

China in Search of Equilibrium – Transition Dilemmas of Growth and Stability*

Laura Komlóssy – Gyöngyi Vargáné Körmendi

China's economic growth and stability are key not only to the population of China: due to its size and trade relations, it would affect all actors of the global economy to a lesser or greater degree if unexpected events or strong deviations occurred in the world's second largest economy. As major imbalances and risks have accumulated in the Chinese economy in recent years, the professional community is still divided on the question of whether the central government will succeed in soft landing and set the economy on a more balanced and sustainable growth path, or whether an abrupt adjustment is already unavoidable, and it is only the time and severity of the consequences of an economic decline that are questionable. In this essay, we present the policies that ensure sustainable growth, the risks that complicate implementation and the economic policy measures aiming to mitigate such risks.

Journal of Economic Literature (JEL) codes: E61, P21

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1. Introduction

Economic growth and the degree of risks surrounding it are key aspects to the political leadership of China, as this is one of the cornerstones of the legitimacy of power. Thus, there is a continuous balancing between achieving short-term growth objectives and ensuring long-term sustainability; the latter is served by restructuring aimed at enhancing efficiency and by risk-mitigating measures (Székely-Doby 2018). However, due to the risks that have accumulated in the meantime, the question of whether a soft landing is actually feasible or an abrupt adjustment is already unavoidable, and it is only the time and severity of the consequences of the Minsky moment¹ that are uncertain, is continually arising.

* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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¹ This denotes the moment when in an economy several, hidden risks manifest themselves suddenly and simultaneously, and asset prices collapse, followed by a wave of bankruptcies.

In this paper, we review the topics related to sustainable growth: the directions that are meant to ensure this, the risks that hinder implementation – with special regard to those warning about the danger of crisis-like adjustment – and the economic policy steps aiming to mitigate such risks. Accordingly, we present the risks arising from the transformation of the economic structure, the demographic and environmental challenges, the problems stemming from accumulated debt, the risks inherent in asset prices, and particularly in real estate prices, as well as the challenges of the new model related to the financial system. We endeavour to shed light on the individual topics and the correlations between them in a comprehensive manner; however, in view of the diversity of the topics, we are not in the position to elaborate on them within the scope of this paper.

2. Growth objectives and structural reforms

For the last four decades, *the primary objective of the Chinese reforms and economic structural adjustment has been to improve efficiency on a continuous basis*. This is only one tool² in the partial changeover from a planned economy to a market economy. Consequently, the rapid, full economic transition seen in Central and Eastern European countries did not occur in China; instead liberalisation occurred and occurs only in the areas designated by the political leadership at any given moment. The current meaning of dynamic growth has changed significantly in past decades. *While it previously targeted double-digit growth, today a much more moderate growth is deemed feasible*. Recognising and having this accepted was an extremely important step for the central administration. When the growth target related to 2020 was announced in 2012,³ it not only made clear that average growth will be substantially lower than before, but also that *the central government is strongly committed to achieving the designated new level*.

As a result of the current opportunities, the accumulated risks and the international environment, *the growth strategy has changed considerably several times*. Initially, the reallocation of labour force from agriculture to industry commenced by establishing rural enterprises, and later by opening towards foreign investments and technologies. All of this resulted in a major increase in labour force efficiency (Hu – Khan 1997) and also raised the capital level. In the early 2000s, an export-oriented growth strategy increasingly came to the fore, which, however, was no longer sustainable after the economic crisis of 2007–2008. Then, efforts were

² The Communist Party of China still refers – as its ideological fundament – among other things, to Marxism-Leninism and Maoism. <http://english.cpc.people.com.cn/206972/206981/8188424.html>. Downloaded: 14 December 2018

³ On 8 November 2012, at the opening ceremony of the 18th National Congress of the Communist Party of China, President Hu Jintao set the target of doubling China's 2010 GDP and per capita income in respect of both urban and rural population by 2020. <http://en.people.cn/90778/8010379.html>. Downloaded: 10 November 2018

made to substitute flagging external demand by further increasing the already high investment ratio. However, the risks and constraints of this became obvious in a few years, making a changeover to a new strategy imperative. *The new direction intends to ensure steady growth by stimulating domestic consumption*, by strengthening the service sector and modern industries, and pushing heavy industry to the background. *The central government has lately referred to this as structural adjustment from high-speed growth to high-quality growth.*⁴ The changeover and the management of the problems accumulated as a result of the previous models are a substantial challenge. This is further complicated by the challenges of the international environment, the demographic processes and the environmental issues.

2.1. In search of new macroeconomic equilibrium

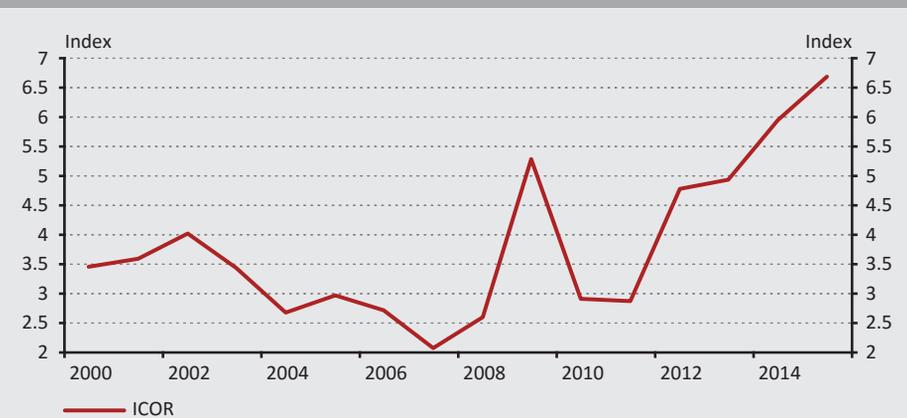
Chinese economic growth can be regarded as the economic success story of the past four decades. Together with the growth of its economic size and openness to the global economy, it also gained increasing importance. In the past four decades, as a result of its economic opening, China had easier access to foreign capital, it deepened its role in the global value chains, and its economic growth also significantly accelerated – particularly from 2001, when the country joined the World Trade Organisation (WTO), which was accompanied by gradual improvement in the standards of living and a distinct fall in the poverty rate (Gyuris 2017). Over the past four decades, China transitioned from being one of the poorest countries to being the second largest economy in the world, already accounting for one-third of global economic performance.

However, China now increasingly faces two interconnected challenges: *decelerating growth and an increase in inequalities.* While in 2007 real GDP growth exceeded 14 per cent, this rate has halved in recent years and in 2017 the rate was only around 7 per cent. This *deceleration is mostly attributable to structural factors*, as the impact of factors supporting the earlier rapid convergence is gradually wearing off. As a result of the one-child policy, the population of working age has been gradually decreasing since 2010, and thus – similarly to the developed countries – China is also *facing the ageing of the society.* The *redundant capacities* built as a result of excessive investments and the *incremental capital output ratio (ICOR)*⁵ *reduce the return on capital, and represent decreasing impulse for investments for economic growth (Figure 1).*

⁴ For example, the press release of the central bank. <http://www.pbc.gov.cn/english/130721/3656521/index.html>. Downloaded: 7 December 2018

⁵ The quotient of the investment ratio and GDP growth rate. An increase in the ratio indicates a decrease in investment efficiency.

Figure 1
Changes in ICOR



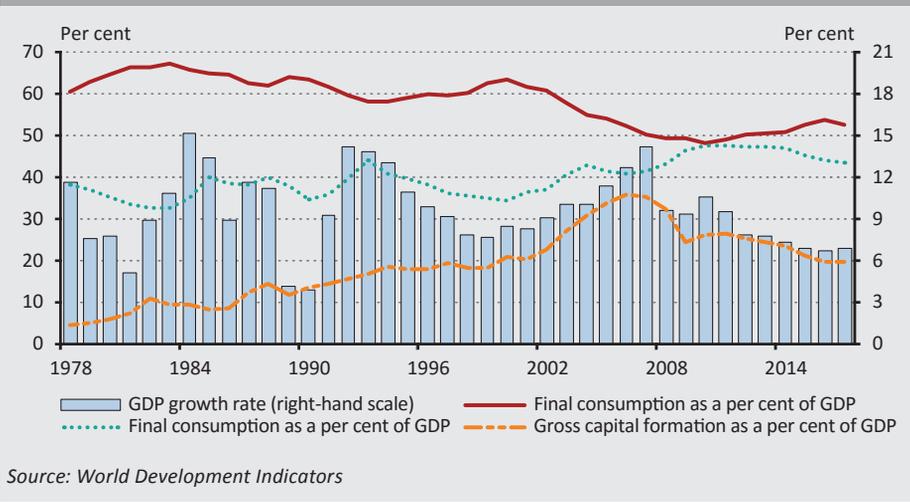
Source: OECD Economic Surveys: China 2017

Moreover, *total factor productivity* (TFP) also *slowed down* substantially. According to the technical literature, in recent years, potential growth fell to 7–8 per cent⁶ compared to the average of around 10 per cent observed in the 2000s, and according to the forecasts, it may slow down below 6 per cent (Dieppe *et al.* 2018).

The *pre-crisis growth model* was primarily based on industrial production and the undervalued yuan, which substantially *increased external imbalances*. In the pre-crisis years, China's current account surplus was as high as 10 per cent of GDP, which has substantially decreased since then. The recovery of the external balance is partly attributable to the appreciation of the real exchange rate in the past decade and is also reflected major changes in demand. Starting from 2008, in parallel with the decline in external demand, it was primarily the role of investments that appreciated (Figure 2), as the central government offset the negative consequences of the crisis by boosting investments, which led to a major rise in corporate indebtedness. In the post-crisis years, the investment ratio was outstanding – even compared to other Asian countries with a similar level of industrialisation – and it persistently exceeded 47 per cent, which led to increasing internal imbalances in addition to the external ones. In parallel with the substantial decline in the investments' rate of return in recent years, repayment of the related loans became increasingly problematic.

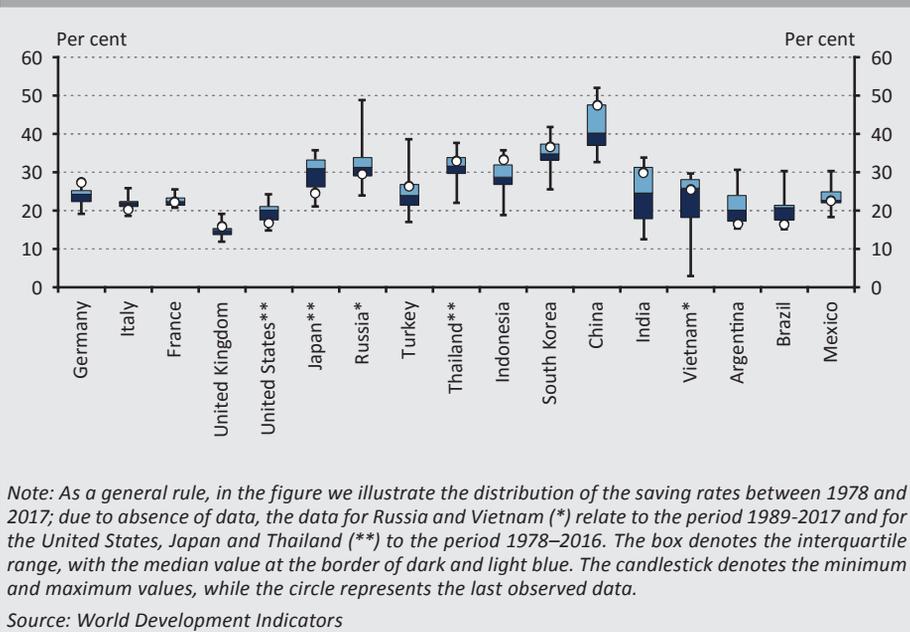
⁶ For more details, see Alberola *et al.* (2013), Albert *et al.* (2015), Maliszewski – Zhang (2014) and IMF (2014).

Figure 2
Changes in the growth rate and GDP composition based on absorption in China



The imbalances characterising the Chinese economy are interconnected. *The previously high external imbalance and the present internal imbalances contributed to households’ exceptionally high saving ratio, which is outstanding even by international standards (Figure 3).*

Figure 3
Saving rate as a percentage of GDP in an international comparison



The high saving rate reflects the demographic trends observed in the one-child policy and social policy, including the poor welfare and limited healthcare (Choukhmane *et al.* 2016), as well as the high income and welfare inequalities (IMF 2017). At the same time, the rise in the saving rate was also forced by the financial repression and the (mostly) closed capital account. The same policies also hindered proper risk assessment and capital allocation, which facilitated the surge in investments and the accumulation of debts (Huang – Tao 2011, Pettis 2013). Thus, although the form of the imbalances in China has changed in recent years, the triggers were similar: the consequences of the current economic strategy and political system (Dieppe *et al.* 2018). In addition to the internal processes, a number of other factors, external trade or even geopolitical events may also influence the performance of the Chinese economy. The Trump administration brought all these factors to the forefront, and for the time being it is difficult to assess the long-term consequences of those. One of the most significant factors is the China-US trade war, which commenced in 2018. In 2018, the United States raised customs duties in three rounds, affecting Chinese products in a total amount of USD 250 billion. In addition, US President Donald Trump held out the prospect of imposing additional duties on Chinese products worth roughly USD 267 billion, if the current negotiations fall through. The Chinese government responded to the sanctions of the United States by customs duties of similar degree, and last year it imposed duties on US products worth roughly USD 110 billion. US – China trade relations are still characterised by major uncertainty. According to economists' assessment, although the levying of duties has a negative impact on GDP growth in both countries, the negative impact of the trade war for China may mostly manifest itself in the deceleration of the reform process.⁷

Xi Jinping, elected as president of China in 2013, also recognised the unsustainability of the regime. The approved thirteenth five-year plan has set objectives for "economic and social development" for the period 2016–2020. The objectives include, among other things, doubling the 2010 GDP by 2020, increasing R&D activity, environmental considerations, social measures, including the easing of the one-child policy, the extension of urban welfare services, the rationalisation of state-owned companies and achieving full convertibility of the yuan.⁸

Raising households' consumption was the key to economic restructuring. As a result of the government measures, in recent years some growth in consumption as a percentage of GDP was achieved. This growth was supported by a number of state measures, such as the reduction of wage contributions, the introduction of a more progressive personal income tax scheme, as well as the increase in social, health and education expenditures. However, the easing of the imbalances may be

⁷ <http://www.geopolitika.hu/hu/2019/03/12/kereskedelmi-haboru-az-usa-es-kina-kozott/>. Downloaded: 9 April 2019

⁸ <http://en.ndrc.gov.cn/newsrelease/201612/P020161207645765233498.pdf>. Downloaded: 6 December 2018

hindered by households' high saving rate. The shortcomings of the social safety net (pension and health insurance scheme), the consequences of the one-child policy, giving preference to owning your home, and the “hukou” system, still in place in large cities, all encourage the population to accumulate saving. The “hukou” system, which hinders social mobility, is a major contributor to the regional inequalities within the country. Although the economic performance of the western and central regions recently showed convergence, GDP per capita is still substantially higher in the eastern, coastal regions. The differences observed between east and west at the level of counties, can be also identified in the income inequalities between towns and villages (Gyuris 2017). The high inequality between incomes, observed at national level – the Gini coefficient has not improved in recent years – appears more cumulatively in the underdeveloped western region.

The *Belt and Road Initiative*, announced in 2013 and the *Made in China 2025* concept, presented in 2015, *may help improve the moderate productivity, resulting from the previous economic structure, and reduce the excess capacities accumulated in industry.* Within the scope of the Belt and Road initiative, large volume infrastructure investments would provide work for heavy industry and construction companies, which are struggling with major surplus capacities. The *infrastructure developments facilitate* the inflow of commodities, of adequate volume and quality, to China, as well as the export of Chinese products and services. The flow of labour force, capital and technology may be accompanied by a major improvement in efficiency, while the development of the transport infrastructure may also appear as a competitiveness improving factor. Improved efficiency is key to producing goods of higher value added, which is the basis of sustainable, balanced economic growth. Reduction of the economic and income inequalities between the eastern and western regions is essential for the further rise in household consumption. The initiative is also meant to mitigate this, since the land road to Central-Asia leads through the western areas. Railway improvements affecting the transport of goods have already commenced in fifteen eastern and central regions of China, and economic belts and logistics centres were established in several cities (Brown 2017). *The Made in China 2025 initiative has set the goal of improving the quality of manufacturing output,* since – although the performance of manufacturing made major contribution in the past years to the buoyant growth of the Chinese economy – the sector is characterised by low value added and labour-intensive production. The centre of the programme is the establishment of an innovative and sustainable manufacturing sector, built on quality and network integration, that helps China join the largest manufacturing economies (HKTDC 2016). In addition to the announced programmes, the reform of state-owned companies and the liquidation of zombie firms, which operate with major losses, would be also essential to increase productivity. In terms of productivity, the state-owned companies lag far behind private companies, but their assets and share in

investments are still significant (Székely-Doby 2018), delaying further improvement in internal equilibrium.

2.2. Demographic trends

The one-child policy, introduced at the end of the 1970s, led to major distortions in the age and sex structure of the population (NBSC 2016). Due to the drastic decrease in the fertility rate, China – similarly to the developed countries – *faces the ageing of the population.* Since the mid-2000s, the elderly population has continuously increased, and according to the UN's forecast⁹ the number of inhabitants over the age of 65 will rise from the present 131 million to 371 million by 2050, of which the number of those over 80 will be up from 22 million to 121 million. In parallel with the increase in the median age, the number of working age inhabitants will also decrease significantly, as a result of which the old-age dependency ratio may also rise strongly. The astonishing speed of the ageing of the Chinese society also puts great pressure on social and economic development. The set-up of a nationwide pension system – which provides the fast-ageing population with proper financial support – may represent huge challenge for the central government; in addition, the consolidation and further development of the healthcare system may also represent challenges.

In addition to the ageing of the population, *gender imbalance* is also a major problem. The one-child policy gave preference to boys, as a result of which in 2017 the number of male population in China exceeded the female population by more than 30 million. Although recently the distortion in the sex ratio improved, it is still far from that deemed ideal.

Recently, *the central government announced a number of measures to address the problems,* starting from the support of family planning to ensuring strict compliance with the prohibition of sexual discrimination. With a view to slowing down the ageing of the society, the one-child family model was also eased, as a result of which Chinese families may now have two children. In addition, the government emphasises the importance of strengthening the old-age provision system based on home care, supplemented and supported by the old age social care institutions provided by the community and the government. In order to reduce the financial pressure, which accompanies the ageing of the population, the government also proposed a gradual increase in the retirement age. In addition to the foregoing, in recent years the central government spent considerable amounts on enhancing the quality of education, particularly in respect of natural science education. The ratio of students enrolled in higher education also rose significantly between 2010 and 2014 (Losoncz 2017). This helped China appear in the world market not only with

⁹ https://esa.un.org/unpd/wpp/publications/files/key_findings_wpp_2015.pdf. Downloaded: 6 December 2018

the copying of foreign products, but also by manufacturing self-designed products, often representing high-tech technology. Continuance of this trend may contribute substantially to ensuring that the decrease in the working age population does not automatically entail a major decline in GDP growth.

In addition to the demographic problems, *extensive internal migration from rural areas to urban areas represents an additional challenge*. China's urban population consists of two main types: those with local registration, known as "hukou", and those without. Many of the employees migrating from rural areas to urban areas have already worked in cities for many years, but they are still treated as "temporary immigrants" and face the risk that they may be sent back to the place of their original registration.

This uncertainty, and the restrictions imposed on those without registration, result in the break-up of families, since commuter employees leave behind their elderly parents, small children or even their spouse in the countryside. In the past decade, several hundred million Chinese peasants have set off to the cities to work in the hopes of making a better living. These people have made a major contribution to Chinese economic growth and urban development, while their fundamental rights are often not protected properly by Chinese laws. Although the central government's five-year plan for 2016–2020¹⁰ includes the extension of "hukou" with 100 million commuting employees, this would affect only 40 per cent of the current "floating population".¹¹ With a view to implementing the ambitious urbanisation plan, the central government proposed several strategies, including – among other things – harmonised development of urban and rural areas, fostering urbanisation, improving small and medium-sized towns and supporting the settlement of rural population in towns.

2.3. Environmental issues

When talking about long-term equilibrium growth, environmental issues cannot be avoided for a variety of reasons. As is also emphasised by Székely-Doby (2017), due to the significantly high degree of environmental pollution and environmental degradation, it is a critical issue both in economic and social, as well as in political terms. Environmental pollution and degradation also entail major health and economic damages, while the improvement or elimination of the already developed situation is also extremely expensive. In addition to the foregoing, the improvement of energy- and material-efficiency is a particularly important form of increasing effectiveness, which – considering the finiteness of resources and the environmental

¹⁰ <http://en.ndrc.gov.cn/newsrelease/201612/P020161207645765233498.pdf>. Downloaded: 6 December 2018

¹¹ Based on the data of the Central Statistical Office of China, in 2017 the "floating population" amounted to 244 million persons. http://www.stats.gov.cn/english/PressRelease/201802/t20180228_1585666.html. Downloaded: 12 December 2018

effects of their exploitation – is essential for ensuring that economic growth is not accompanied by a proportional increase in the volume of required raw materials and fuels and in the degree of pollution. Under the duress of choosing between growth and environmental protection, the first was often given priority in the past; however, due to the increase in the degree of pollution this became less and less sustainable. Gradual improvement has already started utilising large volume of financial resources,¹² but there are major restrictions and thus in most of the cases results can be achieved only by extremely slow and gradual transition. This is because it is not enough to reduce the emissions of the already existing sources of pollution, since it is also necessary to take into consideration the large volume of new emissions, caused by the dynamic economic growth.

Environmental protection has been an important topic for China's political leadership for several decades: the principles were laid down in the constitution and in laws, and the strategy to be followed is described in a separate chapter also in the five-year plans. Among other things, these include the protection of nature and biodiversity, increasing material efficiency, expecting the reduction of emissions, the intention of extending waste and sewage treatment, the protection of arable land, and issues related to global climate change. The objectives are usually defined centrally, broken down into regional units, while the detailed elaboration and implementation of the plan is mostly the duty of the local authorities. In addition to the quantitative restrictions and controls based on standards and prohibition, financial incentives are also used to facilitate the realisation of objectives. For example, the banking supervision restricts borrowing by the strongly polluting and energy-intensive corporations through window guidance, while within the scope of the medium-term lending facility (MLF) the central bank accepts green loans and bonds¹³ (PBC 2018) as collateral, which fosters the financing of environmental investments.

¹² While in 2007, 0.37 per cent of GDP was used for environmental protection from the central and local governments' budget, in 2015 and 2016 this value was 0.70 per cent and 0.64 per cent, respectively. During these eight or nine years GDP doubled. As regards to the results achieved, it is worth highlighting the reduction of air pollution, since this area received particularly keen attention in the past years. Based on the data of the Statistical Office of China, the number of days when the pollution level reached second degree pollution level was reduced in 23 out of 30 large cities.

¹³ Green bonds are extremely popular in China; based on international definitions, in 2017 China was the second largest issuer globally, with a value of USD 22.9 billion. At the same time, the Chinese regulations – adjusted to the special features of the country – apply a broader definition than the international standard, thereby classifying additional bonds as green in the amount of USD 14.2 billion. On the one hand, the Chinese definition does not exclude projects related to fossil fuels, and on other hand, it also permits the financing of not only new projects, but also refinancing and working capital financing (CBI – CCDC 2018).

3. Aspects of growth models in the financial system

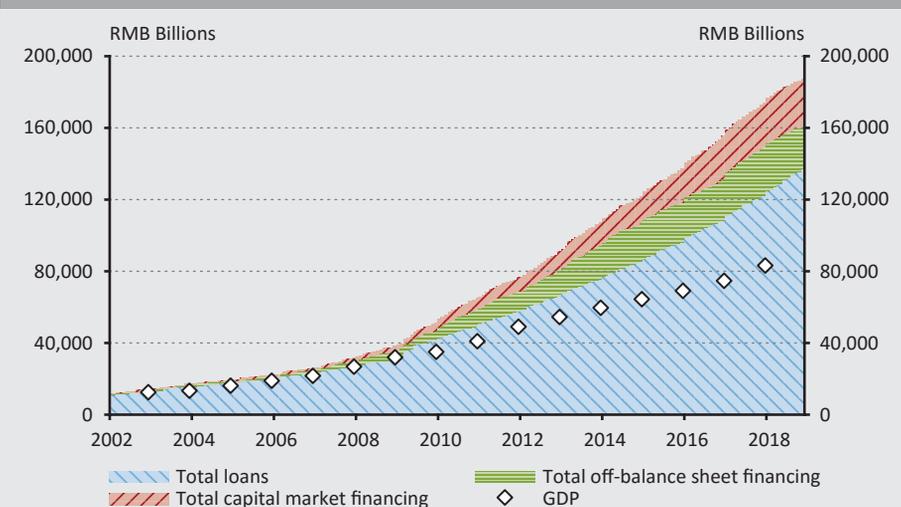
The mixed economic structure and *earlier growth models led to the accumulation of major risks in the financial system*, which the central administration tries to remedy by reforms and enhanced control. Although since the cancellation of the credit quotas in 1998, banks decide decisively on their lending policy independently, taking full responsibility, however the central administration still relies very strongly on credit institutions in majority state or local government ownership when implementing its growth plans. State-owned companies still enjoy substantial advantage when applying for credit,¹⁴ since in their case lenders assume an implicit state guarantee. Local governments also borrowed and issued bonds extensively, thereby substituting external demand – lost as a result of the global financial crisis – with their investments and infrastructure development projects. *Thus, the growth model based on investment was implemented relying on extremely dynamic credit expansion (Figure 4)*. However, as a result of this, state-owned companies' investments of low efficiency also received financing, thereby burdening the banking sector with substantially riskier loans than originally assumed.

This process also took place outside the banks' balance sheet, in a slightly different structure. Through *the shadow banking system*, private investors granted loans, also assuming implicit state guarantee – but here not in respect the borrower, but rather of the state-owned and local government-owned banks, acting as an intermediary – for the implementation of projects, the risks of which they failed to assess with due care. *Thus, this form of intermediation also created a large volume of transactions, the return on which is much riskier* than anticipated by investors, thereby lowering the efficiency of macroeconomic allocation of capital. For many years, the operation of lending outside the balance sheet of the banking sector was supported by several factors: on the one hand, the loans thus originated supported the growth objective of the central government, and on the other hand the shadow banking system assisted the process of financial liberalisation by its close-to-the-market-mechanism price setting. Since the latter function is no longer needed, and the growth supporting nature is substantially reduced by the risks which have materialised, the central administration has opted for the stricter control and suppression of the shadow banking system.¹⁵

¹⁴ This is also confirmed by the speech of Pan Gongsheng, Deputy Governor of the central bank, delivered on 6 November 2018. <http://www.pbc.gov.cn/english/130721/3660929/index.html>. Downloaded: 6 December 2018

¹⁵ <https://www.bloomberg.com/news/articles/2018-01-23/china-s-15-trillion-shadow-banking-edifice-showing-more-cracks>. Downloaded: 17 December 2018

Figure 4
Aggregate financing of real economy



Note: Outstanding lending of the banking sector comprises loans denominated in RMB and foreign currency. Off-balance sheet financing comprises trust and entrusted loans and undiscounted bankers' acceptances. Capital market financing aggregates corporate bond and equity issuance.

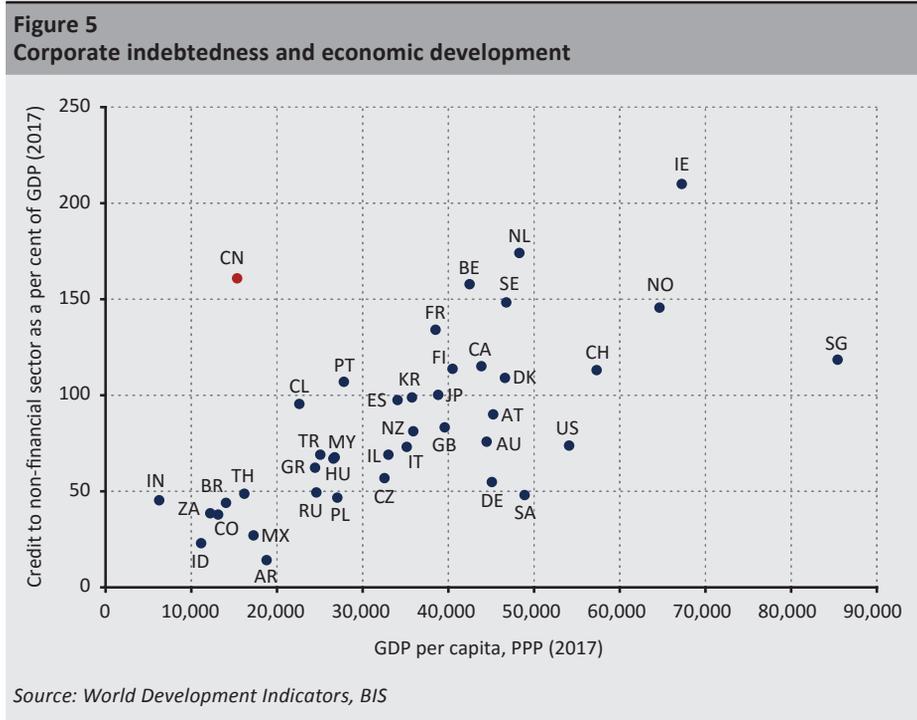
Source: Macrobond, World Development Indicators

In addition to the legacy of the previous growth model, the new model also involves challenges for the banking sector. Consumption-based growth would be in line with a more balanced lending strategy financing private companies, households, small businesses and the agricultural sector, instead of banks that formerly mostly provided financing for state-owned corporations. However, the accomplishment of the retail market necessitates major changes in the banks' procedures with a view to reaching the potential customer base, properly assessing loan applications and managing risks. Growth in new markets is also accompanied by an increase in banks' risks: due to mortgage lending, their exposure to real estate market dynamics strengthens, while small businesses and agricultural producers hold inherent risks, previously unseen, due to their operation and features completely different from those of large companies.

In addition to changing the macroeconomic strategy, the central administration also intends to support growth by increasing the efficiency of financial intermediaries, which in the longer term may be supported by the liberalisation process seen in recent years. However, not only did implementation of the reform measures take several years, the accomplishment of their results requires a long time. Due to the anticipated contraction of interest margins and the need to adjust to the more volatile markets, liberalisation generates new tasks for credit institutions.

3.1. Legacy of the old model: various forms of over-indebtedness

Corporate indebtedness – whether financed by the banking sector’s or the shadow banking system’s funds – is extremely high in China, even by international standards (Figure 5). Based on experience gained from previous crises, this give rise to severe anxieties, since a dynamic outflow of credits is usually accompanied by weaker allocation of capital, thereby increasing the risk of return.



In their capacity as lenders to large state-owned companies, large banks strongly feel the efficiency problems of at those companies. Corporate reforms have been dragging on for years, and to date significant progress has only been achieved by a few companies (Székely-Doby 2018). Until now the state provided no assistance for the reduction of outstanding lending. For the time being, problem loans were only transferred to the asset management companies within the respective bank’s consolidation group, i.e. the risks and losses of those continue to burden the bank’s capital adequacy. Although there is a debt-to-equity swap programme in place at the initiative of the government, in the absence of substantive reforms by the companies, this does not help resolve the situation. At larger banks, the non-

performing loan ratio still appears to be particularly low,¹⁶ while the impairment coverage expected by the regulatory authority is extremely high, prompting banks to extend “evergreen” loans. The situation of smaller, rural commercial banks differs from this. These institutions were less specialised in large transactions; however, due to their different customer base, they reported a higher non-performing ratio, i.e. 4.23 per cent. Although by international standards this cannot be deemed high, it indicates the vulnerability of these institutions. Compared to the larger institutions, the level of impairment coverage is much lower, but still exceeds 100 per cent.¹⁷

One recurring concern of the international professional community is that *excessive credit outflow and the realisation of credit risks* – similarly to the previous credit crisis – *will necessitate the recapitalisation of the banking sector, which requires major resources. The supervisory authority is trying to prevent escalation of the problem by regular, strict actions and rigorous audits*, while the central bank does so by applying macroprudential policy built on an increasingly wider information base. In addition, the absence, to date, of any substantial intervention by the central administration may also be interpreted as an effort to clear up the myth of an implicit state guarantee, which may have positive impact on future loan assessments. There was also a precedent when based on the guidance of the central administration, with a view to curbing indebtedness, the growth rate of the outstanding borrowing of corporations was restricted at a rate below the GDP growth rate for roughly one and a half years.¹⁸ At the same time, these measures do not resolve the existing problems, and thus if non-performing loans appear in large volumes, recapitalisation of banks by the state may become necessary. The state, in its capacity as the owner, may do so relatively smoothly, if it has the necessary resources, and thus it may avoid market turbulences and a credit crunch entailing real economy sacrifices. However, a situation that entails a major capital injection may result in a silent but definite turnaround in the credit cycle, since it would lead to a decline in the dynamics of corporate lending, if banks specified similar requirements for state-owned corporations as for private companies.

The credit portfolio originated through the shadow banking system is of extremely variable quality. Although no statistical data are available for the presentation of this, due to the heterogeneity of the borrowers this is inevitable. On the one hand there are companies that resorted to this form of financing, because as private companies they did not succeed in obtaining a loan in the traditional banking sector.

¹⁶ Based on the September 2018 data of the China Banking and Insurance Regulatory Commission, the non-performing loan ratio was on average 1.47 per cent at the five largest state-owned banks, 1.7 per cent at the banks operating in the form of limited company, and 1.67 per cent at the urban banks.

¹⁷ Based on the September 2018 data of the China Banking and Insurance Regulatory Commission, the impairment coverage ratio of non-performing loans was on average 205.94 per cent at the five largest state-owned banks, 190.47 per cent at the banks operating in the form of limited company, and 198.85 per cent at the urban banks, while at the rural commercial bank this ratio stood at 125.6 per cent.

¹⁸ Based on the BIS data, the outstanding borrowing of non-financial corporations as a percentage of GDP decreased in the second half of 2016 and throughout 2017.

Presumably, many of them are of lower risk. However, there are also borrowers that intentionally chose this form of financing due to the shortcomings of risk assessment, since in the case of a real assessment they would have had no chance to access financing. A special type of borrowers could not receive a bank loan, because it is restricted by some regulation, including, for example, the companies active in polluter industries. In their case, changes in environmental regulations and potential restriction of emission appear in the credit risk, resulting in an increase thereof.

Since the credit institution only acts as an agent in the shadow banking loans, in theory, the credit risk is borne by the investors. Bankruptcies did occur up to now as well, but the degree of the indemnification of investors was typically not made public. Since there is no institutional framework that would guarantee any return for investors in such cases, *presumably the loss is shared based on individual negotiations*. Accordingly, the degree of the losses that the state may incur is also uncertain.

The previously permissive attitude toward shadow banking activity was replaced by increasing tightening. The banking regulatory commission formulated additional new rules first in respect of the asset management products, and later in respect of entrusted loans (Varga 2017); however, a spectacular result was only achieved after the new leader, Guo Shuqing took office in February 2017. This segment shrank substantially after the introduction of the new regulations, which is an extremely important and positive development in terms of preventing the further accumulation of risks. At the same time, obtaining financing in the new environment represents a challenge for many companies, and thus with a view to reducing growth sacrifices, the access of private companies to sufficient bank financing, urged by the central bank for quite a while, is even more important than before.

However, the institutional and product structure of the shadow banking system is not always simple. Meanwhile, an extremely complicated product or institution structure also developed, often because – due to the dividedness of the supervisory authorities and the different regulation of the individual areas – certain supervisory regulations could be circumvented.¹⁹ The source of the problem was first managed by the more concerted action and then by the partial integration of the supervisory bodies in 2018; nevertheless, the existing, non-transparent structures did not cease to exist. Losses may still appear at institutions at which they are the least expected, and it is particularly difficult to settle the supervisory and regulatory issues, since it is often impossible to assess in advance all important consequences of a new regulation or restriction.

As regards indebtedness, *local governments* also deserve attention in addition to the corporate sector. Following the outbreak of the 2007–2008 global economic crisis,

¹⁹ At the press conference held on 2 March 2017, Guo Shuqing mentioned the standardisation of regulations as one of his most important objectives: “the different regulators, different laws and rules cause chaos”.

local governments also tried to replace decreasing demand for exports by starting new, mostly infrastructure developments, financed from loans. Local governments typically had access to funds via credit institutions or state-owned corporations (*Wu 2014*), or they took out loans through the local government financial vehicles from shadow banking investors (*Csanádi 2014*). *However, the revenues generated by investments were often insufficient for the repayment; the loan ultimately burdened the budget of the local authority, thereby hindering further local developments. According to IMF's estimate (IMF 2018:47), at the end of 2017 direct and indirect debt amounted to 20 and 24 per cent of GDP, respectively.*

The *central government*—recognising the severity of the problem—*tried to manage the situation by implementing increasingly tight measures*, and thus prevent the further accumulation of debt by local governments. In order to reduce the costs of the existing debt, in 2015 it launched a three-year programme, which also permitted the refinancing of previous loans by bonds.²⁰ New borrowing was tightened in many respects. On the one hand, borrowing by local governments was restricted, while state-owned corporations were prohibited from lending, while banks could lend only in the form of bonds. As a result of the foregoing, new borrowing by local governments substantially declined, both in terms of the newly concluded transactions and of the refinancing portfolio. As a result of the measures, the investment activity of local governments declined and they postponed their development projects. Due to this, the central government fosters the penetration of a new form of financing. A key feature of the new generation local government bonds is that the revenue originating from the completed investment must cover the interest and repayment of the bond. The bonds may be purchased by banks; the largest, public institutions made separate allocation for this to ensure the realisation of the central government's extremely ambitious plans related to issuance.²¹ However, it is questionable whether it will be possible to utilise the centrally determined facility in projects with adequate rates of return, also in economic terms, or rather, by the fulfilment of the central plans once again projects with poor rates of return will be realised, this time clearly burdening the banking sector.

Thus, the largest problem related to indebtedness is represented by the risks of the existing portfolios; the escalation of these may generate major losses, entailing a growth sacrifice. The general government is dealing with the resolution of the situation increasingly intensively, thereby trying to prevent further accumulation of risks. Based on the foregoing, the existing risky portfolio will represent a heavy burden in the future as well, but pending proper government policy, the escalation thereof in an uncontrolled, crisis-like manner is less likely.

²⁰ https://www.bofit.fi/en/monitoring/weekly/2018/vw201817_6/. Downloaded: 12 December 2018

²¹ https://www.bofit.fi/en/monitoring/weekly/2018/vw201836_6/. Downloaded: 12 December 2018

3.2. Challenges of the new model

The new growth model, which is built on domestic consumption, would divert credit institutions from the financing of the overly indebted state-owned corporations sector to a more balanced *strategy, also lending to private companies and the retail sector*. In its annual report, the supervisory authority (CBRC 2017) proposed that banks should monitor the financing of innovative private companies and improve the access of the SME sector to loans and other banking services. As regards retail lending, up until now it was characterised primarily by the penetration of mortgage lending, thereby supporting the middle class in purchasing their own homes; at the same time, the report highlights micro credits, which credit institutions can use for combating poverty. *The easing of the lending constraints may give growth new momentum*, while by involving bank intermediaries, it is possible to keep lending risks under control. Although the penetration of peer-to-peer lending seemingly offered an alternative solution, in fact it led to the accumulation of risks and to the development of a pyramid scheme, inflicting a loss on investors.²²

In the *SME sector*, not only the managers of companies report insufficient credit supply, but banks also perceive that businesses are unable to comply with their strict lending conditions.²³ Based on the foregoing, there still would be room for investments of potentially good return in this customer base. At the same time, banks face the difficulty that they have limited information on the creditworthiness of the SME segment and here they can rely on their experiences gained in respect of state-owned corporations to a lesser degree. Moreover, due to the substantially smaller transaction size, portfolio building also requires a longer time, and thus it is hard to achieve dynamic growth under prudent conduct. *Access of the sector to financing is strongly encouraged and supported by all areas of economic policy*.²⁴

The easing of retail credit constraints facilitates the smoothing of consumption and increases demand on the housing market, thereby supporting the new growth model. Within the household segment, mortgage loans account for a large part of the outstanding borrowing, while unsecured bank loans are dominated by credit cards.²⁵ In the area of low-amount loans, traditional banks have powerful

²² Peer-to-peer lending in China outstripped peer-to-peer lending in the rest of the world just in the matter of a few years. Although the volume thereof looks small in comparison to the banking sector's outstanding lending – amounting to roughly 1 per cent thereof – since it reaches a wide range of investors and borrowers, the substantial rise in defaults – partly due to the pyramid scheme – prompted the regulatory authority to apply tightening measures. Only a small part of the platform is able to comply with the new regulation, and thus this form of intermediation is expected to shrink drastically.

²³ <https://www.reuters.com/article/us-china-economy-policy-smallfirms-analy/lost-in-transmission-chinas-small-firms-get-more-loans-on-paper-but-not-in-reality-idUSKCN1MQ0JT>. Downloaded: 17 December 2018

²⁴ In its Medium-term Lending Facility (MLF), the People's Bank of China provides the banking sector with longer-term financing, while for the utilisation of the funds it determines preferred areas for lending. It encourages banks participating in the scheme to lend to the agricultural sector and the SME sector (PBC 2014). It also supports small and medium-sized enterprises that banks must use part of the liquidity released as a result of the reduced required reserve ratio for financing the sector. <http://www.pbc.gov.cn/english/130721/3567947/index.html>. Downloaded: 12 December 2018

²⁵ Based on the data of CBRC, at the end of 2016, 73 per cent of retail bank loans were mortgage loans and 17 per cent of them were credit cards (CBRC 2017:211).

competitors: lenders related to online trading companies have major information advantage on this market through the utilisation of the customers' trading data. Vigorous demand for mortgage loans is based on the Chinese population's insistence on having a self-owned home. In addition to this, home purchase for investment purposes also appeared, but the financing of this by banks – due to macroprudential considerations – is partly restricted. In recent years, retail lending rose dynamically, exceeding corporate lending and GDP growth.

Although banks which financed construction projects *were exposed to changes in real estate prices* in the past as well, their respective *risks have increased in parallel with the penetration of mortgage lending*. At the same time, the level of household indebtedness cannot be deemed high by international standards; the central bank, the bank regulatory commission and the local governments try to prevent the build-up of major risks by tightening lending conditions. The authorities often reduced exposure to the change in real estate prices by prescribing mandatory own contribution and limiting the number of homes that can be possessed by a single person. With these macroprudential measures they not only capped the risks that may be undertaken by banks, but also reduced the volatility of real estate prices. In those cities where a particularly strong rise in prices was observed – in certain cities price appreciation as high as 20–40 per cent was observed – the authorities usually intervened with a view to reducing prices. Similarly, measures aimed at the stimulation of demand were taken in locations characterised by a perceivable decline in prices.²⁶ Based on the statistics of 70 cities,²⁷ since 2006, a halt or decline in prices was observed on three occasions, the last time in 2015. Hence, it is a legitimate question whether there is any major overvaluation in the current prices. If yes, *based on experiences gained until now, in order to prevent a crisis-like outcome, there is high probability that the state will once again intervene if any problem arises*. Thus, although real estate market turbulences may reduce economic growth, there is little chance of a real crisis.

Due to the *financial liberalisation*, volatility – to be addressed by banks – is increased not only by the fluctuation of asset prices. Due to not having access to the central bank's set of monetary policy instruments, smaller banks are more exposed to the interbank market, and thus they must adjust their liquidity management to the larger fluctuations occurring on the market from time to time. In addition, the fact that the RMB exchange rate became more hectic, also requires more attention from the institutions, and the central bank has warned credit institution of this several times. Liberalisation of interest rates fosters competition between institutions, and thus later on interest margin may narrow, which represents a profitability challenge. *Adjustment to the process* and the preparation for this, are *key both for banks and the entire financial system*.

²⁶ https://www.bofit.fi/en/monitoring/weekly/2016/vw201614_4/. Downloaded: 17 December 2018

²⁷ Based on BIS statistics, aggregated for 70 large cities: https://www.bis.org/statistics/pp_selected.htm?m=6%7C288%7C596. Downloaded: 12 December 2018

Although the primary form of financial intermediation in China is still the banking sector, the *capital markets are developing dynamically, increasing both in terms of their size and significance*. Similarly to housing prices, China also has experiences in the overrun and adjustment of *stock exchange prices*: after a steep rise, a major adjustment was observed in stock exchange prices in 2007 and also in 2015–2016. The general government responded to the price decline with concerted actions in both cases, by equity purchases, stimulating economic policy measures, and it also attempted to curb adjustment by regulatory instruments. In similar situations the general government is likely to intervene actively in the future as well, and thus when considering the consequences of potential new turbulences, the costs of interventions, in addition to the muted effects, should be also taken into account.

4. Summary

The growth strategies applied in the past decades led to major macroeconomic and financial imbalances in the Chinese economy. The central government also recognised the unsustainability of the system, and thus it has set the changeover from quantitative to qualitative growth as its primary objective, trying to achieve this via a series of reforms both in the real economy and the financial sector. Although the opinions of the professional community diverge as to whether the central administration will be able to achieve a soft landing or – due to the accumulated risks sudden adjustment is already unavoidable – considering previous crisis experiences and the commitment of the central government to resolve the problems, there is a low probability of a meltdown with a spillover effect for the entire economy.

Considering the imbalances and risks, the area that requires intervention to the greatest degree is the problems related to state-owned corporations. Due to their poor efficiency they absorb resources from other areas of the economy, and in addition, through their excessive outstanding debt, they increase the risks of credit institutions. Moreover, until such time as comprehensive reforms manage to eliminate the mechanisms that cause inefficient operation, short-term growth objectives continue to enjoy priority over reforms aimed at sustainable growth, potentially exacerbating the problem further. Hence the reform of state-owned corporations is essential to ensure a shift from investment-driven growth toward consumption-driven growth.

In addition to the reform of state-owned corporations, urgent and major changes are also required in lending by the shadow banking system and the outstanding debt of local governments. However, in the latter two areas major regulatory measures have already been taken, which managed to break the former trends. The continuation and accomplishment of these processes is essential for a significant reduction of the accumulated risks. In addition, offsetting the unfavourable demographic trends,

a major reduction in environmental pollution and easing the lending constraints related to private companies and the retail sector are also essential to ensure the realisation of new, sustainable growth as dynamically as possible.

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