

Asian Tiger or Fragile Dragon?
----Understanding China's Development Model

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Introduction

China has become a source of excitement and contention. Its dramatic growth and sustained development have fascinated scholars from different disciplines and inspired creative works on economic growth (Lin, 1992; Brandt and Zhu, 2000; Song 2011; Rodrik 2008), market institutions (Guthrie, 1997; Wank, 1999; Whyte, 1995), federalism (Montinola, Qian and Weingast, 1995), transition (Naughton, 1996; Yang, 1997), and capitalism (Hung 2008). These studies not only brought to light the underlying currents that carried the tide of China, but also facilitated critical reflections on the mainstream theories deeply rooted in western experiences.

In recent years, a similar excitement started to animate passionate debates about the most appropriate development strategies for developing countries. Many policy analysts looked to China for innovative ideas and concrete policies that worked. One analyst, Joshua Cooper Ramo, was particularly provocative and claimed that a “made-in-China” development model had already emerged in the East (Ramo, 2004). According to him, the Chinese success was based on a set of policies, including emphasis on research, innovation, sustainability, and equality. Most important of all, the Beijing Consensus, in Ramo’s word, endorsed a more active role of the state

in orchestrating national development and setting the terms for global engagement. This new development approach challenged the founding principles and policy prescriptions of the Washington Consensus (Williamson, 1989). Coincident or not, a 2005 World Bank report reached a similar conclusion (World Bank, 2005a). With “discomfort” and “humility”, the report acknowledged the ending of Washington Consensus. Instead of conventional best practices and allocation efficiency, it discussed approvingly growth strategies, i.e. industrial policies, and made reference to China and other high performing East Asian countries. With the 2008 financial crisis, the tide seems to turn decidedly to the East.

The Beijing Consensus has oversimplified the Chinese experience (Kennedy, 2010; Huang, 2011), but Ramo posed some very timely questions: Can China’s past experiences be understood in one coherent model? If so, what are its main pillars? Is government intervention part of the story? What implications does China’s development have on the rest of the world, especially developing countries? Both China specialists and development experts should work together and grapple with these difficult questions. China specialists need to think beyond the national experience and reflect on the worldwide implications of China’s growth. Development experts, on the other hand, should refrain from projecting their idealized realities onto China and ground analysis in empirical facts and existing studies mentioned above. It is in this spirit that we propose some answers to these questions in this paper, hoping to bridge these two fields and facilitate a constructive dialogue.

This paper argues that China’s development in the past two decades has followed a path that resembled the East Asian developmental state model. The state was authoritarian but, instead of abusing power solely for personal wealth, its leaders prioritized national economic growth. By suppressing labor demand, the state managed to divert resources from consumption to investment. To make up for the weak demand in domestic markets, it aggressively promoted its products to the international market. Throughout the high growth periods, the state utilized an array of policy tools to shape market conditions, such as industrial targeting, tax rebates and tariff exemptions for exports, subsidies for technological innovations, and market entry restrictions for foreign firms. This aggregate level analysis, however, offers only a partial picture of China’s rise. What truly distinguishes the China Model from other East Asian countries is the

strong dynamism at local levels. Chinese local governments exhibited an insatiable appetite for growth and investment, especially export-oriented manufactures. This local developmentalism intensified in the early 1990s when the central government recentralized the fiscal system. In their drive to secure revenues, local governments competed fiercely with each other for manufacturing capital because of its value-added taxes (VATs) and the spillovers to services (i.e. business taxes). Government policy tools were applied to construct extremely pro-business conditions with overinvestments as well as disastrous consequences for land, labor and environment. In this race to the bottom, the ugly side of local developmentalism reared its head.

The rest of the paper is organized as follows. We first analyze China's development model from the aggregate level and highlight the affinities with its East Asian neighbors. The next section discusses three sets of institutional variables and explains the rise of local developmentalism. After completing the two dimensions of the China Model, its worldwide implications are briefly examined. In the conclusion, we caution against hasty acceptance of this model in the development community and bring attention to the deleterious effects of overzealous state intervention.

China as an Asian (Frugal) Tiger

China's economic rise in the late 20th century should not be viewed in isolation from its regional context. In the post WWII period, East Asia witnessed probably the most successful development story in our modern history. After three decades of stellar growth, Japan, South Korea, Taiwan, Hong Kong and Singapore leapfrogged from peripheral economies to industrial powerhouses with sophisticated technologies. A group of scholars began to formulate the developmental state argument and openly endorsed the beneficial role of state intervention in the late 1980s and early 1990s (Johnson, 1982; Haggard, 1990; Evans, 1987). With American winning the Cold War, the neoliberal ideology underlying Reaganism and Thatcherism was triumphant and the Washington Consensus also began to form in the development policy circle. A stimulating debate ensued and researchers on both sides battled over the causes of East Asian miracle. All agreed that these countries adopted an unconventional approach to development,

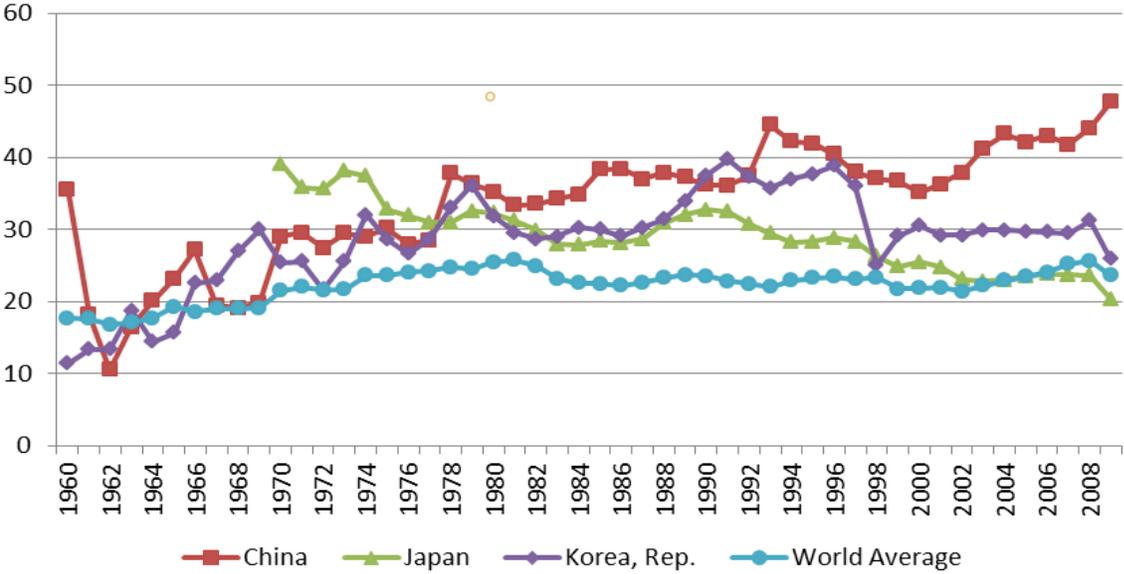
even though they differed as to whether its effect was positive or negative, i.e. growth “because of” or “despite of” state intervention (Young, 1992; Krugman, 1994; Wade, 1992). China’s development was a response to as well as an active imitation of the East Asian developmental model. These similarities are most visible in the following aspects.

Growth-targeting authoritarianism. Even though South Korea and Taiwan are mature democracies now, both were under military dictatorship when they experienced high growth in the 1970s and 1980s (Haggard, 1990; Wade 1990). Even Japan, a democracy in name, was in fact governed by a highly autonomous and respected bureaucracy (Johnson, 1982). While authoritarianism was usually associated with rulers’ abuse of power for personal gains, these regimes almost single-mindedly focused on the growth of their national economies. This “East Asian exceptionalism” may be viewed as a rational response to the region’s unique security environment. After all, two costly wars during the Cold War were fought in East Asia and all these countries faced the imminent threat of communism. Promoting growth could not only improve their military defense but also boost regime legitimacy in the mind of the citizens. China in the late 1970s found itself in a similar situation. When the tension with the two superpowers declined, Deng realized how far China was left behind after the devastations under Mao. He warned the Party of the legitimacy crisis and openly pledged to quadruple national income by the end of the 20th century (Deng, 1994). This growth imperative elevated economic construction to the top of the Party’s agenda and allowed Deng to groom a reform and growth coalition within the Party (Shirk, 1993). The single-minded drive for growth has dominated Chinese politics ever since.

Investment and export driven growth. One advantage of autocracy is its ability to mobilize resources for growth. Since politicians are not subject to reelections, they can afford suppressing consumption and diverting resources for investment (Przeworski and Limongi, 1993; Bhagwati, 1995). During the 1960s and early 1970s, Japan invested about 30-40% of GDP and, since the mid-1970s, the figure slid to below 30% (Figure 1). When the South Korean economy started to take off, its investment ratio quickly jumped to 30% range and reached close to 40% by the end of the 1980s sustained that level until the 1997 financial crisis. Both countries invested significantly higher percentage of their GDPs than the world average of about 20% throughout

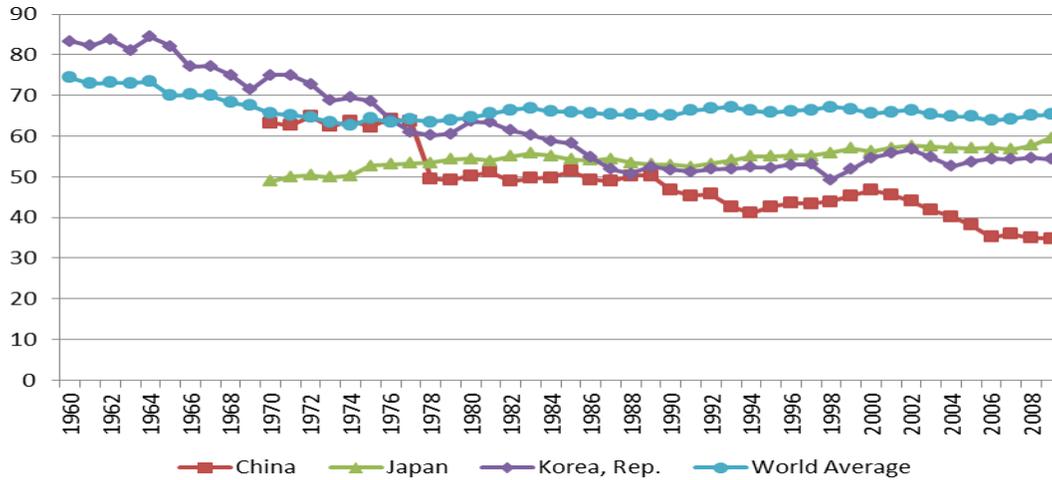
the post WWII period. In comparison, Chinese dependence on investment was impressive even by the East Asian standard. After investing 29% of GDP on average in the 1980s, China continued to push that level to 33% in the 1990s and 39% in 2000s, including 45.6% in 2009! On the other side of the equation, the government suppressed household consumption (Figure 2). Household consumption in Japan has remained continuously below the world average, even though the gap narrowed in recent years. South Korea and China fell below the world average in late 1970s and early 1980s. While household consumption in South Korea stayed in the low 50% range, the Chinese figure experienced continual decline from mid-40 percent in the 1990s to mid-30 percent in the 2000s! To compensate for weak domestic demands, these economies exported large quantity of goods on the international market. In 1980, China exported 10% of GDP but that number climbed to 39% in 2006. Suppressing consumption for investment and then for exports has become a major engine behind China's growth.

Figure 1. Gross Fixed Capital Formation / GDP



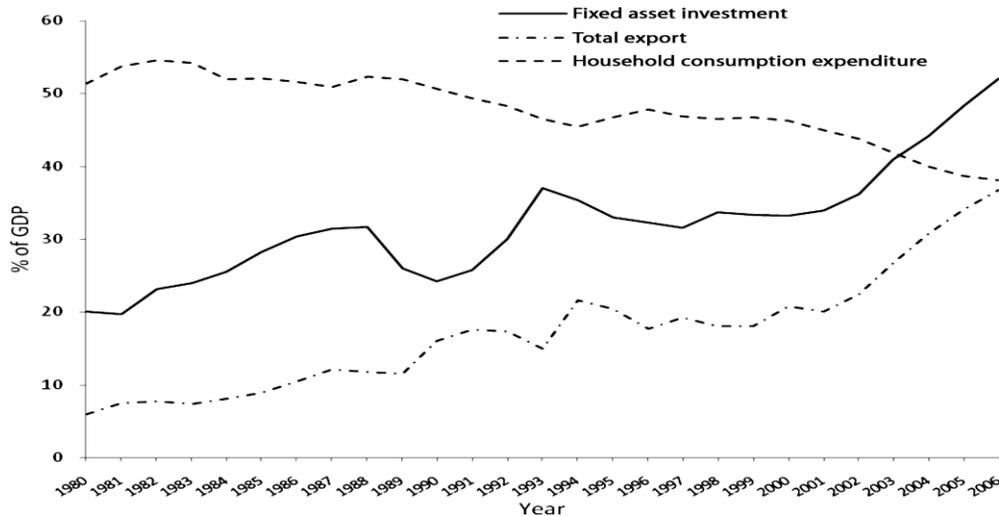
Source: World Bank data source.

Figure 2. Household Consumption /GDP



Source: World Bank Data Source.

Figure 3. Investment, Consumption, and Export in China's GDP, 1980-2006

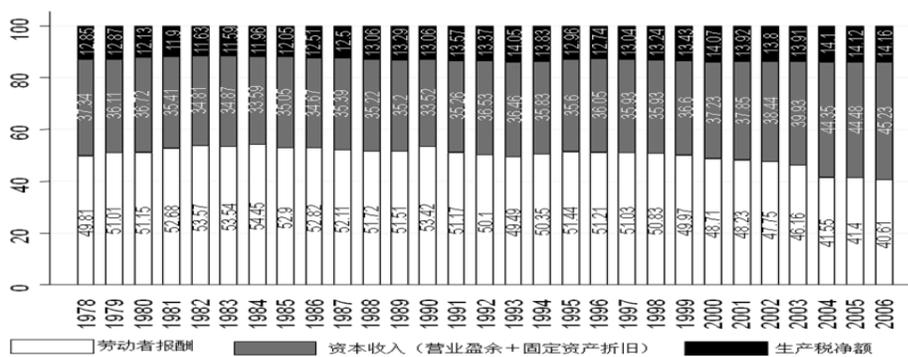


Source: Hung, Review of International Political Economy, p. 168.

Pro-business and anti-labor regime. What made this growth model feasible was the state's ability to suppress labor demand. During the Cold War, Japan, South Korea and Taiwan, under the excuse of anti-communism, imposed tight restrictions on labor organizations and even declared them illegal all together (Haggard, 1990; Wade, 1990). Workers' collective bargaining power was severely limited and this directly benefited the businesses in their competition on the

international market. With cheap and skilled labor force, these economies captured larger share of the world export markets in labor-intensive products (Deyo, 1987). In the second stage of development, businesses used the capital to break into capital-intensive and knowledge-intensive products (Okimoto, 1990). Another consequence of labor repression was the inability of left-wing political parties to gain political power and promote redistributive welfare systems. This Confucian welfare state (or productivist welfare capitalism or welfare orientalism in some scholars' analyses) saved the businesses a lot of burdens of "wasteful" spending (Jones, 1993; Holliday, 2000; Goodman, White, and Kwon, 1998). Despite the fact the Chinese regime claims to be built on the proletariat class, labor probably enjoys the least rights and has the least bargaining power over the capital. The All China Workers' Union is supposed to represent labor's interest in national policy making but turns into the state's arm to preempt independent labor movement (Lee, 2007; Chan, 2001; Gallagher, 2007). Reforms in the early 1980s raised labor's share in GDP but it was short-lived. From 1990, this ratio began to decline gradually and this downward trend expedited in the 2000s, with more than 10% drop in eight years. During the same time period, the share by capital went up sharply. During the same time period, government spending in education, health, pension, and unemployment benefits declined (Solinger, 2005; Frazier, 2004). With large scale privatization, in particular, governments retracted once-free welfare provisions to state-owned workers.

Figure 4. China's GDP Composition, 1978-2006



Source: Bai and Qian, Decomposition of National Income: Stories behind Statistics.

“Helping hand” government. In addition to setting the large structure right for investment, these developmental states did not hesitate to direct the flow of investment and micromanage businesses. By distorting the market condition, some scholars argued, states could generate comparative advantage for international trade, acquire technological know-hows, and obtain dynamic efficiency in the long run (Rodrik, 2008, 2010). Bureaucrats in Japan, South Korea and Taiwan set national priorities and targeted certain industries (Wade, 1990). To provide incentive for the firms, governments deployed a wide variety of policy tools, such as tax exemptions, tariff rebates, market restrictions for foreign firms, and research consortiums. The governments also monopolized the financial system and made loans cheap and available to firms who followed the government direction. China first tried out its industrial policy in the experiment of special economic zones (SEZs). By offering tax holidays and mandating export quotas, China was able to attract some manufacturing firms to China. In the early 1990s, the leaders became more eager to imitate other East Asian countries and issued a series of industrial policies. For example, China’s first ever industrial policy for the automobile sector was publicized in 1994. In order to make China a major car producer with its own designing capacity and its own national brands, the government pledged to support three big and three small auto makers in the country (Thun, 2006). In addition to prohibitive tariff barriers for car imports, foreign auto makers were required to procure certain percent of auto parts locally and transfer technologies to local workers. In its compliance with WTO rules, China revised the auto industrial policy in 2004. Tariffs, import licenses, and technological transfer requirements faded away but the government increased subsidies and exercised informal influence on foreign auto makers. Partly because of these supports, Chinese indigenous car makers captured more market shares than Japanese, European, American, and Korean in 2006. Relying on similar strategies, China has made headways in some technology-intensive industries, such as semiconductor, telecommunication, airplane, computer and high speed rail (Fuller, 2009; Yang and Su, 2000).

China as a Fragile Dragon

China’s growth in the last two decades did bear the birthmarks of a typical East Asian developmental state. A growth-oriented autocrat reinforced a pro-business regime through labor suppression, financial repression, and industrial policies. These measures also made its products

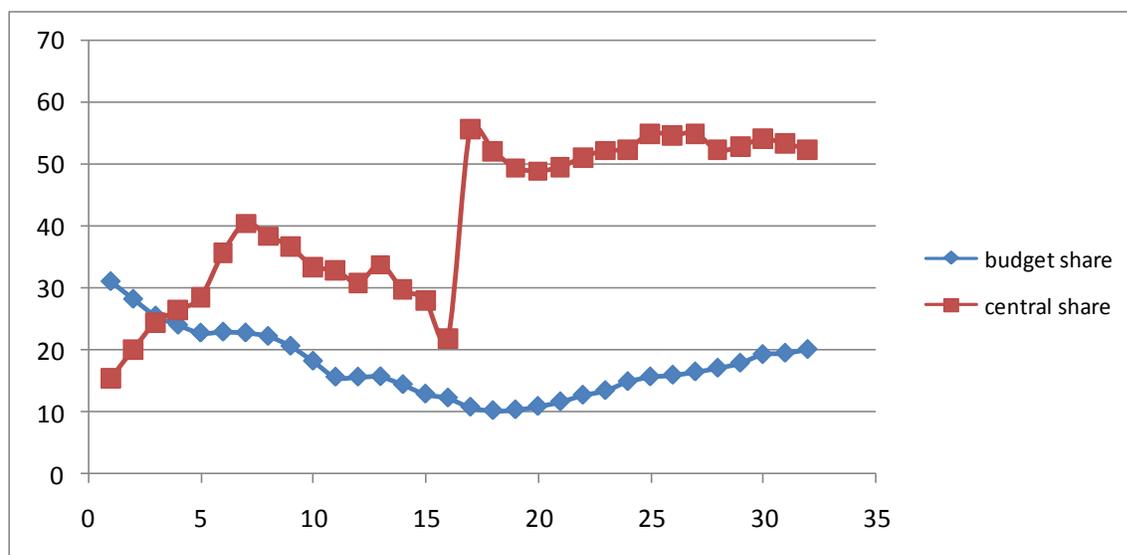
competitive in the international market, a necessity to compensate for domestic frugality. China, however, is not just another super-sized Taiwan. As shown in earlier figures, China's reliance on investment and suppression of consumption since the mid-1990s were extreme even by East Asian standards. This aggressive developmentalism was a result of fierce competition for investments, especially for manufacturing businesses, among Chinese local governments. We analyze three sets of institutional factors that contributed to the rise of local developmentalism.

Fiscal reform and revenue imperative. Taxes are the lifeblood of a state. In the early 1990s, the Chinese central government found itself in a gradual and dangerous process of bleeding. As Figure 5 indicates, government budgetary revenues as a share of GDP declined throughout the 1980s. Starting at 31% in 1978, the ratio reached about 12% in 1992. From the central government's perspective, a more worrisome trend was the drop of central share in the government revenue. In 1984, more than 40% of government revenues went to the central coffer, but that ratio diminished to only 22% in 1993. Ironically, this was actually an unintended consequence of the central government's own reform (World Bank, 2002). In 1984, the central leaders adopted a fiscal contracting system and promised that local governments could keep the surpluses after fixed submissions to the center (Montinola, Qian and Weingast, 1995; Oi, 1992). This was designed to incentivize local officials to promote economic growth and to collect taxes. Since local governments were entitled to a larger share of the extra revenues beyond the quotas, central shares in the total government budget would decline as the economy expanded quickly. In reality, even this sharing formula was not enough for revenue maximizing local governments. They found clever ways to collude with state-owned enterprises and divert profits and revenues to extra-budgetary accounts, which explained the gradual decline of budgetary revenues in the economy.

Concerned about the declining state capacity, the central government totally revamped the tax system in 1994. Instead of ownership-defined and negotiated profit and tax submissions, a universal tax code was introduced (Shirk, 1993). Consumption tax was assigned to the central government while business tax and income tax became local revenues. The biggest source, i.e. value added tax (VAT) was shared with 75% going to the center (Bahl, 1998; World Bank, 2002; Tsui and Wang, 2004). This tax reform essentially recentralized budgetary revenues and allowed

the central government to control more spending. The impact was immediate and the ratio jumped to 56% in 1994. When income taxes started to grow in the following years, the central government changed its mind and claimed 50% of enterprise income taxes in 2002 and further 60% in 2003. The new tax system also had some added features to fix the loopholes under the old regime. As a tax on transactions, VAT was very difficult to evade and effectively prevented cheating and fraudulent accounting practices between local governments and state-owned enterprises. Moreover, a separate tax bureau system was created to provide further safeguard. In the past, tax bureaus belonged to local governments and had strong incentive to work with local officials. The new bureaus were directly managed and funded by the central government. In fact, these centralized agencies were solely in charge of collecting VATs and repatriating local portions only afterwards (Wong and Bird, 2005).

Figure 5. Two Ratios: Government Revenues in GDP and Central Revenues in the Total, 1978-2009



Source: Authors' calculation based on data from the statistical bureau website.

Local revenue shortfalls were further compounded by spending decentralization. As a unitary state, the central government faced no constitutional limit on its power over regional authorities and routinely legislated new mandates, such as school enrollment, immunization, rural road, clean water, expecting local governments to foot the bill. As will be discussed next, many small and medium-sized state-owned enterprises declared bankruptcy in the 1990s. Local governments were required to financially support retirees and laid-off workers and provide social welfares

(Tsui and Wang, 2004; Tao et al, 2010). In short, tax reform in the mid-1990s created acute revenue shortages and forced local governments to work hard to meet their expenditure needs. Their best strategy was to promote economic development to collect business taxes and enterprise income taxes assigned to them. They also had strong motivation to encourage manufacturing enterprises. Even though they only shared 25% of VATs, but these taxes constituted such a large portion of all government budgetary revenues (40% between 1995 and 1999) that the effort to develop manufacturing still paid off. In addition to budgetary revenues, local governments were eager to tap into new sources of extra-budgetary incomes, such as land lease fees and various administrative fees (Tao et al, 2010).

Factor mobility and regional competition. If the central government's (vertical) competition for revenues sharpened local officials' focus on revenue production, regional (horizontal) competition really intensified the pressure. Montinola, Qian and Weingast (1995) argued that factor mobility induced local governments to protect property rights and applied this reasoning to explain economic growth in the 1980s. This analysis makes perfect logical sense, but the underlying assumption does not really describe China's economy well. Factor mobility evolved out of a highly rigid planning system and did not become significant until the mid-1990s (Tao et al, 2010). In the aftermath of Tian'anmen crackdown in 1989, conservatism dominated the political scene and market reforms were put on hold and, in several cases, some reforms were even rolled back (Yang, 1997). Deng's southern tour in 1992 finally reversed the trend and dealt the decisive blow to government planning. Market became the main mechanism for allocating resources and private businesses were no longer discriminated against. With the growth of a more integrated national market, capital, labor, materials, and products could move relatively freely across the country.

While Deng's top-down push for liberalization played a crucial role, local governments had equally compelling financial reasons to privatize and liberalize. Under the old fiscal system in the 1980s, local governments developed a strong preference for locally owned state enterprises. A modern tax system was not introduced and profit and tax submissions by local state-owned enterprises constituted the bulk of local government incomes. As discussed earlier, being the owners of SOEs opened up a lot of room for local governments to work with enterprise managers

and divert funds from budgetary to extra-budgetary accounts, evading central sharing altogether. Not surprisingly, regional governments rushed to build their own SOEs and, for townships and villages, TVEs. Two favorable conditions facilitated this round of local developmentalism in the 1980s. On the demand side, after years of suppression of consumption and underinvestment in consumer goods, a huge vacuum waited to be filled in. The enterprises were almost guaranteed to make profits (Naughton, 1996). On the supply side, the close ties between local governments and bank branches enabled officials to access loans and credits. They provided implicit guarantee for these loans or, in some cases, used their power to pressure banks to extend credits to their own enterprises. The result was a massive entry of small enterprises in bricks, bicycles, garments, household appliances, furniture, beer, and many others.

Like the central government's fiscal contracting reform in the 1980s, local governments became victims of their own success. The hunger for consumption goods was huge but muted by low income level in China at the time as well as by overinvestment. In just a few years, markets became glutted with unsold products. Local governments reacted with protectionism and restricted the import of products from other jurisdictions (Bai et al, 2004; Poncet, 2003; Naughton, 1999; Young, 2000). A vicious cycle ensued and narrower markets pushed more and more enterprises into deficits. Two additional institutional changes in the early 1990s further cooled down local governments' ownership preference. VATs and separate tax bureaus mentioned earlier lowered the likelihood of collusion for creative accounting and revenue hoarding (World Bank, 2002). The 1993 financial reform also tightened regulations and limited local governments' meddling with credit decisions by local banks.

By the early 1990s, it became clear that SOEs and TVEs, instead of being a tremendous asset, turned to a liability for many local governments. To save them from endless financial drains, regional governments, encouraged by the general acceptance of the market after Deng's speech, initiated the privatization of small SOEs silently. Even before the central government endorsed massive privatization in 1998, more than 70% of small SOEs had already been privatized or closed down in some provinces (Yang, 1997; Cao et al, 1999). When the new century dawned, the majority of SOEs and TVEs in the country had finished the transformation (Qian, 2000). As a result of these changes, local governments metamorphosed from asset owners to tax collectors.

This redefinition of state role had powerful impacts on local government behavior. As asset owners, local officials had strong incentive to support their own “children” and ensure their profitability. Being tax collectors, however, they must cater to all potential tax contributors. Besides more efficient and profitable private enterprises, foreign firms started to enter China en masse in the second half of the 1990s. Unlike SOEs and TVEs, these firms were mobile and were more responsive to local policy incentives. They would relocate to another jurisdiction if the latter offered more favorable tax deductions and better infrastructures. Local governments must compete fiercely to grow their tax bases.

Industrial linkage and spillover. Manufacturing capital generates two kinds of revenues for local governments, i.e. VATs and enterprise income taxes. Ultimately, only 25% of VATs and 40% of enterprise income taxes will stay locally. For revenue starved regional governments, these taxes constitute a sizable source of income. But, in order for the enterprises to settle in their jurisdictions, localities must spend a large amount of financial resources on basic infrastructures, including land, road, water, power, and electricity. Moreover, it has become a common practice in the 1990s for regional authorities to rebate all enterprise income taxes for the first three years and half in the next two years (Yang, 1997). Therefore, to comprehend local behaviors, we need to examine two more questions: Why is manufacturing so desirable? How can local governments secure other financing to subsidize manufacturing in the short or even medium term? It turns out that both questions can be answered from the angle of industrial linkage. In fact, local governments have developed a clever strategy to exploit this linkage and keep their development continued.

To simplify the analysis a bit, all localities essentially deal with two kinds of businesses: manufactures and services. As discussed above, manufacturing enterprises bring stable VATs and enterprise income taxes. What appeals to regional governments even more is their ability to spill over and foster service industries. Once factories start to operate, workers and managers living in the cities and towns have the financial means to improve their lives. Services and businesses such as shopping malls, restaurants, entertainments, banks, and real estate developers sprout up to cater the growing needs of these people. In recent years, we have conducted a series of interviews on local development practices and, almost without exception, local officials

emphasized the importance of industrial spillovers from manufacturing to service in their decision-making (Tao et al, 2010). Therefore, from a revenue perspective, manufacturing not only generate VATs and enterprise income taxes directly, but also contribute to growing business taxes, a tax assigned solely to local governments.

While manufacturing spillover to service is common worldwide, the linkage actually goes from service to manufacture as well in China. Both manufacturing and service create jobs and generate revenues, but they differ in one crucial industrial attribute: location specificity (Tao et al, 2010). Manufacturing enterprises mostly produce tradable goods for the national or international market. The tenuous attachment to specific locations enhances their mobility in response to production costs. If other regions provide better conditions, they may pack up and relocate their production facilities relatively easily. Service businesses, on the other hand, must establish contacts with local residents to deliver their products. This location rigidity gives local governments an upper hand in the bargaining and creates a potential for backward linkage.

China's unique regulatory regime makes land a perfect vehicle for this linkage. Under China's socialism, land belongs to the state and only local governments have the authority to requisition land from farmers and lease it to land users (World Bank, 2005b; Wang et al, 2009; Lin and Ho, 2005). This de facto monopoly of land supply regionally allows local officials to discriminate against certain land users and leverage land for development. Local governments were found to strategically limited the amount of land for commercial and real estate businesses in their jurisdictions so prices would continue to rise (Tao et al, 2010; Lin and Yi, 2011; Wu, 2010). Service businesses had no choice but to pay local governments high land lease fees. Because limited land supply weakened competition, service providers passed the costs to local residents. As Figure 6 shows, land lease fees, as a part of local extra-budgetary income, were about 50% of the formal budget at the provincial level. In some areas, the ratio was as high as 170%! These revenues enabled regional governments to subsidize incentive packages, including cheap land and tax exemptions, to lure footloose manufacturing capital.

Figure 6. Land Lease Fees as a Ratio of Local Budgetary Revenues, 1999-2008



Source: China Statistical Yearbook and China Land and Resources Statistical Yearbook, various years.

In sum, fiscal recentralization, factor mobility and industrial linkage worked together to generate a powerful local developmentalism in China. The economy did grow rapidly, especially in the 2000s, but the furious drive for growth also pushed the East Asian developmental model to a breaking point. As indicated in Figure 1, investment ratio started to climb to incredibly high levels since the late 1990s. Behind these ratios were regional governments' efforts to build more, larger, and better industrial parks for manufactures. By the end of 2003, the total number of industrial zones and parks had reached 3,837. Among them, only 6 per cent (232) had received approval from the central government. Provincial governments approved 27 per cent of them (1,019). City, county and township governments had taken their own initiatives to get the vast majority of these zones (2,586) up and running. By 2006, the figure had jumped further to 6,015 (Zhai and Xiang, 2007; Yang and Wang, 2008). That was about two industrial parks per county on average! Not surprisingly, manufacturing capacity built up quickly. In just four years from 2004 to 2008, for example, industrial capacity measured by the manufacturing sector's portion in GDP doubled (CSY, 2010). To find market for their products, enterprises had to be more aggressive on the international market, leading to ever rising foreign exchange reserves.

Economic imbalance aside, this developmentalism also left a devastating trail on the nature and society. In order to win over manufacturing capital, local governments raced to the bottom to construct extremely pro-business conditions. Environmental standards were relaxed so polluting enterprises could continue production. In some cases, local enforcement agencies openly colluded with factories to evade central inspections (Economy, 2004; Tilt, 2006). Pollution not only destroyed air, water, natural habitat, wild lives, but also damaged human health. Labor was another victim. In general, labor did not enjoy a lot of rights, but, in order to support local businesses, local officials refused to enforce already low labor standards. Workers, especially migrants from the countryside, had to work long hours for meager wages, sometimes under dangerous conditions. When accidents and work-related injuries occurred, which happened quite frequently, their rights were not adequately protected in the local legal system (Ngai, 2005; Chan, 2001; Gallagher, 2007). Finally, (over)leveraging land for development also caused social problems. The need to generate revenues and subsidize manufacturing enterprises led to the twin problems of excessive requisition of farmland and under-compensation for land owners, resulting in millions of disgruntled farmers in the countryside (Zhu and Prosterman, 2007; Tao et al, 2010) . In the urban areas, residents were overburdened with skyrocketing housing prices. The red-hot housing market not only drained people's financial resources for consumption but also carried the huge risk of a bubble (Su and Tao, 2011).

China's Growth and World Development

Analyzing China's developmentalism on both national and local levels gives us a much sobering picture. Neck-breaking speed has allowed the government to stay ahead of troubles for the past three decades, but the continuation of this model will be called into question when domestic consumption is slow to catch up and when social crises trigger major upheavals. Given the size of the Chinese economy, that would have huge ramifications on the rest of the world. In fact, China's past development has already reshaped the landscape of the world economy, particularly through its deep involvement in world trade.

As a necessity, the China model depended on exports to balance its economy. Starting in the mid-1990s, China's share in world exports began to climb steeply, and the WTO entry in 2001 further paved the way for Chinese products overseas (Lardy, 2006). In 2009, China overtook Germany and became the largest exporter in the world. With 10% of the export market, China's dominance was nothing unprecedented. Japan and South Korea, two Asian tigers, both reached the 10% mark before their gradual decline. Even the United States in the 1950s produced 18% of the world exports. What made China special was its slow pace to import more goods from other countries. As a result, Chinese foreign exchange reserves continued to pile up to an astonishing level of three trillion US dollars in 2010. Aggressive local developmentalism not only drove down wages, labor and environment standards domestically, but also worsened global imbalance and elevated systemic risk in the world economy (Hung, 2008).

Another angle to examine the impact of China's growth on other countries is through the composition of its exports. Development scholars have long recognized that the type of export mattered. Dependency theorists, in particular, drew a sharp distinction between manufactured goods and raw materials (Dos Santos, 1970; Frank, 1986; Cardoso, 1979). According to them, manufacturing was preferable because technology was fungible and progressive. The same skills, knowledge and organization for textiles production might be used to manufacture shoes, umbrellas, even microwave ovens and computers. More important, manufacturing was inherently forward-looking. In order to produce high quality products cheaply, capitalists had strong incentive to invest in science and technology. Scientific breakthroughs would open up new frontiers and spawn different industries. Therefore, manufacturing had the unusual ability to jump start a virtuous cycle and create a dynamic and expansive economy. Raw material production, on the other hand, did not have such spillover effect on the rest of the economy. It in fact limited the growth potential of a country by germinating a rentier state and breeding social unrest, i.e. resource curse (Ross, 1999). Relying on somewhat different reasoning, Hausmann, Hwang, and Rodrik (2008) and Hausmann, Hwang, and Rodrik (2007) arrived at a similar conclusion and produced empirical evidence to link technological content of a country's export and its growth.

From a growth perspective, China's export is very "healthy". The exports of manufactured products shot up at 20% per annum between 2000 and 2009, and the share of manufactured goods in total exports increased steadily from 88% to 95% (CSY, 2010). This is a reflection of the massive buildup in manufacturing capacities discussed above. In fact, China accounted for 19.8% of world manufacturing in 2010 and took over the United States (19.4%) as the world leading manufacturing nation. Quantity aside, the quality of China's exports is equally impressive. In 2008, the largest export item was electrical machinery (24%), followed by machinery, reactors, boilers (19%), and iron and steel products (7%) (CSY, 2010). China was no longer an exporter of only labor intensive and cheap products such as toys and textiles.

China's surge in "pro-growth" manufacturing exports has had a replacement effect on other developing countries. In the 1980s and 1990s, China's exports of labor intensive products like textiles and toys to the United States experienced a steady rise while similar exports from Japan, South Korea, Taiwan, Hong Kong, and Singapore declined (Lardy, 1994). These two trend lines tracked in almost exactly opposite directions, indicating strong replacement effect. In recent years, similar shifts happened in more technology intensive products, like DVD players, computer peripherals, and laptop computers. When China picked up these products, however, Japan, South Korea, and Taiwan had already upgraded their industries and established their leadership in high-end consumer electronics as well as semiconductors. Therefore, China's gains did not come at a total loss from these Asian tiger economies. For example, China has become one major importer of semiconductors and more than one quarter of total semiconductors in the world were bought by China alone in 2003 (Liu, 2004). These technologies were controlled by firms in Japan, South Korea, Taiwan, and the United States.

For technologically less advanced countries, the replacement effect was much larger than the complementarity effect. Many countries in Southeast Asia, such as the Philippines, Thailand, Indonesia, and Malaysia, were unable to move up the industrial value chain and had to compete with China in the same export markets. Ianchovichina and Walmsley (2005), Eichengreen, Rhee, and Tong (2004) found empirical evidence to support this crowding out hypothesis. The most illustrative example may be the Asian Financial Crisis in 1997-1998. It was a very complicated phenomenon and many factors, including cozy state-business relations, weak financial

regulations, and rapid financial liberalization pushed by World Bank and IMF, made the crisis swift and its impacts on people in these countries particularly devastating (Wade, 2000; Stiglitz, 2004). The competitive pressure from China also clearly played a contributing role (Liu, Noland, Robinson and Wang, 1998; Fernald, Edison, Loungani; 1998). After Deng's southern tour, China was determined to continue market reforms and opening up. As part of the effort to participate in the world trade, China devalued its currency about 50% in 1994, which made Chinese products more competitive on the world markets and lured foreign direct investments from developed and developing countries. Countries in Southeastern Asia soon felt the impact and their ability to export and earn foreign exchanges declined. International speculators attacked and a currency crisis followed (Corsetti, Pesenti and Roubini, 1998). Hanson and Robertson (2007) studied a wider range of developing countries, including Hungary, Malaysia, Mexico, Pakistan, the Philippines, Poland, Romania, Sri Lanka, Thailand, and Turkey. Drawing trade data from 1995 to 2005, they found similar results: China's export surge did have negative, albeit modest, impacts on these ten countries.

It may be argued that focusing on exports alone does not offer a fair and balanced assessment of China's rise. After all, China is a big country and needs a lot of imports as well. By providing export markets for developing countries, China can stimulate growth in poor economies. A close examination of China's import structure, however, does not offer much optimism. In 2008, China imported 1.13 trillion US dollars' worth of goods, 78% (880 billion US dollars) of which were machinery, electrical, and high-tech products (CSY, 2010). These imports were either sophisticated machinery to upgrade its production lines or high-end components for its huge machinery and electrical exports. As discussed earlier, most of these products were imported from advanced industrial powers, such as the United States, Germany, Japan, South Korea, and Taiwan. Poor countries rarely had the technological capacity to break into this market.

Developing countries were not totally hopeless in China. The next top imported goods into China were oil (11.4%), iron ore (5.3%), gasoline (2.7%), soybean (1.9%), and copper ore (0.9%) (CSY, 2010). After losing manufacturing markets to China, Southeastern Asian countries became important suppliers of agricultural products and natural materials for China (Coxhead, 2007). The most prominent example is China's hunt for oil in Africa (Zweig and Bai, 2006). Because of

its rapid industrialization and modernization, China has become more and more depended on oil. Since 1993, China stopped exporting oil and turned to the international market for its increasing demand. According to International Energy Agency, China imported 3.5 million barrels per day in 2006 but that figure would jump to 13 million barrels per day by 2030. Half of China's oil came from the Middle East. To secure its access to oil, China diversified to other sources, including central Asia, Latin America, but particularly Africa. In 2006, about one-third of China's oil imports were shipped from Africa, mostly Angola, Congo, Equatorial Guinea, and Sudan. China's presence in Africa did bring new growth opportunities for countries that suffered from colonialism and civil wars. Money from China helped build roads, railways, hospitals, schools and other infrastructures that were crucial for future development (Brautigam, 2010). As discuss above, this trade relationship ran the risk of locking African countries into a dependent relationship. Exports of raw materials would destroy indigenous industries and undermine their future growth potential (Vines, 2007; Zafar, 2007; Rotberg, 2008)

Conclusion

Some analysts claimed that China's rise posed the biggest ideological challenge to liberal democratic capitalism since the end of the Cold War (Ramo, 2004; French, 2007). In the development field, conventional policies under Washington Consensus have become obsolete and China's development experience was believed to offer an alternative model for the developing world: effective and growth-oriented autocracy, heavy investments in infrastructures and industries, massive exports of manufacturing goods, government intervention and industrial policies.

We are less sanguine about this prospect for two reasons. First, as the debate surrounding the East Asian developmental state in the 1980s and 1990s shows, development trajectories and policy choices generally grow organically out of a country's institutional environment. Without the devastations under Mao and economic miracle in its neighboring countries, the new leadership under Deng would not develop such an obsession with growth. Without China's vast geographic span and central-local fiscal system, local governments as enthusiastic agents for

growth would be hard to emerge either. Specific policies, such as special economic zones, may be copied to some degree, but wholesale transplantation of a model may be politically difficult, especially in states where political officials are elected by the public. Second and more important, China's development model does not offer an attractive alternative. Nobody can deny that the Chinese economy has made tremendous progress in the past thirty years. But this development is also quite costly and fragile. In addition to human and environmental costs, heavy reliance on investment leads to allocation inefficiency and will hit the growth limit sooner or later. China's aggressive promotion of manufacturing products on the international market, a solution to its over-investment problem, also directly worsens the growth environment of other developing countries by limiting their export markets and deepening resource dependence.

Finally, our goal of this paper is not to dismiss China's development altogether but to warn political leaders and policy advocates not to rush to easy conclusions. The proper role of state in the economy has been at the core of many intellectual battles in the 19th and 20th century and the pendulum has swung back and forth between laissez faire capitalism and planned socialism. After seeing so many destructions in the world economy under the free market capitalism, including the 2008 financial crisis in the United States, it is understandable that people are eager to embrace an alternative ideology. Our analysis of Chinese local state developmentalism suggests that the other extreme can be equally harmful. Before endorsing unconventional policies from China, we need to evaluate China's development experience more carefully so babies are not thrown out with bathwater.

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