Will China Collapse:
A Review, Assessment and Outlook

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Economics Working Paper 18104

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Since the dissolution of the Soviet Union, China's economic and political stabilities have been repeatedly called into question. In this paper, we review long-lasting debates as to whether or not China will collapse and explain why we believe China is not going to collapse economically or politically. Our main argument is that Chinese authorities have applied a gradual anti-crisis approach to reform since 1978. This approach means that the Chinese government has both pursued modest reform measures and reacted quickly to internal and external shocks. Structurally speaking, the party and Chinese central government's control over social resources represents an implicit guarantee against potential collapses. This paper then studies current risks of a sudden growth collapse in the form of a debt crisis, a housing bubble bust, and political disintegration, and lays forth why these events are not likely to happen and spark a major Chinese collapse in the near future. We also identify new instabilities in China's economic and political system and discuss how the current gradual anti-crisis approach to reform can be upgraded to deal with these problems.

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Abstract:

Since the dissolution of the Soviet Union, China's economic and political stabilities have been repeatedly called into question. In this paper, we review long-lasting debates as to whether or not China will collapse and explain why we believe China is not going to collapse economically or politically. Our main argument is that Chinese authorities have applied a gradual anti-crisis approach to reform since 1978. This approach means that the Chinese government has both pursued modest reform measures and reacted quickly to internal and external shocks. Structurally speaking, the party and Chinese central government's control over social resources represents an implicit guarantee against potential collapses. This paper then studies current risks of a sudden growth collapse in the form of a debt crisis, a housing bubble bust, and political disintegration, and lays forth why these events are not likely to happen and spark a major Chinese collapse in the near future. We also identify new instabilities in China's economic and political system and discuss how the current gradual anti-crisis approach to reform can be upgraded to deal with these problems.

1. Introduction

"Will China collapse?" is a question that has been repeated asked since the fall of communism in Eastern Europe and the Soviet Union in 1991. At first, most scholars approached this question politically, comparing the Soviet system and China's model of so-called "socialism with Chinese characteristics". Since the Soviet collapse, China watchers have increasingly paid more attention to the economic meaning of that question, and debates on whether China would have an economic or financial crisis have heated up. Forty years since Chinese Communist Party (CCP) leader Deng Xiaoping initiated "reform and opening-up," China has now emerged as a potential superpower with the world's second largest economy and biggest foreign exchange reserves. Yet the "Will China collapse?" question has been attracting even more attention, especially following China's economic slowdown in recent years. We believe it is time this question be given a new answer—one that takes into account both its political and economic components.

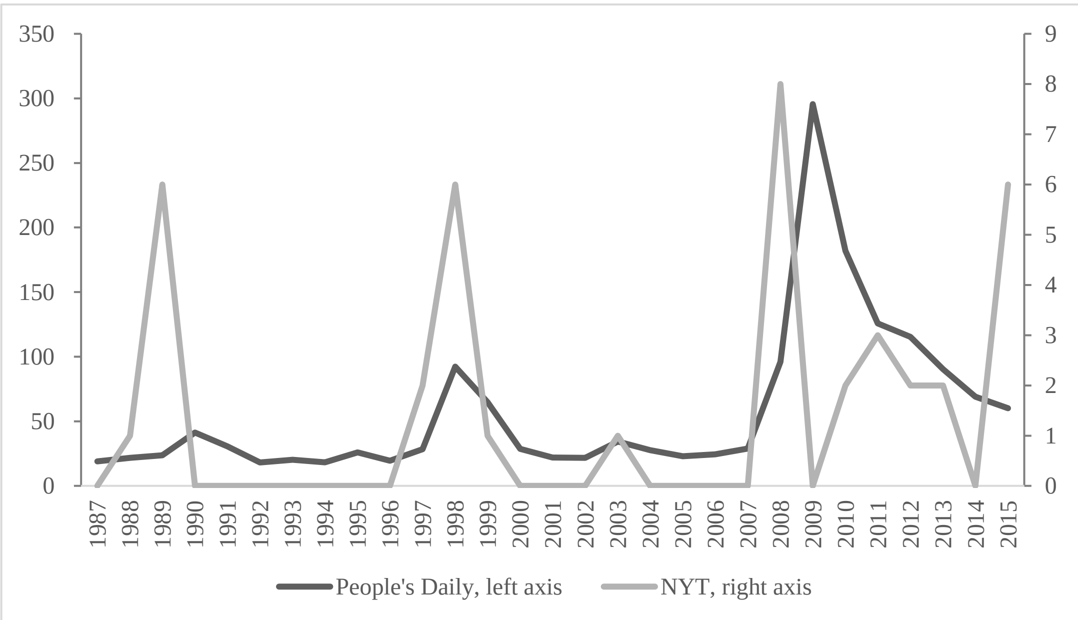

Figure 1. Frequency of collapse-related words in People's Daily (1987-2015)

Source: China Core Newspapers Full-text Database and NYT

To better answer the "Will China collapse?" question, we need to first study the evolution of its real meaning. Figure 1 illustrates how domestic Chinese and western views of that question have changed over time by presenting the monthly frequency of the words "crisis" and "collapse" in the CCP's official newspaper, the *People's Daily*, and *New York Times* from 1987 to 2015. The number of newspaper pages are controlled to make sure the frequency we use accurately represents comparable results. We also excluded the news reports that are not directly related to a China crisis or collapse, like discussions on the general impact of external financial crises. The three periodical peaks in these two frequency series are in 1990, 1998, and 2008, and can be attributed to three international collapses: the fall of communism in the Soviet Union in 1991, the Asian Financial Crisis (AFC) in 1997, and the Global Financial Crisis (GFC) after 2007, all of which greatly impacted China and led CCP elites to fear the outbreak of similar crises leading to a Chinese collapse.

By reviewing existing debates on the connections between these three collapses and China during the same period, we explain why these collapses have not yet happened in China and assess their effects on China's political and economic system. First, we find that China was able to avoid a Soviet-style collapse through a higher degree of political consolidation, an economic structure that gives rise to market-oriented competitive enterprises, and a far more developed set of institutions. Second, China was able to avoid an AFC-style financial crisis by keeping a closed capital account, implementing prudent external financial policies, preventing yuan from depreciating, and through fiscal stimulus. Third, China was able to minimize the impact of the GFC through a 4-trillion-yuan stimulus plan, though this plan, we note, has created other problems in the GFC's aftermath.

Taken as a whole, the gradual anti-crisis approach to reform is the key policy framework through which China has been able to avoid these three collapses. This policy framework has three properties that combined serve as a firewall against major crises: gradualism, swift anti-crisis targeting, and a high degree of autonomy in policy adjustments. Moreover, the central government's control over social resources makes it possible for Chinese authorities to achieve these reform targets. Other countries may share some features of China's approach to reform, but few are able to successfully adopt the complete policy framework the Chinese government uses.

The gradual anti-crisis approach to reform is not without cost, and it has in fact created the three biggest threats to China's macroeconomic stabilities today. A growth slowdown, rising macro debt level, and a booming housing market are partly the results of the 4-trillion-yuan stimulus package used to increase domestic demand after the GFC. This stimulus package affected China's rebalancing process and distorted its economic structure. However, according to the most recent data and existing research, we argue that none of these aforementioned threats will likely trigger an imminent crisis. In fact, we find that there is still a window of time for Chinese officials to eliminate these threats, but they must act quickly before risks build up.

Political disintegration is also a potential threat to China's overall stability. The propensity among China scholars is to cite the implosion of the Soviet Union as an image of China's imminent future. We find that this analogy is flawed as it overlooks the key differences in the economic and political structures of contemporary China and pre-1991 Russia. Chinese policymakers were able to achieve a high degree of centralization and institutionalization from the 1980s onwards, partly in response to the implosion of their Soviet neighbor. This two-pronged approach of centralization and institutionalization has enabled the CCP to contain short-term shocks and promote longer-term stability, reflecting both the rapid anti-crisis and gradual approaches to reform. Nevertheless, we recognize that China today confronts more of the political and economic problems that the Soviets faced pre-1991, in particular, foot-dragging on reforms and rampant elite corruption. Since the 18th Party Congress in 2012, we find that the trend toward greater CCP control of both party personnel and the economy suggests that China's authoritarian resilience can be maintained at least over the next few years.

We also look at two potential new instabilities in China's social-economic system.

The first one is the feeling of anxiety and insecurity especially among China’s new social class—the middle class—which has caused higher capital outflows and less private investment. The second one is increasing regional inequalities and the potential for a regional economic collapse. These latent instabilities and the existing threats we mentioned above have both compelled Chinese authorities to maintain consistent communication with the public about the party’s reform agenda, rebuild the incentive mechanism for local government officials, and ramp up the pace of reforms.

This paper intends to shed further light on studies of the socialist system, economic transition, macroeconomic policies, and institutional reforms. Both gradual and (rapid) anti-crisis approaches to reform have been adopted by other countries. But we see few examples of authorities comparing both approaches in their political and economic reforms. China’s growth experience over the past 40 years shows the potential of this approach. In the meantime, this approach has its own weaknesses, in the form of slow progress and a possible overreaction to shocks.

Rather than offer simply a review of past history and previous scholarship, this paper proposes a response to the “Will China collapse?” question of our time. Hence, our focus on the post-Soviet era of China’s development. Nevertheless, we also consider former periods of “reform and opening-up,” especially since the 1978 reforms truly laid the foundation of the gradual anti-crisis approach of reform we analyze in the paper.

The rest of this paper is organized as follows. Section two reviews existing scholarly debates on whether or not China will collapse. We end the section by summarizing the features of China’s gradual anti-crisis approach to reform. Sector three studies China's macroeconomic fundamentals and addresses why China’s economy will not crash as a result of a growth collapse, a debt crisis, or a housing bubble burst. Section four provides evidence as to why China will not collapse politically. Section five focuses on new instabilities that have emerged and offers advice on how to resolve them through an upgrade of the gradual anti-crisis approach to reform. Section six concludes this paper.

2. Debates on will China collapse

Since 1991, there has been an extensive literature debating on whether China will collapse. The theme of these debates has changed according to economic and political events of their time, but the focal point has always been the stability of China's political and economic system. In this section we review the existing literature discussing both the political and economic meaning of the "Will China collapse?" question. We find overall that in most cases the two sides of the "Will China collapse?" debate are not well informed on the idiosyncrasies of the Chinese political economic system.

2.1 Debates on political collapse

In December 1991, the Soviet Union was officially dissolved. In the years leading up to the Soviet collapse, Soviet leaders had attempted to implement a strategy of political liberalization and economic reforms. Despite Russian leaders' political and economic reforms, Soviet Russia fell into a downward spiral of economic downturn, ballooning budget deficit, elite insubordination, and rampant corruption. As China became the biggest socialist economy after the collapse of the Soviet Union, worries have been repeatedly expressed about a similar political disintegration in China.

In the winter of 1991, just as the Soviet system collapsed, the CCP tightened central control over the populace and the party and propped up an amended socialist ideology titled "Socialism with Chinese characteristics". This ideology shaped China's gradual transition from a centrally planned to socialist market economy. To this day, the ideology plays a dominant role in the party constitution and the shaping of China as a hybrid socialist market regime. continues to defy predictions of an imminent political collapse.

2.1.1 Why China didn't collapse as the Soviet Union did

Why didn't China experience a political collapse after the political changes in the Soviet Union and Eastern Europe? Scholars have generally explained it with three main reasons.

First, the difference in degree of political consolidation. Russian scholars tend to attribute the Soviet collapse to party leaders' decision to oversee political liberalization—a move that ultimately led to a weakening of the center (Kotkin, 2008), leaving it prey to disparate interest groups (Miller, 2016), corrupt elites (Solnick, 1998), as well as general macro-economic instability. Scholars also emphasize that the CCP's durability came from a high degree of political consolidation and centralization during the reform and opening-up era after 1978. Shirk (1993) argues that the general secretary of the Soviet Union Communist Party, Mikhail Gorbachev's failure as a reformist leader was his inability to develop an effective pro-reform coalition and eliminate his reform-skeptic opponents, whereas leader of the CCP Deng Xiaoping's success was his retention of party-state control and co-option of local officials as a political counterweight to the conservative center.

Pei (2016) views this political consolidation in terms of the party-state's repressive capacity, strengthened significantly after 1989, in addition to Beijing's political co-optation of state-owned enterprises (SOEs), government regulators, the banking system, and central and local officials. Xu (2012) stresses that the center's power lies in its high degree of personnel control. Other scholars cite Chinese government's ability to re-centralize power in times of crisis—such as budget deficits, excessive lending, and inflation (Shih, 2008), especially in the early 1990s (Walter and Howie, 2012; Naughton and Yang, 2004). It is also clear from the flightpath of China's gradual transition to a socialist market economy that political and economic de-centralization has strengthened the party through positive economic outcomes (Xu, 2012; Huang, 2008).

Second, scholars cite differences in the economic structures of the two communist nations. Sachs and Woo (1994) argue that what made China's gradual reform more successful than the post-Soviet countries in the 1980s was differences in economic structure. The post-Soviet countries, including the Soviet Union, suffered from the "interrelated flaws" of an overbuilt heavy industry, excessive state subsidies, and an extensive social welfare system. In China, on the other hand, 80% of the Chinese labor force was outside the state sector at the start of reforms and the economy predominantly consisted of rural peasants. Frye and Shleifer (1997) additionally propose that the corrupt “grabbing hand” of the Soviet state ultimately weakened the economic structure while the “iron hand” of Asian economies bolstered it. Shambaugh (2008) argues that the striking similarities between the two regimes exist mainly in the political, social, cultural, and coercive characteristics, rather than the economic or international variables, where he argues there are key differences. Naughton and Yang (2004) attribute the CCP’s durability to successful gradual economic reforms rather than economic structural differences. Nevertheless, most scholars writing on economic variables find that the deeper penetration of central planning in the Soviet Union made economic paralysis, and later collapse, a more probable outcome than in China over the same period.

Third, scholars attribute it to institutionalization. There is a deep body of literature on China that supports theories on institutionalism. Solnick (1998) attributes the Soviet collapse to weak institutions. Rather than stimulating local initiatives and experimentation through economic de-centralization, leaders of the Soviet Union carried out a model of political de-centralization that unleashed yet more corruption in existing institutions as insubordinate defecting officials rushed to appropriate state assets or block economic reforms. He finds that Soviet institutions effectively experienced a massive ‘bank run’”. Shleifer and Frye (1997) add that Russia’s propensity for oligarchic corruption (mainly via land-grabs) was unleashed by Russian leaders’ political de-centralization, thus creating the “grabbing hand” theory of post-Soviet Russia in the 1990s. By contrast, China’s far more developed institutions compared with other authoritarian regimes that subsequently collapsed may help to explain its resilience (Pei, 2016). Nathan (2013) supports this view that institutionalization is what has enabled China’s ability to adapt and survive in the face of comparable economic and political uncertainty, which he terms “authoritarian resilience." He identifies four types of institutionalization: norm-bound succession; meritocratic elite promotion; functional specialization of institutions; and establishment of "input institutions" (or channels for political participation and appeal).

Recent studies pay more attention to institutionalization. Huang (2008) describes the 1980s as the peak of China's institutionalization and reform. Indeed, institutionalization during the 1980s created greater asset security (especially for entrepreneurs), established predictability in the political rules of the game, avoided a dangerous overconcentration of power (Shirk, 1993), and created "inner-party democracy" (Fewsmith, 2012) or bargaining between party elites. Smart adaptive institutions also enabled critical reform experimentation, assisting China's transition to a productive socialist market economy (Tsai, 2006; Xu, 2012).

2.1.2 How China responded to the collapse of the Soviet Union

Based on party documents and key speeches by party officials and affiliates from 1989 to now, it is clear that the Chinese learnt three valuable lessons from the Soviet collapse (Shambaugh 2008; March 2005). First, political centralization is absolutely critical both to avoid the party's destruction as well as to guide through reforms at a gradual tempo without hampering from elite insubordination or vested interests. Second, China should steer clear from the Soviet model of heavy industrial policy and central planning. Third, institutionalization especially through de-centralization at the local levels is the only way to incentivize and push through reform.

First, political institutions were designed to centralize power immediately, though through a collective leadership model. Beginning in 1976, the CCP leadership thus forged the consensus that collective leadership and economic development were the twin pillars of party legitimacy. This approach was consolidated in the Third Plenum of the 11th CCP Central Committee in December 1978. Afterwards, the CCP began to transform itself during the 1980s from a strictly personality-ruled party into a party system governed norms and institutions, collective decision-making, and a level of "inner-party democracy" (Shirk, 1993; Fewsmith, 2012). The 1980s marked peak political institutionalization with a series of political reforms, such as imposing of a mandatory retirement of government officials, strengthening of the National People's Congress (NPC), increasing meritocratic rather than factional criteria for elite promotion and promoting the development of local-level quasi elections and interregional competition (Nathan, 2003; Xu, 2011). These political institutions eliminated the customary trigger points of political paralysis and implosion: elite insubordination, popular discontent, and policy gridlock. Nevertheless, it should be noted that these institutions did not truly diminish the inertia toward systemic elite corruption and rent-seeking that ballooned in the 1990s, reflecting theories of authoritarian regimes that collapse due to the absence of a strong independent rule of law.

Second, the CCP leadership implemented de-centralizing economic reforms to eschew a Soviet-style economic structure. Beginning in the 1980s, regional leaders essentially had free rein to manage regional economic issues. Provincial governments were being granted sizeable de jure control rights and endowed with even greater de facto control rights over most economic issues and resources within their jurisdictions. It's without doubt that China benefited from a cultural propensity and historical legacy of decentralized rule build on subnational governments with self-contained functions coordinating operations within its own jurisdictions, which automatically differentiates China from the Soviet Russian history of extreme political centralization (Xu, 2011).

This policy stance of fiscal decentralization meant that Chinese provinces were empowered to deal with fiscal issues on their own terms—managing local budgets and generally using local knowledge and agents to design, experiment, and implement reforms most suitable to the specific regional context. Statistics on local government revenue to national fiscal revenue show the boom in fiscal decentralization and success of local fiscal reforms starting around 1980, before peaking at 78% in 1993 (Xu, 2011). This helped China sidestep the Hayekian problem of a lack of "local knowledge" in centralized authoritarian systems. Out of this system emerged some of the most well-known local economic reforms from the 1980s—almost all of which appeared first as provincial experiments rather than top-down directives: Township-Village Enterprises (TVEs); Special Economic Zones (SEZs); Household-Responsibility Systems (HRS) SOE reforms; land reforms and privatization.

Third, beyond the fiscal realm, provinces also benefited from broader regional decentralized institutionalization. This framework effectively delegated more than just fiscal autonomy to local governments. Emerging in the 1980s, Chinese provinces did more than deal with just fiscal matters; they also managed the establishment of firms, joint ventures (JVs), property rights accorded to local SOEs, land allocation, and law-making and enforcement.

This sub-national organization of economic and political institutions, which characterizes Xu's model of China as a "Regionally Decentralized Authoritarian (RDA)" regime, was the key differentiator between the China and Soviet Russia's political and economic as well as political structures pre-1991. The Chinese system of unspecialized subnational regions each assigned to manage similar tasks led to growth-enhancing interregional competition and local experimentation; whereas the Soviet system of assigning specialized tasks to central ministries meant that there were no regional nor ministerial competitions or experimentations in reform measures in the Soviet Union even though it started reforms earlier than in China (Maskin, Qian, and Xu, 2000.) Similarly, higher level local accountability through quasi local elections increased local officials' responsiveness to local needs, both economic and political.

2.2 Debates on economic collapse

Soon after the Soviet collapse, China abandoned economic central planning and set up a market mechanism as the basic economic structure. By allowing market-oriented competitive enterprises (beginning with TVEs) to gradually develop from within, China distinguishes itself from other transitional economies that have tried to set up basic institutions of capitalism as soon as possible (Weitzman, 1993). At the 14th National Party Congress in October 1992, the CCP decided to establish the "socialist market economy" widely seen as state capitalism, and started henceforth to promote comprehensive economic reforms. Those reforms included fiscal reforms to reallocate fiscal incomes between central and local governments, state-owned enterprise (SOE) reforms, banking reforms, and foreign exchange reforms. Most of these reforms have improved market efficiency and boosted economic growth, helping to make China the second largest economy in the world in nominal terms.

China's economic rise has not been smooth. Some scholars argue that Chinese economy has already been through several economic crises (Wen, 2013), even in the fast-growing period after China joined World Trade Organization (WTO). Yet, past performance of GDP growth and unemployment do not support these statements. Recalculated output and unemployment statistics based on different assumptions on productivity suggest lower GDP growth and higher unemployment rates (Maddison, 2007; Xu, 2011). Yet none of these estimations can serve as evidence that a crisis has happened in Chinese economy after 1978. The aftermath of the AFC (1997-2000) and the GFC (post-2007) mark the two major sub-periods during which Chinese authorities were the most fearful of a Chinese financial crisis. In response, the Chinese government took unconventional and swift anti-crisis stimulus measures. Some scholars argue that these measures made the situation worse. In this subsection we first review debates on whether or not China was tipped to collapse in those two crises. Second, we examine past predictions on what a Chinese economic collapse would look like. Lastly, we address critics' views on China's anti-crisis policy measures.

2.2.1 China and Asian Financial Crisis

Among others, Berg (1999) summarizes four main causes why the AFC broke out in 1997: weakness in macroeconomic fundamentals, domestic financial vulnerabilities in terms of high debt-to-equity ratios, external vulnerabilities in terms of high levels of short-term external debt and fixed exchange rate regimes, and, most importantly, dramatic changes in the external environment. The inevitable result of these problems is that Asian authorities were left without any effective tools to prevent sudden capital outflows at the outbreak of the AFC.

As another fast-growing Asian economy, China partly shared these problems. In terms of macroeconomic fundamentals China's GDP growth rate continued to fall from 14.2% to 9.2% in 1997; at the same time, investment growth fell from over 70% in 1993 to less than 15%. External vulnerabilities increased dramatically as export trade became the driving force of China's economic growth, accounting for 44.4% of total economic growth in 1997. Another similarity is that China kept a controlled exchange rate regime, fixing the dollar-yuan exchange rate during the AFC.

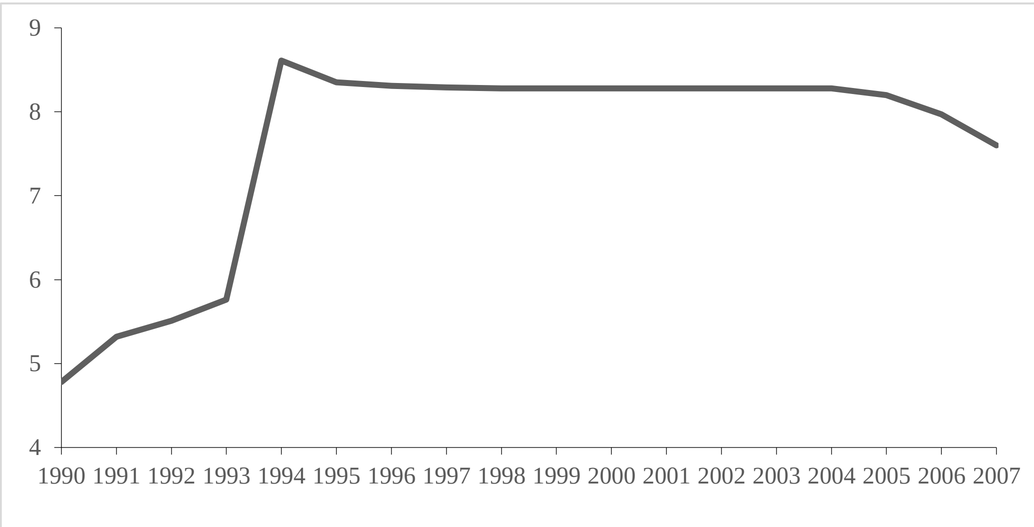

Figure 2. Average yuan exchange rate against U.S. dollar by year (USD/CNY, 1990-2007)

Source: PBoC

Unlike other rising Asian economies, however, China avoided an economic meltdown in the AFC for three reasons. First, China kept a closed capital account and implemented prudent external financial policies by limiting foreign borrowing to its ability to repay (Sheng, 2013). Tight capital controls prevented capital outflows, while limited foreign borrowing obstructed China from taking on too much foreign debt. Second, the Chinese government made a huge effort to avoid yuan depreciation at the cost of a domestic economic slowdown (Yu, 2007). As seen in the figure above, China kept the yuan exchange rate stabilized from 1995 to 2005. Third, the Chinese government tried to stimulate its economy in the post-AFC periods through fiscal stimulus (Wen, 2013). From 1998 to 2000, Chinese central government issued 360-billion-yuan worth of government bonds to fund infrastructure investment. In addition, the Ministry of Finance (MOF) made 270-billion-yuan worth of special loans to China's four biggest state-owned commercial banks (i.e. Industrial and Commercial Bank of China, China Construction Bank, Agricultural Bank of China, and Bank of China) for new business loans. As a result of the above measures, China's GDP growth rate started to increase in 2000 and kept rising until the breakout of the GFC in 2007.

The AFC was the first external financial crisis to greatly affect China (Wen, 2013). The Chinese government learned its lessons from the AFC and consequently took a more gradual approach to reform its foreign exchange regime and open capital account. This is evidence of the government's gradual anti-crisis approach to reform , which we summarize in 2.3. Before the outbreak of the AFC, the Chinese government planned to make yuan fully convertible around 2000 (Kynge, 2017). That plan was cancelled after China saw how other Asian economies were hit by massive capital outflows and forced to bear the full cost of exchange rate falls. It was not until 2015 that the People's Bank of China (PBOC) finally reinitiated foreign exchange reforms, the process of which has been very slow thus far.

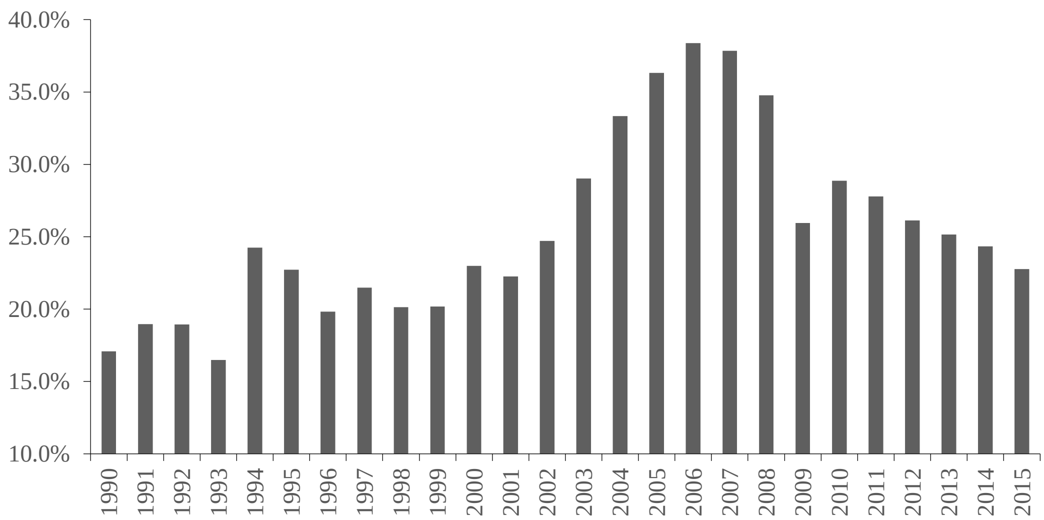

Figure 3. Export share of Chinese GDP (1990-2015)

Source: NBS and MOF

Whereas China grew hesitant about financial opening after the AFC, its economic opening to the global market expanded following China's accession to the World Trade Organization (WTO) in 2001. Total export maintained double-digit growth from 1999 to 2008, and its share of GDP reached a record-high of 38.4% in 2006. By that time, foreign investors started to claim that the yuan should depreciate and foreign observers raised concerns about the possibility of an AFC-style crisis in China. Yu (2000) rejects this possibility by looking at four aspects of the Chinese economy: non-performing loans (NPL) ratio, M2/GDP ratio, fiscal solvency, and external sector stability. By stating that China has a sound fiscal system and a strong external sector, Yu concludes that China can reduce its high NPL and M2/GDP ratios without causing any major crisis. However, Yu overlooks the historical evidence that good fiscal conditions and current account surplus will not last forever, and both can easily turn negative if structural reforms are not implemented in time.

2.2.2 China and Global Financial Crisis

In the aftermath of the AFC, China started to re-boost its economic growth by expanding export business (Tang, 2006). Endowed with a large labor reserve from rural areas and former SOE bankruptcies, Chinese enterprises are dominant in wage bargains and thus enjoy low labor costs, which became their competitive advantage in export trade (Li and Xu, 2017). The growing gap between rising GDP growth and stagnating household income growth made China one of the major contributors to the global saving glut (Bernanke, 2005), leading to credit expansion in the U.S. and other developed countries. Ferguson and Schularick (2007)'s concept of *Chimerica* defined the symbiotic two-sided economic and financial relationship between China and the U.S, which resulted in global divergence between high returns on capital and low cost of capital. They also called its end after the breakout of GFC, which indeed happened as a major side-effect of the GFC.

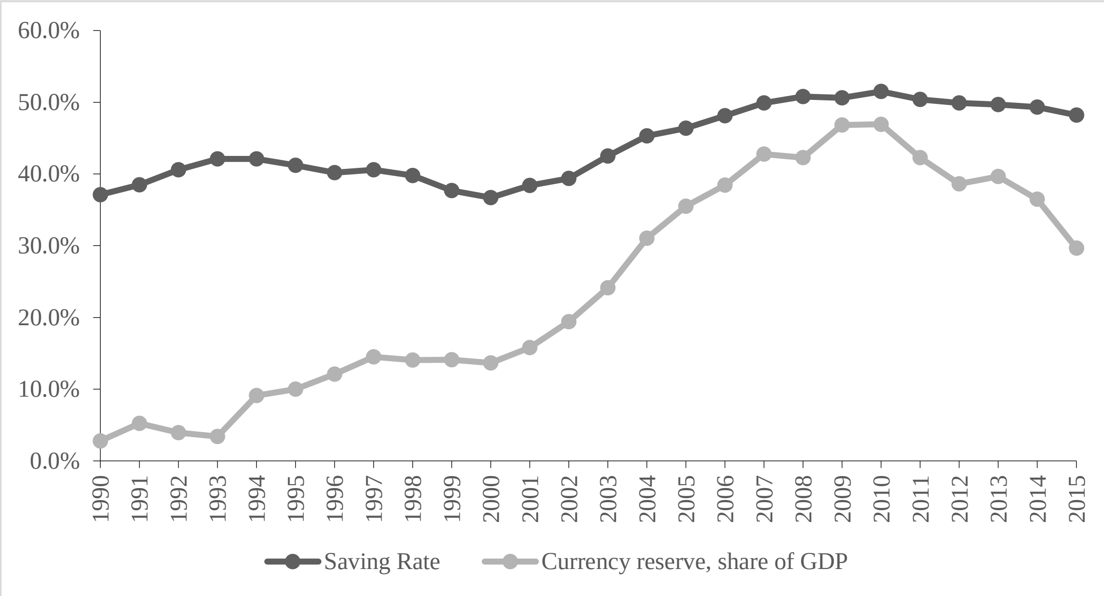

Figure 4. China's saving rate and currency reserve share of GDP (1990-2016)

Source: NBS

China's immediate response to the GFC was a meltdown of its stock market. Starting from October 2007, Shanghai stock exchange composite index (SSE) fell from its record high of 5903 points all the way down to 1729 points in just one year. Yet other aspects of Chinese financial system and the real economy were not shocked immediately. In fact, China's GDP growth rate rose by 1.5% in 2007 to 14.2%. The full impact of GFC on Chinese economy started to reveal itself in 2008 as external demand on Chinese exports fell sharply, resulting in a 4.5% decline of GDP growth rate that year and further economic slowdown afterwards.

To minimize the impact of the GFC and sustain economic growth, on November 8th, 2008, China's State Council announced a fiscal plan to invest 4 trillion yuan in infrastructure and social welfare facilities in 2009 and 2010. This became known as the 4-trillion-yuan stimulus package. We refer to it as the anti-GFC stimulus package in subsequent sections. The Chinese government had carried out similar plans after the AFC, but the size of the 2008 package as much bigger, and local governments were requested to make the majority of the investment to minimize the impact on central government spending (Bai, Hsieh, and Song, 2016b).

At first, the stimulus package was welcomed by global leaders and researchers (Van Fleet, 2010) as it stabilized Chinese economy in the short term. Yet like other large-scale fiscal stimulus plans it has created problems for the Chinese economy over the longer term. These problems include, but are not limited to, ballooning off-balance sheet spending by local governments, increasing public debt-to-GDP ratio, expanding shadow banking activity, and a booming housing market.

After 2008, local government financing vehicles (LGFVs) were created nationwide to fund the anti-crisis stimulus package. LGFVs are a special kind of SOE set up by local governments to raise funds primarily for infrastructure projects and social welfare facilities. Local governments need these LGFVs to fund their investment as they only receive a limited share of fiscal revenues due to China’s tax-sharing reforms in 1994 (Wong, 2000). In addition, local governments are prohibited from directly borrowing from the financial market according to Budget Law of the People's Republic of China.

The quick expansion of LGFVs has been costly for China’s economy. Lu and Sun (2013) argue that it has further distorted China's already imbalanced economic structure by pushing up fixed asset investment, deepening mismatches between local governments' revenues and expenditures, and increasing correlations between local government financing and housing market performance as LGFVs use land owned by local governments as collateral for bank lending. Bai, Hsieh and Song (2016a) study long-term effects of China's post-GFC fiscal expansion by estimating its quantitative impact on the aggregate saving rate, current surplus, and growth rate of aggregate productivity and GDP. Their empirical findings show that fiscal expansion driven by the stimulus package has worsened the overall efficiency of capital allocation due to local governments’ investment decisions. According to their estimation, only 40% of local government's off-balance sheet spending are actually invested in local infrastructure projects. The remaining 60% were invested in private commercial projects favored by local governments. They also estimated that fiscal expansion through LGFVs has caused a 5% increase in aggregate investment rate and made significant contributions to the 8% decline in current account surplus since 2008. Cuestas and Regis (2017) test the stability of China's public debt-to-GDP ratio from 1992Q1 to 2016Q1 and find that accumulation of total Chinese government debt has become non-stationary and its trend since 2014 is consistent with dangerous paths towards a potential debt crisis. They also predict a rapid escalation of China's macro debt level as China's economic growth slows down.

Booming local government off-balance sheet spending after the GFC has run up China's public debt-to-GDP ratio. Xu and Zhang (2014) build China's public balance sheets based on fiscal data and find that China keeps a government-debt-to-GDP ratio that is still lower than that most developed economies, and its own historical record in 2002. They also identify two mismatches of China's local government financing: the income-expenditure mismatch between central and local governments, and the maturity mismatch of short-term debt and long-term infrastructure investment. Xu and Zhang see these two mismatches as the biggest risks for China's public debt solvency.

Expansion of China's risky shadow banking sector is the consequence of China's anti-GFC stimulus on the supply side of the credit market. Chen, He and Liu (2017) investigate the rollover of local government debt and find that provinces with abnormally greater bank loan growth in 2009 issued more municipal corporate bonds (MCBs) in the period 2012 to 2015. They find evidence to prove that that stimulus loans of local governments are rolled over by shadow banking activities, including entrusted loans and wealth management products (WMPs). The work of Chen, He and Liu is also among the few to discuss the positive mid-term effects of the anti-GFC stimulus package, by stating that the 4-trillion-yuan fiscal stimulus has actually been the driving force of modernization of China's financial market after 2012. Li, Hsu and Qin (2014) study the institutional risks of China's shadow banking system by conducting a stress test on China’s big commercial banks, which are also regarded as "too big to fail" institutions for China's banking system. Their firm-level test shows that banks with higher NPL ratios have bigger solvency risks, while liquidity risk has become a crucial issue for the banking sector as a whole. They also warn that lack of regulation on credit guarantees and trusts will become a big potential risk for China's financial system in the coming years.

Chinese central government’s desire to sustain economic growth after the GFC resulted in a housing boom in China beginning in 2010. In addition to the stimulus package, Chinese central government give direct orders to state-owned commercial banks and non-financial SOEs to increase their lending and investment respectively. As a result, state-owned banks lent more to SOEs and SOEs used those cheap excess loans to set up real estate branches and purchase land from local governments. The increased demand for land and drove up land auction prices, reflected later in housing prices (Deng, Morck, Wu and Yeung, 2011). Rising land prices increased the market value of land that LGFVs used as collateral. This further encourages local governments to transfer more land to LGFVs and take on more debt through them.

A combination of economic slowdown, government debt accumulation, and a booming property market signals the potential for a financial crisis. But history indicates that the endgame has not always been a collapse—even a “lost decade” scenario like that of Japan could have been avoided, if the Japanese government had carried out the right policy combinations to allow productivity to grow rapidly again (Hayashi and Prescott, 2002). Zhang and Barnett (2014) construct a time series of China's augmented fiscal conditions that include off-budget activities like the anti-GFC stimulus package, and conduct stress tests in scenarios with slowing economic growth, spiking interest rates, cooling-down housing market, or deteriorations in the interest-growth differentials. Their estimation shows that under all of the above circumstances, augmented government debt will remain at manageable levels. In section three, we assess in detail whether or not China faces the risk of an economic collapse in the near future by investigating key threats to China's economic stability.

2.3 China's gradual anti-crisis approach to reform

Be reviewing the three China-collapse models and concluding why none of them have actually happened in China, we find that China's approach to reforming its political and economic system serves as a "great wall" against any major political and economic collapse. This policy framework has been set up and strictly implemented since 1978 when China started "reform and opening-up." We also see this as the key reason behind China's economic success and its progressive political reforms over the past forty years. In this paper, we refer to it as the gradual anti-crisis approach to reform, the three main properties of which are listed below.

The first feature of China's approach to reform is gradualism. In the words of CCP leaders, the gradual approach to reform is interpreted as "cross the river by feeling the stones", a line first stated by China's Vice Primer Chen Yun in 1950, and then repeatedly emphasized by Deng Xiaoping following the start of reform and opening-up. The law of gradualism has led Chinese authorities to conduct cautious research and local experiments before rolling out a nationwide implementation of reforms. For instance, China's property tax reform was first announced by the central government in a policy document in 2010, and has since been experimented in two of China's municipalities, Chongqing and Shanghai. After several rounds of discussion and design, more cities are now experimenting with property tax collection, but this reform has yet to be implemented nationwide at the time of this paper's writing.

The second feature of China's approach to reform is its anti-crisis nature, which means each reform measure has within it an explicit or implicit aim to avoid potential crises. It also means that when an internal or external crisis emerges, the law of gradualism is abandoned and Chinese authorities react quickly by taking radical policy measures to offset those shocks. Key examples of this are China's fiscal stimulus after the AFC and the GFC, as well as the quick setup of four asset management corporations (AMCs) to deal with commercial banks' bad loans when China's banking sector faced serious defaults risks in the late 1990s.

The third feature is the CCP and central government's high degree of autonomy in adjusting loss-making policies. A good example of this was the implementation and suspension of the circuit breaker in China's capital market in 2016. The circuit breaker was a mechanism aimed at ending stock market turmoil by halting stock trades when stock index volatility hit a certain level. Under this mechanism, if an index rose or fell 5 percent, trading was halted for 15 minutes. If it dropped by 7%, trading stopped for the rest of the day. On January 4, 2016, China initiated the circuit breaker mechanism and Shanghai Stock Composite instantly fell by 6.86% while the Shenzhen Stock Composite dropped by 8.20%. The circuit breaker caused a few breaks in the following few days and the China Security Regulation Commission (CSRC) called an end to it three days after its initiation. Similar policies suspensions have happened in housing, taxation benefits for startups, and retirement age delay policy, etc.

These features of China's approach to reform are bolstered by the party and central government's control over social resources. The party's dominance in social activities and the existence of large SOEs gives Chinese authorities the power to deploy social resources at the cost of economic welfare of households and corporates. A key example of this is the SOE reforms in the late 1990s. From 1995 to 2002, according to official data, over 40 million SOE workers were laid off and over 3,000 SOEs were shut down. The degree of social unrest, however, stayed at a manageable level, and the Chinese economy started to benefit subsequently from a larger workforce flowing into its private sector.

In the following sections, we introduce how this approach to reform has been used in the aftermath of the GFC and the 18th Party Congress to avoid collapses. We follow this with a study of the internal weaknesses of such reforms, which we believe have caused new instabilities. Finally, we give advice on how to upgrade this approach to reform.

3. Will China collapse economically?

Based on macroeconomic fundamentals, China's economic slowdown seems inevitable. Capital return is declining (Bai, Hsieh and Qian, 2006; Bai and Zhang, 2014), growth of labor force is falling (Li and Xu, 2017), and total factor productivity (TFP) is stagnating (Bai and Zhang, 2014). Yet how China's economy slows down remains a critical question. Some scholars argue that it can smoothly transition to a developed economy with an organized step-down in the GDP growth rate; some compare China today with Japan before the "lost decade" and predict a similar longer-term recession to repeat in China (Hoshi and Kashyap, 2011; Smith, 2016); while others still forecast one or several economic collapses to break out in China in the years to come (Cuestas and Regis, 2017; Wilson, 2017). In this section, we evaluate the potential risks of three key threats to Chinese economy emphasized in the existing literature: an economic hard-landing, a debt crisis, and a housing bubble burst.

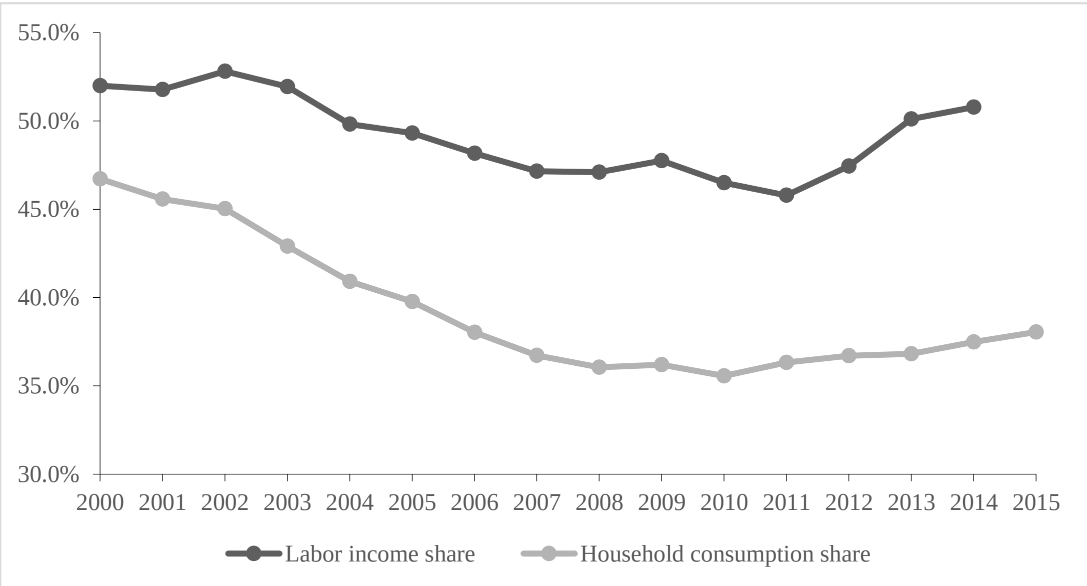

Figure 5. Labor income share and consumption share of Chinese GDP (2000-2015)

Source: NBS

The key threats to the Chinese economy in our time result from a combination of China's distorted economic structure and its gradual anti-crisis reforms. China's distorted economic structure—namely an unbalanced income distribution between corporates and labor (suppressing household labor income growth)—has exacerbated the problem of high corporate savings and low household consumption growth (Li and Xu, 2013; Li, Kong and Fu, 2013). Excess corporate savings turned into a huge trade surplus and strengthened the *Chimerica* relationship before the GFC broke out (Ferguson and Schularick, 2009). The fall in external demand due to the GFC nearly ended the relationship and forced China to increase either labor income or domestic investment. The Chinese government chose to boost investment at first by carrying out the 4-trillion-yuan stimulus package (anti-crisis), and simultaneously slowly increase the labor income share of GDP (gradual). While the Chinese government clearly stuck to its approach to reform, this response also gave rise to the threats the Chinese economy faces today.

3.1 A growth collapse?

The high growth of China's economy since the 1990s is induced by several internal and external factors. After the CCP's 14th Party Congress in 1992, domestic economic reforms successfully motivated local governments and enterprises to pursue regional economic growth (Xu, 2011; Bai, Hsieh and Song, 2016a). Urban labor force expanded quickly as rural surplus labor flowed into urban areas and became urban migrant workers. China also benefited from surging global demand after the end of the Cold War and the weakness of China's main regional competitors who either faced financial crises (e.g. Asian economies affected by the AFC) or fought long-lasting recession (e.g. Japan). More than 25 years later, none of these positive growth conditions exist. The questions that remain are what will China's endgame look like, and is a growth collapse the most probable answer?

Recent studies on China's economic growth support the prognosis of an economic slowdown rather than a collapse or long-term recession. Lu and Cai (2016) estimate China's potential GDP growth from 2016 to 2050 and take into account the effects of "reform dividend", a concept they create to measure the GDP growth inspired by institutional reforms. Their estimation shows that Chinese economic growth will rely mostly on the growth in TFP, which has a strong correlation with the reform process. They also estimate that carrying out the *right* reform can increase China's potential GDP growth rate by 1%~2% over the next 35 years, enough to avoid a long-term economic recession. Li, Shi and Jin (2015) calculate China's effective labor supply based on return to education, and they estimate China's effective labor supply to continue growing by at least 0.6% on a yearly basis from 2016 to 2015, making positive contributions to economic growth. We also find evidence to support the view that Chinese labor may keep growing rather than stagnating. By calculating China's total new nonfarm payroll from 1991 to 2015, we find that job creation in China has remained on a smoother and more stable trend than the U.S. since the 1990s. Even during the GFC period, new job creation only dipped a little in 2008 and quickly recovered in 2009, partly due to the implementation of the anti-GFC stimulus package. As long as there is no sudden shrink in aggregate demand, we see a stable and smooth process for China's slowdown.

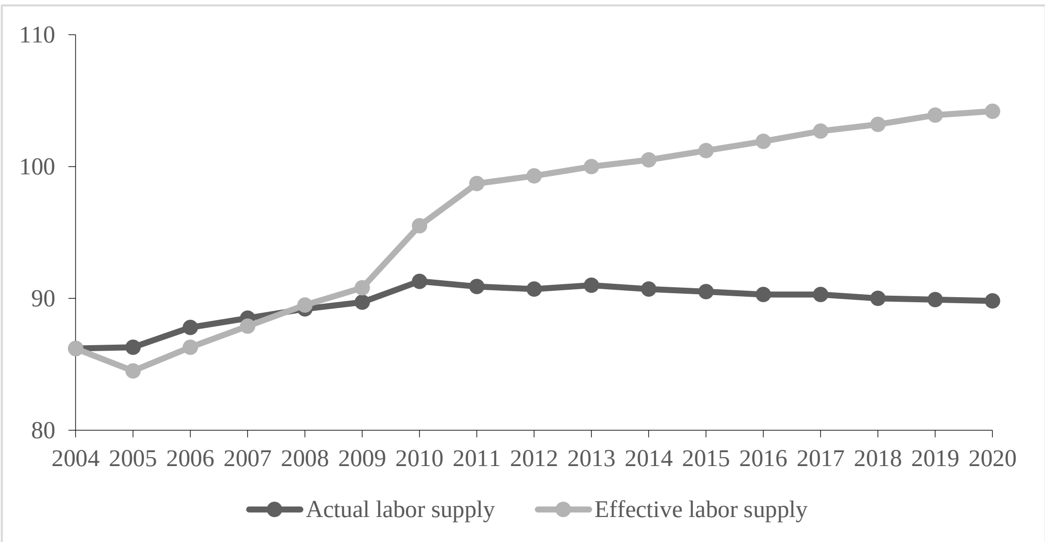

Figure 6. Actual and effective labor supply of China (in Million, 2004-2020)

Source: Li, Shi and Jin (2015)

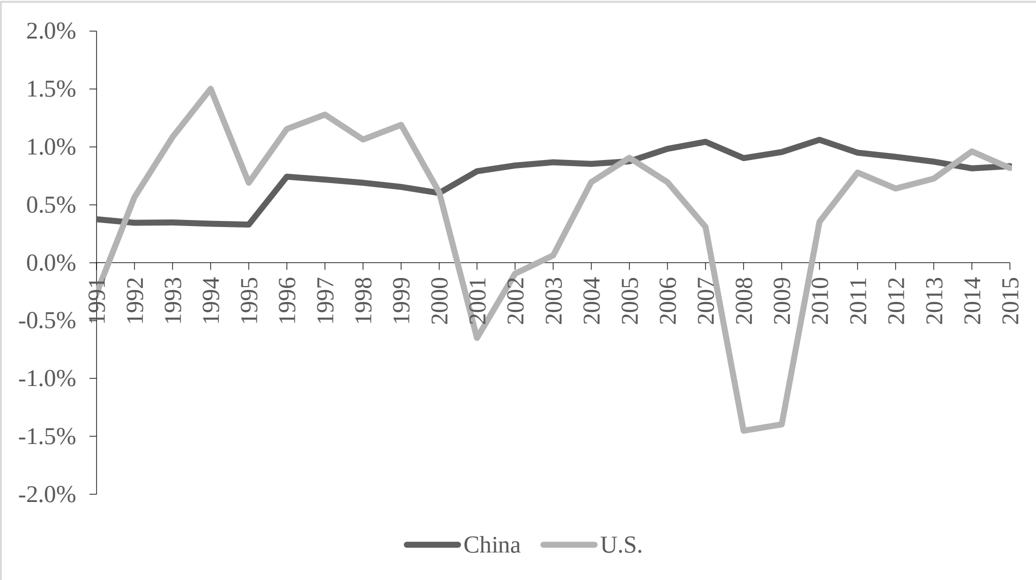

Figure 7. Share of new nonfarm payroll in population (1991-2015))

Source: NBS, BLS and our estimation

History tells us that growth collapses rarely happen for countries with a similar size of productivity or position in the world economy as China has. In the worst case scenario, when external shocks are severe enough and the Chinese government adopts the wrong policies, China could very well face a sharp contraction of output. Yet, the conditions for a growth collapse identified in the existing literature (Rodrik, 1999; Calvo, Izquierdo and MejÌa, 2004; Ros, 2005; Hausmann, Haussmann, Rodriguez and Wagner, 2006)—serious social conflicts, big external shocks like sudden stops of capital flows, a weak safety net, and low export flexibility—have not reached the level necessary to tip China over the edge. As a result, rather than looking at broad international experience, we want to focus on cases in which economic giants very suddenly fell. The two historically comparable events of that kind are the Great Depression of the U.S. and the Soviet economic collapse before its political disintegration.

Compared with the U.S. economy before the Great Depression, the Chinese economy is in most ways far better positioned. With consumption now serving as the biggest contributor to economic growth, the Chinese economy now relies much less on external demand or investment as it used to. Inflation rates have been modest, unemployment rate remains sustainable, and the population marginally added to the labor force is increasing annually. The biggest similarity between China and pre-depression U.S. is the rising debt-to-GDP ratio, which we will explain more in the next subsection. An immediate depression is not likely as long as the PBOC does not suddenly tighten credit to the real economy, which is not likely to happen due to the current approach to reform.

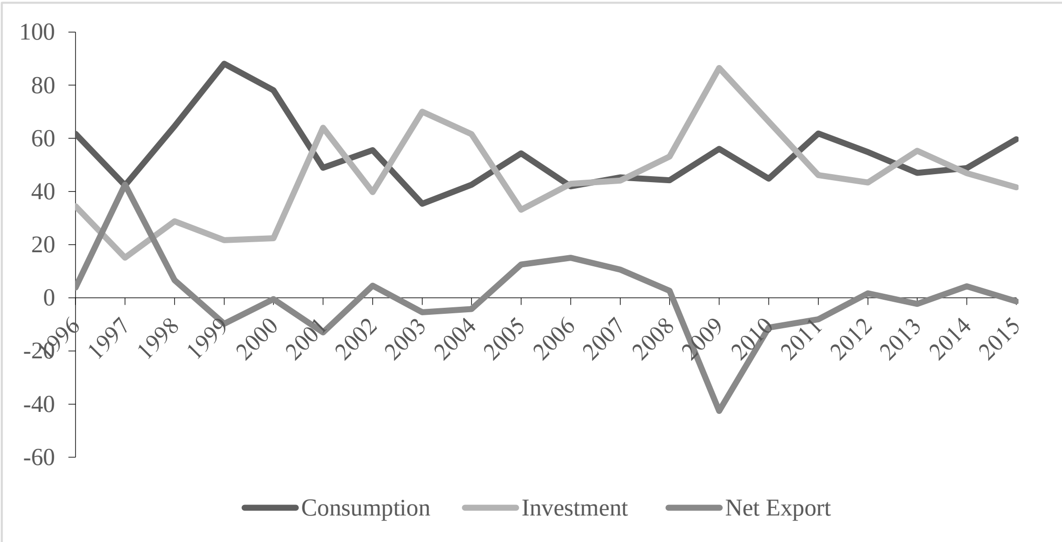

Figure 8. Contributions to GDP growth of China (%, 1996-2015)

Source: NBS

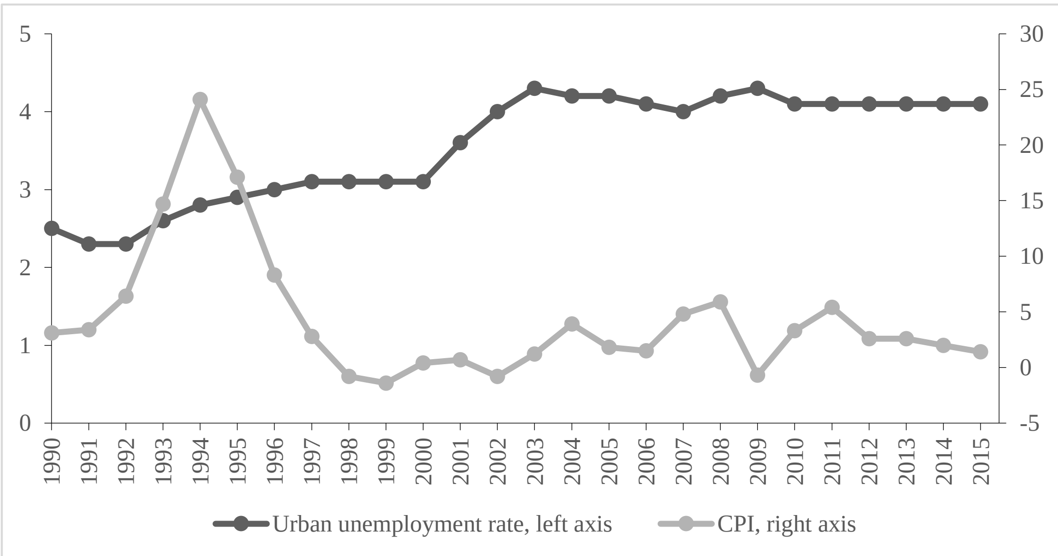

Figure 9. China’s unemployment and inflation (%, 1990-2015)

Source: NBS

The case of Soviet economic collapse is even less likely to occur in China, even though both economies are ruled by socialist states. According to Shleifer and Vishny (1991), the decline in Soviet output before its political disintegration can be explained by the combination of severely repressed inflation and substantial liberalization of plan enforcement since 1988, which broke down traditional coordination channels and caused diversions of labor and inputs. To repress inflation, China completed price reforms back in the 1990s, and now most prices are determined by the market. China has also completed its transition from a planned economy system to a market-based system, and substantial liberalization is neither necessary nor consistent with China’s gradual anti-crisis approach to reform.

One important cause of growth collapse not yet discussed is the possibility of a sudden change in economic policies. This happened during the Great Depression when the Federal Reserve (Fed) chose to tighten monetary policies after the initial bust, as well as in the Soviet economic collapse when the Soviet government implemented liberalization of central planning in the lead-up to the collapse. Among all other macroeconomic factors, policy change has always been the hardest to predict, as it exists outside the remit of economic calculations. Yet we want to repeat the main argument of this paper: past experience shows that the Chinese government is able to stick to the gradual anti-crisis approach by preventing any major crisis in its embryonic stage and reacting quickly to adjust loss-making policies. The circuit breaker case we mentioned in section two is a good example. Of course we are not stating the Chinese government will not make radical and wrong policy choices in the future, but we are confident they will learn from other countries’ and their own experiences and leverage party control and state resources to make necessary adjustments in a timely manner.

3.2 A macro debt crisis?

Macro debt accumulation has become the biggest concern for China watchers since the early 2010s. A macro debt crisis is able to trigger a growth collapse by causing bank runs and credit crunches, hence we see the debt problem as a complement to the growth collapse analysis in the previous subsection. Figure 10 below illustrates China's and selected industrial countries' macro debt-to-GDP ratios from 2006Q1 to 2017Q2, estimated by Bank for International Settlements (BIS). Among the countries presented, China has accumulated most of its debt after the GFC, and its debt-to-GDP ratio increased by over 111% from 2008 to 2017, putting it higher than that of the U.S., U.K and, Germany. Global financial markets have started to warn of a debt crisis, while scholars are predicting how it may actually break out (Cuestas and Regis, 2017; Geib and Pfaff, 2017; Beltran, Garud and Rosenblum, 2017). To judge whether another debt crisis is brewing in China, we need to further investigate the structure of China debt.

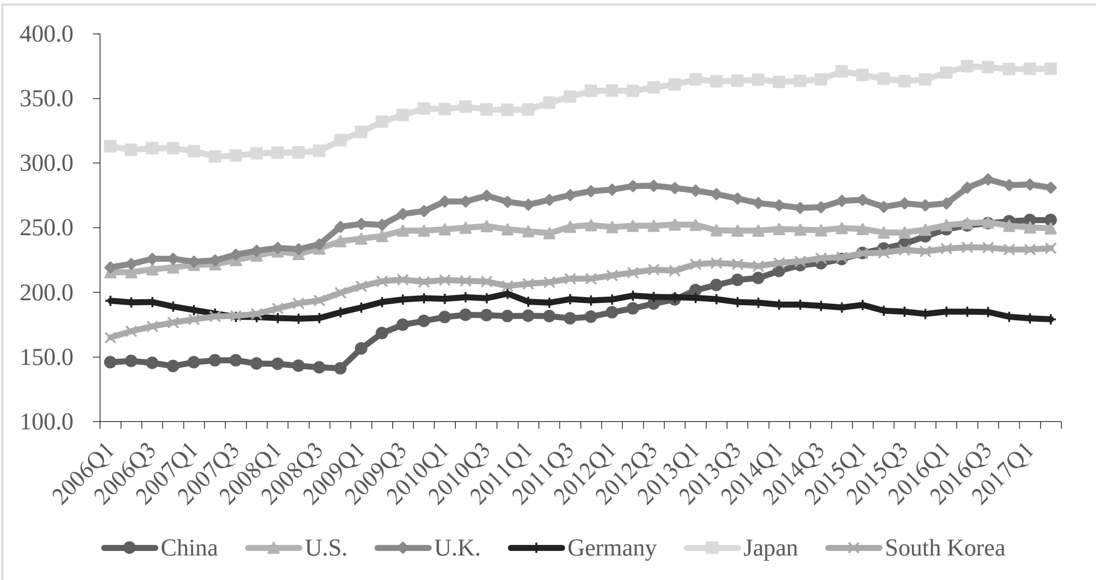

Figure 10. Credit to non-financial sector (% of GDP, 2006Q1-2017Q2)

Source: BIS

The BIS credit statistics have several shortcomings when it comes to measuring China debt. First, in the BIS credit to non-financial sector data, SOEs are counted as private corporates, which is not accurate in the case of China as SOEs are implicitly backed by the government. Second, LGFVs used to fund local governments infrastructure and social welfare facilities are treated as financial institutions so their credit is not counted as credit to the non-financial sector. These distortions make it hard for us to correctly understand China's debt conditions using BIS credit data.

To better understand China's debt situation, we document official data from China's National Bureau of Statistics (NBS), Ministry of Finance (MOF), National Audit Office (NAO), People's Bank of China (PBOC), Ministry of Housing and Urban-Rural Development (MOHURD) and make necessary assumptions based on the work of Li and et al. (2013); Bai, Hsieh and Song (2016b); and others to estimate China's macro debt level and its components. The majority of our results are in line with the BIS estimation, but our data consider LGFV lending as non-financial credit and cut SOE credit from private debt, both of which have improved data accuracy.

According to our estimation, China's macro debt-to-GDP ratio reaches 261.7% in 2016, which is 6.8% higher than the BIS estimation. Public debt-to-GDP ratio in 2017Q2 reaches 114.6%, while private debt-to-GDP ratio is 141.3%. In our model, public debt consists of central and local government debt, SOE debt, and LGFV lending. Private debt consists of private firm debt and household debt. Despite a strong comeback in 2009 as a result of the anti-crisis stimulus package, public debt share of total debt has been falling continuously since 2016.

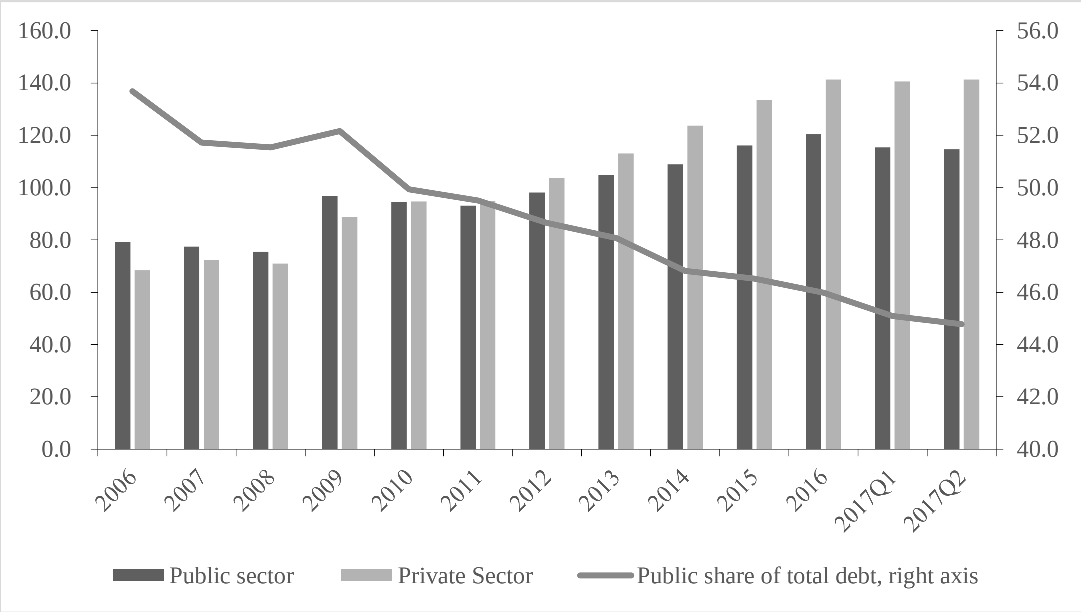

Figure 11. Public and private sector debt-to-GDP and public share of total debt

Source: BIS, MOF and our estimation

SOE debt is the main body of China's public debt. A huge increase (11.3% of GDP) in SOE debt took place in 2009, when Chinese government implemented the anti-crisis stimulus package. The biggest increase in local government debt happened in 2014, which is partially explained by the sudden shrink in that ratio in 2013. We believe this U-shaped movement in local government debt is partly the result of NAO investigations into local government debt in 2013. A similar investigation happened in 2011 and we also observe a U-shaped pattern that year, albeit smaller in size. In addition, we find that total local government debt to GDP is not so high as some China watchers suggest, and that the ratio has been declining since 2016 when Chinese government started to tackle local government debt through debt-to-equity swaps and other policy measures, which our data finds to be quite effective. At the same time, the non-financial SOE debt-to-GDP ratio is falling as the Chinese government continues the deleveraging campaign starting in 2016.

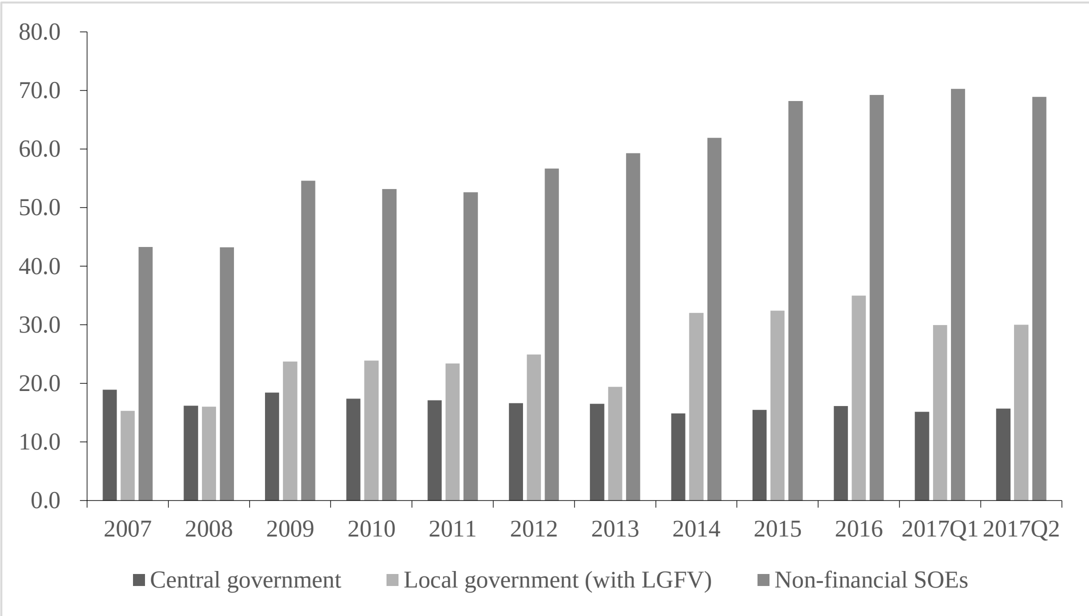

Figure 12. Public debt-to-GDP ratios by sector

Source: BIS, MOF, NBS and our estimation

60% of the increase in the private sector debt-to-GDP ratio can be explained by the rise in private firm debt. The increase in mortgage loans and other forms of household debt can equally explain the remaining increase in private debt-to-GDP ratio. The contribution of private firm debt in China's debt accumulation is equal to the contributions of local government debt and non-financial SOEs, which has not been observed by most studies on China's debt accumulation after the GFC.

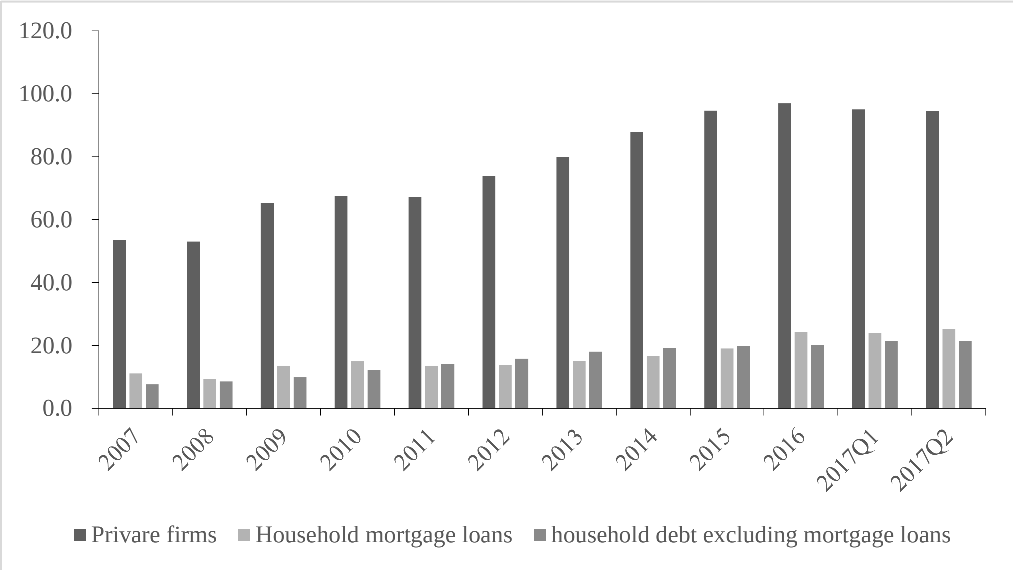

Figure 13. Private debt-to-GDP ratios by sector and usage

Source: BIS, PBOC and our estimation

Another trend worth noting in China's macro debt is the rise of non-bank credit. Before the GFC broke out in 2007, over 93% of China's household credit and non-financial firm credit came from bank lending. After the GFC, Chinese government implemented the stimulus package by increasing local government's infrastructure investment, which increased the de facto cost of bank lending, especially for households and private corporates. Trust financing, corporate bond issuance, and wealth management products (WMPs) are favored by those borrowers to replace costly bank loans that have formed China's shadow banking sector. New financial products like money market funds and P2P financing have also contributed to the rise of non-banking credit, but it is hard for us to calculate their impact as there are few reliable statistics on those products. By the second quarter of 2017, the share of non-banking credit in total non-government sector debt reached 25.1%, decreasing since 2016 as the Chinese government's deleveraging campaign hit shadow banking.

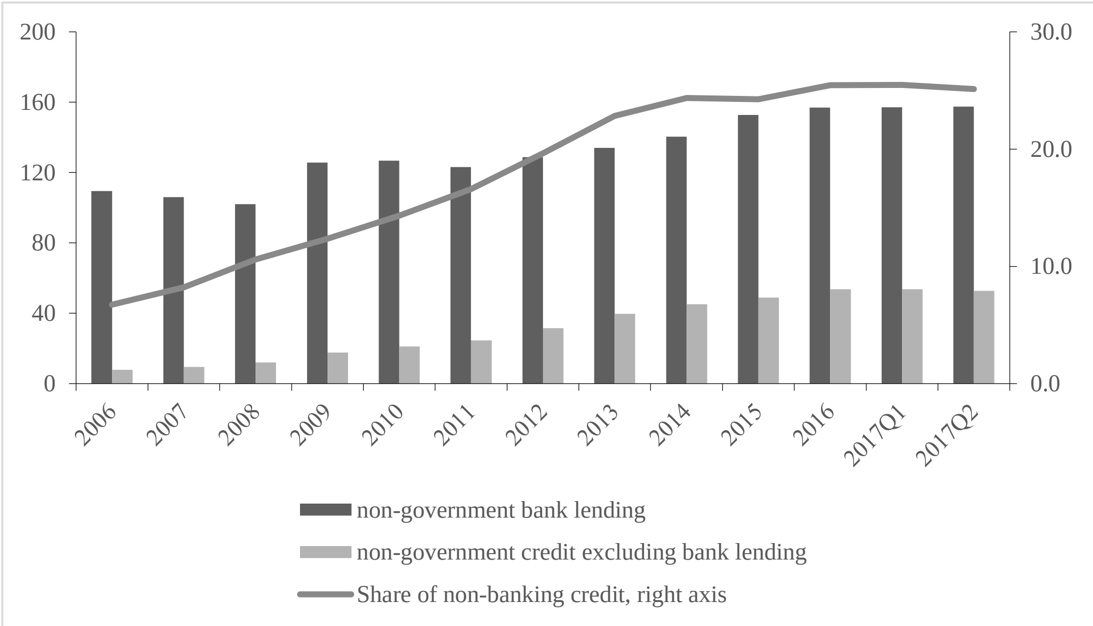

Figure 14. Non-government credit-to-GDP ratios by source

Source: BIS and our estimation

Another way to evaluate China's debt risk is to look at the share of non-performing loans (NPL) in total bank loans. According to the data released by the China Banking Regulatory Commission (CBRC), the NPL ratio of China's banking sector has started to fall since 2016Q3, which is in line with the decline in credit to non-financial sector ratio, implying further improvements in debt quality. The share of special-mention loans (SMLs), referring to debts that are overdue but which banks do not yet consider impaired, has further fallen from 4.1% in 2016Q3 to 3.56% in 2017Q3. Nevertheless, it is worth noticing that China's smaller banks may face higher NPL ratios. Three of China's "big four" state-owned commercial banks have NPL ratios lower than the whole banking sector in 2017Q3, and if we take out all four banks, the rest of the banking sector has an NPL ratio of 2.03%. The fact that smaller banks may provide fake NPL data in their quarterly reports implies that the real NPL ratio could be even higher. Therefore, we believe the NPL conditions of China's banking sector are improving, but the real number should be higher than officially announced, indicating potentially high risk of loan defaults.

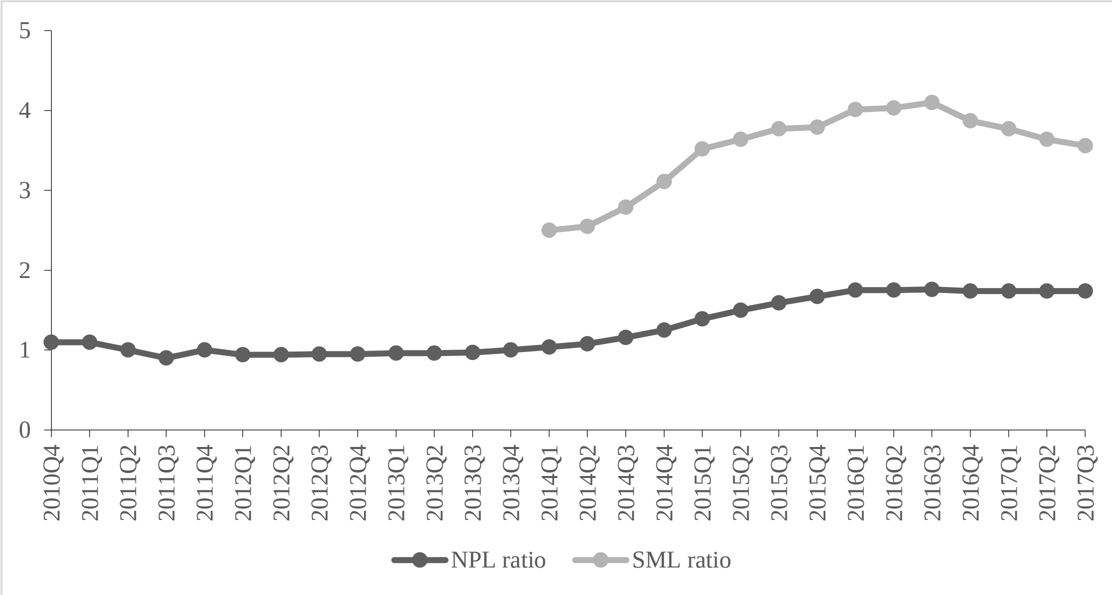

Figure 15. Non-performing loan (NPL) and Special-mention loan (SML) ratios (2010Q4-2017Q3)

Source: CBRC

The key findings of our macro debt investigations are summarized as follows.

First, the current level of China's macro debt is already very high, and its extremely rapid growth since 2009 is even more worrying. One good piece of data regarding China's macro debt level is that its growth has slowed down a lot since the third quarter of 2016.

Second, the initial rise of debt-to-GDP ratio in 2009 was triggered by increases in local government and SOE credit in 2009, but the growth in debt-to-GDP ratio after 2009 is more related to increases in private debt.

Third, local government and SOE debt have started to stabilize in 2017 as Chinese government started to implement effective reforms to tackle public debt. As long as both kinds of debt do not expand substantially in the following years, China's public debt will be sound and manageable.

Fourth, private corporates contributed most to the rise of private sector debt-to-GDP ratio but have also been affected by the deleveraging campaign as private firm debt ratio started to decline in 2017.

Fifth, increase in household debt have made modest contributions to private and macro debt level, but its growth has been steady and is not affected by deleveraging. This has led us to expect household debt to be the main power of macro debt growth from now on.

Last but not least, the rise of China's macro debt is associated with an expanding shadow banking system and financial innovations. Both the private sector and SOEs benefit from the relatively low lending cost through non-banking channels. The shadow banking system has evidently been hit by deleveraging, but the risks of new financial products like P2P financing are rising as these products are poorly regulated, as the first comprehensive framework for monitoring the P2P sector was just issued by the end of 2016 and that framework is far from complete.

Therefore, according to our estimation, we are increasingly convinced that China is not facing an immediate debt crisis. The current public debt level is manageable and private corporate debt has started to decline as a result of the central government's deleveraging campaign. Rise in household debt and lack of regulations in new financial products are causing new instabilities, but both issues are not significant for now as they are still relatively small in size. In the case of China's macro debt solvency, imbalances in income distributions have actually been beneficial as China's over 135 trillion-yuan worth of national savings has served as the strongest firewall against a potential debt crisis.

3.3 A bust of "housing bubble"?

As we review in section two, stimulus measures implemented by the Chinese government after the GFC have indeed boosted China's property market. To fund infrastructure investment requested by the central government, local governments sold more land to fund off-balance sheet spending and raised land prices. The fact that LGFVs use land as collaterals for bank lending gives local governments more incentives to raise land prices. SOEs that were requested by the government to increase their investment when the economy was going down used cheap bank loans to buy land rather than investing in their original business, causing further increases in land prices. Higher land prices were then reflected in higher housing prices, attracting more investment from other sources and boosting China's property market. With average land prices rising by over 60% in the aftermath of GFC, China's property market is attracting even more investment after the stock market meltdown in 2015 and bond market selloff in 2016, which left Chinese investors with fewer investment choices.

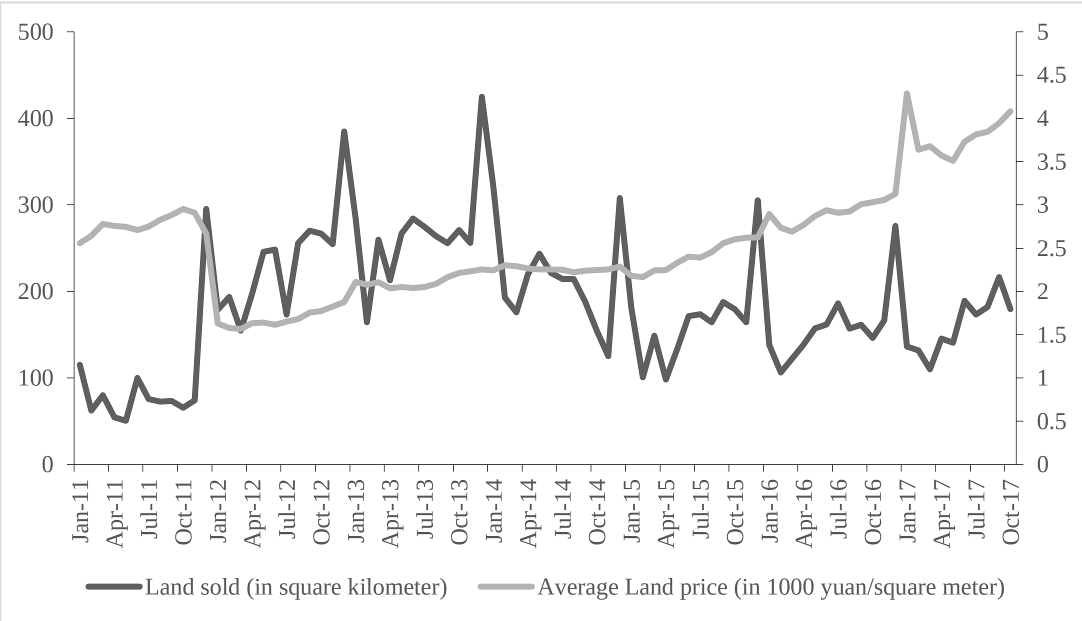

Figure 16. Land sale volumes, residential land price and their trends (2011-2017)

Source: China Real Estate Information (CREI)

According to the land sale data we collected from local governments' data releases, over 4447 square kilometers of land were sold for residential housing development from January 2011 to October 2017. With a large increase in land supply, average residential housing prices in China increased by over 50% in that period. These statistics can only be explained by a huge increase in housing demand, due either to actual living demand or speculative demand for investment.

Although it is hard to clearly distinguish from living demand and speculative demand, we find ample evidence to support our view that the living demand has been strong and has not yet peaked. First, most of China's over 26 million baby-boomers born in its biggest population boom from 1985 to 1990 are looking forward to buying their first home. They are the main body of new living demand supported by their parents' savings (Wei and Zhang, 2011). Second, changes in demographic policy boost demand for bigger and better homes. Scholars expect the relaxation of one-child policy in 2015 to create 15 to 25 million new population from 2016 to 2020, further raising the improvement demand for households expecting a second child. Third, China is in the process of speeding up urbanization. More than 7.5% of total population shifted from rural to urban areas in from 2010 to 2016, and China is still far behind advanced economies in its rate of urbanization. If China urbanizes 1% of its population every year in the next 10 years, there will be over 14 million more people demanding a home in urban areas every year.

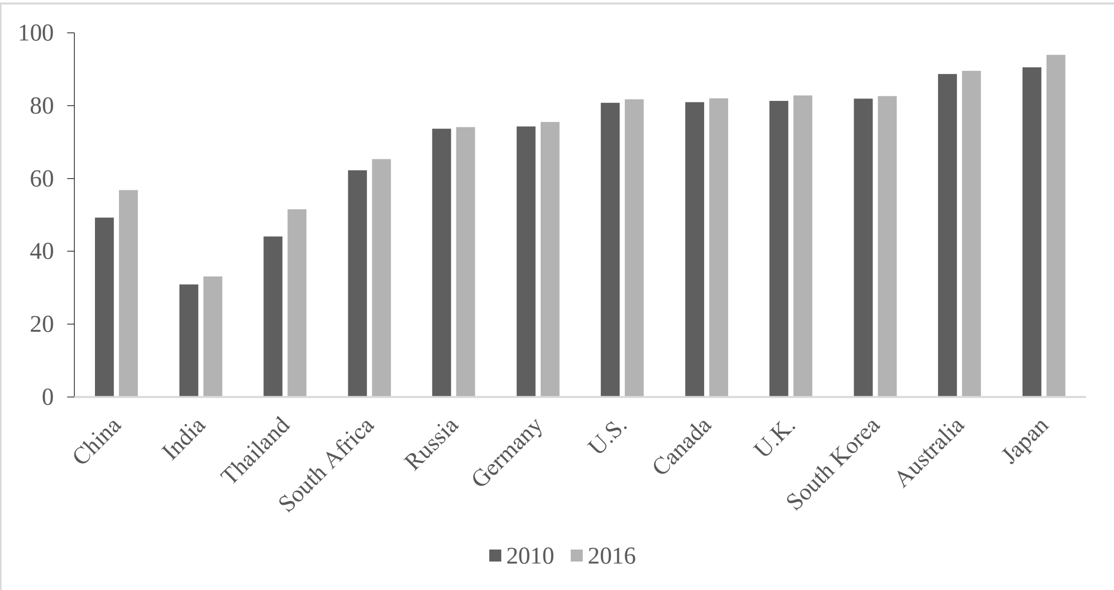

Figure 17. Urban population of selected countries (% of total)

Source: WDI

In addition to rising living demand, there are several other reasons why we argue that Chinese housing boom is not yet a pure bubble. First, house ownership is related to scarce social resources, including urban *hukou* and schooling rights, which households can hardly obtain other than through home purchases. Rising housing prices partly reflect increasing competition on these scarce social resources. Second, relatively high down payment requirements make sure leverage ratio of household sector is low. Third, high saving rate is the implicit guarantee against mortgage defaults. Figure 18 below demonstrates the shares of household debt and gross savings in GDP, and China has a healthier household sector balance sheet than any other countries we listed.

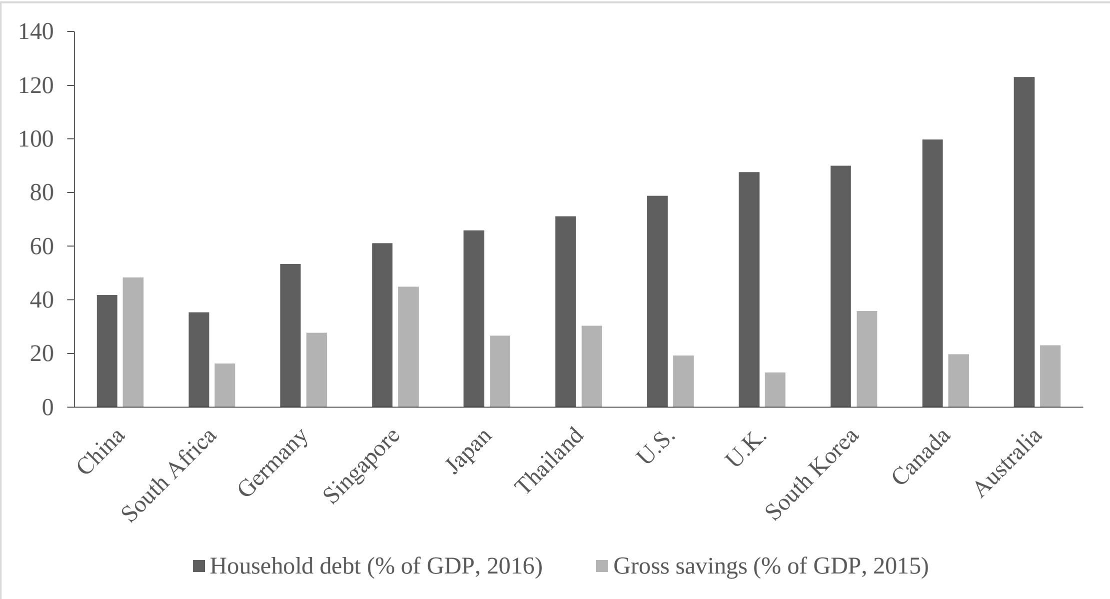

Figure 18. Leverage ratios of household sectors and saving rates of selected countries

Source: Statista and WDI

For all the reasons above, we are increasingly convinced that the rise of the Chinese property market is not just another irrational housing bubble. According to our previous analyses, we believe housing prices will keep rising as the living demand has not yet been fulfilled and Chinese financial market has not been able to provide any new alternatives for mid- to long-term household investment. The restrictions Chinese government put on home buying limit the number of houses every household can purchase, but have also supported housing prices by limiting the effective supply of houses. Global experiences of dealing with housing booms suggest that Chinese government should make houses more affordable, and the key to achieve that target is to increase household income and let it grow faster than housing prices. The rise of housing prices is an imminent threat for Chinese economy though not in the short-term, and we believe this problem can be solved over the longer term with appropriate reforms described above.

3.4 Anti-crisis approach to reform revisited

The three potential causes of an economic collapse we have investigated in this section are interconnected. When China's economic growth started to fall after 2007, rather than using their own savings for investment, corporates had to take on more debt from banks and suffer a high interest rate. To positive investment return, corporates also retreated from their primary businesses and reallocated their funds to profit-making industries. Continuously low land supply, scarce social resources, and rising improvement in demand strengthened expectations for property price increases, making real estate the few profit-making industries without barriers to entry. A large proportion of social credit was invested on real estate investment and the correlation between China's economic growth and housing prices was strengthened.

Long-lasting economic imbalances are the reasons behind all these threats outlined above. The imbalanced distribution between labor income and capital income leads to high corporate savings, which need to invested either domestically or abroad. An underdeveloped financial market that has not been followed up with economic development and tight controls on capital outflow, both of which also count as economic imbalances. This limits investors' options and raised asset prices in the property market. The anti-GFC stimulus package to sustain growth has only made the situation only worse. If Chinese government does not speed up structural reforms, economic growth will further slowdown, the macro debt level will be unbearable for the real economy, and housing prices may further rise to worrying levels.

The Chinese government has to improve and update the current gradual anti-crisis approach to reform and rebalance the Chinese economy. On the one hand, the gradual reform process is not fast enough to tackle key weaknesses in the current political and economic system. A major obstacle to China's market-oriented reform is the administrative licensing system, which requires corporates to apply for licenses and administrative permissions before starting business or entering a certain industry. This system has given rise to industrial monopolies and rent-seeking activities, inducing lack of efficiency. But as related ministries are afraid of losing control over the economy, reforms on the system have been extremely slow as officials use the excuse that these reforms have to be gradual and well experimented before implementation because they are so important. One the other hand, anti-crisis reforms can sometimes lead to overreaction or regression. The anti-GFC stimulus package is a prime example of that. If less investment were pumped by SOEs and local governments, China would have a more nationally balanced sheet with less debt and a smaller investment share of GDP.

Another issue for macroeconomic management in contemporary China is increasing inefficiency caused by principal-agent problems. The Chinese economy has become too big and too diversified to micromanage after more than 30 years of high-speed growth. For instance, the real GDP of Guangdong province alone in 2016 is bigger than the real GDP of entire China in 1997 when the AFC broke out. The same goes for the number of enterprises and other statistics on economic activities. The bigger the economy, the harder it is to design policies and reform measures that are suitable nationwide. Fully aware of this fact, China's central government has been giving more power to local governments to make economic decisions, and Xu (2011) calls it the regionally decentralized authoritarian (RDA) regime. The RDA regime triggered China's economic growth after 1990s (Bai, Hsieh and Song, 2016a), but it also created its own problems when the central government planned to implement nationwide reform measures that ultimately hurt regional economic development. In this process, the central government became the principal while local governments and SOEs including commercial banks become agents. A typical principal-agent problem has thus emerged and reforms are weakened when local governments go implicitly against or water down reforms.

4. Will China collapse politically?

From today's vantage point, China appears to face a slew of deep-set economic, social, and political problems that could make the regime vulnerable to a "black swan" event. Since 2012, many scholars' attitudes toward China's so-called "authoritarian resilience" have certainly become less pessimistic with many scholars arguing that the CCP is now primed for a political collapse (Shambaugh, 2016; Pei, 2016).

Certainly, by the post-2008 period China seemed to face an intractable host of problems, not just economic: an ageing population; socio-economic inequality; weak property rights and the rule of law; popular discontent propagated through new distributed media platforms; rampant elite corruption and collusion; stronger vested interests blocking reforms; even fears of an overstepping assertive foreign policy sparking conflict. By 2012, a series of high-level corruption trials involving officials at the highest level of power were signals of a regime on the precipice. The move toward greater authoritarianism from 2012 onwards against the backdrop of an ever-slowing economy has generated more predictions that a collapse is nigh.

4.1 Slow-down in pace of reforms

One potential problem for China today could be the slow-down in pace of reforms. Reforms have proved more and more difficult to negotiate as the marginal economic and political benefits generated from reforms has declined for local governments since 2008. Both the incremental difficulties of growth-enhancing reform and political fears sparked during the anti-corruption campaign have stymied the will and capacity for bold reform-driven local experimentation. As mentioned above, it was China's economic growth that created a loose social and political environment for reform. This positive feedback loop, as it emerged, ensured both the party-state's economic and political resilience. The question then remains whether or not China can continue to boost its reform initiatives in order to preserve this level of economic and political resilience.

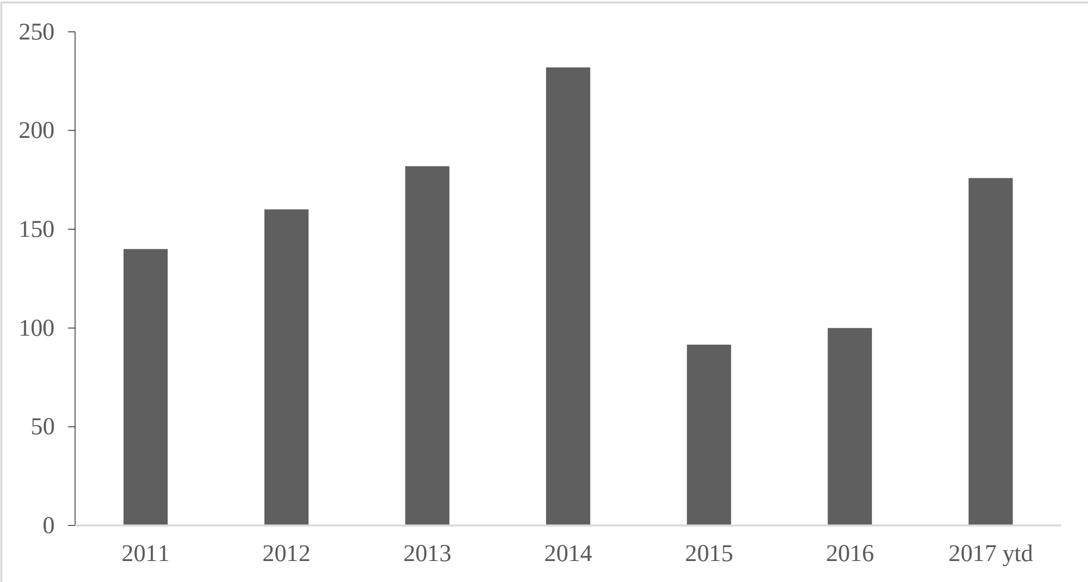

Figure 19. Number of officials disciplined (in 1000, 2011-2017)

Source: CCDI and Xinhua news sources

Since 2012, the dramatic crackdown on corruption through all levels of the regime—from the center to the provinces all the way to the townships—has created an environment of stagnation vis-à-vis economic reforms and provincial experimentation. Whereas local officials were driven by promotion incentives and interregional competition to drive reforms, most are too fearful of implementing reforms for fear of being disciplined by the central party. This environment of atrophy can only have negative economic and ultimately political outcomes on the Chinese communist regime.

4.2 China's "tipping point"

By 2012, many of the challenges identified in the previous sections had already emerged. Yet, over the past five years, China has not yet fallen into a political or economic collapse. This then begs two questions: is there a future tipping point that pushes China into some form of political disintegration? If so, what would it look like?

The literature on authoritarian regime collapse suggests that a confluence of factors must occur. These factors include economic slowdown or distress, rampant corruption, socio-economic inequality, vested interests, a breakdown in center-local relations, and a public preference for foreign practices (Huntington 1984, Alesina, 1996; Linz, 2000; Carothers 2002). It is clear that the Chinese party-state exhibits all these problems.

However, as we outlined above, scholars following classical Western paradigms about democratization and regime transition have so far been proven wrong about China. Indeed, scholars are still ambivalent, if not unsure, as to what would need to happen to tip China over the edge. Even major China scholars have gotten their predictions wrong (Shambaugh 2008 and 2016; Shirk 1993; Li 2012; Pei 2016). What they all have in common is their propensity to cite—and in fact solely cite—the Soviet case, as an image of China’s imminent future. As we have outlined above, the Chinese economic and political structure differs drastically from pre-1991 Russia.

This suggests to us that the usual tipping points for political disintegration in other countries may not apply to China primarily because the Chinese model uniquely blends both a high degree of centralization and institutionalization. Through the CCP’s traditional control of personnel and increasing control now of the financial system, the party is more adept than most other authoritarian and even democratic regimes in avoiding short-term shocks and securing longer-term stability.

5. New sources of instabilities

In addition to potential causes of collapses we mentioned in sections three and four, several enlarged imbalances have created new instabilities for China after the GFC. First, imbalances between individuals’ economic well-being and political rights have made China’s new social class anxious and insecure, inducing capital outflow and private investment decline. Second, imbalanced regional economic developments are causing larger income inequalities among provinces, and regional economic collapse is likely to emerge as a result. The rise of these new problems call for a rethinking of China’s approach to reform.

5.1 Unsatisfied new social class

Accompanying the rise of Chinese economy is the economic rise of individuals working in the private sector. CCP defines the “new social class” to represent these individuals that are well-educated, working in management positions or as freelancers, earning middle or high income and not CCP members. By conducting a nationwide survey, Chinese Academy of Social Science (CASS) estimates that by the end of 2016 the number of China’s new social class numbers exceed 72 million (69 million of them are not CCP members). The new social class own more than half of China’s intellectual property, earn more than twice of national average income, and pay more than one third of all taxes.

The size of new social class is growing rapidly every year as nearly half of new nonfarm payrolls are joining it, according to labor surveys conducted by Ministry of Human Resources and Social Security (MOHRSS). By assuming a steady growth rate of labor, we estimate that by 2020 the new social class will account for 6.5% of total population, 12% of total employment, and also exceed CCP members in total number.

Despite their high incomes and free political identities, the new social class have serious problems both economically and politically. Although the new social class earns much higher income than an average Chinese, the survey suggests that 64% of the new social class do not see themselves as middle or upper class as they are burdened by high housing prices, which means they have to either save a large proportion of their income for home buying or have to pay high mortgages. Meanwhile, the new social class feels insecure and unsatisfied about their political rights. Nationwide tracking survey of privately-owned enterprises shows that around 84% of the new social class are willing to actively participate more in political activities and over 55% of the new social class think they do not have enough ways to do so in the current political system.

Unsatisfied with their economic and political positions, part of the new social class has chosen to leave China or at least invest their savings abroad, which leads to high capital outflow and domestic private investment decline. Both of these trends have hit the Chinese economy hard in the process of China’s growth slowdown. At the same time, social instability rises if the political well-being of this new social class is not guaranteed. The Chinese government has tried to increase political participation of the new social class through existing united-front organizations that hold no real power independent of CCP, but this is simply not enough.

5.2 Regional inequalities

Rising inequalities has been a major concern for the rise of Chinese economy. Most of the existing literature focuses on general inequality measures like Gini coefficient and study how economic growth affects household income inequality (Chen and Fleisher, 1996; Wan, Lu and Chen, 2006). China's standard Gini coefficient actually started to fall in 2008 till 2015, suggesting declining income inequality among households and individuals. Meanwhile, interprovincial inequalities have risen significantly. For example, as shown in the following figure, the income gap between China's southeast coastal provinces (Guangdong, Zhejiang and Jiangsu) and northeast "Rust Belt" provinces (Liaoning, Jilin and Heilongjiang) have enlarged significantly, and especially after the end of anti-GFC stimulus. Known as China's heavy industry base since the 1950s, the northeast Rust Belt provinces have the most serious overcapacity problems among all regions and face most difficulties in restructuring its economy.

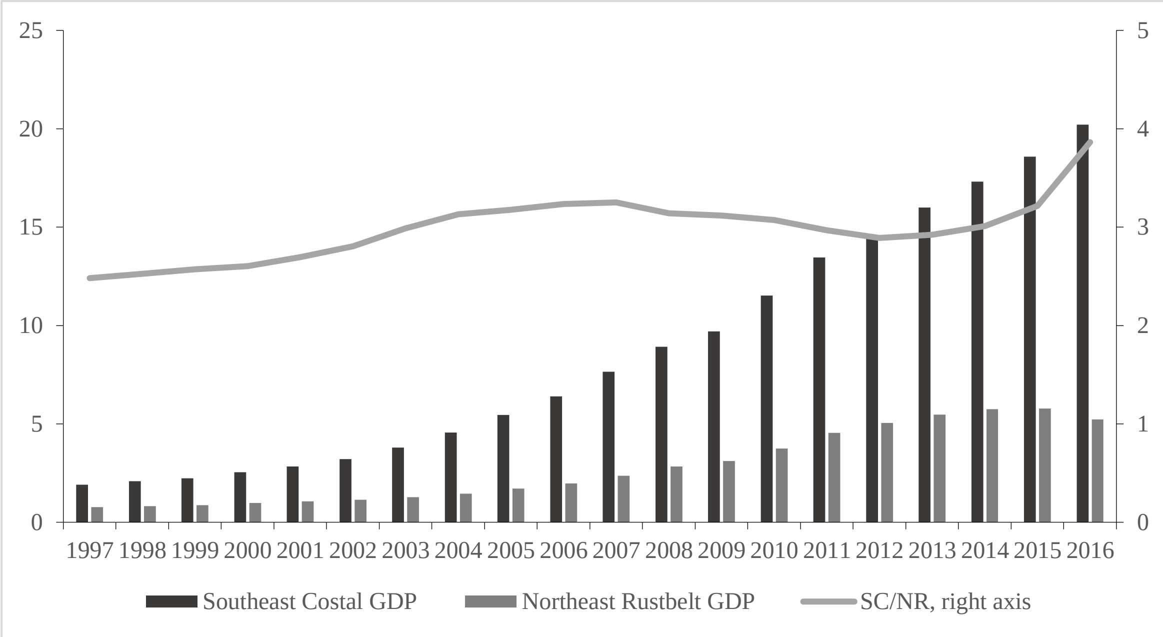

Figure 20. Widening regional income gap (1997-2016)

Source: NBS

Government efforts at the national level to achieving an economic soft-landing, resolving the debt burden, and avoiding housing bubbles will prove much harder to accomplish at the regional level. Liaoning province is a good example of this. Economic data fabrication and political scandal occurred in Liaoning after the GFC, thereby weakenomg investor confidence. Liaoning was also badly hit by the central government's campaign to reduce overcapacity, as the main targets of that campaign—steel, energy, and other heavy industries—make up the backbone of Liaoning's economy. As a result, Liaoning now accounts for a disproportionate number of bond defaults and stock market crashes. For instance, In March 2016, Dongbei Special Steel, a provincial government-owned steel firm in Liaoning, refused to pay RMB 4 billion matured bonds. Liaoning government, beset with its own financial difficulties, declined to back the firm's debt. As a punishment for the default, the province's ability to issue debt is now restricted by regulators in Beijing. In addition to debt default, housing prices of most cities in Liaoning have started to fall since late 2016, causing further concerns about a possible bust of regional housing bubble. Even so, Liaoning actually has the best economic performance among all Rust Belt provinces, indicating bigger risks in Jilin province and Heilongjiang province.

It goes without saying that the cost of a regional or provincial economic collapse would have to be borne by all regions. The central government’s fiscal revenues would be used to save the regional economy and bail out the local government(s) and SOEs, affecting infrastructure investment and social welfare programs. At the same time, irrational expectations about a general economic crisis would hit nationwide investment and cause further capital flight. If a regional economic collapse were indeed to happen, we believe a small version of the anti-GFC stimulus package would be implemented to save provinces in trouble, which, according to experience, would only further distort the regional economic structure by boosting investment.

It is hard to predict what the endgame of China’s northeastern provinces will look like, but the history of the U.S. Rust Belt's decline is one possible outcome for China's industrial northeast. Outsourcing of manufacturing jobs in tradeable goods has led to significant job losses in that region and has been followed by severe migration outflows and income losses. According to Hartley (2013), from 1970 to 2006, the major cities of the Rust Belt, Cleveland, Detroit, Buffalo, and Pittsburgh, lost about 45% of their population. In the same period, median household incomes fell significantly. In Cleveland and Detroit, median household income fell by about 30 percent, in Buffalo by 20 percent, and Pittsburgh by 10 percent. In China’s northeastern provinces, job losses, migration, and household income losses are also emerging, but at a much smaller scale, at least for now. Rising regional inequalities has also created overpopulated megacities in China. A good example of this is the population flow from northeastern provinces to nearby cities like Beijing and Tianjin. This raises serious social problems as these cities are not prepared for migration inflows of such scale in terms of infrastructure and social resources.

5.3 Upgrading China’s approach to reform

To deal with the existing threats and new instabilities of Chinese economy, the

Chinese authorities have to update their gradual anti-crisis approach to reform. And we have some recommendations on how that should be done. First, we suggest Chinese government to have consistent communication with the public on its reform agenda. One missing piece of the current approach to reform is proper management of public expectations. Before any major reforms are carried out in China, related ministries and government branches should hold workshops and seminars to discuss the reform planning with local government officials, scholars, and related enterprises. Currently, the general public only knows about the reform for the most part when it is officially announced. China’s interest rate cuts are a clear example. Three of the last four rate cuts came as surprise weekend announcements (on June 28, 2015; March 1, 2015; and November 22, 2014), and none of them were formerly communicated to the public. As a result, rather than forming expectations in advance of any major policy changes, reform measures turn into shocks themselves and cause unexpected market movements.

Another potential improvement to the current approach to reform is for the reformers to build confidence in the Chinese economy and society. Since “reform and opening-up” started in 1978, China has set up a unique economic and social structure that can self-adjust to most external shocks. With a high saving rate and rising private wealth, Chinese economy is less vulnerable than most economies when an external shock hits. Similarly, the Chinese political system appears less vulnerable to social conflicts and geopolitical shocks. The Chinese government should therefore be more confident about China’s economic and social system, and take more modest measures when a potential crisis emerges rather than carry out radical measures that could prove harmful over the longer term.

Another weakness of the current approach to reform that needs to be fixed is the government’s inability to solve the principal-agent problem. The Chinese central government currently adopts political promotion and discipline inspection to increase local government efficiency. Promotion of local officials is used as a prize for their political and economic performance, while the discipline inspection is used to punish misbehaving local officials. These measures work well when Chinese economy is growing at high speed, as the reform measures the central government carries out tend to benefit economic growth and local officials have the incentive to follow directives and boost local economic growth for promotion (Bai, Hsieh, and Song, 2016a). Yet they have become less effective now that high economic growth is not achievable and the restructuring reform measures the central government are implementing can actually hurt local economic performance in the short term. To solve this problem, the Chinese central government has to either go back to GDP competition or use effective political reforms to rebuild the incentive mechanism for local government officials, shifting away from traditional growth incentives. We hope it will choose the second option.

6. Conclusion

The answer we give to our title question, "Will China Collapse?", is in line with Huang Yasheng's famous 1995 *Foreign Policy* paper. China will not collapse, neither economically nor politically. Yet we present a different explanation from Huang by thinking through both the political and economic meanings of that question after over 20 years. Our central argument is that the gradual anti-crisis approach to reform taken by Chinese authorities helped China avoid political disintegration and economic collapses. By reviewing long-lasting debates on whether China will collapse and investigating the current threats in Chinese political system and macro-economy, we find solid evidence to support our view that China is not going to collapse in the near future.

Needless to say, the gradual anti-crisis approach to reform is not perfect, and we do not assume it will solve all future problems. Its weaknesses include, and are not limited to, lack of communications with the general public, possible overreactions to potential crises, and principle-agent problem in the relationship between central and local governments. The 4-trillion-yuan anti-GFC stimulus package serves as a good example of how the weaknesses we mentioned above can lead to unfavorable economic outcomes.

We believe the fundamental shortcoming of China's gradual anti-crisis approach to reform is its ineffectiveness in dealing with China's economic imbalances. Such imbalances can actually expand when the economy is slowing down. We also believe the existing threats and the new instabilities in China's political and economic system cannot be easily resolved without an upgrade to the approach to reform currently used. To avoid potential future collapses, Chinese authorities have to recognize these issues and speed up on key institutional reforms. Those reforms include setting up the rule of law, reducing administrative controls, rebuilding incentive mechanisms for local governments, to list a few. Deng Xiaoping's speech during his 1992 "southern tour" laid the cornerstone for over two decades of Chinese economic reforms and should remind China's policymakers today of the ongoing imperative "to be more liberal in ideology, be more courageous in action and take a bigger step forward".

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