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China's failed deleveraging and implications for OECD countries

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CONTENTS

EXECUTIVE SUMMARY

China's increasing weight in international relations is a corollary to the country's economic rise. However, some observers, including the International Monetary Fund, have recently become more skeptical about the stability of the Chinese economic model. The country's debt is the weak point of the Chinese economy: Since 2008, total debt has been growing at an annual rate of 20 percent, significantly faster than economic output.

Between 2008 and 2019, the debt of the state, companies (excluding the financial sector) and private households rose dramatically and as of July 2019, stands at over 300 percent of GDP. State enterprises and development agencies of municipal and provincial governments, in particular, are heavily indebted. This credit bubble is inextricably linked to high prices on the housing market: Real estate accounts for two-thirds of all collateral on banks' loan books.

The Chinese government, therefore, faces a plethora of problems to solve simultaneously. It wants to maintain economic growth at a high level, reduce debt, prevent a further rise in real estate prices and keep the economic impact of the trade conflict with the US to a minimum. These four goals will not be achieved at the same time.

A continuation of the existing economic strategy does not seem possible within China's borders, but an export of Chinese capital and production capacity does. Against this background, the "Belt-and-Road Initiative" (BRI) vigorously promoted by President Xi Jinping could become a strategy for exporting the current Chinese model of debt-financed growth. However, these new debts will not be imposed on China, but on the recipient countries.

The precarious economic situation in China also poses a new challenge for OECD countries. This applies equally to governments and companies. For European companies operating in China, the golden years are probably over. China is increasingly becoming a competitor for power and influence, and not only with the US. OECD countries ought to be prepared for a rather long phase of economic consolidation in China, which appears to be inevitable given the high and rising level of debt in the Chinese economy.

In recent years, President Xi has made it very clear that he wants his country to play a leading role in the world. A central vehicle for this ambition is the BRI. With the BRI, China creates dependencies and establishes a hierarchical system with the People's Republic at the top. The BRI, however, is not only an expression of China's geopolitical ambitions, but also reflects the limitations of the Chinese development model to date: It can no longer be continued domestically because further expansion of the infrastructure and even more vacant housing would drive further up the country's already soaring debt. In 2019, there have been reports that local

governments in China are running out of infrastructure projects. Seen in this light, the BRI reflects the weakness of the Chinese economy, not its strength. Still, OECD countries will have to abandon the long-held illusion that China is not interested in developing its own version of an international order.

For receiving economies, the BRI may result in a slide into an unsustainable economic trajectory and unsustainable levels of debt. Thus, OECD economies ought to take notice and develop initiatives to prevent more Asian countries from becoming too dependent on Beijing. Europe and the US may not want to see the BRI creating a network of dependencies that will significantly constrain the foreign policy leeway of many Asian countries in the future.

1. INTRODUCTION

For a long time, numerous observers have followed China's economic rise with admiration and astonishment. The state and party leadership seemed to succeed in almost everything. In China, the usual economic laws seemed not to apply. Trade with China became more and more important for almost all countries. In addition, the People's Republic of China gained international importance as an anchor of stability for the global economy in times of turbulence. The first major episode was the Asian financial crisis, when US President Bill Clinton praised China and suggested that it had lived up to its responsibilities in the crisis.[1] Even more important was China's role in the years following the global financial crisis of 2008, when it served as both a provider of economic stability and a consumer of last resort. Today, China's previous successes make a financial crisis seem unlikely because of the Chinese government's mastery of economic turbulence.

However, cracks in this picture have been appearing for some time now, and it is no longer accepted unconditionally in some neighboring countries of China, as well as in Europe. Since around mid-2017, the perception of China in international politics has changed significantly. The remarkable rise in China's importance is now being followed with suspicion in many member countries of the Organization for Economic Cooperation and Development (OECD). In previous years, many Western observers assumed that China would develop into an open, democratic society. At the same time, many policy makers in the major OECD countries expected China to abandon its mercantilist approach to both trade and investment policy. These assessments have proven wrong; the West was wrong about China. In March 2018, the British magazine "Economist" wrote a cover story: "How the West got China wrong."[2]

China's rise, beginning with Deng Xiaoping's reforms in 1978, was surprisingly conflict-free in the first four decades. Foreign skeptics regularly proclaimed impending crises in China, but they never occurred. China also avoided conflicts in international politics. David Shambaugh, one of America's most prominent China observers, praised China's policies more than 10 years ago, saying that China is a good neighbor, a constructive partner, an attentive listener and a non-threatening regional power.[3]

As early as in 2001, the ASEAN group of Southeast Asian states which was founded in 1967 as a bulwark against the advance of communist China in the region, concluded a free trade agreement with it. In the same year, after long negotiations,

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[1] *Frankfurter Allgemeine Zeitung*, 30 June 1998.
[2] *The Economist*, 3 March 2018, title and p. 18.
[3] Shambaugh, David: China Engages Asia. Reshaping the Regional Order. *International Security*, Vol. 29, No. 3 (Winter 2004/2005), pp. 64-99 (64).

China joined the World Trade Organization (WTO). Despite extensive, tough conditions imposed by the EU and the US, China took this step and thus strengthened its reputation as a player willing to cooperate in international relations. China had to significantly lower its average tariffs from 40.6 percent (1992) to 6.8 percent (2007).[4]

Chinese politicians always described relations with other countries as conflict-free. During Hu Jintao's presidency, Beijing used the image of "building a harmonious world of sustained peace and common prosperity."[5] President Xi also repeatedly uses comparable images—for example, in April 2018 he raved about a world of great harmony and peaceful coexistence.[6]

At the same time, China benefited from its integration into the international economic system. Real wages in China rose by 400 percent between 2000 and 2016. Such positive effects of China's participation in the international division of labor were thus very beneficial for Chinese workers, but had negative effects on workers in other countries. For the low-skilled, especially in the US, increasing trade with China meant increased competition, as the American economist Paul Samuelson pointed out in 2004. He noted that productivity gains in less developed economies can create a situation in which developed economies lose their competitive advantage by changing the terms of trade. According to Samuelson, the increase in productivity in China has weakened the competitive position of American companies and put pressure on their employment and profits.[7]

Twelve years after the publication of Samuelson's paper, three American economists noted in a much-noted paper that the rise of China had been a shock for part of the US workforce.[8] The liberalization of trade between China and the US led to an equalization of factor prices, including wages. Wages in China and the US have been converging. From the point of view of American workers, however, the increase in

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[4] Lawrence, Robert Z.: China and the Multilateral Trading System. National Bureau of Economic Research, Working Paper 12759, December 2006, available at http://www.nber.org/papers/w12759, p. 7, (last accessed 16 September 2019).
[5] White paper of the Chinese government from 2005, available at http://www.china.org.cn/english/2005/Dec/152669.htm (last accessed on 16 September 2019).
[6] Xinhua: Xi calls for building world of great harmony, 11 April 2018, available at http://www.xinhuanet.com/english/2018-04/11/c_137103763.htm (last accessed on 15 September 2019).
[7] Samuelson, Paul A.: Where Ricardo and Mill Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization, Journal of Economic Perspectives, Vol. 18, No. 3, Summer 2004, pp. 135-146 (144).
[8] Autor, David H.; Dorn, David; Hanson, Gordon H.: The China Shock: Learning from Labor Market Adjustment to Large Changes in Trade. National Bureau of Economic Research, Working Paper 21906, January 2016.

trade with China resulted in continued downward pressure on their wages. Today's resentment against deep global economic integration partly stems from this "China shock."

But for most Chinese citizens, the rise of their country has been first and foremost a positive experience. The expansion of the infrastructure in China, for example, repeatedly generates incredulous amazement. Within just 10 years, China created the largest network of high-speed trains in the world. A total of 25,000 kilometers of new rail lines have been laid. Two-thirds of the world's high-speed rail lines are located in China. These construction investments were financed with new debts.[9] Profitability considerations were as unimportant as sustainable financing.

The high level of debt is the downside of this economic rise. China's growth since the global financial crisis of 2008 is much less soundly financed than many observers assume. The Chinese government is aware of this issue, but has to choose between stabilizing the financial sector and maintaining growth. Some observers have suggested that Beijing probably will not be able to afford another significant credit-financed package of policies.[10]

In this context, hardly anyone still believes the data published by the government on economic growth. An inflation-adjusted growth rate of 6.5 percent is expected to have been achieved in 2018. At the beginning of January 2019, however, a report caused a sensation, which put actual growth in 2018 at 1.7 percent.[11] Neither the high nor the low figure can be verified, but there are some indicators pointing to low growth. In 2018, for example, passenger car sales fell to 22.7 million vehicles, the first drop in 20 years. This corresponds to a 6 percent decline in passenger car sales.[12] It seems unlikely that the Chinese economy has grown markedly when consumers were clearly reluctant to spend.

Thus, questions about the soundness of the Chinese economy are also taking on greater urgency.

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[9] Mitchell, Tom; Xinning Liu: China's high-speed rail network signals rapid expansion of debt. *Financial Times*, 15 August 2018, p. 6.
[10] *The Economist*: The Chinese economy: Ten-year hangover. 17 November 2018, p. 35.
[11] Wildau, Gabriel; Fleming, Sam: A vulnerable China rattles markets. *Financial Times*, 5 January 2019, p. 7.
[12] BBC News: China car sales fall for the first time in 20 years, 9 January 2019, available at https://www.bbc.com/news/business-46809867 (last accessed on 17 September 2019).

2. RISKS IN THE CHINESE FINANCIAL SECTOR

During the years of rapid economic development, the Chinese financial sector was a decisive pillar. The high savings of private individuals were used to finance investments in strategically important sectors. This function of the financial sector has become less important with the transition from the export-oriented economy of the past to a future service and consumer society. It would therefore be all the more important for the financial sector to no longer rely solely on uncontrolled credit growth and to take greater account of the profitability of lending than in the past. Many players in the Chinese financial sector, though, are apparently failing to make this transition.

2.1 GROWING DOUBTS ABOUT CHINA'S ECONOMIC STABILITY

The trade conflict between China and the US distracts from the causes of China's economic misery. US President Donald Trump claims that his trade policies have contributed to China's economic weakness.[13] The Chinese government also likes to point to the trade war, which it can present as a scapegoat for current economic difficulties. However, neither assessment is correct. China's decline has other causes. The trade conflict is exacerbating the situation, but China has been struggling with problems for several years. One piece of evidence of this lasting deterioration—some would call it normalization—is the declining interest of foreign investors. At $168 billion in 2017, these were lower than in the crisis year of 2008 ($172 billion). The share of foreign direct investment in China also has been falling for almost three decades. In 1993, this share amounted to 6.2 percent of GDP. In 2017, it was only 1.4 percent.[14]

Foreign investors are increasingly wary of the prospects of the Chinese economy. Besides the now high wages, it is above all the country's ominous over-indebtedness that is deterring investors. In addition, there are the problems that have repeatedly elicited complaints but which did not deter foreign investors to the same extent in the past: The obligation to enter into a joint venture with Chinese partners; the theft of intellectual property; forced technology transfers; and the influence of the Communist Party in the companies, which has grown even stronger in recent times.

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[13] *The New York Times*: Global Economic Growth Is Already Slowing. The U.S. Trade War Is Making It Worse, 18 June 2019, available at https://www.nytimes.com/2019/06/18/business/economy/global-economy-trade-war.html (last accessed on 17 September 2019).
[14] Broadman, Harry: China's slowdown is of its own doing. *Financial Times*, 30 January 2019, available at https://www.ft.com/content/0fb87bda-23c4-11e9-b329-c7e6ceb5ffdf (last accessed on 17 September 2019).

Some observers, such as the Bank for International Settlements (BIS) and the International Monetary Fund (IMF), are increasingly concerned about China's economic stability. The crux of the problem is simple: Since 2008, China's total debt has been growing faster than its economic output. That is a new development. In the 1980s, for example, it was the other way around: China reduced its debt (owed by the government, private companies outside the financial sector, and private households). From then until 2008, debt and economic growth moved in tandem. Since 2008, however, there has been an increasing divergence. From 2007 to 2014, debt rose from 158 percent of GDP to 282 percent.[15] The latest data from the Institute of International Finance (IIF) indicates an even higher level of debt. The IIF's figures put the debt level in China at over 300 percent of GDP. Loans to non-financial corporations represent the largest chunk (155.5 percent of GDP), followed by households (54.0 percent) and the government (51.0 percent). Almost all of that debt is denominated in domestic currency.[16]

Debt data vary according to the source. The Asian Development Bank puts the debt level in China (of the state, private and state-owned enterprises outside the financial sector, and private households) at 290 percent of GDP in 2016, with private and state-owned enterprises accounting for debt of 166 percent.[17] Including the financial sector, China's total debt already stood at 470 percent of GDP in 2016.[18] According to IMF calculations, even the still-low government debt will reach 88 percent of GDP by 2021. If the risk-weighted debts of state-owned enterprises are taken into account, Chinese public debt will rise to over 115 percent of GDP in 2021.[19]

In a working paper published in 2018, the IMF examined whether China's credit boom is dangerous. Should factors be taken into account that make China's situation appear to be less ominous? The unequivocal answer is that there is no case in history where such rapid credit growth as in China did not end in a financial crisis.

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[15] Chen, Zhiwu (2015): China's Dangerous Debt. Why the Economy could be headed for Trouble, *Foreign Affairs*, Vol. 94., No. 3 (May/June 2015), pp. 13-18 (13).
[16] Bloomberg News: China's Debt Ratio Is Growing as Its Economy Loses Steam, 16 July 2019, available at https://www.bloomberg.com/news/articles/2019-07-16/china-s-debt-growth-keeps-marching-on-as-economy-loses-pace (last accessed on 25 October 2019).
[17] Ferrani, Benno; Hinojales, Marthe: State-Owned Enterprises Leverage as a Contingency in Public Debt Sustainability Analysis: The Case of the People's Republic of China. ADB Economics Working Paper Series, No. 534, January 2018, p. 4. Ferrarini and Hinojales have calculated what proportion of the loans to state-owned enterprises is likely to be at risk of default. A forecast of how the Chinese government would react in the event of a crisis is not linked to this estimate.
[18] International Monetary Fund (2017): Financial System Stability Assessment. IMF Country Report No. 17/2017, December 2017, p. 1.
[19] Ferrani, Benno; Hinojales, Marthe, p. 3 and 10.

The IMF warns of a further delay and notes that any postponement of the adjustment will make it all the more serious.[20]

In January 2019, Kenneth Rogoff, a former chief economist of the IMF, described China as the epicenter of the next financial crisis. [21] Rogoff identified over-indebtedness as the most important problem of the Chinese economy and noted a widespread underestimation of China's economic problems.[22] Subramanian and Felman made a similar argument. In August 2018, they warned of a world-shattering crisis emanating from China and in February 2019, they went even further and talked about an impending "China Shock."[23]

Financial crises usually begin with troubles of smaller institutions. In 2019, there have been cases that fit that mold. Bank of Jinzhou is one of 134 regional lenders, which account for about 15 percent of all banking assets. Bank of Jinzhou, operating in China's rust belt, has raised capital in each of the last four years. Once a poster child for China's regional banks, Bank of Jinzhou eventually needed a bailout in July 2019 after its auditor, Ernest & Young, resigned. Beijing quickly came to rescue the bank, using the asset management arm of the Industrial and Commercial Bank of China to inject about $400 million in fresh capital. The stability of the smaller banks in the Chinese financial system most probably is a significant headache for the country's leadership. Standard & Poor's, the ratings agency, warned in August 2019 that the economic slowdown may result in a larger number of regional lenders struggling to meet payments.[24] The exuberance of the past is ending.

2.2 IS CHINA APPROACHING A MINSKY MOMENT?

The driver of the rising debt levels in China is a comparatively high level of investment. Many observers continue to be amazed by the high level of investment in China. The country has probably produced the biggest investment boom in economic

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[20] Chen, Sally; Kang, Joong Shik (2018): Credit Booms—Is China Different? IMF Working Paper WP 18/2, January 2018, p. 8 and 16.
[21] "In Deutschland hat es definitiv angefangen zu regnen", Welt Online, 23 January 2019, available at https://www.welt.de/wirtschaft/plus187554436/Kenneth-Rogoff-In-Deutschland-hat-es-definitiv-angefangen-zu-regnen.html (last accessed on 18 September 2019).
[22] Gersemann, Olaf; Zschäpitz, Holger: China ist das Epizentrum des nächsten Problems, *Die Welt*, 24 January 2019, p. 10.
[23] Subramanian, Arvind; Felman, Josh (2018): R.I.P. Chinese Exceptionalism? Project Syndicate, 6 September 2018; Subramanian, Arvind; Felman, Josh (2019): The Coming China Shock. Project Syndicate, 5 February 2019.
[24] Zhou Xin: Saga of China's Bank of Jinzhou raises questions about the health of Chinese banking sector. *South China Morning Post*, 3 October 2019, available at https://www.scmp.com/economy/china-economy/article/3031389/saga-chinas-bank-jinzhou-raises-questions-about-health (last accessed on 25 October 2019).

history. Between 2002 and 2014, private and public investment rose from 37 percent of GDP to 47 percent. This figure is well above the investment rates of other economies, including emerging markets.[25] With such high levels of investment, the accuracy of investors is most probably limited. It is highly probable that many of those investments will have been unprofitable. The continuing boom in China has led to a phenomenon described by the Canadian economist Hyman Minsky in the 1970s. The boom leads to exaggerations, because euphoric investors lack a sober calculation:

> *As a result, over a period in which the economy does well, views about acceptable debt structure change. In the deal-making that goes on between banks, investment bankers, and businessmen, the acceptable amount of debt to use in financing various types of activity and positions increases … As this continues the economy is transformed into a boom economy … The tendency to transform doing well into a speculative investment boom is the basic instability of a capitalist economy.*[26]

The excesses in China are thus a phenomenon that has been repeatedly evident in capitalist economies. In this respect, China has adopted the instabilities of Western economies. Given the importance of state-owned enterprises in China, it goes without saying that the Chinese government has also made some bad investments. However, since China has not incurred foreign debt, the write-downs on these poor investments will have to be borne by domestic residents.

It might be a mistake to expect a Chinese financial crisis to infect other financial markets directly through economic channels. China's financial system is still not very intertwined with other financial systems. Although Chinese investors have a strong presence abroad, loans to China do not exist on a large scale.

However, recent reports by Bloomberg suggest that China's corporations have borrowed abroad larger sums than commonly assumed. Companies from mainland China have liabilities to foreigners of about $2.65 billion. Bloomberg suggests that official Chinese data does not include debt built up by overseas subsidiaries of Chinese companies.[27] That amount is just under the level of foreign reserves, which currently are estimated to be around $3,200 billion.

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[25] Sharma, Ruchir (2016): The Rise and Fall of Nations. Ten Rules of Change in the Post-Crisis World. New York: W.W. Norton, p. 206.
[26] Minsky, Hyman P.: The Financial Instability Hypothesis: an Interpretation of Keynes and Alternative to "Standard" Theory. *Nebraska Journal of Economics and Business, Vol. 16, No. 1* (1977), pp. 5-16(12f),
[27] Bloomberg News: China's Companies Have Unseen Foreign Debt That's Maturing Fast. 26 August 2019, available at https://www.bloomberg.com/news/articles/2019-08-25/china-s-companies-have-unseen-foreign-debt-that-s-maturing-fast (last accessed on 24 October 2019).

In addition, there is a transmission channel that has received little attention to date: If China's central bank provides liquidity, this can lead to capital outflows despite comprehensive capital controls. This is evidenced by the long period of high investment by Chinese investors in foreign real estate—from Australia to Germany.[28]

The financial sector is the Achilles' heel for China's further economic development. The list of misplaced incentives is long. Widespread implicit guarantees have contributed to today's risks and to the ballooning of debt. The main factors behind this excessive risk appetite in the Chinese financial sector are the reluctance of financial institutions to accept losses from small investors, the expectation that the government will guarantee the debt of state-owned enterprises and local financing vehicles, the constant efforts of the Chinese state to stabilize equity and bond markets in volatile periods, and the protection mechanisms for various financial institutions.

Chinese investors regard most of the financial system, from the debts of local authorities and state enterprises to investment instruments issued by banks, as ultimately guaranteed by the central government. These implicit guarantees, combined with a high savings rate, the dominance of retail investors, restrictions on capital outflows and a small number of long-dated investment products, have led to recurrent volatility in Chinese financial markets.

2.3 THE INDEBTEDNESS OF PUBLIC AND PRIVATE ENTERPRISES

The indebtedness of Chinese companies outside the financial sector has grown dramatically over the past decade and stood at 165 percent of China's GDP at the end of the first quarter of 2017.[29] Compared to the 1990s, state-owned enterprises have lost overall importance for China's economic development and today account for only about 15 to 20 percent of total employment and economic output. Twenty years earlier, this share was twice as high, at over 40 percent.[30] However, the share of state-owned enterprises in the companies' debt is disproportionately high: 57 percent. Their indebtedness—in essence, the indebtedness of the public sector—represented almost three-quarters of China's annual economic output in 2016.[31] The credit-driven

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[28] Heith, Michael: Chinese Buyers Helped Boost Australian Home Prices. Now They're Leaving. Bloomberg, 7 March 2019, available at https://www.bloomberg.com/news/articles/2019-03-07/how-a-chinese-exodus-is-exacerbating-australia-s-property-slump (last accessed on 18 September 2019).
[29] International Monetary Fund (2017): Financial System Stability Assessment. IMF Country Report No. 17/2017, December 2017, P. 7.
[30] Lam, W. Raphael; Schipke, Alfred; Tan, Yuyan; Tan, Zhibo (2017): Resolving China's Debt Zombies: Tackling Debt and Raising Productivity, IMF Working Paper WP/17/266, p. 3.
[31] Ibid.

surge in investment in recent years has exacerbated overcapacity in industry, particularly in traditional sectors dominated by state-owned enterprises such as steel, cement and energy.[32]

A number of factors are responsible for this problematic development. By stressing the importance of high growth, the government has encouraged state-owned enterprises to invest excessively and without considering profitability. As in the past in the socialist economies of the Council for Mutual Economic Assistance (COMECON), there is no hard budget constraint. State-owned enterprises are allowed to be indebted to generate economic growth and employment. The generation of profits and the sustainability of loans, on the other hand, play only a subordinate role.

The inadequate valuation of risks leads to excessive domestic borrowing and indebtedness. The high savings rate dampens the return and risk premium and increases risk appetite, while the strict restrictions on capital flows prevent diversification of investments. Chinese citizens are forced to keep their money in the domestic financial system.

In 2017, the IMF proposed to develop a coordinated strategy for the over-indebted state-owned enterprises, focusing on the write-off of loans, the reduction of implicit guarantees of the Chinese state and the liquidation of artificially kept-afloat enterprises ("zombies").[33] Ferrarini and Hinolajes made the same argument, stating the need for action but not regarding the situation of the indebted companies as insoluble. However, they noted that the situation will only remain manageable if the lax lending policies of the past are brought to an end.[34]

The IMF has pointed out that the dismantling of implicit guarantees is a dangerous balancing act. A courageous, radical departure from previous policies could trigger panic in the financial markets and endanger the solvency of banks and companies.[35] This balancing act is all the more difficult because in many cases, it is not a matter of promises given but of assumptions made by financial market participants. How can the Chinese government make it clear that private investors who believed in the state could have been wrong without causing panic?

Reforms are therefore needed, but the question is whether the Chinese government is currently in a position to implement these recommendations: Are President Xi and his administration prepared to bear the consequences of the closure of state-owned

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[32] Ferrani, Benno; Hinojales, Marthe, p. 3.
[33] Lam, W. Raphael; Schipke, Alfred; Tan, Yuyan; Tan, Zhibo (2017): Resolving China's Debt Zombies: Tackling Debt and Raising Productivity, IMF Working Paper WP/17/266, p. 16.
[34] Ferrani, Benno; Hinojales, Marthe, p. 12.
[35] International Monetary Fund (2017, p. 32.

enterprises and the resulting unemployment? Can the Chinese government even leave the path of implicit guarantees without jeopardizing the stability of the entire system?

The Chinese government has recognized the risks of excessive indebtedness and the thin capital base of banks. By mid-2018, commercial banks had written off almost $800 billion in non-performing loans and increased their equity base by around $150 billion.[36]

The IMF has described the risk of a change in the perception of financial market participants with regard to government guarantees as high and has warned against a sharp rise in risk premia, i.e., interest rates.[37]

In this context, the statement of the Chinese executive director at the IMF, Zhongxia Jin, on the financial market analysis of the Fund is noteworthy. In 2017, Jin pointed out that there was no legal basis for the assumed state guarantees for state-owned enterprises. Jin said the bankruptcy of Guangdong International Trust & Investment Corp. (GITIC) set a precedent in 1999. At the time, the government did nothing about the company's insolvency. According to Jin, since then foreign investors have been aware of the risk of possible payment defaults.[38]

It is revealing that the Chinese executive director at the IMF trusts that a single bankruptcy in 1999 will be sufficient to convince investors of the risks of their activities. What is more—and this seems even more worrying—he sees only the impact on foreign investors, but does not consider the expectations of the much more significant domestic investors.

President Xi stressed in April 2017 that stable financial markets ("financial security") were an important part of national security and were "the basis of a stable and healthy economic development."[39] The subsequent moderate deleveraging can be attributed to the directive of President Xi.

The call for the write-off of loans also makes sense in principle, but is nevertheless problematic in practice. For Chinese banks with a weak capital base, it is difficult to

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[36] The Economist: Chinese finance: Xi, make me chaste. 16. June 2018, p. 49.
[37] International Monetary Fund (2017), p. 36.
[38] Jin, Zhongxia: Statement by the Executive Director for People's Republic of China, 10 November 2017, p. 3; cf. Mark Landler: Bankruptcy the Chinese Way; Foreign Bankers Are Shown to the End of the Line, *The New York Times*, 22 January 1999, available at https://www.nytimes.com/1999/01/22/business/ international-business-bankruptcy-chinese-way-foreign-bankers-are-shown-end-line.html?pagewanted=1 (last accessed on 28 September 2019).
[39] International Monetary Fund (2017), p. 8.

impossible today to make massive write-downs without running the risk of bankruptcy.

2.4 CHINESE SHADOW BANKS AND THEIR LINKAGES WITH THE FINANCIAL SYSTEM

The Chinese financial system has a number of peculiarities that make it difficult to assess risks. In particular, the system of shadow banks contributes to concealing possible perils. In China, a considerable proportion of loans are granted without being included in the official bank balance sheets. The ratings agency Standard & Poor's estimated that these loans granted by unregulated financial intermediaries at the end of 2018 at a total of around US$6,000 billion, which would represent about half of China's annual economic output.[40]

According to a study by the BIS, the link between regulated commercial banks and shadow banks is particularly close in China. The shadow banks flourish "in the shadow of the commercial banks."[41] In the study, Ehlers et al. identify five characteristics of Chinese shadow banks:

1) The link between shadow banks and commercial banks is very close. The securitization of loans and market-based instruments to provide the shadow banks with liquidity play only a minor role.

2) Shadow banks play an important role in providing alternative investment opportunities and credit to the private sector.

3) The Chinese shadow banking system is less complex than the US. In the US, there are an average of seven steps to take before lending, while in China it is an average of one or two steps.

4) Assumed and actual state guarantees play an important role. The comprehensive guarantees for the business activities of shadow banks are a special feature of China.

5) Unlike in the US, the provision of loan guarantees does not play a role in China.[42]

The IMF also notes the interdependence of commercial banks with shadow banks and stresses that this poses a significant problem for banking supervision:

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[40] Yang, Yifan: Was bewegt China?; Die Furcht vor den Schulden, *DIE ZEIT*, 3 January 2019, p. 23.
[41] Ehlers, Torsten; Kong, Steven; Zhu, Feng: Mapping shadow banking in China: structure and dynamics. Bank for International Settlements, Working Paper 701, February 2018, p. 1.
[42] Ibid, pp. 3 and 12f.

> *Banks continue to be positioned at the core of this highly interconnected system of indirect lending, with uncertain linkages among numerous institutions constituting a challenge for supervision.*[43]

But why has the system of unregulated shadow banks grown so strongly in the first place? One turning point was the 2008 financial crisis. The Chinese government's package of economic stimulus measures encouraged small and medium-sized banks to become active in shadow banking and offer new wealth management products (WMPs).[44] The returns offered by these attracted many investors. The restrictions on deposit rates imposed by the banking supervisory authorities until October 2015 created the first business model for the shadow banks: Banks and shadow banks often packaged loans to companies with low credit ratings into complex financial products. These products were often sold to investors seeking returns above bank deposit rates.

Asset management products issued by banks are considered safe by investors, but in most cases there is no explicit guarantee for deposits. The reason for this is simple: Only by waiving guarantees can commercial banks refrain from including deposits in their balance sheets. Ultimately, commercial banks act as asset managers and charge investors fees without being subject to regulatory restrictions. By the end of 2016, the share of non-guaranteed WMPs in the total number of outstanding WMPs had reached almost 80 percent.[45]

Most WMPs are closed, which means that they have a fixed life cycle, and investors have to draw for certain periods of time. These closed-end funds accounted for around 57 percent of outstanding holdings of all WMPs in mid-2016. Listed banks had issued over 42 percent of outstanding WMPs by the end of 2016. A further 32 percent were issued by large state-owned banks.[46]

For many borrowers, shadow banks offer an opportunity to gain access to the credit market. China's financial system, which is still state-centered, prefers state borrowers over private ones. Small businesses and private households are inadequately supplied with credit by the traditional banking system. This opened up scope for new financial intermediaries with inadequate supervision. The granting of loans with a high probability of default shifted from commercial banks to the less strictly supervised segments of the financial system.[47]

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[43] International Monetary Fund, p. 2
[44] Ehlers et al.; Mapping Shadow Banking, p. 6.
[45] Ibid, p. 13.
[46] Ibid, pp. 14f.
[47] Ibid, p. 5.

Shadow loan brokering in China hardly involves the securitization of receivables or financing by large investors, both important sources and drivers of the US shadow banking business. In fact, the shadow banking system in China is much more similar to traditional banking: It collects "deposits" or cash from retail and corporate investors and then converts their savings into various forms of loans to finance businesses. The shadow banking business is also a purely national affair and is conducted in China by domestic financial institutions, depositors and investors. There is no strict separation between the regulated banking system and the shadow banks. In other words, any risks of the shadow banking system directly impact on commercial banks.[48]

The main forms of shadow lending to private enterprises are loans from trusts (trustee loans) and direct bank-intermediated business-to-business loans (entrusted loans). Lending to trustworthy enterprises is driven by the fact that many enterprises have unused capital. Large state-owned enterprises also take advantage of easier access to bank loans and better credit terms to lend to their subsidiaries and affiliates.[49]

The business of the shadow banks has developed so wildly also because Chinese investors are confronted with multiple investment crises: Shares are considered overvalued, as is real estate, while capital investments abroad were made much more difficult by the Chinese government in 2015. In this environment, so-called peer-to-peer (P2P) loans have been able to develop very rapidly. Private savers lent money to private borrowers by using one of about 2,200 Internet platforms. Supposedly high yields lured around 50 million people into these credit transactions.

As is so often the case in the history of financial markets, lenders have ignored the fact that high returns are associated with high risk. The Chinese authorities allowed the providers of Internet-based credit intermediation platforms to operate for a long time, even though the trustworthiness of many providers had been doubted for some time. The tightening of controls led to the collapse of more than a quarter of P2P platforms in the summer of 2018.[50]

Close and expanding links in the financial sector further increase the potential for the spread of financial shocks among savers, banks and the bond market. In addition, new forms of Internet-based credit intermediation, such as P2P lending, have developed at an extraordinary pace. Chinese authorities are facing a dilemma with shadow banks and P2P platforms, which are part of the shadow banking system. If

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[48] Ibid, p. 11.
[49] Ibid, p. 11.
[50] Yang, Yifan, p. 23.

the supervisory authorities tighten the reins and eliminate exaggerations, there is a risk of self-reinforcing, panic-driven downward spirals.

In 2019, in view of the risks of a credit crunch, there have been discussions of giving up tighter control of the shadow banks again. While it is clear to financial supervisors that tighter supervision of the non-transparent shadow banks would make sense, the implementation of this policy implies that the drivers of economic growth will not receive sufficient new credit. Commercial banks are unable to assume this role because they are not only undercapitalized but also under pressure from financial supervisors to reduce, rather than increase, risk.[51]

The IMF has clearly pointed to the consequences of reducing risks in the financial sector. This would mean accepting significantly lower economic growth. The precondition for this would be to set less ambitious growth targets for local authorities. The IMF considers banking supervision and regulation alone to be overburdened by this stabilization task: If macroeconomic measures, in particular monetary and fiscal policy, were lacking in support, the elimination of the mountain of debt ("credit overhang") would not be manageable.[52]

A shortage of credit could, for example, lead to a collapse in real estate prices and thus become dangerous for the Communist Party. Therefore, adjustments that are actually overdue are being postponed time and again. In August 2018, the *Financial Times* reported that China had interrupted the war on over-indebtedness in favor of achieving short-term economic growth.[53] This tendency to postpone corrections is undoubtedly not a Chinese specialty, but the sheer magnitude of the exuberance in China is proving to be unique and represents an unprecedented risk both for the country and for the global economy.

2.5 THE DEVELOPMENT OF LOCAL GOVERNMENT DEBT IN CHINA

It is the local authorities that implement the central government's policy guidelines. This has led to a conflict of objectives: The two obvious main objectives—i.e., the prevention of a strong reduction in jobs and the achievement of regional growth targets—are at odds with other policy objectives, in particular, financial stability.

The contradictory nature of Chinese economic policy is reflected in another peculiarity of the financial system: The financing structures at the local level. Local authorities

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[51] He Wei: "China's credit conundrum at heart of growth weakness", *Financial Times*, 31 January 2019, available at https://www.ft.com/content/0e33116e-24a3-11e9-8ce6-5db4543da632 (last accessed on 29 September 2019).
[52] International Monetary Fund, p. 8.
[53] Wildau, Gabriel: China eases war on debt in hunt for short-term growth. *Financial Times*, 2 August 2018, p. 4.

are prohibited by law from incurring debts. With the approval of the central government, however, they have been circumventing this ban since 2008 with so-called "local government financing vehicles" (LGFV). These are companies owned by local authorities that offer land-use rights as collateral for loans. Basically, it is a way of disguising prohibited borrowing. However, the municipalities are dependent on this method to finance ambitious urban infrastructure measures.[54] This approach is also known as "fiscal income from land." But are these relevant sums of money at all?

As early as 2016, LGFV had issued bonds worth 18,500 billion yuan, about $2,600 billion. This level of debt, which is roughly equivalent to Italy's total national debt, is remarkable. Even more worrying, however, is the extremely rapid rise from $645 billion in 2013 to the level mentioned.[55] The IMF estimates the annual credit growth of local authorities at 25 percent per year since 2007 and thus two and a half times as fast as the debt of the central government.[56]

The LGFV clearly demonstrate the inconsistency of Chinese fiscal policy. As mentioned above, local authorities are prohibited by law from getting into debt, but the central government has called on local authorities to bypass the law from 2008 onward. In order to achieve the growth targets, it will be necessary to increase credit volumes, but this threatens the objective of financial stability.

How should LGFVs' liabilities be valued? Are these loans within the financial sector and thus financial market risks? Or, given that the LGFVs are ultimately backed by public authorities, would it not be appropriate to book the loans as risks for the Chinese state? The IMF leans toward the latter assessment.[57] But the ratings agency Standard & Poor's warned in October 2018 that LGFVs had "built up a debt iceberg with titanic credit risks" in China. At the end of 2017, the total amount of loans to LGFVs exceeded 60 percent of GDP. Standard & Poor's expects increasing loan defaults by companies associated with local authorities.[58]

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[54] Song, Zheng Michael; Xiong, Wei (2018): Risks in China's Financial System. NBER Working Paper 24230, January 2018, p. 14, available at http://www.nber.org/papers/w24230 (last accessed on 29 September 2019).
[55] Ehlers et al.; Mapping Shadow Banking, pp. 23 und 26.
[56] International Monetary Fund (2017), p. 29.
[57] Ibid, p. 29.
[58] Don Weinland: China faces 'debt iceberg' threat, warns rating agency. *Financial Times*, 16 October 2018, available at https://www.ft.com/content/adabd0ae-d0f3-11e8-a9f2-7574db66bcd5 (last accessed on 29 September 2019).

3. THE REMARKABLE EXCESSES IN THE CHINESE REAL ESTATE MARKET

Real estate is the main engine of the Chinese economy. According to some estimates, it accounts (directly and indirectly) for up to 30 percent of GDP.[59] Today, Chinese consumer sentiment reflects the fortunes of the housing market, because most urban households own at least one property. In addition, there is a direct linkage between the housing sector and the financial system because probably half of all loans are backed by some form of real estate collateral. [60] These twin vulnerabilities—consumer sentiment and the financial system—are a significant problem because the Chinese housing market is characterized by excesses for which there are hardly any historical precedents.

In prospering cities, apartments with simple fittings are traded in China for seven-digit US-dollar amounts. Chinese citizens pay prices similar to those in Paris or Zurich and receive apartments of relatively modest quality. Within the third ring road in Beijing, which is a fairly central location, citizens have to spend 44 times their average annual income for an ordinary apartment. Even Munich, Germany's most expensive city, seems to be inexpensive in comparison—people spend 13 times their annual salary for an apartment there.[61] In the 100 most important cities, the price per square foot was $202 in 2018. This is 38 percent more than the median price in the US, where per capita income is more than seven times higher than in China.[62] For many people in China who do not own property yet, it is not possible to buy an apartment within a working life and pay for it by retirement.

A look at the price development of Chinese real estate illustrates the explosive increase in the price level. A Chinese real estate association has calculated that apartments that traded for $580 per square meter in 2003 cost an impressive $8,600 in 2018. In just 15 years, property prices have risen 15 times from their initial value. Considering that real estate represents 70 to 80 percent of the assets of urban

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[59] Balding, Christopher (2018): Why China Can't Fix Its Housing Bubble. Bloomberg, 24 June 2018, available at https://www.bloomberg.com/opinion/articles/2018-06-24/why-china-can-t-fix-its-housing-bubble, p. 1 (last accessed on 29 September 2019).
[60] He Wei: Slowing pains leave Beijing with a GDP dilemma. *Financial Times*, 28 September 2019, p. 13.
[61] „Es wird immer teurer", ZEIT Online, 30 January 2019, available at https://www.zeit.de/2019/06/ bezahlbarer-wohnraum-mieterhoehung-kampf-staedte (last accessed on 30 September 2019).
[62] Balding, Christopher (2018): Why China Can't Fix Its Housing Bubble. Bloomberg, 25 June 2018, available at https://www.bloomberg.com/opinion/articles/2018-06-24/why-china-can-t-fix-its-housing-bubble, p. 2 (last accessed on 30 September 2019).

families, it is clear that not only China's economic but also its political stability would be threatened if real estate prices collapsed.[63]

The current value of all real estate in China is estimated at $6,500 billion, which is twice the annual economic output of the G-7 countries. In January 2019, Xiang Songzuo, an economist teaching at Renmin University in Beijing, issued a dramatic warning about a potential collapse of the real estate bubble:

> *Chinese people have "played around with leverage, debts, and finance, and eventually created a mirage in a desert that will soon entirely collapse."*[64]

The first signs of growing dissatisfaction among the Chinese population were seen in 2018. In Shanghai and other cities, real estate buyers demonstrated in October 2018 against price cuts by real estate developers and demanded reimbursement of the difference between previous and current housing prices.[65]

The rental housing market, meanwhile, provides hardly any relief for Chinese citizens, nor for project developers. Advance rent payments of five years and more, for which tenants are indebted to banks, are common. From the tenant's point of view, this is not a relief because he is tied to the apartment and has to make high payments to the bank granting the loan. For project developers, who often have to pay bond interest of 7 to 8 percent and have an average debt to equity ratio of 380 percent, letting the unsaleable apartments does not provide any help either because the rents hardly cover the capital costs.[66] This unusual business behavior is supported by the hope that the demand for real estate could one day increase significantly.

Local governments control the provision of land for the development of residential property and depend largely on the revenues from these transactions. Local authorities, therefore, restrict the supply of newly developed land in order to generate sustained high revenues. For this reason, property owners do not expect any significant price declines. Why should municipalities jeopardize their future revenues by allocating too much land to build on?

Because of the housing market that has gone off the rails, concerns about the soundness of the Chinese financial system are widespread. The ratings agency Moody's, for example, has assigned junk status to the bonds of 51 of the 61 real

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[63] Sha Hua: Rabatte für Chinas Immobilienkäufer. *Handelsblatt*, 26 October 2018, p. 43.
[64] Kawase, Kenji: China's housing glut casts pall over economy. *Financial Times*, 20 February 2019, available at https://www.ft.com/content/51891b6a-30ca-11e9-8744-e7016697f225 (last accessed on 30 September 2019).
[65] Hancock, Tom: China homeowners stage protests over falling prices. *Financial Times*, 17 October 2018, available at https://www.ft.com/content/fcb5af7c-d0fc-11e8-a9f2-7574db66bcd5 (last accessed on 30 September 2019).
[66] Balding, Christopher, p. 2 (last accessed on 30 September 2019).

estate developers in China surveyed. Moody's estimates over 80 percent of real estate developers are highly likely to default.[67]

This is a dangerous situation for the financial system because real estate, both commercial and residential, is the most common form of credit guarantee in China. Two-thirds of the total collateral in banks' loan books is real estate. A slump in real estate prices, including a 30 or 40 percent drop in price levels, would bring the financial system to the brink of collapse.

In addition, it is worrying that in the past decade construction has gone far beyond the existing demand for apartments. The result is a vacancy of approximately 65 million apartments. This figure is equivalent to 21.4 percent of the Chinese real estate stock.[68] In other words, one in five apartments in China is unoccupied.

The Chinese government is aggravating the situation by encouraging banks and project developers to rent out properties that cannot be sold on the housing market. In conjunction with the continuing high level of lending to real estate companies, a correction in real estate prices is being postponed forever.

The increasing importance of mortgage financing thus raises the risk of major bank collapses and falling real estate prices. Although banks have financed only a comparatively small portion of the purchase prices of real estate, a sharp decline in real estate prices could lead to losses. It would also reduce the value of the land against which many corporate loans are based and dampen real estate investment. In earlier phases of instability in the housing market, investment funds have switched to other forms of investment.

However, as these are also seen as overvalued, the only remaining valve is the outflow of capital abroad. Since the Chinese government closed this loophole in 2015 and severely tightened restrictions on capital outflows, domestic savings have to be invested in China. For the time being, the Chinese authorities are able to avoid financial crises by enforcing these restrictions. If Chinese savers were to be provided with an opportunity to export their capital freely, chances are that a collapse of real estate prices followed by a crisis in the financial sector would inevitably follow. The stability of the financial sector in China will thus crucially depend on the ability of the authorities to prevent its citizens from exporting capital. Considering that restrictions on capital flows tend to lose effectiveness over time, the day of reckoning may be closer than many expect.

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[67] Kawase, Kenji.
[68] Ibid.

4. CHINA'S FUTURE CHALLENGES

Contrary to what many observers have long assumed, China has now left behind the most dynamic phase of its economic development. From 2014 onward, the situation on the Chinese financial markets must be seen as increasingly precarious. Today, the government is facing a "mission impossible:" China must continue to grow in order to underline the legitimacy of the Communist Party's rule and at the same time, there is an urgent need to reduce indebtedness, especially of local authorities and state-owned enterprises.[69]

Adding further to the difficulties of the Chinese government is the increasingly hostile perception of China in other countries. In some industrialized countries, but also in emerging markets such as India, China is described as a mercantilist economy that recklessly uses foreign technology and acquires strategically important companies abroad without opening up its own economy to foreign investment.[70]

Against this background, it seems unlikely that the economic conflict between China on the one hand and the US, EU and Japan on the other will be resolved quickly.[71] The liberal alliance's list of demands may not be spectacular, but it is unacceptable to the Chinese leadership. Both the demanded abandonment of forced technology transfers and the curbing of the influence of the state (and the Communist Party) on companies cannot be realized without endangering the core of the Chinese model.

Meanwhile, the situation for corporations in China has hardened in recent years. Private companies are also being tightly controlled by the Communist Party. No company, whether private or state-owned, can escape Beijing's demands. A side effect of these increasingly tight controls on companies has been to strengthen the voice of those in OECD countries who advocate a more cautious policy toward China.[72]

The most important development in the Chinese economy in the last decade, however, has been the escalating level of debt. For too long, leaders in China have

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[69] 'Mission impossible' to cut debt and maintain growth. *South China Morning Post*, 27 June 2018, p. 5.
[70] Chellaney, Brahma (2018): The China Backlash. *Project Syndicate*, 27 September 2018, available at https://www.project-syndicate.org/commentary/backlash-against-china-trade-policy-debt-traps-by-brahma-chellaney-2018-09?barrier=accesspaylog. (last accessed on 1 October 2019).
[71] Spence, Michael: What next for China's Development Model? *Project Syndicate*, 21 January 2019, available at https://www.project-syndicate.org/commentary/china-development-model-tensions-with-west-by-michael-spence-2019-01. (last accessed on 1 October 2019).
[72] Sender, Henny: Entrepreneurs stifled by the dead hand of the Chinese state. *Financial Times*, 27 February 2019, p. 16.

closed their eyes to the risks of excessive debt. In China, the crisis scenario painted by the late economist Rüdiger Dornbusch could once again prove true:

> *"The crisis takes a much longer time coming than you think, and then it happens much faster than you would have thought".*[73]

To put it bluntly, the Chinese economy could be described as a gigantic Ponzi scheme. Companies and local authorities depend on a sustained supply of fresh capital to remain liquid. Profitability considerations do not play a role in this structure. As long as new funds continue to flow in, the system remains viable. It would therefore be negligent to set a date for the outbreak of a crisis. Nonetheless, the Chinese system is not sustainable and requires a radical correction, for which the state and party leadership do not seem to be prepared.

The extent of the task becomes obvious when looking at the real estate market. The price bubble in property needs correction, but this would require the depreciation of Chinese private assets to an extent that the state and party leadership would not dare to allow. The Chinese Communist Party is in a trap it has built for itself.

Increasingly, this situation has political repercussions for other countries. House prices in Chongqing or Tianjin have an impact on economic and political stability in the Indo-Pacific region. OECD countries will, of course, be affected by a moderation of growth rates in China or a potential economic and financial crisis. Companies and government ought to be aware of the mounting risks in China. Still, a crisis in China is not inevitable, and foreign observers have too often misread the situation in China. However, the data on debt and house prices are indicating that even a tightly managed economy would not be able to avoid Herbert Stein's law: "If something cannot go on forever, it will stop." It is difficult to say when, but the build-up of debt will eventually end.

An economically unstable China may turn into a foreign policy risk for the entire region. Today, President Xi has a choice between two evils: Either Beijing reduces its excessive debt, which would lead to a serious dip in growth or a serious economic crisis, or it lets the country's debt grow further to (temporarily) escape an economic crisis. The Chinese president's current policy amounts to the second option.

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[73] Interview with Rüdiger Dornbusch, available at https://www.pbs.org/wgbh/pages/frontline/shows/mexico/interviews/dornbusch.html (last accessed on 1 October 2019).

ABBREVIATIONS

ADB	Asian Development Bank
BIS	Bank for International Settlements
BRI	Belt-and-Road-Initiative
CCCC	China Communications Construction Company
COMECON	Council for Mutual Economic Assistance
EU	European Union
EWU	Europäische Währungsunion
ECB	European Central Bank
GITIC	Guangdong International Trust & Investment Corp.
IfW	Institut für Weltwirtschaft
IIF	Institute of International Finance
IMF	International Monetary Fund
LGFV	Local Government Financing Vehicles
MITI	Ministry of International Trade and Industry
OECD	Organization for Economic Cooperation and Development
US	United States of America
WMP	Wealth Management Products

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