Review, Experience Summary and Prospect of Fiscal and Monetary Policy Coordination Paradigm in the 70 Years of People's Republic of China

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Since the founding of the People's Republic of China, China has made remarkable achievements and already has had objective conditions for moving towards high-quality development. Under different development stages and policy objectives, there are differences in the regulation effects of fiscal policies and monetary policies. In order to achieve economic growth and price stability, China's fiscal and monetary policies have undergone various switches. This paper first reviews collocation models of China's fiscal and monetary policies in the past 70 years, and summarizes their features, including flexibility, dislcetionary regulation, demand management, and tool diversity. Then, it points out the deficiencies in regulation through fiscal and monetary policies, such as conflict of multiple goals, delayed or mismatched effects, marginal decrease in economic effects, and offset of policy effects. At last, the paper puts forth the possible innovation in combination paradigm, expectation management, supply-demand synergy, and instrumental coordination, and points out the direction of coordination paradigms.

Keywords: fiscal policy, monetary policy, coordination paradigm

1. Introduction

The 70 years from 1949 to 2019 have witnessed miraculous progress and profound changes in China with steadily rising economic standing. In this period, fiscal and monetary policies, have also had a tortuous yet marvelous journey. The outburst and spread of global economic crisis has made the world realize that some economic fluctuations cannot be ironed out with single policies, and countries are paying more attention to economic policy combinations. Since the day that macroeconomics came into being, the combination paradigm and coordination effect between fiscal and

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monetary policies have been a hot topic. It is undeniable that they have worked in coordination in most cases, and different combination paradigms have been adopted to achieve different goals, such as economic growth and price stability (Saulo *et al*., 2013).

As two leading policy systems for macro regulation, fiscal and monetary policies have notable macroeconomic effects and work even better in coordination. But in market economy conditions, the economic system has to take into account multiple goals such as economic growth and price stability, otherwise there will be little leeway and the resource allocation efficiency will be weakened. Fiscal and monetary policies are naturally overlapped because their objects of regulation and matching tools are similar, and whether they coordinate well directly affects the quality of economic operation. Recently the theoretical circle and business circle have had arguments over a series of questions: Should fiscal policy be "more proactive"? Should monetary policy be "neutral" or "moderate"? Do their effects "add up" or "offset each other"? While revealing the problems raised by some scholars, such as the weak marginal effect of monetary policy and ineffective regulation by fiscal policy, the arguments actually disclosed their lack of coordination. Different fiscal and monetary policies were adopted in different combination paradigms at different economic stages and for different targets. To meet some targets, monetary policy has to choose between quantitative and price tools; to meet others, the central and local finance has to conduct vertical management; for others, both policies have to be adopted. China has switched among "proactive", "sound" and "tight" fiscal and monetary policies, which are both "tight" during economic boom, both "proactive" during economic recession, or in "loose-tight" combination when there is the risk of stagflation. The coordination paradigm of fiscal and monetary policies and their regulatory effects concern the quantity and quality of China's economic development in the new era. This paper first reviews the evolution of coordination paradigms in the 70 years since the founding of PRC, and then, on the basis of summarizing their experience and deficiency, proposes possible innovations in the new era.

2. Review of Regulatory Paradigms of Fiscal and Monetary Policies

2.1. Fiscal and Monetary Policies before Reform and Opening-Up (1949—1978)

2.1.1. Recovery of National Economy and "Proactive" Fiscal and Monetary Policies in the 1st Five-Year Period (1949—1957)

The national economy recovered in 1949—1952. During this period, fiscal policies were formulated according to the financial situation at the revolutionary bases and liberated areas, and the fiscal system featured "determining revenues based on expenditure with annual adjustment". So, the main targets of covering military expenditure and recovering national economy were basically achieved, creating the conditions for planned economic construction. The 1st Five-Year Plan period lasted from 1953 to 1957, when the target was strongly supporting industrialization and the fiscal system featured “three-level management”. In 1953, China’s fiscal expenditure and money demand increased dramatically and M0 increased at the rate of 43.3%, creating the risk of inflation. To control the risk, the People’s Bank of China (PBC) implemented stringent measures including favorable savings rate and credit control, but the regulation, while effectively controlling inflation, magnified economic fluctuations and contracted average GDP growth rate to 5.6% in 1954—1955. To curb the economic decline, the government increased fiscal expenditure in 1956, lowered the fiscal deficit ratio to −3.2% from −2.6% in 1955, and boosted M0 growth rate to 42.2%. As a result, GDP growth rate quickly rebounded to 15%, but the over-issuance of money led to other problems. In view of this, the government reduced fiscal expenditure in 1957, national finance was in the black, and M0 growth rate naturally fell to −7.9%. While the risk of inflation was defused, GDP growth rate fell to 5.1%, a relatively low level.

In general, Chinese economic policies stayed in the cycle of “policy regulation→high growth rate→non-sustainability→policy-based regulation→...”. In 1953—1957, fiscal and monetary policies helped China complete the socialist transformation and laid the foundation for industrialization, but Chinese economy fluctuated intensely with abrupt booms and busts. In that period, China’s average GDP growth rate was 9.4% and average CPI 101.9, featuring “low growth, low inflation”.[1]

2.1.2. “Proactive” Fiscal and Monetary Policies in the 2nd Five-Year Plan Period (1958—1965)

The 2nd Five-Year Plan period lasted from 1958 to 1962, during which the government adjusted the fiscal management system and policy indicators in order to meet the temporary financial demand for the “Great Leap Forward” movement. In 1958, Chinese fiscal system was changed into “determining expenditure based on revenue without change for five years”, and fiscal revenue expanded that year and fiscal deficit ratio[2] fell to −2.7%, giving a strong impetus to economic development.

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[1] This paper focuses on the regulatory effects of fiscal and monetary policies, and the “high” or “low” means the “phased average” is higher or lower than the “phased average” and “time-point number” of pre-regulation. For example, during the 2nd Five-Year Plan period, the average GDP growth rate (9.3%) was lower than that in 1952 (18.3%), so economy was in “low growth”. From 1959 to 1961, average GDP growth rate was −6.1% and average CPI 106.3, but that in 1966—1978 was 6.5% and 100.3. Although both periods featured “low growth, high inflation”, the former was closer to “stagflation”. This explanation allies throughout the paper.

[2] Considering the changed way of GDP calculation, fiscal deficit ratio is defined as (fiscal revenue-fiscal expenditure)/(fiscal revenue+fiscal expenditure) in this paper. A negative ratio means fiscal policy is proactive, and a positive ratio means fiscal policy is tight; the larger the absolute value, the more proactive or tight.

Meanwhile, the GDP growth rate reached 21.3% and CPI dropped to 98.9, indicating a sound beginning of “high growth, low inflation”. However, against the background of “Great Leap Forward”, Chinese fiscal system had a chaotic situation of “false surplus, true deficit”. Meanwhile, PBC delegating deposits and loans to local management in a way broke the single banking system,[1] M0 increased at a high pace consistently, CPI rose to 116.1 in 1961 but GDP growth rate fell to –27.3%, creating a bad economic situation of “low growth, high inflation”. To cope with economic decline and inflation, the government adopted a series of fiscal and monetary measures from 1962, including properly reducing extra-budgetary funds, slashing capital construction investment, retracting the power delegated by PBC, and restoring the single banking system.[2] This led to fiscal surplus and a three-year-long negative growth of M0. Reasonable fiscal distribution and monetary issuance resulted in the GDP growth rate reaching 17% and CPI falling to 98.9 in 1965. From 1962 to 1965, the average GDP growth rate and CPI was 10.0% and 98.2, and the economy was solid in general with “high growth, low inflation”.

2.1.3. “Tight” Fiscal Policy and “Proactive” Monetary Policy in a “Special” Period (1966—1978)

China experienced the “Cultural Revolution” in 1966—1976, during which Chinese fiscal system was damaged. Although China adopted proactive fiscal and monetary policies, GDP growth rate slumped to the rare –1.6% and CPI stood at 100.3 in 1976, presenting an economy of “low growth, high inflation”. After the end of “Cultural Revolution”, the State Council froze the deposits of entities,[3] handed over the balance to financial departments, and used banking deposits of enterprises and public institutions to partially cover the government’s net debts to PBC. In 1978, GDP growth rate climbed up to 11.7% and CPI stood at 100.7, indicating “high growth, high inflation”.

When we worked through the regulatory goals and operations of fiscal and monetary policies before the reform and opening-up, we found the monetary policies rather passive and mainly followed fiscal ones. When economic construction needed

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[1] In August 1958, the State Council made it clear in the *Decision on Improving the Fiscal and Banking Management System* that bank deposits and loans were under local management. The credit management system of “delegating deposits, lump-sum planning, balance management and centralized dispatching” began to be implemented in 1959.

[2] In March 1962, the State Council issued the *Decision on Strengthening the Centralized Management of Banks and Strictly Controlling Money Issuance* to retract the power delegated by PBC. In February 1963, the PBC issued the *Regulations on Several Issues Concerning Credit Planning and Management* to straighten out the relation between bank credit and fiscal fund.

[3] In October 1976, the State Council issued the *Emergency Notice on Freezing Deposits by All Entities*.

proactive fiscal policy, money supply increased; when economic construction needed tight fiscal policy, money supply decreased. The rise and fall of commodity price was mostly caused by fiscal policy while monetary policy basically acted as a “cashier”.[1] The reason might be that China implemented the planned economic system before the reform began. In that period, the PBC’s purpose was serving the planned economic goals and it had played the dual role of “referee” and “athlete” in exercising macro regulation and conducting deposits/loan businesses. The PBC wasn’t very independent either in policy goals or regulatory tools, and had to “follow” the National Planning Committee’s major programs and the Finance Ministry’s minor programs. After reform and opening-up was launched, however, policy makers began to realize that monetary policy should have independence in regulation, so they timely started a banking system reform to “let banks truly play their role”. For instance, PBC was separated from the Ministry of Finance (MOF) as an independent entity: it set up branches, and commercial banks were reinstated. With these, the PBC began to conduct monetary regulation by issuing money and utilizing interest rate, exchange rate and other means.

2.2. Fiscal and Monetary Policies in the Exploring Stage of Market Economy (1979—1992)

2.2.1. From “Proactive” to “tight” Fiscal and Monetary Policies (1979—1981)

After the third plenary session of the 11th CPC Central Committee, China implemented “proactive” fiscal and monetary policies in order to quickly step out of the economic mire. In 1979—1980, Chinese average fiscal deficit ratio fell to –4.2% (4.5% in 1978), M0 growth rate reached 27.8%, GDP growth rate was 7.7% and CPI 104.7, presenting a heated economy of “high growth, high inflation”. To cool the economy, China implemented “tight” fiscal and monetary policies in 1981, which quickly pumped up the fiscal deficit ratio back to 1.6%, M0 growth rate fell to 14.5%, GDP growth rate down to 5.1% and CPI 102.5, effectively controlling economic overheating. In 1979—1981, both fiscal and monetary policies turned from proactive to tight, but proactive in general.

2.2.2. From “Proactive” to “Tight” Fiscal and Monetary Policies (1982—1986)

While the tight fiscal and monetary policies in 1981 curbed the price hike, they also weakened the momentum of economic growth. The *Government Work Report* given at

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[1] Before the reform and opening-up was launched, the position of fiscal policy and monetary policy was different: PBC served as a “cashier” of the fiscal authority, and monetary regulation usually followed fiscal regulation. But monetary policy also had “proactive” or “tight” modes, and that doesn’t affect the “proactive” or “tight” combination of fiscal and monetary policies.

the 4th session of the 5th National People's Congress (NPC) held in December 1981 pledged to "make national economy grow faster in 1982 than in 1981". To that end, China once again adopted proactive fiscal and monetary policies in 1982—1984, and in 1984, our fiscal deficit ratio fell to –1.3% and M0 growth rate climbed up to 27.0%. The proactive policies stimulated economic growth by revitalizing idle resources, and a surge of urban economic system reform swept across China after the third plenary session of the 12th CPC Central Committee, which largely released productive forces in the industrial field. As a conseqence, many drivers pushed China's GDP growth rate to 15.2% in 1984, but the shortage of idle resources, inadequate liquidity, money over-issuance, purchase rush and the "double-track price system" implemented since 1981 overheated the economy with CPI jumping from 102.7 in 1984 to 109.3 in 1985. Therefore, China shifted to tight fiscal and monetary policies again in 1985—1986, and fiscal deficit ratio rose to –1.0% in 1986. By tightening monetary supply, strictly controlling credit grant, and through other measures, China reduced the M0 and GDP growth rate to 24.0% and 8.9% respectively. But the effect of controlling inflation through monetary policy wasn't very satisfactory due to the low level of marketization and imperfect monetary tools, and CPI remained high even though it fell slightly to 106.5. From 1982 to 1986, both fiscal and monetary policies turned from proactive to tight, but proactive in general.

2.2.3. Proactive→Tight→Proactive Fiscal and Monetary Policies (1987—1992)

The tight fiscal and monetary policies in 1985—1986 resulted in an obvious decline in GDP growth rate. To ensure the growth target, China shifted to proactive policies in 1987—1988, and fiscal deficit ratio fell to –2.8% and M2 growth rate reached 46.7% in 1988. Unlike before, this round of proactive fiscal and monetary policies were carried out when high CPI wasn't effectively controlled, so the consumers, with growing uncertainties, experienced a massive purchase rush and deposit runoff, leading to the CPI hitting 118.8 and vicious inflation in 1988 that seriously disrupted the economy.[1] Therefore, the government issued a string of tight fiscal and monetary policies, such as contracting central fiscal expenditure and raising legal required reserve ratio (RRR), which quickly brought down the investment growth rate and price, and abnormal economic overheating was soon put under control. Nevertheless, due to lack of experience, the massive and vehement "tight" policies dragged the Chinese economy into a new round of decline even though they

[1] In fact, China switched between proactive and tight economic policies several times from 1985 to the first half of 1988, because the economy fell down as soon as tight policy was adopted and went unbridled once proactive policy kicked in. Therefore, the government decided to launch a "price reform" in the spirit of "better short, quick pain than long-term pain", which caused the CPI to increase by 18.8% year-on-year in 1988. The tight fiscal and monetary policies implemented consequently forced the Chinese economy to a "hard landing".

curbed the risk of inflation, and GDP growth rate hit a record low of 3.9% in 1990 since reform and opening-up. To pump up the sluggish economy quickly, China implemented proactive fiscal and monetary policies, such as increasing expenditure and lowering benchmark deposit and loan rate, in 1991—1992, thanks to which Chinese economy soon turned better with GDP growing at 14.2% in 1992, but CPI remained high at 106.4 despite a slight fall, and the risk of inflation lingered. From 1987 to 1992, both fiscal and monetary policies went from proactive to tight and then back to proactive, but proactive in general.

2.3. Fiscal and Monetary Policies before and after the Asian Financial Crisis (1993—2004)

2.3.1. From Proactive and Tight to Appropriately Tight Fiscal and Monetary Policies before Asian Financial Crisis (1993—1997)

Invigorated by Deng Xiaoping's speech and by the spirit of the 14th CPC National Congress, Chinese economy entered a new round of fast growth, with surging investment and credit across the country. In 1994, fiscal deficit ratio fell to −5.2%, M2 and GDP growth rate rose to 34.5% and 13.0%, and CPI hit 126.9, indicating overheating in multiple indicators including fiscal expenditure, money issuance and price index. Since the indiscriminate approachs of proactive or tight policies have displayed defects, the government adopted "appropriately tight" policies that were more moderate and had sound regulatory effects in 1995—1997. In 1997, fiscal deficit ratio and M2 growth rate dropped to −3.3% and 17.3%, GDP growth rate stayed in the reasonable level of 9.2%, and CPI stood at the relatively low point of 102.8. The "appropriately tight" fiscal and monetary policies avoided the sharp contrast between economic cooling and heating, inflation and deflation, and succeeded in a soft landing for Chinese economy. From 1993 to 1997, Chinese fiscal and monetary policies went from "proactive + tight" to "both appropriately tight", with a general tendency toward "proactive + tight" coordination.

2.3.2. Proactive Fiscal Policy + Sound Monetary Policy When Asian Financial Crisis Spread (1998—2004)

After the financial crisis broke out in Asia, Chinese economy displayed "low growth and low inflation", which was partly caused by the "appropriately tight" fiscal and monetary policies, but more by the domestic and external impacts, including overproduction and spread of crisis. From the second half of 1998, the combination of proactive fiscal policy and sound monetary policy was adopted, including issuing government bonds on a large scale to raise money, lifting the credit quota of commercial banks, and cutting financial institutions' deposit and loan benchmark rate and legal RRR several times.[1] The targeted measures stopped Chinese economic downturn and met the phased goal of keeping CPI within a reasonable range. By 2004, M2 and GDP growth rate bounced back to 14.7% and 10.1% and CPI was 103.9.

2.4. Fiscal and Monetary Policies before and after the World Economic Crisis (2005—2010)

2.4.1. Tight fiscal Policy + Sound Monetary Policy before World Economic Crisis (2005—2007)

China's GDP growth rate stayed above 10% in 2003—2004, during which period the proactive fiscal policy and sound monetary policy quickly increased the balance of central fiscal debts, demand shortage was mitigated, and a rough supply-demand balance was realized, but local overheating appeared in the form of excessive investment increase. Chinese fiscal policy shifted from "proactive" to "sound and slightly tight" in 2005 while monetary policy remained "sound", and China began to reduce deficit and direct investment in competitive and profit-oriented sectors and invest more in public goods and services. By 2007, fiscal deficit ratio rose to 1.5%, but M0, M1 and M2 all increased, and the "sound" and slightly proactive monetary policy drove up CPI to 104.8. From 2005 to 2007, fiscal and monetary policies showed the tendency of "tight + sound" in general.

2.4.2. Proactive Fiscal Policy + Appropriately Proactive Monetary Policy When the World Economic Crisis Spread (2008—2010)

Reasonable fiscal and monetary policies endorsed China's high-speed economic growth, but there were signs of economic overheating in the second half of 2007 as CPI hit 104.8, so in addition to "keeping slightly fast economic growth from overheating", another goal had to be achieved as well—"keeping structural price hike from escalating to inflation".

China was hit by a series of events in 2008, such as the snow storm in Southern China, Wenchuan earthquake, and real estate subprime crisis in the US. To cope with them and prevent obvious reduction in economic growth, China adjusted the two

[1] From 1998, the counter-cyclical legal RRR began to take effect and became an important sign of monetary policy. In 1998—2004, China reduced the RRR twice and raised it twice as well, which fell sharply from 13% to 7.5%, and monetary policy tended to be proactive. It must be noted that since the regulation of RRR and of financial institutions' deposit/loan benchmark rate wasn't consistent, this paper doesn't count them in when analyzing monetary policy.

macro-regulatory goals. In 2008—2010, the average fiscal deficit ratio fell to −3.4%, fiscal policy turned from "sound" to "proactive", M0, M1 and M2 all increased faster, legal RRR went from 14.5% to 18.5% after multiple rounds of adjustments, and monetary policy was "appropriately proactive". Stimulated by proactive fiscal policy and appropriately proactive monetary policy, Chinese GDP growth rate bounced back to 10.6% in 2010, higher than the 2008—2010 average of 9.9%, and CPI was lower than 2007's 104.8 but higher than the 2008—2010 average of 102.8, indicating the risk of inflation.

2.5. Fiscal and Monetary Policices since the Economic New Normal (2011—2018)

After the world economic crisis, the proactive fiscal policy and appropriately proactive monetary policy cushioned the negative impacts of external events, but CPI shot to 105.1 due to abnormal credit increase and quick economic recovery in 2009, Therefore, the central economic work conference held in December 2010 proposed to "put stabilizing the general price level in a more prominent position". China began to implement proactive fiscal policy and sound monetary policy in order to balance economic structure with inflation expectation while guaranteeing growth, and raised the RRR and deposit/loan benchmark rate several times in 2010—2011. Nevertheless, as monetary policy that retracted liquidity had "delayed effect", CPI only began to slowly fall back after it peaked at 106.5 in July 2011 and stabilized around 102 after 2012. From 2011 to 2017, average fiscal deficit ratio was −5.4%, higher than the 2008—2010 and the level in 2010, balance of central fiscal debts increased at a stable and moderately higher rate, and fiscal policy was generally "proactive". Meanwhile, M0, M1 and M2 all increased at a lower rate, legal RRR dropped after rounds of adjustment, and monetary policy was generally "sound".

As far as the targets and regulatory approaches of economic policies were concerned, diverse goals, phased regulatory preferences and administrative interference were obvious. At different stages, the fiscal and monetary policies were combined in different paradigms since the PRC was founded.

In the stage of exploring market economy, around the world economic crisis and around the economic new normal, Chinese economy displayed different characteristics and fiscal and monetary policies were combined in different paradigms, some to cope with economic over-cooling or overheating, some to control inflation, and some to fend off external impacts. Without any doubt, the different combination paradigms basically realized china's phased goals such as soft landing, stabilizing price, economic growth and "dual prevention". Figure 1 shows the GDP growth rate and CPI curve since the founding of PRC.

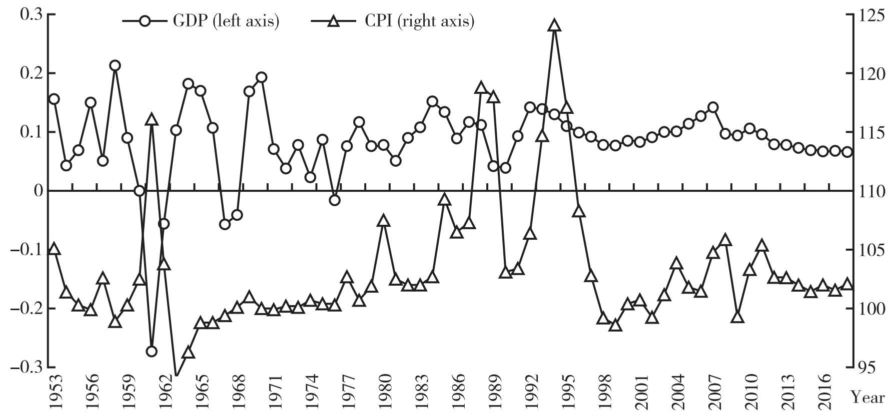

Figure 1. China's GDP Growth Rate and CPI Curve since the Founding of FPC

Source: calculated based on data at CEInet Statistics Database.

The curves and turning points in Figure 1 show that during typical periods such as the Asian financial crisis, world economic crisis and new normal, the economic growth and price fluctuations in China had heterogeneous differences. Before China launched the reform and opening-up, economic growth and price fluctuated at a high frequency and with large amplitude; during the Asian financial crisis and world economic crisis, GDP and CPI changed abruptly; and the steady curve of GDP and CPI since the new normal began is basically consistent with the tone of proactive fiscal policy and sound monetary policy in the same period. The economic growth and inflation trajectory is directly related with fiscal and monetary policy indicators, as shown in Figure 2.

Figure 1 and 2 show that Chinese economy had different numerical characteristics at different stages, and fiscal and monetary policy indicators displayed matching features. This consistency was especially obvious before the reform and opening-up but swayed sharply during the economic crisis, while the numerical characteristics and monetary policy tools since the new normal have been rather smooth.

Firstly, from 1949 to 1978, economic downward pressure and inflation risk appeared alternately, and Chinese economy displayed "low growth, low inflation", "high growth, low inflation" and "low growth, high inflation" in succession, as evidenced by proactive fiscal and monetary policies in 1949—1965 and tight and proactive fiscal and monetary policies in 1966—1978. Although the policies took an adventurous detour during the "Great Leap Forward" and were barely effective during the "Cultural Revolution", through various combinations, the gouernment did regulate the macro-economy during the economic recovery and the 1st Five-Year Plan period. It must be noted that "low growth, high inflation" and "high growth, low inflation" appeared in 1959—1965 under proactive and tight combinations, which might be attributed to the three-year natural disaster and the more reasonable fiscal allocation and money issuance in 1962—1965.

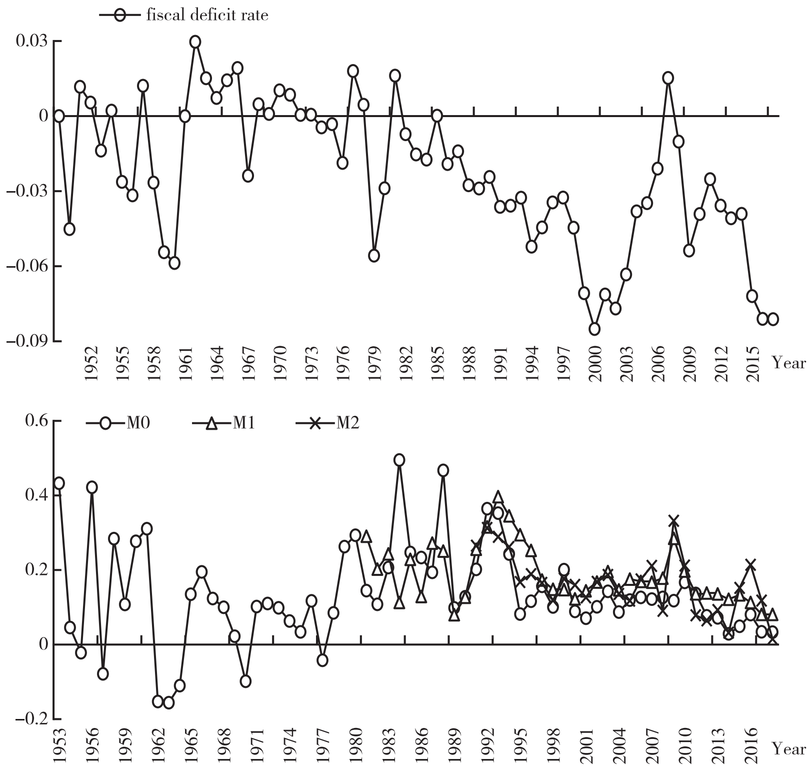

Figure 2. Main Indicators of Fiscal and Monetary Policies in China Since the Founding of PRC
Source: calculated based on data at CEInet Statistics Database.

Secondly, from 1979 to 1992, China adopted proactive fiscal and monetary policies in general with periodic "tight" tendency. The "proactive" and "tight" combination paradigms alternated with the switching goals between "economic growth" and "stable price", and their rational coordination successfully solved the phased cooling or heating, gaining valuable experience for macro-regulation. However, due to lack of experience in regulatory theories and policies, the policy makers didn't take a sustainable view of economic development, and the policies, either proactive or tight all the way through, led to drastic economic fluctuations and undermined our economic consistency. The low efficiency in allocating social resources took a serious toll on the national economy. It must be noted that the combination paradigm in 1982—1984 was "proactive + tight" and that in 1985—1986 was "tight + tight", whereas that in 1982—1986 was "proactive + proactive". It looks contradictory but it's not if we take into account the object of comparison: 1982—1984 vs. 1981, 1985—1986 vs. 1984, and 1982—1986 vs. 1981.

Thirdly, from 1993 to 2004, economy didn't fluctuate so much despite its complexity, and China realized a phased "soft landing". In that period, the Chinese economy went from "high growth, high inflation" to "low growth, low inflation". The “appropriately tight” fiscal policy and “sound” monetary policy ironed out economic fluctuations, performed well in macro-regulation around the Asian financial crisis, and helped Chinese economy to a “soft landing” during the crisis, but the regulation of inflation wasn’t mature enough.

Fourthly, from 2005 to 2010, the Chinese economic system faced more internal and external challenges and the government chose the combination paradigm more cautiously. In this period, China encountered the world economic crisis deriving from America’s subprime crisis, the southern snow storm, and the Wenchuan earthquake, which made economic growth much more uncertain and caused tremendous downward pressure. At this moment, the fiscal policy naturally went from “sound” to “proactive” to create timely and strong expansionary demand and unleash growth drivers, but the monetary policy went from “sound” to “appropriately proactive” rather than “proactive”, hence the change from “high growth, low inflation” to “low growth, low inflation”.

Fifthly, from 2011 to 2018, the combination paradigm of “proactive” fiscal policy and “sound” monetary policy effectively suppressed the high financial leverage, kept the economy growing stably and rapidly, mitigated the potential macroeconomic fluctuations, and kept price relatively stable, presenting better regulation through coordination. The 2018 central economic work conference made it clear that the basic tone of “proactive + sound” fiscal and monetary policies would continue, but to cushion the downward pressure, fiscal policy had to be more proactive and monetary policy more relaxing.

3. Experience and Deficiency of Regulatory Paradigms of Fiscal and Monetary Policies in the past 70 Years

After the world economic crisis broke out, China has faced mounting financial risks and debts, and the policy combination paradigms that were mainly aimed at economic growth and stable price had to be adjusted timely. On the basis of analyzing the coordination modes and mechanisms of fiscal and monetary policies that China has adopted in the past 70 years, this paper summarizes the experience and deficiencies in that regard.

3.1. Flexible Coordination Modes, Multiple Targets

After the PRC was founded, the Chinese economy has been through a series of stages, from the “Asian financial crisis” to “world economic crisis” and “economic new normal”, during each of which our macro-economy displayed different characteristics and tendencies. Through these stages we saw different economic status, including “high growth, high inflation”, “high growth, low inflation”, “low growth, low inflation" and even "low growth, high inflation", each requiring different fiscal and monetary policies. Sometimes both fiscal and monetary policies had to be proactive or tight, while at other times one policy had to be proactive and the other tight. Chinese economic policies generally aimed for multiple goals, at least including economic growth and stable price. China's regulatory experience in the past 70 years has proved our combination paradigms of fiscal and monetary policies successful as they have basically achieved the goals of "guaranteeing growth" and "stabilizing price" over a long term.

However, the Chinese economic system showed more obvious time-variant features and there were more economic uncertainties. At this moment, economic policies were no longer aimed at "guaranteeing growth" and "stabilizing price" only, but had to consider other goals such as "controlling leverage", "stabilizing finance" and "stabilizing expectations". As a result, the traditional policy combination paradigms came to a dilemma of having to accommodate "multiple goals". They were no longer a simple coordinating mechanism, and their macro effects might contradict with micro targets, so presetting and fine-tuning was inevitable. Besides, flexible regulatory modes fortified economic fluctuation. For instance, when both fiscal and monetary policies went from "proactive" in 1979—1980 to "tight" in 1981, they took immediate effects, but the short-term regulation caused excessive fluctuation.

3.2. Discretionary Regulation of External Impacts, Delayed and Mismatched Effects

A review of the fiscal and monetary policies shows that Chinese policies have exercised external discretionary regulation while following obvious rules. When a special event exerted substantial impacts on the macro-economy, we would quickly launch responsive policies either based on simple or rules-based discretionary choice. For instance, China planned to implement "appropriately tight" fiscal and monetary policies in 1998, but in face of the Asian financial crisis and natural disaster at home, the government resolutely shifted to "proactive" fiscal policy to maintain economic growth. That was what happened when China shifted from "sound" fiscal policy + "tight" monetary policy to "proactive" fiscal policy + "appropriately proactive" monetary policy in 2008.

There is no doubt that the discretionary choice had macro-regulatory effects, but the effects were "delayed". In 2010, China's CPI stood at 105.1 with the risk of inflation, so PBC adopted "sound and slightly tight" monetary policy. From January 18, 2010 to June 20, 2011, it raised the legal RRR of large financial institutions 12 times, and M2 growth rate dropped from 28.5% in 2009 to 19.7% in 2010 and then to 16.0% in 2011. However, as monetary policy that soaked up liquidity had "delayed effects", the CPI didn't begin to fall until after it peaked at 106.5 in July 2011, and lingered around 102 after 2012. To some extent, the "time-delay" corroborated Friedman's point that the change in money growth rate needs 6~9 months on average to cause income change; after nominal income is affected, price won't be affected until 6~9 months later. In comparison, rules-based measures are better at reducing the loss of economic benefits when the economic system is confronted with external impacts.

3.3. Expansionary Fiscal Regulation, Marginal Decrease of Economic Effects

The academic communities have always equaled "proactive" with "expansionary" fiscal policy without realizing that "expansionary" focuses on the demand side while "proactive" on the supply side" (Wang, 2019). For a long time, China implemented Keynes' "expansionary" fiscal policy that was focused on demand management. To cope with the Asian financial crisis and subprime crisis, the Chinese government adopted fiscal and monetary policies whose central goal was stimulating total demand. By boosting consumption, investment and net export, the so-called "troika" that acted upon GDP, China "smoothed the periodic economic fluctuation on an appropriately high level", meaning the economy maintained steady growth and mild fluctuation for a long period in an appropriate growth range.

The combination of "proactive" fiscal policy and "sound" monetary policy that were implemented for six years since 1998 to prevent economic decline seemed to have become the "silver bullet". Therefore, in face of world economic crisis, the Chinese government, putting aside the fact that the "proactive" fiscal policy adopted in 1998 to expand domestic demand failed to address the industrial structure and low efficiency, resolutely implemented "proactive" fiscal policy and "appropriately proactive" monetary policy in 2008, including the "four trillion" government investment and larger money supply. The new round of "proactive" fiscal policy did a better job at stimulating consumption and optimizing spending structure, and met the goal of keeping the economic growth rate above 8% in 2009. However, as far as long-term and structural effects were concerned, China saw its economic growth rate slip in the first quarter of 2010, and the economy began to digest the stimulus policies. Doubtlessly, as China opened up its gate wider, world economic crisis had stronger and longer impacts on its economy, but it was possible that the anti-decline fiscal and monetary policies that acted on the total demand had decreasing marginal effects.

3.4. Diverse Fiscal and Monetary Tools, Policy Coordination Effects

Fiscal policy tools, monetary policy tools and their combination paradigms varied in different stages. There were stages when China needed to choose between quantitative and price tools, or when China had to improve the internal structure of fiscal policy, or when both the volume and structure of fiscal and monetary policies had to be mobilized, or when the central and local finance had to work in coordination.

In light of chinese 70-year-long experience in coordinated regulation through fiscal and monetary policies, fiscal decentralization, monetary regulation and diverse combination paradigms have basically achieved the phased goals in China's economic development.

Nevertheless, as the Chinese economic system is faced with more complicated regulatory goals, objective factors, such as fiscal decentralization, tax-sharing reform and quantitative and price tools of monetary policy, make it harder to coordinate fiscal and monetary policies. Moreover, the mismatch in central and local fiscal and administrative power may also lead to serious debt problems. Fiscal and monetary policies implemented simultaneously may fall into the trap of failing to coordinate multiple goals, but those not implemented at the same time may offset each other's effects and consequently weaken their effects either through independent or coordinated regulation.

4. Innovation and Prospect of China's Fiscal-Monetary Policy Coordination Mechanism in the New Era

There was a time when proactive or tight fiscal and monetary policies easily took synergy effect. That had something to do with the single target and the eagerness of regulation, but was more due to the time-varying nature of economic system and the degree of financial liberalization. However, the recent "debate" between the Ministry of Finance and the PBC of each other indicated their divergences in the coordination of fiscal and monetary policies. Given the deficiencies of current combination paradigms, it's very important that China create new coordination mechanisms. Generally speaking, China's fiscal and monetary policies should make timely presetting and fine-turning while maintaining the "proactive"+"sound" paradigm for some time to come, and new combination paradigms and coordination mechanisms have to be created.

4.1. Extension of Combination Paradigms

A close look at the combination paradigms of fiscal and monetary policies and their regulatory effects in the past 70 years shows that they were essentially in a "proactive + tight" combination as far as total quantity is concerned. The coordination paradigms aimed at "guaranteeing growth" and "stabilizing price" have proved successful but the targets were too simple. To ensure stable economic policies and regulatory effects, the target of regulation shouldn't be a specific number, otherwise the policies would have little leeway and resource allocation in market economy would be inefficient. Although fiscal and monetary policies were prioritized in certain stages, either "big finance, small banks" or "small finance, big banks", it cannot deny that as China further opened up china financial sector, the policies displayed more notable synergy (Liu and Jiao, 2000). Besides, as macro-prudential policy has come to the fore, the regulatory framework pillared by monetary policy and macro-prudential policy is a new combination catching the authorities' attention.

4.2. Guidance on Expectations of Fiscal and Monetary Policies

Since China entered the new normal, the time-variant characteristics of Chinese economic system have been more evident. The counter-cyclical discretionary choice easily evolved into "pure" discretionary choice, which shook the stability of expectations, added to uncertainty in economic policies, exacerbated economic fluctuation and weakened the effects of economic policies. Instead of administrative interference, the way to effectively address economic policy uncertainty is managing policy expectations. To that end, policy makers should make full use of the short-term advantages of discretionary regulation through fiscal and monetary policies, step up their expectation management, so as to overcome short-term fluctuation and uncertain delayed effect of discretionary regulation, and gradually establish a long-term coordination mechanism between fiscal and monetary policies.

4.3. Synergy of Fiscal Policy on Supply and Demand Side

Demand management means regulating the aggregate by controlling tax, fiscal expenditure and money and credit; supply management means improving the quality, efficiency and structure of supply by optimizing factor allocation and adjusting production structure, and boosting economic drivers, which have obvious long-term effects. While fiscal policies have to transform from demand management to supply management, the former cannot be completely given up. How to scientifically coordinate demand and supply management policies is an important question and realistic choice faced by China. China should switch between demand management and supply management according to the order of urgency of macroeconomic goals, and instead of the "either-or" relation, demand management and supply management are in a relation of coordination. In the economic new normal, China's macro goals should shift from boosting short-term economic growth to adjusting economic structure and transforming economic development mode in the medium/long-term. When adopting "proactive" fiscal policy, China should abandon the traditional Keynesian theory of stimulating effective demand with massive investment, and instead drive and satisfy effective demand with effective supply and provide new supply to adapt to and lead new demand.

4.4. Multi-Tool Coordination of Fiscal and Monetary Policies

As the main economic regulatory policies, fiscal and monetary policies have independent operating tools, regulatory mechanisms and targets, which leads to uncertain interactions among their multiple tools and goals. To serve the economic transformation and upgrade and the financial supply-side structural reform, China attaches great importance to adjusting the structure and improving the functions of fiscal and monetary policies, and tries to change from "broad irrigation" (meaning indiscriminate application of policies) to "targeted drip irrigation". A suitable coordination paradigm can both create and save space for the policies, lengthen the period of digesting their effects, and make their coordinated effects more sustained (Chen and Ma, 2016).

This paper reviews the evolution of fiscal-monetary policy combination paradigms in the 70 years after the founding of PRC, summarizes China's experience and deficiency in that respect, and envisions the direction of coordination mechanism innovation under new circumstances. It has values as a policy guidance and literature reference. But some explanations have to be made here. (1) Although this paper touches upon the quantitative and price indicators of monetary policy, it doesn't go into details regarding how fiscal policies can better coordinate with monetary ones for optimal effects. A main reason is that there isn't a conclusion yet on the advantages of monetary policy in quantity and price regulation under different goals and evaluation systems. Besides, whether combined with quantitative tools or price tools, Chinese fiscal policy is always consistent with monetary policy, so the conclusion of this paper won't be affected. (2) This paper doesn't elaborate on the fiscal policy indicators such as RMB loan, interbank lending rate of various terms, Pledged Supplementary Lending (PSL), and tax and fee reduction. The main reason is that some indicators are only applicable for a specific period, so this paper cannot make sequential analysis, while others are not main indicators of fiscal and monetary policies, but only serve temporarily in a special period. Nonetheless, neither the brief mention of phased indicators nor the intentional filtering of non-main indicators affects the demonstration, experience summary and outlook on the policy combination paradigms in this paper.

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