WHY EFFECTIVE GOVERNMENT INTERVENTIONS CAN LEAD TO EFFICIENT MARKET REFORM IN CHINA

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The research and writing of this thesis is dedicated to my family who have always supported me along the way.

Many thanks,
Yuhao Du
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ABSTRACT

This paper argues that the current Chinese government believes market reform has the best chance to succeed if it is gradual, experimental and aided by government interventions. In 2016, for the first time in over a decade, state investment has overtaken private investment in China in terms of growth rate. China is facing some unique challenges not only relative to the previous Asian developmental states but also to its own experiences of reform. Lackluster external demand and rising costs of labor, land and other means of production are pushing China to find new growth engines by upgrading its economy from labor-intensive to more capital- and technology-intensive. Meanwhile, ballooning housing bubble coupled with local debt accumulation have pressured the central government to be cautious with de-leveraging the inefficient and debt-laden SOEs and marketization. Therefore, China is carrying out the so-called “dual-track” reform: on the one hand, China is pushing through the supply-side reform, with five major tasks: cutting industrial capacity, destocking, de-leveraging, lowering corporate costs and improving weak links; on the other hand, China, as always, stresses “stability” whenever possible because the government is aware of the financial and fiscal risks associated with reform that may prevent the country from achieving its growth target, which is set at 6.5% for 2017. To establish realistic expectations for the next phase of China’s reform, policymakers and business leaders must understand the major risks ahead in carrying out market-oriented reforms.
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Introduction: The Puzzle

In 2016, for the first time in over a decade, state investment has overtaken private investment in China in terms of growth rate and by a rather large margin: recently released official data from China place private investment growth at 3.2% compared to 18.7% for state investment growth. How to explain the recent deceleration of private investment and meanwhile ramping up of public investment in China? This puzzle is intriguing for three reasons. First of all, today private investment accounts for half of total fixed asset investment in China and it was growing well over twice the pace of public investment prior to 2011. China’s private firms produce about three quarters of China’s industrial outputs and 60% of the country’s GDP. Hence, the resurgence of state-led investment is intriguing. Secondly, Chinese President Xi Jinping has proclaimed during the third plenum of the 18th Party Congress in 2013 that his government is going to accelerate economic reform and support market to play a “decisive” role in resource allocation. The bold language of the above statement has led many people to believe that the state is going to cancel the explicit or implicit barriers to competition in sectors previously monopolized by the state-owned enterprises (SOEs) but three years on, the economic policies have been “a conflicting jumble of vague directives” (Naughton 2016, 15). Lastly, many economists have argued that China is currently going through a critical period of economic transition from a labor-intensive, low value-added economy to an economy driven by high-tech and innovation, otherwise known as “the middle-income trap.” In this context, more investment channeled to the less productive and innovative SOEs is intriguing.

While the acceleration of public investment seems to indicate a resurgence rather than retreat of state, this paper is going to argue that the reality is not as simple as it seems. Challenging the widespread explanations that lack of opportunities for private firms and the
government’s obsession with growth cause rapid increase of public investment in 2016, this paper argues that Chinese policy-makers believe that increasing public investment is one of the steps required to facilitate market-oriented reform. A well-designed expansion of public investment can create jobs and boost consumption and demand domestically. The hope is that as demand and consumption grows, private business confidence will rise and private firms will become more willing to invest. Despite existing problems of repetitive and inefficient infrastructure investment within the country, the “new structural economics” framework believes that infrastructure can still generate substantial growth in China and better infrastructure is conducive to innovation which is necessary for continued rapid growth, according to the Solow model. The paper will also discuss the unprecedented financial and fiscal risks Chinese economy is encountering resulted from past economic policies. If the Chinese economy can find new sources of growth, it will greatly reduce risks and resistance associated with market-oriented reform. In the end, the author stresses that to establish realistic expectations for the next phase of China’s reform, policymakers and business leaders must understand the major risks ahead in carrying out market-oriented reforms.

**Lead up to Problems**

*Wall Street Journal* (2016), *Bloomberg* (2016a) and a number of Chinese news outlets have reported the acceleration of public investment accompanied by deceleration of private investment in China since early 2016. The recently released data from the National Bureau of Statistics place private investment growth at 3.2% compared to 18.7% for public investment growth. However, as some economists have noticed (Lardy and Huang, 2017), China’s statistical authorities translate a category called *minjian* as private but *minjian* is actually a broader concept that includes not only private but also collective, cooperative, and a residual of “other,” and
growth of the latter types of businesses fell more sharply than private. Therefore, if we adjust the number to include only private businesses, the deceleration of private investment is less steep. While the slowdown of private investment may not be as sharp as official data suggest, there is still a clear deceleration of private investment relative to the growth of public investment, which almost doubled in 2016 (See Figure 1). As we can see, public investment reached a peak in 2009, mainly a result of the post-global financial crisis (GFC) four trillion yuan ($635 billion) stimulus program; public investment then gradually retreated until 2011 when public investment rose again in reaction to the deepening of European debt crisis. Meanwhile, private investment prior to 2011 was growing well over twice the pace of public investment but it started to slowly decelerate since then. 2016 is unusual for the reason that public investment grew faster than private investment for the first time in over a decade.

![Growth of Public and Private Investment in China Since 2009](image)

**Figure 1: Growth of Public and Private Investment in China Since 2009.** (Unit: 1,000,000 yuan) *Source: Compiled by author based on data from the National Bureau of Statistics of China via CEIC.*
The deceleration of private investment and the simultaneous acceleration of public investment in China have added to the pessimism of many economists, including none other than George Soros, that the second biggest economy in the world is running out of steam. There are three issues about Chinese economy that have often got the spotlight recently. One of them is called the “middle income trap,” which is that most countries that among the one hundred countries defined as middle-income economies by the World Bank in 1960, only 13 of those had become high-income countries by 2008 (Economist, 2012). China’s per capita GDP has reached $8,000 and whether it can further release its growth potential to become a high-income economy has been a hot topic. Another issue concerns of China’s growth model that China’s economy must steer away from its current infrastructure-focused growth because infrastructure investment is hitting diminishing returns in China. Since as early as 1995, capital-output ratio has increased from two to four between 1995 and 2013, meaning it took China $2,000 of capital to produce $1,000 of GDP in 1995 but it took $4,000 of capital to produce the same amount of output in 2013 (Dollars 2013, 12). According to the Solow model, diminishing returns can be offset by increases in total factor productivity (TFP), the overall technology level. Because almost half of the public investment is used to build domestic infrastructure by the less productive and innovative SOEs, China can no longer rely on public investment to generate sustainable growth. The last headline on Chinese economy is about China’s ballooning debt, which currently stands at about 250% of its GDP. The IMF warns that potential losses from bad debts in China’s corporate sector could be worth some 7% of GDP (BBC, 2016). Some sectors in China are suffering tremendous overcapacity as firms over-borrowed and over-invested in the past few years. For instance, China’s steel sector has developed a surplus capacity bigger than the entire steel production of Japan, America and Germany combined (Economist, 2016). There is little
doubt that the Chinese economy has arrived at a critical juncture and needs major structural reform. Although the Chinese government has proclaimed an ambitious reform agenda at the third plenum of the 18th Party Congress, analysts have grown frustrated at the slow progress of reform. Some analysts have even stated that the Chinese elites currently in control do not have the will to conduct meaningful market reform (New York Times, 2017). For many of the “pessimists,” it is a paradox that as growth potential is slowing and the benefits to a less-interventionist stance seem to be increasingly evident, government interventions are increasing in size (Naughton 2017, 14), as shown by the unprecedented pace of growth of public investment. Before presenting alternative explanations and the main argument, the paper will benefit from a brief survey of three analytical frameworks that try to explain China’s “miraculous” economic growth in the last three decades.

**Literature Review: Explaining China’s Economic Growth**

The so called “Chinese economic miracle” has fascinated generations of both Chinese and foreign scholars and has been dissected from an impressive range of angles, spanning from macroeconomic issues which tend to focus on growth—such as monetary, trade and fiscal policies—to microeconomic issues which tend to focus on society—such as the household registration system and income redistribution. The topic of concern for this paper situates between the macro- and micro-economic issues. Although the puzzle this paper directly addresses is public investment, the paper draws from a larger pool of literature on two closely related topics: China’s growth “model” and the state-market relationship in China.¹ As Barry

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¹ In this paper, the word “model,” unless stated otherwise, is used in a neutral fashion without suggesting an economic paradigm that other countries should imitate.
Naughton (2010) insightfully points out, “the intertwining of state and market in China is at the root of China’s most distinctive developmental features.”

Academics have yet come to agreement on how to characterize China’s economic model. Rather, there has been a “profusion of competing terms” that have been invoked in attempts to capture the underlying character of the contemporary Chinese state form, which have included everything from “socialist-developmental” to “state-capitalism,” “corporatist” to “patrimonial rent-seeking,” “market-Leninist” to “entrepreneurial” (Peck and Zhang 2013, 361). This profusion of terms goes beyond a merely “taxonomical” problem as it reflects the diverging attempts to explain the Chinese “miracle” as well as the so-called “Beijing Consensus” (Ramo, 2004) model of development. Some economists have praised China’s economic growth in the past two decades as the “most remarkable economic transformation in history” (Stiglitz, 2006) and has been “the most important driving force for the global economy” (Lin, 2011). It seems to the author that majority of voices from the “Western” liberal economies are either dismissive of the case that China might present an object lesson of state-led capitalism (Economist, 2011) or vigilant against state capitalism, “the most formidable foe that liberal capitalism has faced to date” (Economist, 2012). It is not the objective of this paper to discuss the value or applicability of China’s success vis-à-vis other developing countries but the to stress that there is no consensus on what accounts for China’s spectacular economic growth. This paper is going to briefly summarize three frameworks that attempt to demystify “economic growth with Chinese characteristics”: market-capitalism, state-capitalism and varieties of capitalism. Before outlining these various approaches, it is worth pointing out they may not be exclusionary categories and the authors cited in each framework do not necessarily subscribe to that particular framework.
To start with the “market-capitalist” framework, it argues that market and the private sector have been the dominant force shaping China’s economy. Despite the Chinese companies that top the Global Fortune 500 list are always state-owned, Lardy (2014: 43-89) describes how the private sector had gradually transformed the ownership composition of Chinese economy, especially in goods-producing sectors, in less than two decades. In Lardy’s view, the state’s recognition of the legal status of private firms and gradual relaxation of controls since 1988 have led to the rise of the private sector (89-94). Chinese SOEs used to employ nearly all the urban labor force in China in 1978, but the number has shrunk to 18% by 2011 (85). In contrast, privately owned or controlled businesses account for 95% of the growth of the urban labor force since 1978 (Ibid). In terms of outputs, SOEs accounted for two-thirds of China’s total exports as 1995 but their shares decline to 11% by 2012, displaced and split evenly by private and foreign firms (87). Less surprisingly, private firms also beat SOEs in terms of profitability reflected by return on assets, as private firms are mostly profit maximizers while SOEs are not. It looks almost like a corollary to Lardy that if the current government wants to continue to deliver economic growth, it must accelerate and intensify market reform under the current government. In a response to his book reviewers, Lardy reiterates his judgement that “I believe that a party that has staked its legitimacy on delivering sustained growth of income and rising living standards will increasingly opt for efficiency and growth rather than state ownership and control” (Lardy 2015, 168).

The group of scholars who believe that China is state-capitalist tend to hold a less sanguine view of the prospect for China’s economic reform. Conventional wisdom believes that the state is mighty and omnipresent in China. Many economists will probably agree to the extent that the state in China uses its financial prowess and cadre evaluation system to shape growth
outcomes (Huang 2015, 155). Indeed, the Chinese government is large, well-resourced, and potentially highly intrusive (Naughton 2017, 7). Not only does the government have direct or indirect control of 38% of GDP in 2015 (Ibid) but it also owns 85% of banking sector assets as well as other most lucrative upstream sectors (Downs 2011, 75). China is also often associated with the so-called East Asian developmental state (Naughton and Tsai 2015, 15; Brautigam 2010, 80; Gallagher and Irwin 2016, 59). The concept of the developmental state started to gain attention since Chalmers Johnson’s seminal work (1982) on Japan’s “economic miracle” during the 1920s and 1970s. The operational spirit of the developmental state is the promotion of competitiveness of domestic firms and economic growth through administrative guidance rather than legal regulation. In a sense, China may have practiced an extreme form of developmentalism: since 2009 the state has been investing 48% of its GDP—a figure unmatched in large economies ever (Naughton 2017, 11). Like Japan has Ministry of International Trade and Industry (MITI) central in determining which sectors to prioritize, the Chinese government also created the State-owned Assets Supervision and Administration Commission (SASAC) in 2003 with the objective of nurturing globally competitive national champions. SASAC control the two hundred most important, nonfinancial SOEs at the central level, which the Boston Consulting Group called “the world’s largest controlling shareholder” (Lardy 2014, 50). Thus, broadly speaking, China’s state capitalism has played the same functional role as the developmental state in East Asia (Naughton and Tsai, 17). Although the “China model” has achieved incredible success in the past three decades, scholars are at best agnostic about the causality between China’s state-capitalism and economic growth (Naughton and Tsai, 21). Putting excessive emphasis on China’s growth miracle can also easily ignore the “costs” of rapid economic growth, such as corruption and pollution. Barry Naughton noted that post-GFC, China
has exerted much stronger commitment to direct state intervention and steerage of the economy than before, which is not the model responsible for China’s miraculous thirty-year growth (2011, 328). The state-capitalist scholarship share the call for greater market reform and competition with market-capitalist framework but they are more aware of the danger of excessive state intervention.

The last framework, “varieties of capitalism (VoC),” emphasizes the heterogenous nature and “local” idiosyncrasies of capitalism among emerging developing countries. The conventional VoC framework tends to cluster around the two dominant forms—running from U.S-style ‘liberal market economies’ (LMEs) to German-style ‘coordinated market economies’ (CMEs) (Hall and Soskice 2001). While U.S-style LMEs deal with coordination problems largely through hierarchical and competitive market arrangements, the CMEs have much greater recourse to non-market modes of coordination, such as networks and collaborative relations (Peck and Zhang 2013, 361). Within Asia, the VoC framework identifies the variegated roles of state among postwar developmental states of Japan, South Korea, and Taiwan, which pursued industrial policy and strategic allocation of credit, as well as the city-states of Hong Kong and Singapore that have flourished as regional centers for trade and finance (Tsai 2015, 146). Regarding China, the VoC scholarship claim that neither market-capitalism or state-capitalism can sufficiently characterize the unprecedented marriage of a Leninist party-state and entrepreneurship. For instance, none of the Asian Tigers have had reached the degree of openness to FDI as China during comparable stages of development (Huang 1998, 14). As Anthony Saich observes, the Chinese state structure is also characterized by a complex patchwork of state-society relationships, which include both direct central command (“planning”) and a large area of the economy where multiple local government forms—entrepreneurial, developmental, predatory,
and varieties of corporatism—are at work within and between administrative jurisdictions (2002, 83). Thus, in refusing to reduce cause(s) of China’s past economic growth to either private enterprise or government-led initiative, the VoC scholarship argue that the Chinese economy is a fusion of government interference and market mechanisms “in some ways both doggedly effective and perpetually on the cusp of crisis” (Peck and Zhang 2013, 378).

**Alternative Explanations**

Before jumping to this paper’s main argument, there are two obvious explanations out there and although neither of them is factually wrong, nor can they offer a satisfactory answer to the puzzle. The first explanation argues that slowdown of the Chinese economy has hit the private sector more severely than the public sector. The economic slowdown concentrates in China’s manufacturing or industrial sectors, as external demand falls and China exhibits a degree of external dependence well in advance of the world’s other largest economies. Private firms happen to be predominant in the manufacturing sectors because they face the fewest barriers to entry (Lardy 2014, 72-76). Meanwhile, in the service sectors the slowdown is substantially less severe—China’s service industry actually picked up and grew faster than the economy in 2015 (Bloomberg, 2016a)—but the dominant players in services are the SOEs because private firms face the most barriers to entry in sectors such as finance, telecommunications and transport. Therefore, the argument goes that deceleration of private investment just means there are less opportunities for private firms currently. This is also reflected by the relatively recent phenomenon that private firms are taking over the leading role from SOEs in outbound FDI, partly due to lack of investment opportunities in China (Hanemann and Gao 2016). Although it is true that private sector feels the strain of slowdown more so than SOEs, it only explains half of the story, i.e. deceleration of private investment. The “lack of opportunities for investment”
explanation cannot account for the unusual acceleration of public investment when there is no external economic crisis, such as GFC or the European debt crisis.

The second explanation points to the state’s obsession with growth and the reliance on public investment to generate growth as the direct cause for the ramp-up of public investment which crowds out private investment. The argument that the Chinese government keeps meddling in the markets to ensure growth has gained much traction among media and economists (*Bloomberg*, 2016a; *New York Times*, 2017). Indeed, data show that state support for SOEs has increased. Firstly, official numbers from the People’s Bank of China (PBOC) show that more loans have gone to SOEs starting from 2012, roughly coinciding with the acceleration of state investment (Lardy, 2017). The second component is the expansion of bond issuance by local government financing vehicles (LGFVs)—investment companies owned by local governments, whose legal status as corporation enable them to skirt the legal ban on direct borrowing from the government (*Financial Times*, 2016a). Many critics are convinced that the acceleration of public investment reflects that Chinese policymakers have prioritized short-sighted efforts to boost the economy through quasi-fiscal spending on infrastructure via state-owned enterprises, postponing the more urgent and needed market reform. However, this explanation suffers from two flaws. Although public spending has indeed increased in the past years, their crowd-out effects on private firms are not yet clear because, as mentioned previously, SOEs and private firms do not usually compete in the same sector. The top sectors for private investment in 2015 are manufacturing, real estate and mining, while SOEs dominate infrastructure and social services, such as education and health (Wang, 2016). The real estate industry is probably a level playing field where both private and state firms compete but due to the housing bubble and strict property price-curbing policies, the investment opportunities are
not as great as before. The second flaw lies in the assumption that the increased public investment is used to generate short-term growth and is therefore adverse for China’s market reform. Analysts like to describe the country as facing a dilemma: it can either push ahead with market reform and regain sustainable growth, thereby risking instability or it can choose to pursue short-term stability, in which case it faces a slow descent into the middle-income trap (South China Morning Post, 2017). However, a crucial part of this paper’s main argument is that state activism and market reform can go together and complement each other; some government interventions could create favorable conditions for market reform.

**Main Argument: Efficient Market Led by Effective Government**

This paper argues that the current Chinese government is convinced that market reform has the best chance to succeed if it is gradual, experimental and aided by appropriate government interventions. The history of East Asian developmental states is a good case in point. However, China is facing some unique challenges not only relative to the previous developmental states but also to its own reform experiences. In short, lackluster external demand and rising costs of labor, land and other means of production are pushing China to upgrade its economy from labor-intensive to more capital- and technology-intensive economy. Meanwhile, ballooning housing bubble coupled with local debt accumulation have pressured the central government to be cautious with de-leveraging the inefficient and debt-laden SOEs and marketization. It is in this context that the statement issued after the Central Economic Work Conference, during which Chinese leaders and senior officials gathered to map out priorities for 2017, made “seeking progress while maintaining stability” the main theme (Xinhua, 2017). Therefore, China is carrying out the so-called “dual-track” reform: on the one hand, China is pushing through the supply-side reform with five major tasks: cutting industrial capacity, destocking, de-leveraging,
lowering corporate costs and improving weak links; on the other hand, China stresses “stability” whenever possible because the government is aware of the financial and fiscal risks associated with reform that may prevent the country from achieving its growth target, which is set at 6.5% for 2017. The rest of the paper will illustrate the main challenges in more details and describe how the combination of these challenges have propelled the central government to adopt a “dual-track” reform strategy, i.e. use of industrial policy in tandem with carefully controlled market-oriented reform.

**Fiscal and Financial Challenges**

The Chinese government faces an unprecedented combination of fiscal and financial challenges that significantly constrain its policy options. To find the proper solution to these challenges, one has to first understand how these challenges took place and why they were unique compared to previous resistance to economic reform. Firstly, China is facing the challenge of deleveraging its ballooning debts, particularly those borrowed by local government and SOEs. Although the level of debt—currently standing at around 240% of GDP—is unlikely to cause severe problems to the economy because over 90% of the debts are internally owned and China still has a huge foreign exchange reserve that can help it avoid an acute crisis anytime soon, the real worry is behind the quality of debt. The immediate reason why China’s debt has grown so rapidly in recent years is because after the GFC, the Chinese government embarked on an expansionary fiscal and monetary policies to support growth, encouraging local government financing vehicles to borrow and banks to lend aggressively to promote infrastructure investments (Wang and Zhong 2017, 2). However, the root cause is what Tao and Su (2017) call “local developmentalism” in China. Tao and Su found that the origin of the infrastructure and real estate booms, particularly after 2008, should be traced to the 1994 Tax Reform and the
subsequent “land-infrastructure-leverage” recipe adopted by local cadres. To state briefly, the 1994 Tax Reform resulted in only 25% of VATs and 40% of enterprise income taxes stayed in the local coffers (241). Due to revenue shortages, these taxes constitute a sizable source of income for local governments. In order to attract enterprises to settle in their jurisdictions, localities compete with each other to make huge investments in infrastructure, including land, roads, water and electricity (Ibid). Once manufacturing enterprises enter, which are a stable source of VAT and enterprise income taxes, their presence can spill over and foster service industries and then create snowballing revenues. Therefore, people who visit China today will see a great number of industrial parks because local governments strategically lease more land for industrial use and limit land supply for commercial and residential development in their jurisdictions (242). The result is that not only has there been an excess of these industrial parks in some cities around China as the economy slows but it has also blown up the house bubbles. Local governments benefit tremendously from ballooning property prices because they then can collect much higher land lease fees. In China, the general government budget is financed mainly by tax revenues and local land sales. For instance, in 2008 land lease fees as a major source of extra-budgetary revenues were about 50% of the budget at the provincial level and in some areas, the ratio was as high as 170% (Ibid). As housing prices increased rapidly between 2008 and 2011, local governments were emboldened by the stimulus package to think that they could borrow money for infrastructure construction and service the debt through ever-rising residential and commercial land fees. However, due to public complaints of high housing prices and deepening of the European debt crisis, the central government started to clamp down property prices through monetary and administrative measures, which caused real estate prices to stagnate and even fall in some tier-two and three cities around 2011. Even then, the land recipe was
simply too seductive for local cadres to resist, and the Chinese economy began to fall into a cycle of sporadic surges in investment financed at the first sign of easy credit, rapid accumulation of local debt, real estate booms, and ultimately bailouts as banks and local governments assume too much debt (Tsui 2011, 705).

The backlash of the leverage-driven infrastructure boom after 2009 has presented an unprecedented challenge: accumulation of non-performing debt and the end of double-digit growth era. As some economists pointed out, China has already passed the best timing for structural economic reform (Tao, 2014). Although China has been through painful de-leveraging in the past (e.g. at the end of 1990s), the economy has always managed to recover from it in a relatively short amount of time because the pain was offset by rapid economic growth helped by strong global demand. In other words, China basically grew out of the debt problem by allowing more aggressive credit expansion and additional fiscal stimulus to buttress growth. However, the investment-fueled growth strategy is currently handicapped by rising level of low-quality debt. The current central government has realized the problem and hence it stated deleveraging as one of its five priorities. Regulators have obliged local governments to provide better data on their debts and have forced banks to bring more of their shadow loans onto their balance-sheets, providing a clearer picture of liabilities (Economist, 2015). The government has also been carrying out a restructuring plan for local government debt—swapping provincial-level government bonds for previous LGFV debt issued in the form of loan and equity, in order to reduce local governments’ debt service burden. A total of 3.2 trillion yuan in local debt swap was completed in 2015 but it was just one small step compared to the total corporate debts in China which amounted to 120 trillion yuan (Financial Times, 2016b).
However, the central government cannot afford to close down or liquidate the debt-laden “zombies” SOEs all in once to resolve the debt problem. The reasons are twofold: the government still possesses sufficient “financial space” to stabilize growth through public investment and it wants to minimize the risk of potential local fiscal crisis resulted from liberalization. As mentioned previously, in the years following the 4-trillion yuan stimulus program, local governments have borrowed excessively to invest in low-quality infrastructural projects. In terms of the fiscal conditions in local governments, they do face short-term-liquidity challenges. Not only is much of the debt short-term loans from banks or borrowing through the shadow-banking system (Huang and Bosler, 2014), Professor Ran Tao of Renmin University also found that effectively many local governments in China have overdrawn the budget that is supposed to finance their own requirements, including salaries and related administrative costs and used it to invest in infrastructure (Tao, 2015). The 1994 Tax Reform has allowed the central government to collect about 70% of tax revenues from localities and control their budgets through “transfers” to local governments in the form of “financial assistance” to help them pay for welfare expenditures and infrastructure building. From government’s perspective, deleveraging will inevitably result in lower fiscal revenues and the central government will have to cut the revenues it transfers to local governments. In fact, China’s state revenues have already started shrinking: the growth of state revenues in 2016 was 4.5%, the slowest growth rate since 1988 (Liu, 2017). Cutting budget of the debt-laden local governments will almost certainly create social instabilities, which any government, particularly Beijing, does not want to confront. Therefore, the current deleveraging process has been moderate and piecemeal and it accounts for part of the rationale behind the government’s decision to expand borrowing, though much more prudently. As Chinese Finance Minister Lou Jiwei confessed, it was necessary to increase
government borrowing to help other parts of the economy reduce their debt load. “When society is deleveraging, the government needs to add leverage at a reasonable rate and to advance reform. When the economy recovers, we’ll then consider how the government can cut debt,” Lou said, as reported by Bloomberg (2016b). The Third Plenary Session of the 18th Central Committee in 2013 had also stated that a portion of spending on social services is to be transferred to the central government to lighten the burden on local finances, and local revenues are to be increased through the expansion of property and other taxes that flow directly to local governments (Huang and Bosler, 2014). To maintain financial stability, the government and state-owned financial sectors will have to share the burden of credit losses incurred as firms default on loans and bond payments. The Chinese government’s balance sheet remains relatively healthy compared to other advanced economies but the risks of China’s corporate debt remain concentrated in particular sectors with excess capacity and large SOEs because their abilities to service the debt are most questionable (Huang and Bosler, 2014).

In summary, all of these above issues point to China’s desperate need for a new round of financial, fiscal, and structural reforms to improve the situation of bad debt, put the finances of local governments on sound footing, and find new sources of economic growth. Currently, the central government faces tremendous pressure not to cut public investment in order to maintain stability of the fiscal and financial system. Increased public investment can be justified on the grounds that ongoing reforms should correct the misaligned fiscal system, incentives for local officials to overinvest, and the lack of transparency in local finances (Huang and Bosler, 2014). Otherwise, if the Chinese government fails to carry out these reforms, instead relying more on using leverage, with the help of financial deregulation, although the government can generate
short-term growth the underlying debt problem will only worsen and further squeeze the policy options for reform.

Guide to “New Structural Economics” Reform

In November 2016, there was a debate between Justin Lin, a former chief economist of the World Bank, who is regarded to hold a Keynesian faith in public spending, and Zhang Weiyiing, a self-professed Hayekian who lauds the free market. The debate was a great intellectual feast but the point here is to introduce the thoughts of Justin Lin who is currently the most, if not one of, knowledgeable and qualified person to explicate—some will say defend—China’s state activism. In the past few years, Lin has been actively promoting his “new structural economics” framework (2011) which argues that countries can succeed by promoting industries through industrial policy that play to their comparative advantages. The objective here is not to cover all key components of the new structural economics framework but to focus on the most relevant points about this paper, i.e. industrial upgrade and the emphasis on government-led development strategies to build infrastructure required by industrial upgrade. The author believes that the new structural economics framework is by far the most capable framework to explain China’s development strategy, including the “puzzle” this paper attempts to address.

Starting from the less contentious argument of the new structural economics framework, it states that China is at a stage where Japan were in the 1970s, and Korea, Taiwan, Hong Kong, and Singapore were in the 1980s. Industrial upgrading has led to rising wages as well as other costs of means of productions in China and is pushing China to move up the ladder from labor-intensive to more capital- and technology-intensive industries (Lin, 2012). Most economists agree that China has come to a point where it can no longer rely on “borrowing” advanced
technology from Western countries and needs to develop new engines of dynamic growth.

However, here comes the contentious part of his theory when Lin says:

Economic development as a dynamic process entails structural changes, involving industrial upgrading and corresponding improvements in “hard” (tangible) and “soft” (intangible) infrastructure at each level. Such upgrading and improvements require an inherent coordination with large externalities to firms’ transaction costs and returns to capital investment. Thus, in addition to an effective market mechanism, the government should play an active role in facilitating structural changes. (194-195)

To the proponents of free market and laissez-faire system, Lin could easily sound like he is advocating for a big government approach that can “pick winners.” Lin (2013) has responded to this criticism and clarified that he does not support a big government but an effective (you wei) government. He says he opposes market monopolies in non-strategic sectors and artificial market-entry barriers, and he believes “only an efficient market can establish an efficient price signal, which leads to full and free competition.”

Applying the new structural economics to China today, Lin is convinced that successful industrial upgrade needs both an “effective government” and an “efficient market.” Although, as earlier mentioned, Chinese economy is suffering overinvestment in infrastructure, China has a deficiency in the absolute amount of infrastructure per capita. Wang and Zhang (2016) found that despite China has built glamorous infrastructure in the top cities, China has a total length of 120,000 kilometers in railways, compared to over 200,000 kilometers in the United States, a country of a similar size and lower population density than China. The findings also show that China’s rail density is also much lower than most developed countries. It is not really surprising considering that China is such a vast country and regional economic imbalances are huge, but how to reconcile the paradoxical fact that China is suffering an overinvestment in infrastructure and an infrastructure deficiency simultaneously? The short answer is efficiency. Much of the
excess investment in infrastructure is repetitive, such as the “industrial parks frenzies” Ran and Su (2017) have discovered in many cities and even counties, most of which were not and need not be approved by central and even provincial governments (245). Therefore, Lin shares the same advice as many other economists that the Chinese government needs to break SOEs monopolies in non-strategic sectors and even cut subsidies to the supersized SOEs that should compete with other public and private firms as an equal in the market (Lin, 1996, 2014). The main difference between Lin and most economists in the West is that he supports government-led industrial policy, which includes public investment in infrastructure and targeted sectors, to facilitate industrial upgrade.

Prospect for Reform and Further Research Questions

Is China’s recent surge of public investment following the guidelines stated in the new structuralist economics framework? Or is China still delaying reforms and continuing its previous unsustainable growth recipe? The answer is we don’t know yet. We will need more data on what infrastructure projects China recently approved and their level of efficiency to analyze if China’s growth model has improved. Because the issue involves multiple ministries and complex central-local coordination, we should not expect any breakthrough happening soon. In spite of that, there has been some positive though piecemeal progress so far. In addition to the deleveraging process discussed above, starting from 2005, the Chinese government had established a new approach to technology and industrial development (Naughton 2011, 324) and have moved forward in terms of investment and policy recently (See Chart 2 & 3).
Figure 2: Chinese SOEs Investment in Scientific Research Since 2004. (Unit: 1,000,000 yuan) 
Source: Compiled by author based on data in the National Bureau of Statistics of China via CEIC.

Chart 3: Chinese Private Investment in Scientific Research Since 2004. (Unit: 1,000,000 yuan) 
Source: Compiled by author based on data in the National Bureau of Statistics of China via CEIC.
The data show that since 2011, private investment in scientific research has grown faster and in a constant pace than state investment, although state investment overall has caught up with private investment during the same period. It is not totally surprising because private firms have been more productive than SOEs and it is reasonable that private firms are keener to invest in R&D. It also shows that the crowd-out effect in the second alternative explanation does not explain trend in R&D investment. The first alternative explanation might be correct here because private firms invest in R&D because they see business opportunities in upgrading their technologies. We have seen circumstances in 2009 when increase of public investment brought a revival of private sector (Naughton 2009, 8). The linkage between public investment and private investment should also be further studied, as more state funds go into new infrastructure projects, they could possibly alleviate overcapacity and debt problems of SOEs and private firms.
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