dynamic economy; a stable financial system leads to a stable economy; a prosperous financial system leads to a prosperous economy; a strong financial system leads to a strong economy. The economy and the financial system are in a state of synergy: the former is like the body and the latter is like the blood veins. Xi further emphasizes that the healthy development of the real economy is the basis of preventing and defusing risk. Policymakers should focus on preventing risk on the basis of steadying growth, strengthening the countercyclical role of fiscal and monetary policies, ensuring that the economy runs in a reasonable range, and preventing and defusing risk in the process of promoting high-quality development.²⁹ These remarks provide the fundamental guidance of the dynamic trade-off between steadying growth and preventing risk.

1 Why is the risk problem so important?

Recent events have shown the importance and urgency of preventing financial risk, such as China's rising macro leverage ratio, outside worries about the possibility of a debt crisis in China, the stock market meltdown in 2015 and the Baoshang Bank takeover incident of 2019. This is why preventing and defusing systemic risk is the first among the "three tough battles" proposed by the central government. Risk is omnipresent across time and space. Why has the problem of risk become so important today?

China has created an economic miracle in the past 40 years, but has also accumulated institutional and structural risks. The tangible embodiment of this risk is a high leverage ratio. China's macro leverage ratio is approaching America's level, which means macroeconomic risks are accumulating. China has accumulated risk along with development in the past, and has been defusing that risk with various approaches. In the early 1990s, China experienced a period of widespread, harmful, and prolonged financial chaos which almost reached the level of a national financial crisis. The CPC Central Committee and the State Council got their act together to rectify the financial order, and resolved many financial problems such as chain debts and rural credit cooperatives. That round of risk clearing is very important, and laid the foundation of subsequent development. As a result, China's economy experienced a "soft landing" in 1996. During the Asian financial

crisis of the late 1990s, some Chinese banks experienced technical insolvency. The government started another round of centralized risk clearing measures lasting into the beginning of the 21st century, including the establishment of four asset management companies and the injection of funds toward commercial banks. Those measures also solved many problems of financial risk.

The boom cycle of 2003–08 and the ¥4 trillion stimulus package after the financial crisis have also led to an accumulation of risk, with a macro leverage ratio of nearly 250%. Based on the change in leverage ratio over the past 150 years, we found that macro leverage ratio roughly has a cycle of 30 to 40 years. This length is basically the same as the catch-up period of late-developing economies—countries and regions affected by the Asian financial crisis had experienced 30 to 40 years of high economic growth by the time of the late 1990s. Considering China’s catch-up during the 40 years of reform and opening up, the current macro leverage ratio is roughly at the peak of the cycle, which means risk is also at a very high level after 40 years of accumulation. If we do not have a plan to forcibly clear those risks, and if we do not have a process in which risks from various aspect can gradually release, the Chinese economy would resemble a suspended river propped up by a creaky dam of high leverage, which is very dangerous. It is exactly from this perspective that the problem of risk has become a policy priority. Objectively assessing the “three tough battles” proposed by the central government, China will be able to manage a phased achievement of poverty reduction and pollution reduction. But risk prevention is still on the way: China’s economy is at a stage where financial risks is prone to break out and is at a high level with sustained release.

2 A multi-dimensional measure of risk

The IMF recommends the macro leverage ratio (debt in the real economy/GDP) as a measure of debt risk. The Bank for International Settlements also proposes the gap between current leverage ratio and the long-term trend as a warning of financial instability. This book will also provide several sets of relevant data using macro leverage ratio as a measure of risk.

a How large is the government’s “hidden debt”?

Our analysis uses three measures to estimate local governments’ hidden debt: financing entity, financing vehicles, and the gap of government expenditure.³⁰ The results are roughly consistent and robust. For local governments’ hidden debt at the end of 2018, the three measures give ¥53.5 trillion, ¥47.9 trillion and ¥48.6 trillion, respectively, and is 59%, 53% and 54% as a percentage of GDP. The former two measures both show that the ratio of total debt to GDP has stopped growing in 2018, and local governments’ structural deleveraging is delivering preliminary results. Compared with other estimates,

this book uses the broadest measures. Other estimates of the hidden debt usually yield a figure of less than ¥40 trillion.

In fact, not all hidden debts can be counted as local government debt. For instance, debt from pure commercial activities of local government financing vehicles (LGFV) cannot be wholly counted into local governments' hidden debt. We believe that 60% of those debts become local governments' hidden debt, while others belong to non-financial businesses. On the other hand, the debt from asset management products, finance lease and governmental funds should be fully borne by local governments, and this book counts them into local governments' hidden debt. Accordingly, we estimate that the more realistic figure of local governments' hidden debt at the end of 2018 is ¥32.8 trillion, or 36% of GDP. This result is closer to other relevant estimates.

b The pressure of interest payment under a high leverage ratio

High leverage ratio is the fundamental origin of financial vulnerability. The reason is not only the leverage ratio per se, but also the higher pressure of interest payments resulting from a high leverage ratio. The authors of this book estimated China's interest payments every year since 2008, and compared it with the increase in nominal GDP (see Figure 1.3). The results show that the increase in GDP is higher than interest payments before 2012, but turns lower since 2012. The gap reached the peak in 2014, with interest

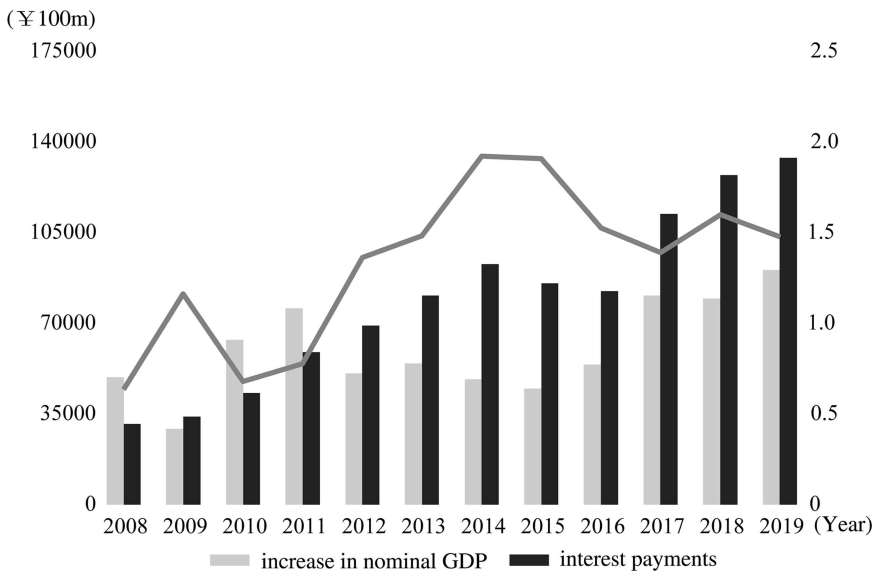


Figure 1.3 Interest payments and the increase in nominal GDP (2008–19).

Sources: Research Center for National Balance Sheet (CNBS), The People's Bank of China.

payments twice the increase in GDP. By 2019, although the ratio of interest payments to GDP increase has fallen, the former is still 1.5 times the latter. The fall in this ratio is a result of both the government's measure of forcible deleveraging and debt swap. Huge interest payments mean that every year's new debt is largely used to pay interest instead of growing the economy.

c Future trend of the macro leverage ratio

China's current macro leverage ratio is approaching 250%.³¹ What conditions are needed to roughly stabilize the leverage ratio? We have conducted some scenario simulations of the trend in macro leverage ratio in 2020–25.³² We assume that nominal growth is 8.5% per year; the average interest rate (or the social cost of financing) falls by 2% in the six years, from 8% in 2019 to 6% in 2025; the leverage ratio is steady at 250% (which means the leverage ratio is stable over the six years). Based on those assumptions, the permissible level of debt increase per year is 4% of GDP, which is considerably lower than the average of the past two decades of 10%. The results mean that it is quite difficult to roughly stabilize the macro leverage ratio.

Based on those simulation results, China must act in multiple aspects in order to keep the macro leverage ratio stable in 2021–25. First, policymakers should create a comfortable macroeconomic environment, lowering the cost of financing while keeping a reasonable level of nominal growth. Second, the government should persist in stabilizing the leverage ratio, and implement policies to control the scale of new debt. The ratio of annual new debt to GDP should be well below 10%. However, considering the difficulty of keeping the new debt-to-GDP ratio at 4%, perhaps some increase in macro leverage ratio should be tolerated in the future.

3 *Dancing with the black swan in 2020*

As China's economy faces increasing downward pressure in recent years, calls have grown for the financial sector to increase its support for the real economy. Meanwhile, as the leverage ratio keeps increasing in China's households, businesses and governments, financial risk has become an inevitable problem. The *2019 Report on the Work of the Government* clearly pointed out that the government "should keep a good balance between growth stabilization and risk prevention, and ensure the sustained and healthy development of the economy". On the one hand, the government has asked the People's Bank of China to keep a reasonable surplus of liquidity, and effectively mitigate the problem of financing difficulties and high financing costs of the real economy, especially for private businesses and small businesses. The central bank should also lower the real interest rate by implementing reforms of interest rate marketization, preventing the economy from sliding out of the reasonable range. On the other hand, the government also emphasizes the bottom-line thinking of preventing and

defusing major risks. It persists in structural deleveraging, prevents abnormal fluctuation of the financial market, and avoids systemic and regional risks. In short, the government demands the defense of two thresholds: a reasonable range of economic growth, and the prevention of systemic financial risk. With the constraint brought by risk prevention, China's macroeconomic policy framework has transformed from the trade-off between inflation and employment to the trade-off between growth and risk.

a The seesaw of stabilizing growth and stabilizing leverage

In recent years, the “seesaw” between stabilizing growth and stabilizing leverage has reflected the difficult trade-off between growth and risk. The central government set the task of reducing leverage in October 2015. But it failed to control leverage in 2016, with the leverage ratio increasing by 12.9%. The reason is that GDP growth in 2016 Q1 was only 6.7% at an annual pace, the lowest in 28 quarters. The government had qualms about implementing the task of deleveraging, and was inclined to turn on the tap. This is a manifestation of the conflict between stabilizing growth and stabilizing leverage. The leverage ratio increased by only 3.8% in 2017, and decreased by 0.3% in 2018. The problem of the growing leverage ratio has been tamed at this point. But there is a price to pay. Strict regulation and deleveraging competition among different government departments have cut off the capital flow of the private sector. Default became common, and small or medium banks face growing risk with widespread cries of desperation. This is the so-called risk of dealing with risk. Subsequently, trade disputes between China and the USA and further downward pressure on the economy have brought up the leverage ratio of 2019 Q1 by 5.1%, and correspondingly the economic growth of 2019 Q1 also “exceeded expectations”. However, the leverage ratio increased by only 0.7% in Q2. The fall has put considerable pressure on subsequent growth: GDP growth in Q3 almost fell below 6%.

b Dancing with the black swan in 2020

2020 is the concluding year of the 13th Five-Year Plan and the decisive year of building a moderately prosperous society in all respects. There has been a lot of debate regarding how to fulfill the growth target since the second half of 2019, and many people were calling for a growth rate above 6%. But the data from the 4th national economic census in 2018 has adjusted up GDP figures by a lot,³³ and the worries about growth have mitigated. After all, based on the revised GDP data, a growth rate of 5.7% in 2020 seems to suffice.

However, the optimistic mood did not last long. A “black swan” suddenly appeared: the coronavirus epidemic broke out in Wuhan in early 2020. The society was caught by surprise. Prior to the epidemic, the authors of this book have emphasized that “2020 is not the final battle. China should reserve ground and create conditions for subsequent development”. With this

public health crisis, this argument has become obsolete. Many now thinks that the lower bound of GDP growth in 2020 should be set at 5% instead of 6%. From the perspective of bottom-line thinking, we would rather be more pessimistic. But what the world needs more is calm and objective analysis. Economists are bad fortune tellers. The real power lies in the logic of economics.

Previous experience tells us that the macro leverage ratio rises rapidly when the economy faces a major negative shock. The following three occasions are the most typical: the macro leverage ratio increased by 12.7% in the 1998 Asian financial crisis, by 11.9% in the 2003 SARS outbreak and by 31.6% after the 2009 global financial crisis. The last was the highest growth in macro leverage ratio over the years. Similarly, the coronavirus pandemic will lead to a rapid rise of macro leverage ratio through two channels. The first is a shock on the leverage ratio's numerator: the expansion of credit and debt. The second is a shock on the denominator: a decrease in economic growth, especially nominal GDP.

First, consider the shock on economic growth. Comprehensively speaking, although the pandemic deals great damage on the growth of catering, hotels, tourism, manufacturing, construction, film industry and finance, there are also some other sectors, such as health care, clothing, video gaming and online education, that are positively affected by the crisis. A combination of those factors leads to a significant slowdown of economic growth by 2% in 2020 Q1, instead of a growth rate of zero as warned by some analysis. Considering that the impact of the pandemic is mainly concentrated in the first quarter with reduced impact in subsequent quarters, the GDP growth rate of 2020 should be a little bit above 5%.

Second, consider the shock on debt expansion. Since the outbreak of the pandemic, the central government has proposed a series of supporting policies in tax, finance and investment in order to fight the pandemic and stabilize production. The government emphasizes that fiscal policy should be more proactive, monetary policy should be more flexible, and investment policy will accelerate the construction of some major projects. But these measures will undoubtedly lead to a debt expansion. During the previous times of emergency in 1998, 2003 and 2009, the speed of debt expansion reached 19.1%, 22.7% and 33.6%, respectively. The average speed during 2015–19 was 11.7%. Policymakers in recent years have put risk prevention and defusing as the first among the “three tough battles”. Economic policies are constrained by the demand of risk prevention, so policymakers are unlikely to turn on the tap. Furthermore, although the shock of the pandemic is indeed large, it is not approaching a once-in-a-century level. China can learn from the SARS pandemic to be more precise in policy support and economic loosening, thus preventing overreaction. Therefore, the authors of this book are inclined to believe that the debt expansion speed of 2020 will be 12%, slightly higher than the average in the past five years.

According to this analysis, if real GDP growth is slightly higher than 5%, then the nominal GDP growth would be higher than 6%. With a debt expansion

speed of 12%, the increase in leverage ratio would be 10%–12% in 2020. What needs emphasizing is that the increase in leverage ratio in 2020 is driven more by the decrease in nominal GDP growth than by the rapid expansion of debt.

The focus of economic policy in the short term, obviously, is to keep the balance between controlling the pandemic and resuming production. The authors believe that China should tolerate an increase in leverage ratio on the one hand, and try to adjust the internal structure of the leverage ratio on the other. First, small businesses should be allowed to further increase leverage. Small businesses bear the most brunt of the pandemic. The fundamental policy direction should be to increase support for small businesses and increase the proportion of credit for small businesses to credit for all non-financial businesses. Second, the central government should also be allowed to increase leverage. Compared with other sectors, the central government has more room for a potential increase in leverage. The central government should issue more debt, which helps the improvement of the bond market and the base currency supply mechanism of the People's Bank of China. The key to the central government's leverage increase is to breach the 3% upper limit of deficits. Third, households' leverage should be kept stable. The household leverage ratio is closely linked to household consumption and real estate mortgages. A stable household leverage ratio is beneficial to the stabilization of household consumption and the smooth development of the real estate market. Fourth, state-owned enterprises (SOEs) should reduce leverage. The emphasis should be on the clearing of state-owned "zombie enterprises" and the debt of financing vehicles. We expect the Three-year Action Plan for SOEs to be released as soon as possible, which will improve corporate governance of SOEs, limit their debt expansion and achieve a real decrease of the ratio of SOE debt to all non-financial sectors' debt. This will amount to a substantial contribution to the deleveraging of the economy as a whole. Fifth, deleveraging of the financial sector is likely to end for now. Since a round of stringent regulations in 2017, financial leverage ratio has been going down, and is roughly steady by 2019. If we only count trust loans, entrusted loans and undiscounted banker's acceptance bill as the banks' shadow assets, the ratio of shadow assets to GDP is 22% in 2019, which is 10% lower than 2017 and is back to the level of 2010. Other statistics by China Banking and Insurance Regulatory Commission show that the scale of shadow banking is now ¥16 trillion lower than the peak. The authors of this book believe that the leverage ratio of the financial sector is now at a reasonable level, and financial misconducts have been effectively curtailed. The deleveraging of the financial sector is likely to end for now.

c The dynamic balance between steadying growth and preventing risk

In 2021–25 and beyond, the government's economic policy should still put its emphasis on the dynamic balance between steadying growth and preventing risk.

From the perspectives of both theoretical mechanism and actual practice, steadying growth and preventing risk are both complementary and conflicting. We emphasize the dynamic balance because the conflicting side is more manifest, and the focus on one is likely to result in the neglect of the other. This requires our continued thinking about how to unite them better.

Therefore, we believe that the key to the problem of growth-risk trade-off lies in some institutional factors. If, instead of focusing on reform, China continues to use traditional stimulatory policies to conduct countercyclical regulation, the result would be steady economic growth but with rising risk. On the contrary, if policymakers focus exclusively on risk prevention measures like deleveraging, the result would be harmful for the real economy. This means that from the growth perspective, in order to respond to structural slowdown, China should implement SOE reforms, liberalize market access, persist in competitive neutrality, stimulate the private sector and vitalize in the market. The government should also implement a land space planning strategy, promote the establishment of city clusters and metropolises and find new economic energy from the perspective of spatial optimization of resource allocation. From the risk perspective, China should recognize that the accumulation of risk that comes with the country's catch-up growth stems fundamentally from the distortion caused by government interventions. The most typical among those interventions is the developmental state's control of credit allocation, and the resulting distortion of risk pricing and credit resource misallocation. Therefore, China should further undertake reforms to abolish implicit guarantee from governments, rigid bail-out and institutional preferences of financial agencies. Then, risk pricing will return to normal, and the accumulation of risk will be limited. In conclusion, only by substantially implementing supply-side structural reform can China increase the efficiency of resource allocation in the real economy and increase the financial system's ability of dealing with risks, eventually achieving a dynamic balance between steadying growth and preventing risk.

Notes

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- 31 The National Bureau of Statistics has adjusted nominal GDP figures based on the data from the 4th national economic census of 2018, which means the macro leverage ratio needs adjustments as well. The adjustment in GDP concerns data in 2014–18; the nominal GDP of those five years was revised up 0.4%, 0.4%, 0.9%, 1.4% and 2.1%, respectively. We re-estimated the leverage ratio since 2014 using the new data, which shows that the leverage ratio of the five years was revised down 0.8%, 1.0%, 2.1%, 2.8% and 4.4%, respectively. This means the previous estimation of the leverage ratio in 2019 Q3 should be revised from 251.1% to 245.4% at the end of 2019. These data were released after this book was finished, so the authors did not update the data in the book. However, those marginal adjustments do not affect our conclusions.
- 32 See Chapter 12.
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