PSL Quarterly Review, vol. 64 n.258 (2011), 267-286

Financial governance and economic development: making sense of the Chinese experience

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1. Introduction

Starting from a Soviet-type mono-bank system in the late 1970s, the Chinese financial system has undergone fundamental market reforms over the past three decades. The pace of reforms has accelerated particularly since the early 1990s, amid the fast integration of the economy into the world market. Increasing liberalization, commercialization, and internationalization have been main aspects of the reforms. Nevertheless, to date, the Chinese financial system has remained a mixed system. Despite the general trend of market reforms, there still exist strong market-supplanting elements in the system, including discretionary government intervention, the predominance of state banks in the sector, and the behavioural inclination of the banks towards causing excessive fluctuations.

From the perspective of the world mainstream doctrines of financial liberalization, a mixed system of this kind must entail serious inefficiency. Indeed, time and again, there have been comments from the

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Revised text of the paper presented at the Symposium "Where to direct proposals and action to make financial reforms effective for systemic resilience and sustainable growth" held in Rome on 1-2 June 2011, sponsored by the Ford Foundation in collaboration with the Associazione Paolo Sylos Labini. The authors wish to thank Leonardo Burlamaqui, Jan Kregel and other participants in the above mentioned conference, as well as two anonymous referees, for their comments and suggestions in the writing up of this paper.

international media, Western government officials, and specialist economists arguing that Chinese finance is heading towards catastrophes. The reality, of course, is that catastrophes have never materialized. It is a paradox that, along with this seemingly dubious financial system, the Chinese economy has performed well in terms of macroeconomic stability and long-term development. And this performance has been achieved amid the continuous financial deepening of the economy, which indicates that the financial system did play an important role in the process of economic development. How, then, to assess this system? And, given the paradoxical experience thus far, what is its likely future direction of reforms?

To answer these questions requires clarifying the precise mechanisms through which finance impacts the real economy. This, in turn, requires appropriately characterizing (or conceptualizing) the nature of the evolving Chinese financial system. The objective of this paper is to make an attempt in this direction, i.e. to provide a preliminary answer to the questions, in the form of a couple of theses that are based on both theoretical reasoning and empirical stylized facts. Our main approach is to broaden the field of vision by drawing on a range of alternative theories, alongside the mainstream doctrines. And our central proposition is the following. The Chinese financial system has continued to embody both commercial and developmental attributes. Seen in the light of the mainstream doctrines, certain important elements of the system might appear to be market imperfections, and might entail allocative inefficiency. But, from the perspective of the alternative theories, these elements could in fact be conducive to productive efficiency. There is thus a possible trade-off between the two types of efficiency, and, ultimately, the net effect of the system can only be an empirical issue. The actual experience appears to indicate that, hitherto, the productive efficiency gains from the Chinese financial system have more than compensated for the allocative efficiency losses. To fully assess the system requires ascertaining the conditions within which its net impact on economic development is positive and significant, and we also provide some pointers for further investigations.[1]

This paper is organized in four sections, of which this introduction is the first. Section two depicts the main trends of evolution of Chinese finance over the reform era. The purpose is to establish some important stylized facts concerning the structures and institutions of the sector, as well as its actual performance in terms of maintaining macroeconomic stability and promoting long-term economic development. Section three moves on to analyze and assess the working of this system, in relation to relevant theories and the body of applied studies on finance and economic development in China. Section four concludes the paper, focusing on the policy implications of our analysis and the broader importance of the Chinese experience.

2. Stylized facts on finance and development in China

The market reforms of the Chinese financial system since the late 1970s have been mainly a process of increasing liberalization, commercialization, and internationalization (see Appendix, table 1). At the beginning of the reform era, there were no truly financial institutions to speak of. The sector as a whole was no more than part of the government apparatus, as the cashier of the Ministry of Finance, and operated under mandatory central planning. Subsequent liberalization

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[1] At the most general level, allocative efficiency refers to the allocation of the economy's resources – at a particular point in time – in a way that yields the maximum level of (demand-satisfying) output, subject to the constraint of the existing technical conditions in production. An economic growth path that is based on allocative efficiency can be envisaged as a series of time-points at every one of which the economy allocate its resources to produce the maximum level of output subject to the technical conditions of that time-point. Productive efficiency, in contrast, refers to the allocation of resources in a way that promotes the increase in the output-to-input ratio. A growth path that is based on productive efficiency implies a process of continuous increases in the output-to-input ratio, i.e. technological progress and therefore productivity growth, although the economy might or might not be producing at the maximum possible level of output at every point in time. Lazonick (1990, especially chapter 5) provides the possibly most incisive exposition on the distinction between the two different concepts of efficiency. The ramifications of the distinction, concerning finance versus industry, and short-term versus long-term institutions, will be the main focus of our exposition

up until the mid-1990s resulted in the formation of a multi-tier banking system, comprising of the central bank (the People's Bank of China), the "Big Four" state-owned commercial banks (the Industrial and Commercial Bank of China, the Construction Bank of China, the Agricultural Bank of China, and the Bank of China), and a large number of national and regional banks of varied ownership types and non-bank financial institutions, together with the gradual development of the stock market and other financial activities. The commercialization of state-owned banks accelerated in the mid-1990s, following the establishment of three policy banks to take away the non-commercial activities of the "Big Four." This commercialization process was basically completed in the period 1998-2003, when, in the face of the East Asian financial crisis, the Chinese government strove to recapitalize and restructure state-owned banks with a view of improving their asset quality. The "Big Four" were subsequently transformed into shareholding ownership and were allowed to list part of their shares in the domestic and overseas markets. Meanwhile, along with the liberalization of its structure and commercialization of its institutions, the Chinese banking sector has also become increasingly internationalized particularly since the admission of the country into the World Trade Organization in late 2001. By 2007, foreign banks were free to conduct all kinds of banking business in the country. This has largely reinforced competition in the sector.

The Chinese financial system has thus far remained a mixed system, however. Today, there still exist strong market-supplanting elements in the system. These include discretionary government intervention, the predominance of state banks in the sector, and the behavioural inclination of the banks towards causing excessive fluctuations. All these are well known and, as a result, the Chinese financial system has been subject to contrasting assessments concerning its efficiency attributes. It is deemed intrinsically inefficient from the perspectives of the mainstream doctrines of financial liberalization, but is seen to contain useful developmental attributes in the lens of Post Keynesian theories of endogenous finance (see e.g. García-Herrero *et al.*, 2006; and Yang, 2006; which both describe in details the reform of Chinese banks but with contrasting assessments).

At the descriptive level, a salient feature of the Chinese financial system is indeed the predominance of state-owned or state-controlled banks. This is the case despite the progress in market reforms over the past three decades, i.e. the increasing commercialization and part-privatization of these institutions and the liberalization of the sector as a whole. As is shown in table 1, in 2010 directly state-controlled banks – the "Big Four" plus the Bank of Communication (which is the fifth largest bank, majority-owned by state agents), state-owned policy banks, and the Postal Savings Bank – accounted for 55% of the total outstanding bank loans, and 61% of the total assets of the banking sector as a whole. A further share of up to 25% of outstanding loans, and 16% of assets, was accounted for by a variety of joint-stock banks, of which state institutions might own up to a half of the shares. And the banking sector has continued to account for a main part of Chinese finance. As can be inferred from figure 1, in 1995 bank loans accounted for 82% of the total sources of funds in the economy. By 2010 the ratio still remained at close to 60%.

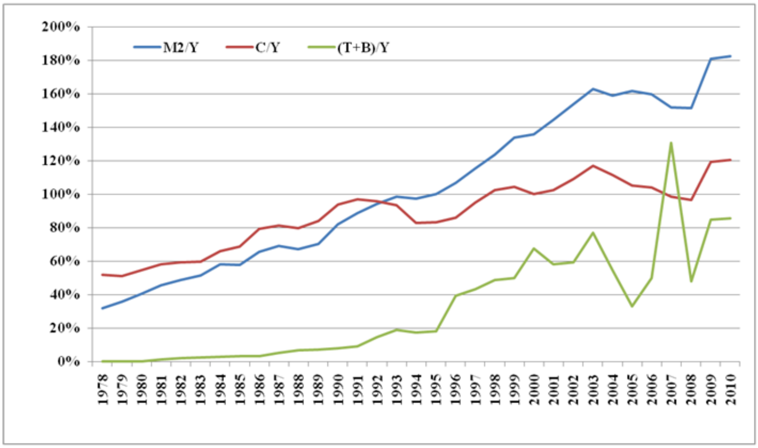
Table 1 – *State banks' total assets and total outstanding loans as shares of the banking sector respective figures (%)*

	2000	**2005**	**2010**
Assets		68	61
Loans	77	62	55

Sources: China Finance Statistical Yearbook, various issues; People's Bank of China, and China Banking Regulatory Commission, websites.
Notes: State banks = state-controlled specialized commercial banks (i.e. Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, Construction Bank of China) + Bank of Communications + state policy banks (i.e. State Development Bank, Agricultural Development Bank of China, Export and Import Bank) + Postal Savings Bank.

At the level of assessment, a paradoxical phenomenon that has to be taken seriously is that the Chinese financial system has actually done a reasonable job in terms of promoting financial deepening of the economy. Indeed, the importance of finance in the economy has expanded enormously over the reform era. Figure 1 charts out the evolution of three key indicators: the broad money supply (M2), total outstanding bank loans, and stock market capitalization plus the total trading value of bonds, all expressed as ratios to the gross domestic product (GDP). These indicators clearly show a fast process of financial deepening and monetization of the economy. And the banks seem to have done well in this regard, as is particularly evident in its comparison with the banking sectors of other comparable developing economies. Measured by the standard indicator of domestic credit provided by banks (as a ratio to GDP), in 2009, the Chinese figure was 145%, which far exceeded that of India (69%), Russia (34%), Brazil (98%), and South Korea (112%). And the comparison had been basically the same ever since the mid-1990s, as is shown in table 2. Clearly, and to say the least, the fact that the sector (and Chinese finance as a whole) has been dominated by state banks does not hinder the process of financial deepening of the economy.

Figure 1 – *Money supply, total outstanding bank loans, and stock market capitalization and total trading value of bonds (as % of GDP)*



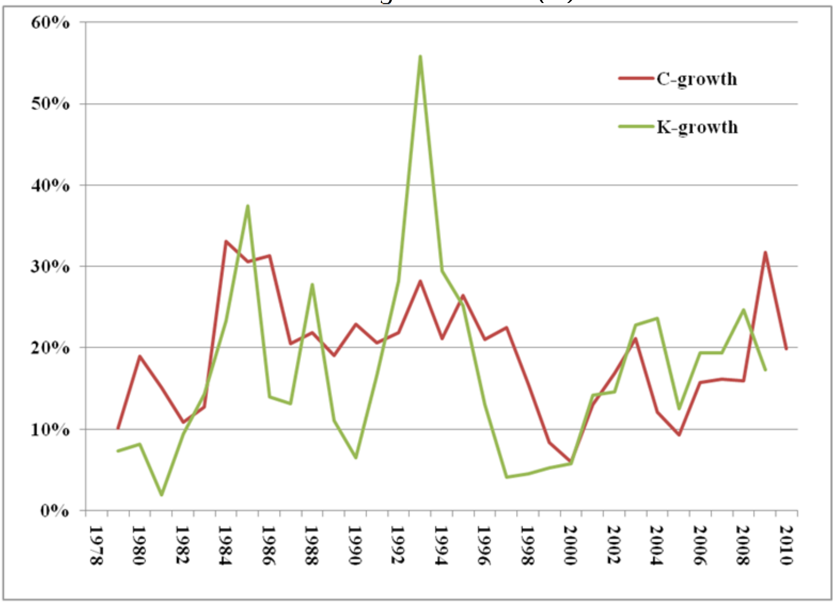
Sources: *China Statistical Yearbook* and *China Financial Yearbook*, various issues.
Note: Y = GDP, M2 = broad money, C = Year-end outstanding bank loans (RMB only), T = stock market capitalization, B = trading value of bonds.

Table 2 – *Domestic credit provided by banking sector (as % of GDP)*

	1996	2000	2005	2009
China	93.3	119.7	134.3	145.2
India	45.7	53.0	58.4	69.4
Russia	27.8	24.7	22.1	33.8
Brazil	57.1	71.9	74.5	97.5
South Korea	56.9	79.5	91.4	112.4

Sources: World Development Indicators, accessed 21 May 2011.

Figure 2 – *Annual growth of gross fixed capital formation (K), and total outstanding bank loans (C)*



Sources: China Statistical Yearbook and China Financial Yearbook, various issues.

The specific form of financial deepening has also seemed to be conductive to promoting economic development. Although speculative bubbles have occurred from time to time over the reform era, bank credits have been mostly channeled to productive investment. Figure 2, which charts out the nominal annual growth rates of total outstanding bank loans and gross fixed capital formation, broadly indicates that the banking sector has worked in a way that is supportive of capital accumulation and hence economic development. On the whole, the two curves representing the growth rates tend to move *in tandem*. This must be of importance in explaining the performance of fast economic growth and modest inflation, on average more than 9% and less than 5% per annum respectively, over the reform era – despite the tremendous pace of monetary expansion in the meantime.

The judgement that the financial system, and the banks in particular, have significantly contributed to capital accumulation can be confirmed by some simple regression analyses. The regression models take the following forms:

$$\left(\frac{K}{Y}\right)_t = \alpha + \beta\left(\frac{C}{Y}\right)_{t-1} \tag{1}$$

$$\left(\frac{K}{Y}\right)_t = \alpha + \beta\left(\frac{C}{Y}\right)_{t-1} + \gamma\left(\frac{T+B}{Y}\right)_{t-1} \tag{2}$$

where K is gross fixed capital formation, Y is GDP, C is year-end total outstanding bank loans, T is stock market capitalization, B is the total trading value of bonds, and the subscript t indicates the year of the data series. It can be verified that the 1978-2010 time series of annual data of all these variables are integrated of order one, i.e. $I(1)$, and in both equations (1) and (2) there exists a relationship of co-integration between the dependent and explanatory variables (see Appendix, table A2).

Table 3 gives the results of the regression analyses. For equation (1), it can be seen that the dependent and explanatory variables are statistically significantly correlated: the estimated value of the coefficient of C/Y, i.e. β, is 0.213. For the analysis using equation (2), the estimated value of β is still significant, but it decreases to 0.099. Even so, for equation (2), the estimated value of β is still greater than that of γ (0.028), i.e. the coefficient of $(T+B)/Y$, although precisely how significant is this difference in the coefficients requires further investigations. On the whole, these regression results indicate the vital role of the banking sector in promoting capital accumulation. Elsewhere in Lo and Li (2011), it is found that capital accumulation – or, more specifically, capital deepening – has been the main driving force behind Chinese industrialization and economic growth over the reform era, mostly in the form of promoting technological progress and productivity growth. It is reasonable to judge that the Chinese financial system has been conducive to promoting financial deepening, and thereby productive efficiency, of the economy.

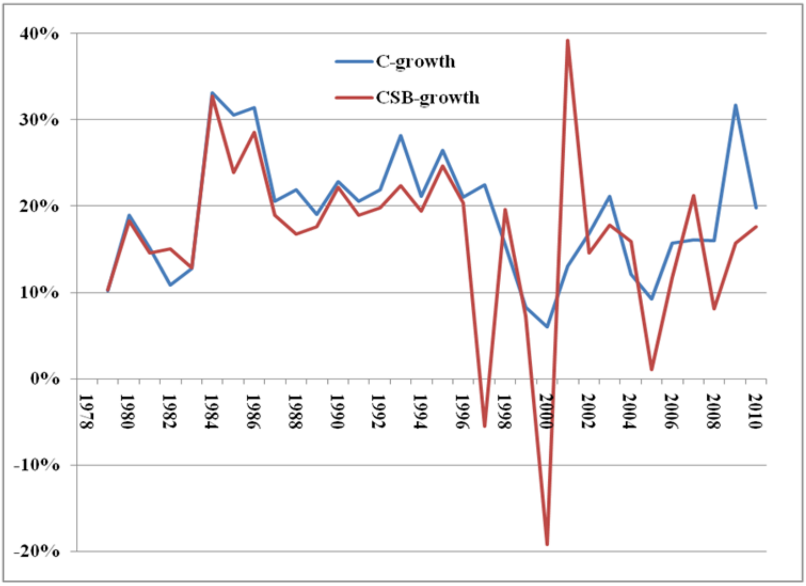
Table 3 – *Regression analyses: finance and productive investment, 1978-2010*

	Equation (1)	**Equation (2)**
α	0.154*** (0.030)	0.227*** (0.037)
β	0.213*** (0.034)	0.099* （0.050）
γ		0.028*** （0.010）
Observations-adj.	32	32
R^2-adj.	0.564	0.677
F-statistic	40.438	29.398
Prob. (F-statistic)	0.000	0.000

Note: Figures in parentheses are standard errors; ***, ** and * indicate statistical significance at 1%, 5% and 10% confidence levels, respectively.

The positive role of Chinese finance in promoting economic development must be weighed against its negative effect in causing severe fluctuations, however. As is also shown in figure 2, the growth of both investment and bank credits exhibits severe fluctuations over the reform era. The annual growth rate of investment, in particular, could reach levels as low as 2% (in 1981) and 4% (in 1997) and as high as 37% (in 1985) and 56% (in 1993). Given that the main sources of finance for productive investment have been bank loans, it should be reasonable to infer that the conduct of Chinese banks has tended to be excessively unstable. They have tended to oscillate between excessive expansions and contractions, and such conduct must indicate some specific character of their institutional arrangements. In fact, state banks have tended to be even more unstable in conduct than non-state banks. As is shown in figure 3, throughout the reform era the growth of bank loans provided by state banks fluctuates far more severely than that of the banking sector as a whole.

Figure 3 – *Annual growth of total outstanding bank loans by state banks (CSB) and by the sector as a whole (C)*



Sources: *China Statistical Yearbook* and *China Financial Yearbook*, various issues.

In this connection, the specific character of the Chinese system of government controls and regulations over the banks is of note. In a nutshell, the system has been excessively tough by international standards. The exercise of administrative controls has persisted. The use of the credit plan was frequent in the first half of the reform era. This practice formally stopped in 1998, but the government still has administrative means to control the total credit volumes. Meanwhile, the regulatory framework (which has focused on applying versions of Basel) was first established in the 1994-1995 banking reform, but it has become functional only gradually after 1998. After a transitional period for commercializing state banks and replenishing their capital, by around 2007, the regulatory framework became fully functional. The regulations over the banks (especially state banks) have been tougher than Basel, e.g. they mostly needed to maintain a capital adequacy ratio of more than 12% even in the years 2008-2010, when the government tried hard to encourage credit expansion and other expansionary practices. There have also been severe restrictions on financial innovations, especially with respect to the securitization of bank assets and the involvement of banks in derivatives issuing and trading.

The significance of the tougher-than-usual system of bank controls and regulations is that it appears to be in match with the unstable conduct of the banks. The excessive fluctuations caused by the banks have to be curbed by tough government measures. Unless the banks can exercise sufficient self-restraints to avoid excessive expansions and contractions, a direction which they seem to have been heading towards thanks to the reforms, the government regulations and even outright administrative controls need to be in place. This combination of the peculiar behaviour of the government and the banks has formed the famous “stop-go cycles” of the Chinese economy over the reform era, which have often been alluded to as evidence of the inefficiencies of the reformed financial system. Yet, this negative view has to be balanced by the positive performance of the system in promoting productive investment and thereby long-term economic development. A more comprehensive theoretical framework is needed for the assessment.

3. An assessment: broadening the vision

The Chinese experience as depicted in the preceding section is a case of finance and development in the context of a mixed economic system, i.e. a system of (increasing) market competition *cum* (retaining) public ownership and control. Assessing the experience needs to take into consideration a relevant debate in the "economics of transition." On one side of the debate is the theory of the soft budget constraint, which predicts a one-sided, expansionary instinct of financial institutions that are not purely private. Ownership reforms, even complete privatization of all public firms including the banks, are claimed to be necessary for avoiding the instability and inefficiency caused by the mixed system (Kornai, 1990; Kornai *et al.*, 2003). On the other side of the debate is the theory of control lost, which focuses on the relative speeds of capability development of the government-regulator versus the financial institutions. For maintaining macroeconomic stability, and promoting long-term economic development, the development of the system of controls and regulations needs to keep in pace with the market reforms of the banks (Potres, 1989; Yang, 1996).

The second story seems to be more convincing in explaining the Chinese reality. As indicated earlier, throughout the reform era, the Chinese economy has experienced a number of "stop-go cycles," or fluctuations between excessive expansions and contractions. These cycles have been a product of the joint efforts of the government and financial institutions. Nevertheless, it is not the case that government efforts have been solely responsible for the contractions and the conduct of the banks being solely responsible for the expansions. There was actually a prolonged period of time, roughly in the second half of the 1990s, when the commercialized state banks exhibited a strong inclination towards contracting credit provision – which was an important cause of the problem of deflation in the Chinese economy during this period (Lo and Zhang, 2011). And the unprecedented credit expansion in 2008-2010 was clearly a government-initiated phenomenon, in response to the condition of demand deficiency caused by the worldwide economic recession.

Nor are "stop-go cycles" necessarily no more than a symptom of inefficiency. It is clear that a key presumption of the theory of the soft budget constraint is that a financial system that is in line with principles of the market is normally stable, and comparatively efficient in the allocative sense. This is a key tenet of the mainstream doctrines of financial liberalization. In contrast, Post Keynesian economics argues that financial instability is the normalcy of the market economy, and the importance of finance lies mainly in promoting productive efficiency (Arestis, 2004; Dullien, 2009; Kregel and Burlamaqui, 2005).

Existing formal analyses of the Chinese experience of finance and development have mostly followed the mainstream doctrines. And their analytical findings have tended to give rise to negative views on the experience. The typical conclusions are either that the financial system has made an insignificant contribution to economic development, or that it could have made a better contribution had it been more completely reformed in line with the principles of the market (Aziz and Duenwald, 2002; Boyreau-Debray, 2003; García-Herrero *et al*., 2006; Hao, 2006). Meanwhile, there have also emerged a relatively small number of studies that seek to study the Chinese experience with the assistance of alternative theories. These typically followed two different routes: either by drawing on the Keynesian-Schumpeterian theory of endogenous finance, where finance impacts the economy by creating credit "out of nothing" (Herr, 2010), or by resorting to the argument of structuralist development economics that the market cannot automatically deliver development, and positing that Chinese state banks despite all the market reforms have continued to embody both commercial and developmental attributes (Laurenceson and Chai, 2003).

It seems true that, in view of our earlier depiction of the reality, both of these bodies of work might contain elements of truth but remain partial stories. To construct a convincing synthesis one needs to broaden the theoretical vision and take into consideration the key empirical stylized facts. Our contention, based on the alternative theories reviewed above and the stylized facts depicted in the previous section, is that there might exist a relationship of trade-off between the two types of efficiency, and between short-term stability and long-term development. And the effect of a particular financial system depends, in the first place, on the appropriate match or otherwise between the institutional arrangements of the market entities and the system of government controls and regulations.

Viewed this way, the experience seems to suggest that the Chinese financial system has been an amplified validation of the famous Minskyan financial instability hypothesis. In other words, compared with the notional market economy, Chinese finance has carried an amplified tendency towards financial instability. This is because the market entities, i.e. the state banks, have continued to embody both commercial and developmental attributes – as is explained by the theory of the soft budget constraint. Hence, it requires a tougher-than-usual system of government controls and regulations to curb the excessive fluctuations caused by the market entities. It needs discretionary government intervention in the form of a combination of, and balance between, regulations and administrative controls.[2]

The moral of the Minskyan financial instability hypothesis concerns more than short-term stability. The underlying theory in fact focuses on the interaction between finance and productive investment, and, as such, it is also of fundamental importance for the concern of long-term economic development (Palley, 2010). Accordingly, in the Chinese experience, controls and regulations are not just aimed at creating ceilings and floors to constrain the conduct of financial institutions. They are also needed for actively promoting productive investment, whilst containing instability. This need is evident not only in times of economic stagnation, such as what happened in China in the periods 1998-2001 (the time of the East Asian financial crisis) and 2008-2010 (the time of worldwide recession), but also in the main part of the rest of the reform era when the process of industrialization requires the necessary financial sources for capital deepening.

But what makes the appropriate match between government intervention and the institutional arrangements of the financial system? What are the necessary conditions within which the working of this particular system has had, on balance, a significantly positive effect in

[2] Excessive fluctuations often lead to allocative inefficiency. At times of excessive credit expansion, inefficient firms or projects could still receive supports from the financial sector. At times of excessive credit contraction, in contrast, even efficient firms or projects could not get hold of the necessary financial resources. These appear to be what have happened in China from time to time over the reform era.

terms of maintaining short-term stability and promoting long-term development? To answer these questions requires studying more than the evolution of the financial system. It requires an adequate study of the overall process of Chinese economic transformation, particularly the main characteristics of the path of economic development and the role of finance therein. This paper is unable to offer anything in this regard. What we can do is to provide some pointers for further investigations, concerning our immediate concerns over the necessary conditions for the appropriate match. Discernibly, there are two key conditions. One condition is that the real economy is on a high-performing or fast-growth path, so that the banks will tend to be on the expansionary side and focus on supporting productive investment rather than asset price bubbles. Another condition is capital controls, i.e. limitations on capital flights and dollarization, so that even with the tough banking regulation and controls – and even at times of slowdown in real economic growth – the banks cannot avoid getting back to support productive investment. These conditions seem to have prevailed throughout the reform era.

4. Conclusions

Despite fundamental market reforms, the Chinese financial system has remained a mixed system. Today, there still exist strong market-supplanting elements in the system. These include discretionary government intervention, the predominance of state banks in the sector, and the behavioural inclination of the banks towards causing excessive fluctuations. From the perspectives of the mainstream doctrines of financial liberalization, this system is easily judged to be entailing serious allocative inefficiencies. Nevertheless, such views might be partial. The system can be viewed favourably from alternative theoretical perspectives, in terms of promoting productive efficiency.

This paper argues that the actual experience does seem to indicate that, hitherto, the gains in productive efficiency have more than compensated for the losses in allocative efficiency. This judgement helps to make sense of the Chinese anomaly that a seemingly inefficient financial system has co-existed with the outstanding performance of financial deepening and economic development over the reform era. Further investigations will be needed to ascertain the conditions within which the working of the financial system has, on balance, made a significantly positive contribution to short-term stability and long-term development.

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Appendix

Table A1 – *Outline of the Structural-Institutional Evolution of the Chinese Financial System*

	Structural Changes	Institutional Changes
1979-1984	Before 1979, all financial resources in the economy were centrally allocated by the People's Bank of China (PBC). In the period 1979-1984, the system was transformed into a two-tier structure, with the establishment of the "Big Four" specialized state-owned commercial banks and the PBC giving up all commercial activities. These "Big Four" state-owned specialized commercial banks were granted some incentives and autonomy to carry out their commercial activities.	Before 1979, all the financial institutions in China were no more than administrative divisions of the economic hierarchy of the government, under the direct management of the People's Bank of China (PBC) and/or the Ministry of Finance. In 1979, the Agricultural Bank of China was re-established, the Bank of China was separated out from the PBC, and the People's Construction Bank of China was separated out from the Ministry of Finance. In 1984, the Industrial and Commercial Bank of China was established to take over the PBC's commercial activities.
1985-1992	In the period 1985-1992, the system was transformed into a three-tier system: the PBC, the "Big Four", and a large number of newly emerged joint-stock banks and regional banks. Along with the gradual liberalization of the banking sector, the development of other financial activities also began to take place during this period. In particular, the Shanghai and Shenzhen stock exchanges were established in 1990.	The PBC gradually developed a system of banking controls in this period. This system was composed of both administrative measures (e.g., credit plans) and standard regulations (e.g., reserve requirement ratios), which the PBC adopted in a discretionary way in relation to the macroeconomic conditions. The biggest of the third-tier financial institutions, the Bank of Communication, was a joint-stock bank with state institutions holding a majority share.
1993-2001	Three state policy banks – the National Development Bank, the Export-Import Bank, and the Agricultural Development Bank – were established in	The PBC's status as central bank was formally established by the Law of the People's Bank of China in 1995. The commercial status of

	1994 to take over the policy activities of the "Big Four". The existing large number of urban credit co-operatives were transformed into urban co-operative banks in 1996 (later renamed urban commercial banks).	commercial banks, including the "Big Four", was formally established by the Law of Commercial Banks in 1995. All these banks were required to be responsible for their own profits and losses. Four state-owned Asset Management Companies was established to take over a main part of the non-performing loans of the "Big Four". The PBC turned to rely mainly on regulations in banking control, with a focus on the capital adequacy ratios.
2002 and after	Following China's admission to the World Trade Organization in late 2011, the banking sector was gradually opened to foreign institutions. The opening process was completed by end of 2006. From then on, foreign banks became free to conduct all kinds of banking business in China.	From 2004, the "Big Four" were transformed into shareholding ownership and were allowed to list part of their shares in the domestic and overseas stock markets. The PBC continued to rely mainly on regulations (reserves requirement ratios, capital adequacy ratios, etc.) in banking control, but also reverted to using some administrative means at times (e.g., using some forms of credit plans in 2010-2011).

Table 2 – *Unit-root and cointegration tests for the regressions reported in table 3*

	Variables	ADF (without trend)
Dependent variables	$\frac{K}{Y}$	-0.143
	$\Delta(\frac{K}{Y})$	-4.569***
Explanatory variables	$\frac{C}{Y}$	-1.103
	$\Delta(\frac{C}{Y})$	-4.496***
	$\frac{T+B}{Y}$	-0.485
	$\Delta(\frac{T+B}{Y})$	-5.801***
Equation (1)	EG	-1.773*
Equation (2)	EG	-2.092**

Note: Data are of the years 1978-2010, and the number of observations is 32. EG denotes the ADF of the residuals from the cointegration tests. Figures in parentheses are t-ratios; ***, ** and * indicate statistical significance at 1%, 5% and 10% confidence levels, respectively.