



Government Finance and Money Creation in China: An MMT Perspective

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ABSTRACT

The traditional theory of money creation and supply has been widely questioned and criticized after the Global Financial Crisis in 2008. The existing empirical research on China's money supply has been basically based on this traditional theoretical framework of "monetary base-money multiplier," and ignored the important role of government finance in money creation. From the perspective of MMT, this paper investigates the evolution of the role of fiscal policy in China's money creation, and analyzes the macroeconomic impact of the fiscal creation of money. In the past 70 years, China has experienced a planned economy regime, a fiscal dominance regime and a monetary dominance regime. And during this time the dominant mode of money creation has gradually shifted from fiscal creation to credit creation, to the extent that the old fiscal creation mode has been ignored or even disdained. However, the fiscal creation of money is still of great importance. Compared with credit creation, it helps to promote the development of real economy, reduce systemic financial risks and narrow the wealth gap. This article argues that China should increase the contribution of fiscal expansion to money creation and reduce the dependence of money growth on credit, so as to better achieve the three goals of stable growth, risk prevention and structural adjustment.

KEYWORDS

Government finance; money creation; modern money theory

Introduction

The Global Financial Crisis (GFC) in 2008 has triggered reflections on monetary and financial issues (Brunnermeier & Sannikov, 2016; Ingham, Coutts, & Konzelmann, 2016). Among others, the traditional theory of money creation and supply based on money multiplier story, has been greatly challenged and questioned (McLeay, Radia, & Thomas, 2014; Werner, 2014). Most of the present literatures on money supply in China start with this traditional money supply theory (Li & Wu, 2014; Sheng & Zhai, 2016). Although Professor Guofeng Sun, the director of the Monetary Policy Department of the People's Bank of China (PBOC hereafter), has been working in recent years on busting myths about this traditional theory of money supply and reconstructing the old endogenous theory of money creation and supply featured by "loans create deposits," he (Sun, 2019a, 2019b) mistakenly regards the bank as the only main body of money creation, which sets banking against public finance completely, and thus misunderstands and ignores the significant role of government finance in money creation.

Contrary to the common misconception that the heretical theory focuses merely on money creation by government, and thus misrepresents the reality of modern credit economy, Modern Money Theory (MMT hereafter) neither overlooks or denies the bank's role in endogenous money creation, nor advocates a monetary system under which only the government can create money (Li & Jia, 2012; Tymoigne & Wray, 2013). Instead, MMT aims at integrating public finance with banking, so as to explore the interactions between exogenous money creation of government and endogenous money creation of bank, as well as their policy implications (Mitchell, Wray, & Watts, 2019; Wray, 2015, 2018).

In the context of the current declining economic growth in China, we urgently need to face up and examine the nexus between public finance and banking, and rethink the role of fiscal policy in countercyclical regulation and stable growth. The remarkable disputes between PBOC and the Ministry of Finance in 2018 has largely revealed some of the sophisticated issues.¹ This article aims to deal with these issues by investigating the relationship between public finance and money creation in China from the perspective of MMT.

Finance regime and monetary policy

MMT emphasizes institutional analysis and explores the nexus between public finance and banking in the context of a country's current fiscal and financial system (Mitchell et al., 2019; Tymoigne & Wray, 2013). Since the founding of the People's Republic of China (PRC hereafter) in 1949, the finance regime has successively gone through the traditional planned economy period, the fiscal dominance period, and the monetary dominance period, and accordingly presents different characteristics on the money supply and monetary policy.

Planned economy period from 1949 to 1977

After the founding of PRC in 1949, China established a central planning system. Central planning served as the main means of national economic management, and mandatory planning became the basic form for resource allocation (Wu, 2005). During this period, public finance and banking were actually one.

In terms of public finance, China implemented a highly centralized fiscal management system of "state-monopolized revenue and expenditure." Under this system, local governments were required to hand over all fiscal revenue to the central government, and the funds required for local public goods provision as well as local production and construction were all approved and allocated by the central government. Thus, government finance constituted the main source of funds or money supply. During this period, the proportion of China's public fiscal revenue and expenditure to GDP had remained rather stable at 25%–30%, as shown in [Figure 1](#).

Regarding banking, China implemented a highly unified financial system of "centralized deposits and loans." The establishment of the PBOC marked the birth of financial system of the new China. After the founding of the PRC, the PBOC gradually unified the currency and established the legal status of the Renminbi. Under the planned economy system, the PBOC was not only the national currency and financial management institution, but also the national bank operating banking business. It was responsible for absorbing, concentrating, and distributing all credit funds nationwide. In other words, during this period, the PBOC was China's financial system, assuming the responsibilities of the central bank and commercial banks simultaneously.

In short, the planned economy was a period in which public finance served as the core. The PBOC was affiliated with the Ministry of Finance, and money and credit were completely under the control of government finance sector. Enterprises received fiscal funds for construction projects, and PBOC loans for daily operations. The profits obtained from the projects were handed

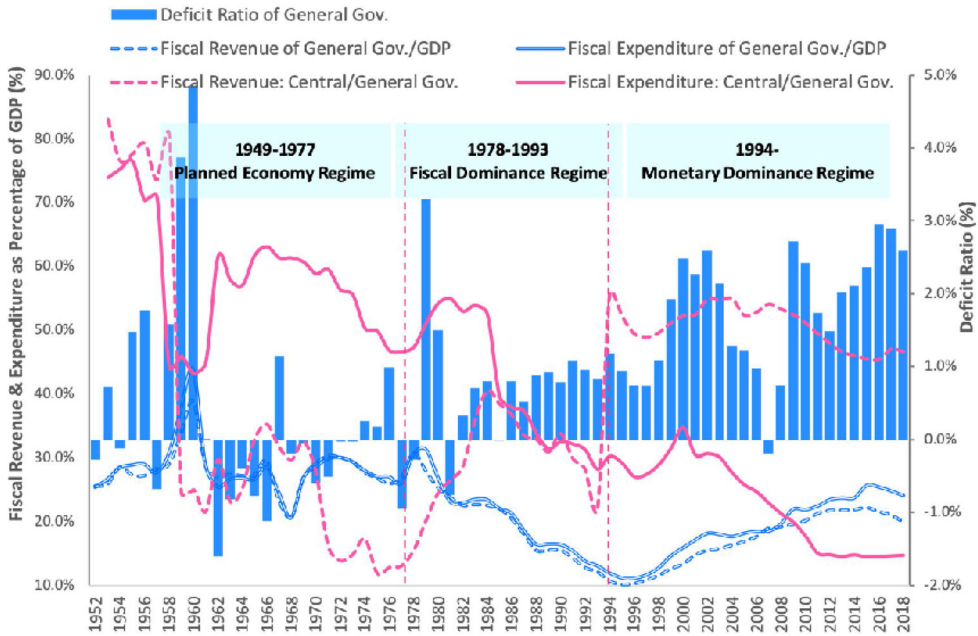


Figure 1. Fiscal & financial system and fiscal revenue & expenditure of China. Source: CEIC.

over to the central government to enrich the treasury. Due to the lack of incentives, output efficiency could not be guaranteed, fiscal revenue grew slowly, and deficit often occurred.

Fiscal dominance period from 1978 to 1993

Since the reform and opening up in 1978, China began to continuously introduce market mechanisms into the planned economic system, and gradually promoted reform of the fiscal and financial systems in accordance with the requirements of the socialist market economy.

With regards to fiscal system, China implemented the fiscal and taxation reform centered on the fiscal responsibility system, in order to motivate local governments and enterprises (Lou, 2008). This reform represented a break with the past practice of “sharing food from the same big pot,” and established a fiscal system featured by so-called “serving meals to different diners from different pots.” As a result, the financial and administrative power of local governments and the decision-making power of enterprises were expanded. Owing to the institutional flaw in the fiscal responsibility system, during this period, the proportion of China’s fiscal revenue and expenditure in GDP as well as that of central government fiscal revenue in total fiscal revenue kept declining: the former from around 30% in 1979 to 11% in 1994, and the latter from 41% in 1984 to 22% in 1993 (see Figure 1). This resulted in an expansion of fiscal deficit, with the deficit ratio going from even negative in 1981 to more than 1% in early 1990s (also see Figure 1).

As for financial system, with the development of the market economy, China had gradually formed a diversified financial institutions system. Commercial banks, insurance companies and credit cooperatives had gradually emerged. The PBOC therefore began to perform the specialized functions of a central bank, which also marked the emergence of a real monetary policy system in China. However, even though basic system of central bank had been established and the PBOC started to play the role of central bank independently, its independence was very low during this period, often having to print money to fill the fiscal deficit.

In other words, this system is called “fiscal dominance” in terms of fiscal and financial relations. The monetary policy of the PBOC is subordinate to fiscal policy, and fiscal policy imposes

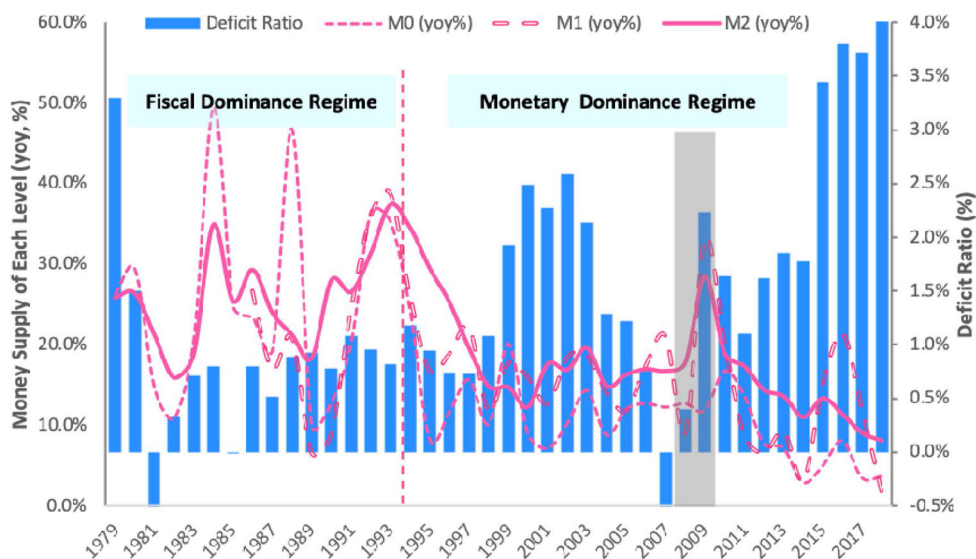


Figure 2. Fiscal deficit and money supply. Source: CEIC.

strong constraints on the operation of monetary policy (Xu, 2019). However, with the establishment of the commercial banking system, China began to make use of the bank's money creation mechanism to overcome the shortage of funds. As a result, the supply of monetary funds had gradually shifted from the past fiscal dominated to fiscal and credit equally weighted (Huang, 2009).

Monetary dominance period from 1994 to the present

With the advancement of the reform of the socialist market economy system in China since 1994, the reform of the fiscal and financial systems had been continuously deepened.

As for fiscal system, China began to implement a tax-sharing reform in 1994 (Wong & Bird, 2008). The aim of the reform was to establish a tax-assignment system. Under the new system, revenues were shared between the central and local governments, with a transfer payment from central government to local governments in fiscal distribution. It also divided the central and local fiscal expenditures on the basis of division of administrative power. This reform reversed the previous trend of the decline in the proportion of China's fiscal revenue and that of central government fiscal revenue in total fiscal revenue. As showed in Figure 1, the former kept rising from 10% in 1995 to around 20% in 2018, and the latter jumped to 56% in 1994 and had maintained above 45% since then.

On financial system, China marched into the monetary dominance period, marked by the promulgation of the "Law of the People's Bank of China" in 1995. The law stipulated that the fiscal deficit must not be overdrawn from the PBOC. Therefore, monetary policy has shaken off the burden imposed by fiscal policy and turned to pursue its ultimate goal independently and freely.

As Figure 2 indicates, compared with the previous period, the money supply (M0, M1, and M2) had achieved a more stable growth. This distinction is usually attributed to the transition from a fiscal dominance regime to a monetary dominance regime (Xu, 2019, p. 331). In addition, in terms of corporate financing channels, with the expansion of bank credit, fiscal funds were much less than bank loans during this period (Allen, Qian, & Qian, 2008).

Fiscal policy and money creation

From the perspective of MMT, government and bank are both the main body of money creation, and the government creation of base money helps with the bank creation of broad money. Under the modern credit money system, the money creation process involves both the exogenous injection of fiscal expenditures from government sector to private sector vertically, and endogenous creation of “loans creating deposits” by banks within the private sector horizontally. Bank money is created endogenously, that is, banks first lend then secure reserves. Hence fiscal spending creates monetary base, and banks leverage on the monetary base to create bank money. When the Treasury makes fiscal expenditures, it would not only increase the reserves held by banks, thereby increasing the base money, but also increase the bank deposits of goods and services sellers, that is, broad money creation. In terms of balance sheet operation, money creation by fiscal expenditure is recorded as the central bank credits the reserve account of a commercial bank, and the commercial bank credits the deposit account of a seller of goods and services or a receiver of transfer payments. When the Treasury levies taxes, the opposite is true, meaning the destruction or withdrawal of money. Therefore, fiscal deficit means money creation or net injection, whereas fiscal surplus means money destruction or net withdrawal (Mitchell et al., 2019; Wray, 2015).

This logic of the nexus between fiscal policy and money creation was evident in China’s planned economy period and fiscal dominance period. This can be nicely captured in the “Budget Report” submitted by the Ministry of Finance to the National People’s Congress (NPC) at the beginning of each year. For example, we can look at the following paragraphs quoted from Budget Reports of 1981 and 1985.

There are still considerable difficulties in public finances, and there is potential danger in the national economy. In 1980, the fiscal deficit exceeded 12.7 billion yuan (RMB), following a deficit of more than 17 billion yuan in 1979. Hence, we have to continue borrowing from the central bank, with additional notes issued. (1981)²

According to the current estimates, the total fiscal revenue turns out to be 146.5 billion yuan (RMB), and fiscal expenditure be 151.5 billion yuan (RMB), leaving a fiscal deficit of 5 billion yuan (RMB). After the compilation of final accounts, we prepare to overdraft to the PBOC from cover the deficit. (1985)³

In fact, as the PBOC was affiliated with or subordinated to the Ministry of Finance, the two constituted a *de jure* “consolidated government.” Fiscal deficit naturally means money creation of PBOC, and thus should not be interpreted as “borrowing” or “overdraft” from the PBOC.

This intrinsic connection could also be suggested by Figure 2 which displays the relationship among fiscal deficit and year-over-year growth of M0, M1, and M2. During the period of fiscal dominance (i.e., before 1994), fiscal policy had indeed played a significant role in money supply: the pumping deficit ratio from below zero in 1981 to 0.8% in 1984 led to a peak in growth rate of all levels of money supply in that year, and the steady increase of deficit ratio from 0.5% in 1987 to more than 1% in early 1990s contributed to a remarkable growth of M0 and M1 in 1988 and another peak of all levels of money supply in 1992 & 1993.

However, this logic has been neglected or even denied in the present monetary dominance period. For instance, in a remarkable quarterly bulletin named *Money Creation in the Modern Economy* (McLeay et al., 2014) released by Bank of England in previous years, the role of fiscal expenditure in money creation was unfortunately overlooked, with only the role of central bank quantitative easing discussed. Even worse, as mentioned at the beginning, Professor Sun, the director of the Monetary Policy Department of the PBOC, pointed out in two recent influential articles critical of MMT (Sun, 2019a, 2019b) that, the fiscal creation of money suggested by MMT is only applicable to the past “government credit monetary system.” This monetary system corresponded to a fiscally dominated regime under which money was created directly by central bank’s purchase of government debt. And yet, the modern monetary system is a “bank credit monetary system.” Under this system, money creation just originates from banks, that is, all moneys are

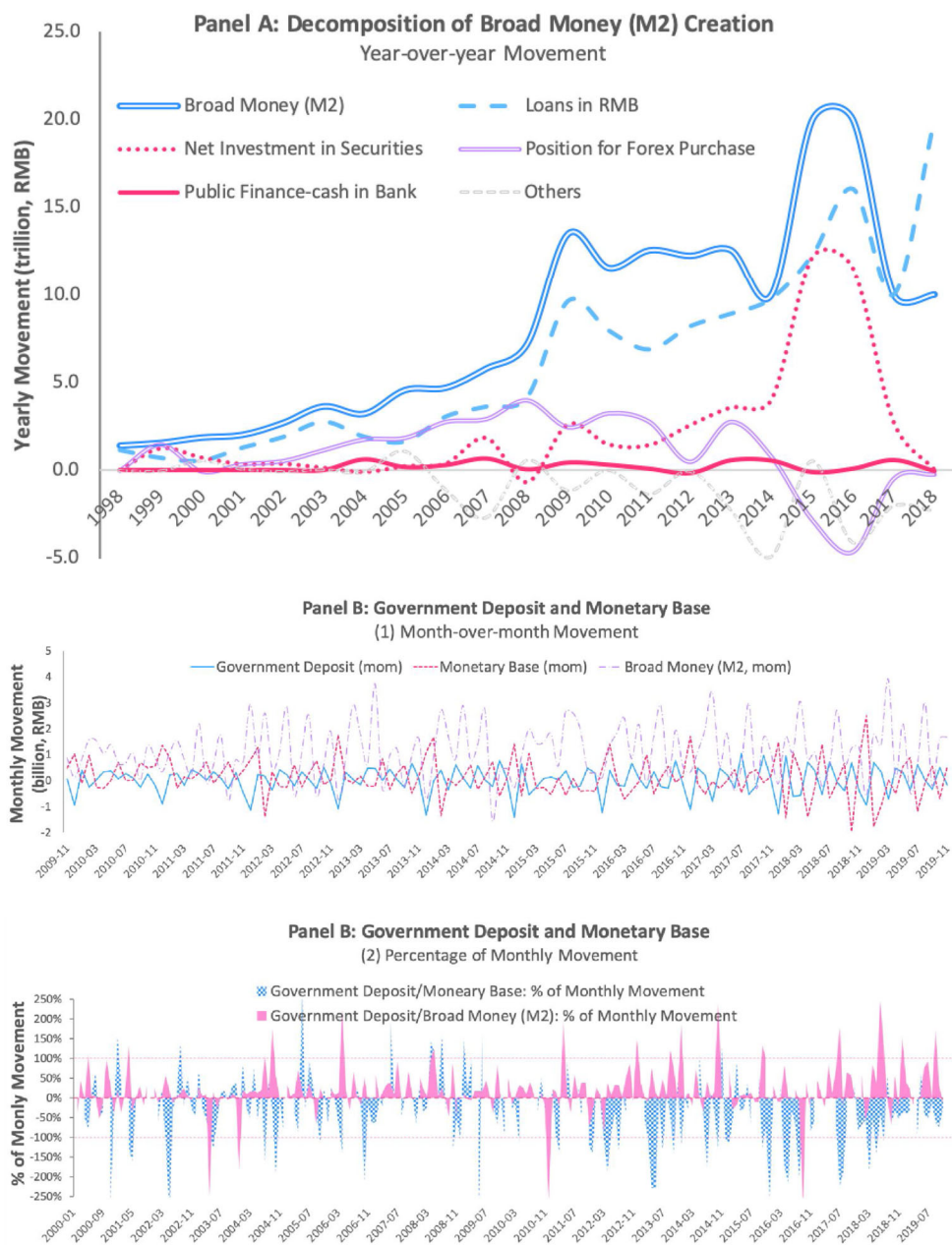


Figure 3. Decomposition of money creation: role of fiscal deposit. Source: Wind.

created by banks through loans (asset expansion). In other words, in Professor Sun's opinion, government could no longer create money in the present monetary dominance period. As mentioned above, in the "Law of the People's Bank of China" promulgated in 1995, overdraft for government finance, subscription for or underwriting national debt or other kinds of government bonds by the PBOC are all prohibited. Hence, central bank independence of the PBOC is guaranteed, and the fiscal deficit cannot be monetized any longer. MMT's approach of consolidating the central bank and the Treasury is therefore seen as wrong. The almost independent path of fiscal deficit and broad money (M2) supply indicated in the Figure 2, seems to support this view.

We could further use the Flow of Funds approach to decompose the creation channels of the broad money M2. According to the Summary of Sources and Uses of Credit Funds of Financial Institutions (RMB), and in accordance with the principle of “sources of funds equal to uses of funds,” we have the following equation:⁴

$$\text{Broad Money(M2)} = \text{Loans} + \text{Position of Forex Purchase} + \text{Net Investment in Securities} \\ - \text{Government Finance} - \text{cash in Bank} + \text{Others}$$

Based on the decomposition above, we could take a glance at the evolution of M2 creation channels in China. As shown below (Figure 3A), in the period of monetary dominance, new banking loans, position of forex purchase, and net investment in securities, constituted the major sources of M2 creation. By contrast, the role of “public finance-cash in bank” or “fiscal deposit” reflecting the state of fiscal policy was rather limited. For that reason, the role of fiscal policy in money creation has been almost overlooked.

However, we cannot conclude from this that fiscal policy is no longer relevant to money creation, or even mistakenly declare that public finance could not create money any longer. Although in the period of monetary dominance, the broad money created by fiscal policy accounted for a small proportion of the overall broad money supply, according to the monthly movement shown in Panel B of Figure 3, the “public finance-cash in bank” still exerted a significant impact on the creation of base money and even broad money. More importantly, in fact, China could further enhance the effect of fiscal policy on base and broad money creation by expansion of fiscal deficit. For example, the four trillion stimulus package implemented by China in response to the GFC in 2008 resulted in a tremendous expansion of fiscal deficit, and thus exercised a considerable impact on money creation, as shown in Figure 2 above.

The reason is that the so-called monetary dominance regime featured by an independent central bank does not eliminate the ability of fiscal policy to create money. This ability does not require an overdraft from the central bank. Moreover, as demonstrated by MMT, the independence of the central bank virtually does not affect the nature of the Treasury and the central bank as a *de facto* whole to create money free from financial constraint. Furthermore, central bank is not truly independent in reality. In the past few decades, the Ministry of Finance of China, in cooperation with the PBOC, has injected capitals into financial institutions several times (Naughton, 2018, pp. 508–509; Walter & Howie, 2012, pp. 145–148), which illustrates this point and reveals that China’s situation is essentially the same as that of the United States.

Macroeconomic effect of fiscal creation of money

MMT focuses on the significant role of government finance in monetary policy, as well as the balance-sheet implications and macroeconomic effects of the Treasury and central bank operations. Due to different creation mechanisms, the impact of fiscal creation of money on macroeconomic operations is different from that of credit creation.

Fiscal creation of money was the major way of money creation in the first 30 years since the foundation of PRC. Money was created by the Treasury in conjunction with the PBOC. Under this regime, fiscal expenditure means money creation or injection and tax collection means money destruction or withdrawal, and thus fiscal deficit indicates net creation or injection of money.⁵ Whereas, over the past 40 years of China, credit creation of money has become the major way of money creation. Money was mainly created by commercial banks. Bank loans constitute money creation or injection and loan recovery or repayment means money destruction or withdrawal, and hence the new loans indicate net creation or injection of money.⁶ Specifically, these two ways of money creation have different macroeconomic impacts in at least the following three respects.

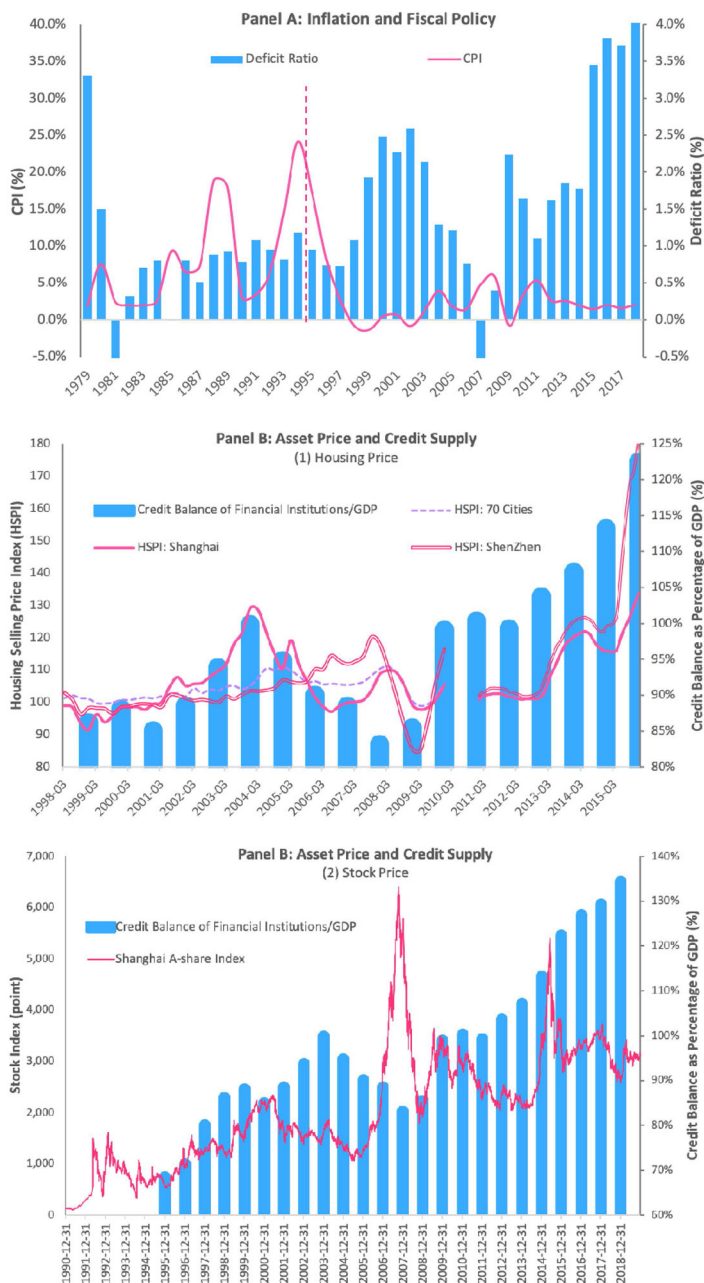


Figure 4. Money creation, inflation and asset price. *Sources:* CEIC, Wind.

First, the two have different degrees of correlation with the real economy, resulting in such different effects on macroeconomic price levels that excessive fiscal creation of money tends to generate inflationary pressures whilst excessive credit creation of money causes asset prices to rise. For the former, fiscal expenditures are usually closely related to the real economy and often drive real consumption and investment demand, so excessive fiscal creation of money may lead to price increases. For the latter, bank credits are likely to be used by businesses and households to purchase existing assets, such as real estate and stocks, in addition to supporting the current

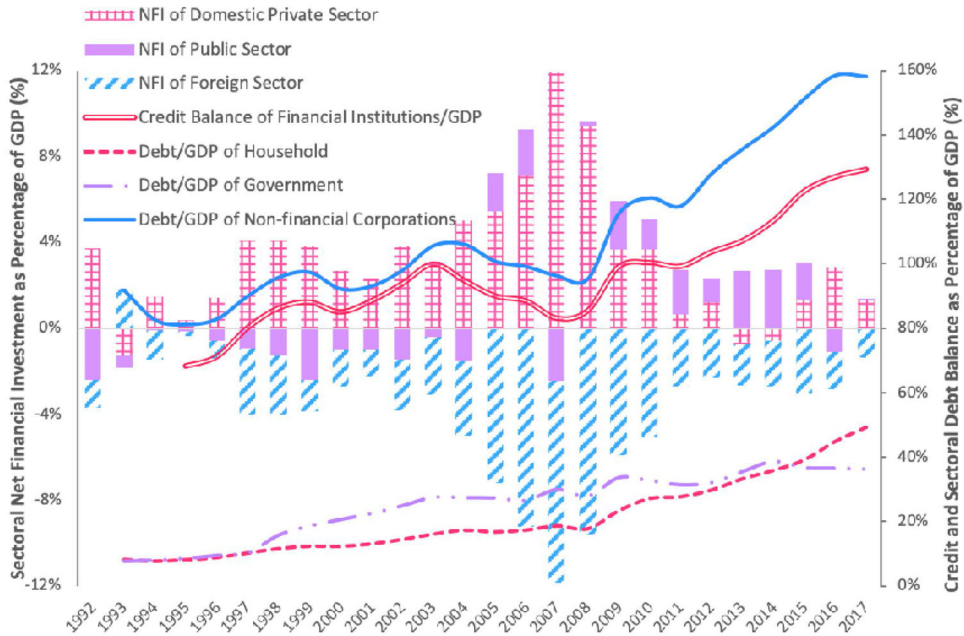


Figure 5. Financial balance, credit supply, and financial risk. Sources: CEIC, Wind.

real investment and consumption. Therefore, excessive credit creation of money potentially gives rise to asset bubbles (Burdekin & Tao, 2014; Peng, 2017).⁷

China's past experience roughly supports the assertion above. As indicated in Panel A of Figure 4, in the period of monetary dominance when credit creation of money dominated, the price level was more stable than the previous period of fiscal dominance when fiscal creation of money dominated, and so far no high inflation has occurred. The two high inflations of 1988 and 1994 occurred during the period of fiscal dominance.⁸ However, it is worth noting that, they should not simply be attributed to the excess money caused by the excessive fiscal deficit, but were closely related to the advancement of China's market-oriented reforms and the weakening of the government's macro-control capabilities at that time (Yu, 2015). To a large extent, just as MMT emphasizes, government's capability in achieving price stability by fiscal policy had severely been whittled by the rather limited share of central government revenue and expenditures (as shown in Figure 1). On the other hand, just as Panel B of Figure 4 suggests, the period of monetary dominance ushered in the rise and fluctuation of real estate prices and stock prices.

Second, the two create different types of money, resulting in such different impacts on macroeconomic fluctuations that fiscal creation of money contributes to the macroeconomic stability while credit creation of money promotes the accumulation of financial instability. Fiscal policy creates government money, which is essentially "outside money" and thus would not lead to an increase in private sector debt. In contrast, according to the sectoral financial balances approach or the stock-flow consistent framework, fiscal deficit corresponds to private sector surplus, and government debt constitutes safe assets of the private sector. Therefore, government deficit spending will increase the revenue and net assets of private sector, so as to help reduce private sector leverage and stabilize an unstable economy (Minsky, 2008 [1986]).⁹ Whereas, bank credit creates bank money, which is essentially "inside money" and corresponds to debt creation of household and corporate sector. Hence, credit expansion necessarily means a build-up of private sector debt and an rise in leverage, which may eventually lead to debt problems and financial crises.

As suggested by Figure 5, according to the sectoral financial balance accounting identity, the financial balance of private sector constitutes a mirror image of that of public and foreign sector.

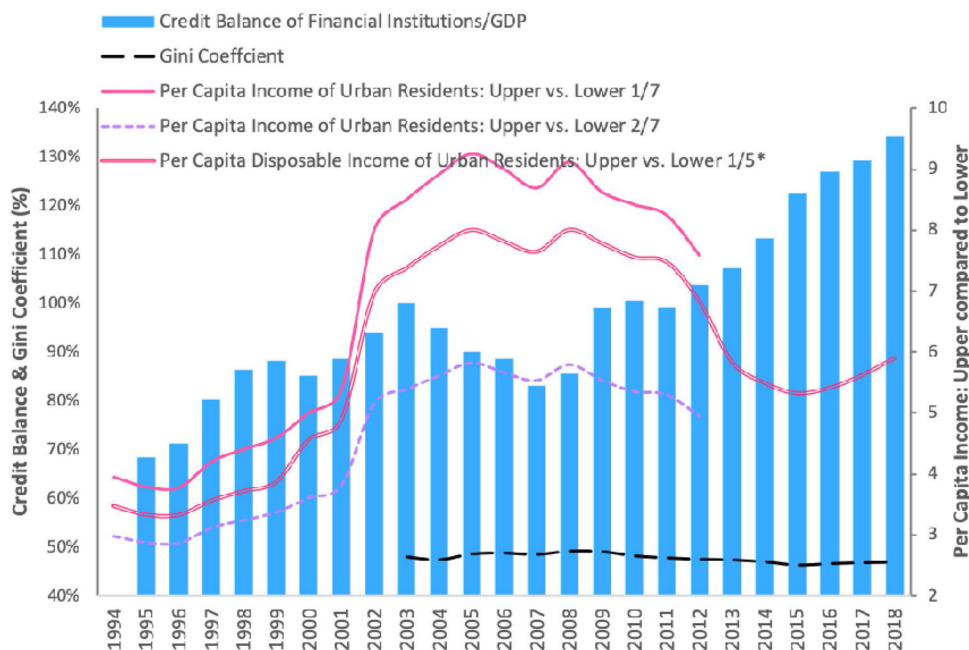


Figure 6. Credit supply and wealth gap. Sources: CEIC, Wind.

In China, a low fiscal deficit ratio corresponds to a low surplus ratio of private sector. Especially after the GFC in 2008, fiscal surplus in a sense “crowded out” private surplus, and led to private sector deficit in 2013–2014. In another way, with the expansion of credit creation of money, the leverage of private sector (non-financial corporations sector and household sector) was on the rise, and the leverage of government sector was falling in recent years. This means the financial risks continue to accumulate in China recently.

Last but not least, the two correlate with economic cycles in different ways, resulting in such different income and wealth distribution effects that, fiscal creation helps narrow the gap between the rich and the poor whereas credit creation tends to widen it. Fiscal policy intrinsically bears the function of adjusting income distribution. Therefore, fiscal creation of money is usually associated with distribution regulation. Together with its exogenous nature and counter-cyclicality, it helps shrink the wealth gap. In contrast, due to its endogeneity and pro-cyclicality, credit expansion and its resulting money creation will cause two waves of distribution effects which tend to widen the gap between the rich and the poor. On the one hand, through the “snob effect,” credit creation will mainly benefit those sectors and individuals who have more administrative power, resources and financial monopoly power so as to obtain more credit, thereby widening the income distribution gap. On the other hand, via “assets price effect” just mentioned above, credit expansion tends to drive up asset inflation represented by stocks and real estate, thus widening the wealth distribution gap.

Figure 6 shows the nexus between credit supply and wealth gap of China in the past two decades. Apparently, the gap between the highest 20% and the lowest 20% per capita disposable income almost followed the trend of credit supply, with a time lag notwithstanding. It is worth noting that, the rather stable (and even sight falling) Gini coefficient for the last decade or more does not actually suggest a moderate wealth gap of China. In fact, there has been controversy over the estimation of the Gini coefficient in China, and most views suggest that the above Gini coefficient from the National Bureau of Statistics is underestimated.¹⁰ Among others, the research carried out by Peking University focused on the Gini coefficient of capital instead of income, and announced an increase of the capital Gini coefficient from 0.73 in 2012 to 0.78 in 2016.

Compared with traditional income Gini coefficient, the capital Gini coefficient might better capture the relationship between credit supply and wealth gap.

Conclusion and policy implication

Over the past 70 year, China has gone through three period: the planned economy regime, the fiscal dominance regime, and the monetary dominance regime. The dominant mode of money creation has gradually shifted from fiscal creation to credit creation. As a result, people nowadays get used to the bank credit creation of money, equating credit with money, and think money creation is no more than credit creation and expansion. And the old fiscal creation of money has been forgotten or ignored, and even is dismissed as “barbarous relic,” which is applicable only for the “government credit monetary system,” but not the present “bank credit monetary system.” The four trillion stimulus package introduced in response to the GFC in 2008, to a certain extent, has re-ignited people’s attention to the old fiscal creation of money.

This change in China is roughly consistent with that of Western European and American countries. After the World War II, western countries were generally dominated by public finance, and financial activities were repressed. Central bank was subordinate to the Treasury, and monetary and fiscal policies were intertwined. The transition toward monetary dominance took place in 1980s, financial liberalization flourished, and central bank gradually became independent. Fiscal policy focused on the long-term sustainability of government debt, and its function as a countercyclical macroeconomic regulation was weakened. Monetary policy became the major tool of short-run aggregate demand regulation, and took inflation control as the primary goal. As a result, the functions and mechanisms of fiscal policy and monetary policy were clearly separated. After the GFC in 2008, with the introduction of unconventional monetary policies and various fiscal stimulus policies, the boundary between fiscal and monetary policies has become increasingly blurred, which call for the coordination and cooperation between them.

In China’s current critical stage of stable growth, risk prevention and structural adjustment, fiscal policy should play a more significant role in countercyclical adjustment. Especially in the process of deleveraging and preventing risks, efforts should be made to adjust the structure and creation mode of broad money, so as to reduce the role of bank credit in the money creation and expansion, and resume and increase the contribution of fiscal expansion to money creation. It is under the policy framework of coordination among “tight credit, loose money and lenient fiscal” that China could achieve an integration and a dynamic balance among the three goals of stable growth, risk prevention and structural adjustment. The achievement of “tight credit” on the basis of “loose money” through “lenient fiscal,” would not only provide slack policy for stable growth and structural adjustment, but also help reduce the dependence of monetary growth on credit, which is conducive to promoting deleveraging of non-government sector, squeezing asset price bubbles, alleviating the wealth gap, and preventing the outbreak of systemic risks.

The four trillion stimulus package launched by China in 2008 was crucial to stable growth, but its implementation deviated from the policy idea of “tight credit and loose money,” and thus led to the rise of China’s financial instability in the past decade. Of these 4 trillion (RMB) investment funds, the central government contributed only 1.18 trillion yuan (RMB), accounting for 29.5%, and the rest was raised mainly by credit by local governments. Moreover, local governments subsequently also issued investment plans one after another, with a total fund size of 19 trillion yuan (RMB), most of which also came from bank credit through local government funding vehicles (LGFVs) (Yu, 2015). The emergence of LGFVs has led to a substantial expansion of various implicit and explicit debts endorsed by local governments and the accompanying expansion of shadow banking (Liang, 2016). This mode of money creation dominated by credit expansion would inevitably lead to the expansion of debt and the accumulation of financial risks. A lesson we ought to learn from it is that, China should promote fiscal expansion through fiscal and

taxation reform, increase the proportion of central government expenditure in total fiscal expenditure, and raise the central government deficit ratio appropriately.¹¹ Only in this way could China truly realize a benign change of mode of money creation in essence.

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Notes

1. Zhong Xu, the director of the Research Bureau of the PBOC, argued in an article in 2018 that the fiscal policy is not active enough, and is responsible for preventing financial risks. Later, a staff of the Ministry of Finance responded with a signed “green ruler”, proclaiming that the fiscal policy has been sufficiently active and should not act arbitrarily, and that the PBOC should attach importance to the independence of the central bank. For more information, see <https://baijiahao.baidu.com/s?id=1605871453603674563&wfr=spider&for=pc>; http://www.sohu.com/a/241561969_742508.
2. “Report on the implementation of the national final accounts for 1980 and the national budget for 1981”. See http://www.npc.gov.cn/wxzl/gongbao/2000-12/26/content_5328403.htm.
3. “Report on the implementation of the national budget for 1984 and the national budget draft for 1985”. See http://www.npc.gov.cn/wxzl/gongbao/2000-12/26/content_5001623.htm.
4. This equation is a modified form of Li and Wu (2014, p.38), for they mistakenly included the fiscal deposit into M2. We separate it to investigate the role of fiscal policy. It is worth noting that we consider the finance-cash in bank only, and leave the deposits of non-profit institutions, the other category of fiscal deposit, in “the others”, for the concern that most of the movement of the deposits of non-profit institutions is unrelated with fiscal policy, even though it plays a considerable role in M2 fluctuations.
5. For simplicity, we do not consider the issuance of government bonds and central bank’s purchase of bonds, which would also affect the size of net money creation by government.
6. For simplicity, we do not consider other asset purchases of commercial banks, which would also create money.
7. Therefore, in theory, it cannot be asserted that the government’s fiscal creation of money would inevitably produce inflationary pressure whereas bank credit creation would not, or mistakenly claim that fiscal creation is nonproductive whereas bank creation is productive.
8. In this period, as most commodity prices were uniformly formulated and controlled by the state according to the plan, and money and credit were strictly regulated, China did not experience significant inflation. The average inflation rate in 1952–1978 was 1.7% per year (Maddison, 2007, p. 89).
9. Minsky refers to the two kinds of effects of government deficits as “cash flow effect” (or Kalecki effect) and “balance sheet effect” (or Tobin effect) respectively. These two effects are often overlooked by mainstream economics (Li, 2018, p. 266).
10. For example, a recent study by the Southwestern University of Finance and Economics found an increase of Gini coefficient from 0.61 in 2012 to 0.62 in 2016. For data availability, we do not demonstrate the other sources of Gini coefficient apart from that of National Bureau of Statistics.
11. China’s fiscal policy has been neutral or moderately expansive for most of the time since the 1990s. The government adheres to the principle of “calculating how much revenues received before deciding how much to spend”, that is sound finance. Over the past decades, China’s budget deficit-to-GDP ratio and public debt-to-GDP ratio have been kept at a relatively low levels, with below 3 percent and about 20 percent. Therefore, at present, there are still great room for China’s expansionary fiscal policy, and China should gradually shift to functional finance from sound finance.

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