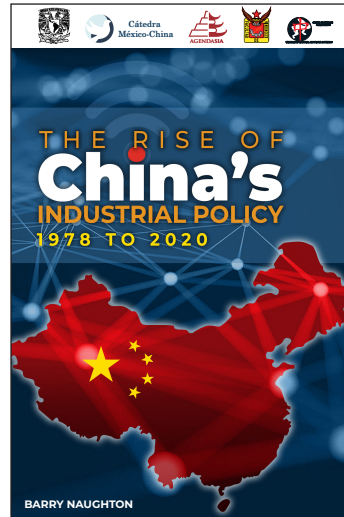


EXCERPTED FROM

# The Rise of China's Industrial Policy, 1978 to 2020

Barry Naughton

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ISBN: 978-607-8066-59-9 pb



LYNNE RIENNER PUBLISHERS

1800 30th Street, Suite 314  
Boulder, CO 80301 USA  
telephone 303.444.6684  
fax 303.444.0824

This excerpt was downloaded from the  
Lynne Rienner Publishers website  
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## **Introduction:**

### **What Is Industrial Policy?**

### **What Is China's Industrial Policy?**

**C**hina has rapidly emerged to become a large economy and a technological power. Although still a middle-income country, China now has the world's second most important high-tech sector, as well as the world's largest manufacturing and internet sectors. These are remarkable achievements by any standard. Moreover, just as recognition of China's developmental success has spread, China's leadership has begun to demand a greater international "voice," and a more prominent place for China in the global system. These enormous changes are placing huge demands on the resilience and adaptability of the world system, and at the same time on our understanding and ability to analyze accurately. Remarkable economic success provokes responses on an international level, but also domestically, as Chinese policy-makers react to new capabilities and opportunities. With so many factors changing at once, it is hard to pin down the drivers of change.

A question of particular importance is this: To what extent can China's undeniable economic and technological success be reasonably attributed to specific policies, and more generally to a Chinese

“path,” or program of industrial policy? China is big and complex, so from a distance it is natural to assume that many elements of policy are successful, in essence, the idea that “they must be doing something right.” To be sure, China has done many things right. Therefore, it is essential to dive deeper and discriminate among a vast range of policies, in order to ask the question of what it is that China has done right. This volume makes a contribution to that process by disentangling specific threads of China’s economic development policies over the past forty years. The objective is not to try to evaluate the effectiveness of specific policies, but simply to reliably track what policy was in effect during different periods, and where we might expect to see large and important impacts.

Since 1978, the beginning of China’s period of “reform and opening,” market-oriented system reform and openness to the outside world have been the most prominent features of China’s policy orientation. Through the early years of the 21<sup>st</sup> century, market transition was undoubtedly the overwhelming focus of Chinese policy-makers. Even then, policy was gradual and incremental, and also exceptionally mutable, tackling different issues at different times, and moving forward sometimes faster, sometimes slower. Over the long term, taking into account all these policy shifts and turns of direction, China did extremely well, achieving unprecedented success. Moreover, there is little debate about the nature and cause of this achievement: China shifted to a market economy, growth accelerated, and rapid structural and technological upgrading followed.

Less widely appreciated, however, is that from about 2006, China began to make further fundamental shifts in development strategy. Direct government intervention in the economy—which had dwindled to almost nothing in the years 1998-2005—gradually began to increase. This shift at first attracted little attention. It came after a period of minimal government intervention in the sectoral structure of the economy, as policy-makers had focused on creating the institutional infrastructure of a market economy, solving the problems of state-owned enterprises, and joining the World

Trade Organization. As those things were being accomplished, it was not surprising that policy-makers shifted attention to fixing things that were not working (such as health insurance and rural taxation) and also toward shaping policy for the next phase of growth. Besides, the changes were at first quite modest. As is described in Chapter 3, beginning in 2006, China promulgated a series of policies and programs that represented the launch of its modern industrial policies. From that point, China, with increasing determination, began to increase the level of direct government intervention. During the Global Financial Crisis (GFC), as part of a massive stimulus program, China dramatically increased direct government intervention and the experience gave policy-makers increasing confidence in their new path.

This new Chinese government effort expanded just as the Chinese economy was slowing. To be sure, the new policy package was a *response* to the slowdown, not the cause of it. In the 1980s and 1990s, market reforms had coincided with China's highest growth potential, as under-employed farmers migrated to new rural and urban occupations and China enjoyed a massive demographic dividend. Now, policy-makers were searching for—in their favorite phrase—“new growth drivers.”<sup>1</sup> In addition, from about 2015-2016, it became clear that artificial intelligence and big data had huge potential economic effects on economies worldwide. As technological change has accelerated, the ambition of China's planners and policy-makers has also expanded, and intervention has continued and increased. Indeed, China's development strategy today may warrant a new name: China aspires to be the first “government-steered market economy.”

These dramatic changes need to be better understood. This essay contributes to this understanding by tracing the different stages through which Chinese industrial policy and planning have passed through over the last forty years. It will immediately become clear from this review that there is a great difference between China's development strategy and outcomes between two long periods.

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1 For these broad changes, see Naughton (2018: chapters 1, 6, 7, and 8).

Between 1978 and about 2005, China's government steadily retreated from its initially all-encompassing control of the economy, growth accelerated, and comprehensive upgrading took place. New policies began to be initiated in 2006, starting slow and then accelerating. From 2009 through 2020, the government has strongly re-engaged in direct economic intervention, all while the economy has been steadily slowing (even before the coronavirus impact in 2020). To be sure, there is not a cause and effect relation between government intervention and economic slowdown, and it is also true that the slowdown has led policy-makers to increase their intervention. Nonetheless, there is a huge disconnect between the success that we attribute to the Chinese economy today and the orientation of Chinese policy today. China's emergence as an economic and technological super-power is due primarily to the policy package that it followed from 1978 through the first decade of the 21<sup>st</sup> century, that is, until about 2006-7. China's policy package *today*—that is, the policies that started tentatively after 2005 but were fully in place by 2008-2010—are radically different. Because of this, it is a mistake to attribute China's success to the policies China is currently following. These policies are simply too recent to have had a determinative impact on today's outcomes. China is a technological superpower because it followed smart policies after 1978, pursuing marketization and investment in human and physical capital. Whether or not the industrial policies that have been followed in the most recent decade will contribute to China's technological and economic prowess is not yet clear. This distinction is particularly important as a newly assertive China, under Xi Jinping, calls for a "China road" that deserves recognition in the global marketplace of ideas, and yet rarely, if ever, specifies what the elements are that make up this "China road."

## 1.1. Setting Aside Three Misconceptions

It will help in our discussion of Chinese development policy if we set aside from the outset three important misconceptions. It is



not that these are completely false conceptions: they are rather over-simplifications that contain some element of truth and might be partially defended using certain definitions. But each of them represents an easy assumption about reality that ends up obstructing a clear view of Chinese policy, and indeed of the uniqueness of the current Chinese effort. It will be best if the reader temporarily sets these conceptions aside in order to focus on what is distinctive about Chinese policy today.

### 1.1.1. China is NOT Just Another East Asian Developmental State

One often hears that China is following an industrial policy rather similar to that followed by Japan, Korea, and other earlier fast developing East Asian economies, so-called “developmental states.” This is wrong in multiple dimensions. On one hand, China inherited a legacy of total government control when it entered the contemporary era. To be sure, that government control, as of 1978, was completely dysfunctional. However, precisely because the command economy was so distorted, policy-makers had to give all their attention to implementing market reform without blowing up the economy; they had no conceptual space nor effective instruments for implementing Japan-style industrial policy. While Japan and Korea layered industrial policy on top of reviving war-shattered economies, those economies were primarily market-based and small-scale. China’s starting point was precisely the opposite, and it spent thirty years throwing off the legacy of excessive direct government control.

On the other hand, China’s new industrial policies, since about 2010, have been very different from those of Japan and Korea. The volume of resources the Chinese state invests in targeted sectors has been *much* greater than anything Japan or Korea ever invested, both as a share of the economy and even more so in absolute dollar amounts. Likewise, the nature of the targeting is also completely different. Japan and Korea steered the economy

to *catch-up*, in clearly defined sectors where the objective was to match the performance of industry leaders (in Germany or the US); in China, the main focus has been on *leap-frog*, in the sense that the most heavily prioritized sectors have been those emerging areas where the technological leadership is less clear and there are few entrenched incumbents in developed economies. These differences are so large that to think of Chinese industrial policies as fundamentally similar phenomena to earlier Japanese and Korean industrial policies can only lead to confusion.

### 1.1.2. There is NO Definable “Chinese Road”

Chinese policy-makers, headed by Party General Secretary Xi Jinping, have recently taken to declaring that there is a “Chinese road” to development that may hold lessons for other developing economies. In his official report to the 19<sup>th</sup> Communist Party Congress in October 2017, Xi Jinping said that China’s approach “offers a new option for other countries who want to speed up their development while preserving their independence” (Xi 2017). In one sense, this is completely unobjectionable. China is an enormous, diverse economy, and between 1978 and 2010 it grew faster, for longer, than any economy in human history. Of course, there are lessons for development from China, indeed, many lessons from China. There is already a large academic literature on those lessons, extending from economics through sociology to health care, and many others. However, one of the common findings of these discussions is precisely that the distinctiveness of Chinese institutions, and especially the dominance of the Communist Party, means that transferability of successful experience is difficult.<sup>2</sup>

2 See: Kennedy (2010) and Naughton (2019). Indeed, to the extent that there is an official Chinese definition of the “Chinese road,” it is “market socialism with Chinese characteristics” which is defined as an adaptation of socialist theory to specific Chinese conditions, thus implying that other countries should make their own, rather different, adaptations.

Partly as a result of these concerns, most talk about a “Chinese road” today satisfies itself with an overly simple, abstract formulation that does not specify what, if anything, the lessons of the Chinese road are. For example, I have been told more than once by Chinese scholars that “close government-business cooperation” is the essence of the Chinese model. But such a formulation does not differentiate China from many other less successful economies that also have “close government-business cooperation.” As a result, such a formulation really does not tell us anything that is useful as a “lesson.” Moreover, it doesn’t describe very well *any* of the achievements of Chinese economic growth and development over the past forty years.

### **1.1.3. Conflict Among Technological Powers is NOT Inevitable**

Many people attribute the rise in conflict between China and other nations —not least the United States— to an inevitable “Thucydides trap,” or competition between a rising “challenger” and a jealous incumbent. This view is not completely wrong, but it is hopelessly over-simplified. One simple fact is that the incidence of conflict increased dramatically following the acceleration of China’s industrial policy. The magnitude of China’s intervention in emerging sectors has seriously disrupted international norms and agreements about the nature of economic and technological competition. This doesn’t necessarily mean that China is “wrong.” Some of those norms might be cozy agreements between comfortable entrenched powers, and might indeed be ripe for re-consideration and revision. But it is not unreasonable for us to ask that China —along with other “revisionist” powers— clarify which norms and agreements they want to see changed. In the meantime, we can reject out of hand the idea that China was simply pursuing some kind of relatively consistent “Chinese way” when controversy suddenly erupted because of criticism and counter-measures from the United States. That just doesn’t fit the most

basic facts. Instead, the world is faced with a more complex challenge: hammering out a set of rules and principles that will allow great powers to compete with each other without spiraling down into intensifying conflict.

## 1.2. Defining Industrial Policy

In this essay, I use a relatively narrow definition of industrial policy. This is not the only possible definition, nor is it the best definition for all purposes. An alternative, broader definition would also have some benefits, because it might help us identify some common features across countries and also compare and contrast very different countries in a systemic way. For example, Knight (2014) calls China a “developmental state,” using a broad definition that permits him to focus on the presence of an overarching national goal of economic development, as well as an incentive structure that rewards government officials for pursuing growth (Knight 2014). This very effectively draws out the commonalities between China, Japan, and Korea in their high growth eras, while leaving the differences to one side. In another sense, a broad definition allows authors to bring in regulation, fiscal and monetary policy, and innovation and human resource policy. For example, Brandt and Rawski (2019) use a broad definition to bring multiple perspectives to bear on the electrical sector, among others, showing the complex relations between regulation, competition policy, and direct sectoral intervention (Brandt and Rawski 2019).

However, the use of a broad definition requires a great deal of additional discussion about what should or should not be included, and in the end that broader debate is better conducted with some agreement on basic facts. Without additional specification, the broad definition leads to statements like “all countries have industrial policies,” or “the real question about industrial policy is not whether it should be practiced, but how” (Rodrik 2012:53-56). These statements aren’t wrong (if a broad definition is used), but they are only a first step in getting to an understanding of

what the consequences of specific policies are. Similarly, Justin Lin's support for "industrial policy" based on an effective government and a market economy can be useful, but depends on a very broad understanding of what industrial policy includes (Lin 2012). The following discussion is based on the proposition that further analysis can be facilitated by pursuing a narrow but clear definition of industrial policy. The use of this definition contributes to discussion not because it is the only correct definition, but because it can be clearly specified, and thus lead us to clear conclusions.

Industrial policy is used consistently in this book to mean an intentional effort on the part of government policy-makers to change the sectoral structure of the economy. Industrial policies are adopted when government identifies and actively supports industries that contribute to growth. Industrial policy in this sense presupposes a market economy, and it only makes sense to consider industrial policy in that context.<sup>3</sup> In a dynamic context, the government's targets dynamic sectors in order that they make a bigger contribution to growth than they otherwise would. More precisely, I define industrial policy as follows:

Industrial policy is any type of selective, targeted government intervention that attempts to alter the sectoral structure of production toward sectors that are expected to offer better growth than would occur in the (non-interventionist) market equilibrium.<sup>4</sup>

It only makes sense to talk about industrial policy if real resources are devoted to selective interventions that policy-makers make

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3 Ever since 1949, through a variety of systems and instruments, the Chinese government has attempted to drive/guide the economic development process and shape the particular pattern of industrialization. However, from 1949 into the 1980s, those interventions were carried out as part of the "command economy," an entirely different system without a market basis on which to operate an industrial policy. Indeed, in the command economy, the word "planning" refers primarily to the actions bureaucrats take managing day to day transactions among units of the economy, often leaving them little time to develop strategic and technologically dynamic sectors. Not until the growth of a market economy does it become meaningful to speak of "industrial policy" *per se*.

4 Based on, but significantly altered from, the definition in Pack and Kamal (2006:2).

and they have real instruments available to shape the incentives of economic decision-makers. Simply stating a desired or expected outcome does not constitute an industrial policy, even if that statement is issued by an authoritative body, like the State Planning Commission. For example, Deng Xiaoping in 1982 declared that China should quadruple GDP by 2000, and both Hu Jintao and Xi Jinping have since declared that China will quadruple GDP again by 2020. These do not constitute industrial policy, although they may serve other purposes by mobilizing national effort and articulating collective aspirations. In a different sense, China began promulgating what it called “Industrial Policies” in the 1990s, but those efforts rarely had any real resources behind them. For example, successive Automobile Industrial Policies called for the concentration of production in three main producers, and the upgrading and expansion of these three state-owned enterprises (with some limited foreign investment to help). However, nothing like this ever happened, unsurprisingly, since planners had no resources or instruments to carry out their desires, and the actual evolution of the auto industry bore no relation at all to their wishes. I do not consider this an industrial policy.<sup>5</sup> To be classified as an industrial policy, there has to be an actual intervention into the real economy. Words that remain on paper do not count as an intervention, absent some real actions that have an impact.

After all these clarifications and caveats, we find that a narrow definition of industrial policy allows us to make a very clear and unambiguous statement about Chinese industrial policy. Moreover, this statement is surprising and simple, yet easily supported and defended:

Until 2006, China never had “industrial policy.” Since about 2010, China has had industrial policy on a massive and unprecedented scale. The outcomes of post-2010 industrial policy in China have not been adequately studied and are as yet unknown.

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5 The alternative, of course, would be to consider this a failed industrial policy. But since the policies had little cost, as well as little impact, there does not seem to be any point in doing this.

The remaining chapters in this volume will provide the justification for this strong statement. However, before moving on we need to introduce further clarification of what is, and is not, part of industrial policy.

### 1.3. The Impact of Industrial Policy

Evaluating the outcome and impact of industrial policy is challenging. There is no consensus about the impact of industrial policy in Japan or Korea, even though those economies ended their experiments with government industrial policy decades ago and have relatively good data available. Such an effort is far more difficult than anything attempted in this essay. In part, the difficulty comes from clearly distinguishing and measuring the various steps in industrial policy. It makes sense to discriminate between three stages: resource effort (magnitude), sectoral impact, and efficiency.

The resource effort involved in an industrial policy—which I refer to as “magnitude” for short—refers to the actual cost of a policy. This should include the direct cost of subsidies and preferential tax treatment plus the indirect cost of regulatory barriers and protectionist policies used to nurture a targeted sector. The magnitude of industrial policy is the sum of the resources actually spent plus the resource cost of market distortions induced by government interventions.<sup>6</sup> Cost is not in itself a bad thing: The most successful interventions will not have been costless. Cost is, however, hard to measure, particularly in China where so many different overlapping instruments have been applied to support core industrial policy objectives. At this point, the most we can say is that there is strong evidence that the overall cost (resource effort) of China's industrial policy increased dramatically between 2006 and 2018.

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6 In principle, measured at shadow prices. The 1990s Automobile Industrial Policy is dropped from consideration because its direct costs were zero and its indirect costs, while hard to measure, are unlikely to have been significant.

The sectoral impact of industrial policy refers to the magnitude of the effects of industrial policy. That is, we ask how much the composition of the economy (alternatively, of economic growth) shifted in the direction that planners envisioned. Did semiconductor industry policy result in faster growth of semiconductor production than would otherwise have occurred? This question is difficult because the counter-factual is hard to know: what would the trajectory of the economy have been in the absence of intervention? Presumably industrial policy-makers are smart enough to target promising industries that would have grown faster than average in any case, and if planners see that a sector is likely to be lucrative in the future, aren't there visionary entrepreneurs who see the same? We can benchmark future performance against industrial policy plan targets, but we do not really know the intentions of policy-makers, and this risks unfairly penalizing planners for promulgating over-ambitious targets that may have been costless. Another possibility is to use performance proxies, such as global market share for specific industries, or the presence of recognized leading global companies, to measure impact.

The efficiency of industrial policy is determined by comparison of the cost of the policy with the additional output that was produced. In other words, what was the rate of return of the investment in industrial policy? Since our measures of costs and impact are both weak, it follows that our ability to measure the efficiency of industrial policy will be even weaker. It is striking that in the vast descriptive literature on China's industrial policy, there scarcely exists a case study that argues that a specific industrial policy has been a conspicuous success. However, this could be due to time lags, since massive industrial policy is quite recent.<sup>7</sup> Finally, in the presence of major spillovers from one sector to another, it may be too limiting to try to assess the impact of industrial policy on a single sector. Perhaps the positive impact will be captured in other

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7 However, there have been some good studies of the impact of specific instruments through 2006 (Boeing 2016).



sectors that benefit from cheaper and more accessible inputs from local suppliers.

Thus, the questions involved in the evaluation of industrial policy are hard to answer under the best of circumstances, and impossible in the Chinese case, given the current state of our knowledge. In this essay, I will mainly be concerned with showing the dramatic changes over time in the resource effort put into China's industrial policy. I am somewhat skeptical that the enormous costs of these policies is being, or will be, realized in better performance, but I acknowledge that the data are not good enough to say anything definitive. The ultimate outcome is unknown. China is gambling an enormous amount on the outcome of a new technological revolution, but the outcome of that gamble is not yet known.

#### 1.4. What is **NOT** Industrial Policy?

Adopting a narrow definition of industrial policy inevitably means that many things that are very important to economic and technological development are excluded. Indeed, these excluded things are, in my view, even more important than industrial policy in explaining China's extraordinary development. But precisely for that reason, they should not be mixed up with the discussion about industrial targeting. In particular, I wish to exclude all "horizontal" policies, that is, policies that may foster economic development but do so without prejudice as to which particular sectors will grow. Horizontal policies are non-targeted interventions, because they effect all businesses and sectors more-or-less the same. By my definition, industrial policy is vertical, involving targeting of specific sectors. In particular, I identify three things that industrial policy in China is NOT:

1. Industrial policy is *not* intensive investment in infrastructure. China since about 1996, has invested large amounts in infrastructure, in many cases "building out ahead of demand." Overall, China's investment rate is extremely high, far

higher than any other country today, or ever. China's fixed investment (of all types, not just infrastructure) as a share of GDP has been well over 40% since 2009. This obviously has extremely important effects on China's development. It has big benefits, and also huge costs. If physical infrastructure construction were included in our definition of industrial policy, its economic effects would almost certainly overshadow everything else. Moreover, there is virtually unanimous agreement that governments should invest in physical infrastructure: provision of public goods through infrastructure is a core government responsibility. All governments, except for failed states, provide some level of infrastructure construction. Therefore, the important discussion about China's infrastructure investment is limited in scope: Is China investing the right amount in infrastructure? Is it too much? Will China see economic returns from the hundreds of billions of dollars invested in modern infrastructure? The ultimate objective of economic policy is to enhance the well-being of the population over the long-run, and investment contributes to this if and only if the investment is productive enough to provide future benefits that more than compensate for the current cost in foregone consumption.

High physical investment rates certainly influence the industrial policy environment. High infrastructure spending corresponds with high government purchasing power, giving it the ability to give larger aggregate procurement preferences to priority firms and technologies. Thus, high levels of infrastructure spending act as a kind of "force multiplier" for industrial policies. Moreover, in China, many of the firms most active in provision of infrastructure construction are state-owned enterprises. Many of these firms have been encouraged to engage in a long-term and ambitious upgrading effort, as they have absorbed advanced construction techniques from the world. China, once decades behind, is now at the frontier of construction technique. The

process of upgrading in these firms has not been well studied, and should count as a type of industrial policy, but at this point it is not distinguishable from the impact of high infrastructure investment in itself.

2. Industrial policy is *not* investment in human resources. Since the turn of the century, China has invested a great deal in higher education and in research facilities.<sup>8</sup> In addition, China has encouraged students to go abroad for higher education, and given them a remarkable degree of latitude in deciding whether to pursue careers abroad or in China. Although the majority of post-graduate students have remained overseas, enough have returned to China to significantly expand China's human capital base. What is more, the returning students have been especially active in entrepreneurial activities, accounting for a disproportionate share of China's most dynamic enterprises. There is no question that China's investment in human resources —and encouragement to families to invest in their children's human capital— has been a major contributor to China's technological catch-up. These investment in China's human resource base are quintessentially “horizontal”: that is, they improve the capabilities of the Chinese economy across the board, without preference to any particular sector.

This type of knowledge investment probably comes closest to industrial policy in the area of state-sponsored research and development projects, many of which have direct military applications. With military-civilian fusion being a long-term trend in China's military industrial management system —and a specific military-civilian plan adopted in 2017— Chinese defense investments have obvious spillover effects on industry, particularly given that state-owned

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8 Investment in pure knowledge can be conceptually separated from investment in human capital, but there is no need to do so in this case. To begin with, until the present, very little Chinese investment has been made in pure science, and until very, very recently, even the most advanced research and development was essentially directed at bringing Chinese researchers to the global frontier, thus being human capital investments rather than pure knowledge investments.

firms are still dominant in the defense industry sectors. Still, on balance, it makes sense to treat the defense sector as a special case, driven primarily by non-economic considerations, and through the present having a relatively small presence in the overall economy.

3. The existence of a local “developmental state” is not *ipso facto* evidence of industrial policy. Clearly, a distinctive feature of the Chinese economy since the late 1970s has been the active engagement of local governments in fostering economic development (Oi 1992). Local government entrepreneurship and investment in local public goods are certainly important features of China’s developmental model, and contributed to China’s rapid growth during its “miracle growth” phase (1978–2010). However, China has tens of thousands of local governments, all engaged in expanding economic activity. They have to compete with each other in the marketplace, and are under great pressure to generate new revenues. In short, they behave more like firms than like governments in this respect, and it is hard to see how they aggregate into a pattern of government-sponsored development that is different from firms seeking profit through the market. Indeed, the influential model of “market-preserving federalism” essentially characterizes local governments as being forced by competition to abstain from market-distorting policies; this essentially disqualifies them from being agents of government-sponsored industrial policies (Montinola, Qiaan and Weingast 1995; Xu 2011). To be sure, there is a grey area, where some of the larger local governments, such as the central municipalities of Beijing and Shanghai, articulate true industrial policies, targeting promising sectors and promoting “local heroes.” I will strive to include those initiatives where appropriate, while continuing to exclude generic local governments from the industrial policy story.

Readers may object that I am excluding some of the most important aspects of Chinese development strategy from my discussion of industrial policy, but that is precisely the point. Powerful targeted industrial policies in China have been generally absent (1978-2005) and have sometimes been overbearing (2010-present), but they have never been a crucial component in explaining rapid Chinese economic growth. That doesn't mean that government doesn't matter, or that distinctive Chinese approaches have not been important: it does, and they have been. Indeed, it should be intuitively obvious that the impact of a large-scale fixed investment effort, massive investment in human resources, and the presence of thousands of growth-promoting local governments competing with each other will be much greater than the impact of government efforts to directly intervene in the sectoral development pattern of the economy. Of course, these are not mutually exclusively choices. But targeted industrial policy is still utterly unproven in terms of its impact on China's development. It may turn out, 20 years from now, to have been a huge success, but as of today, there is very little evidence for its importance or success.

Readers who favor a more expansive definition of industrial policy are still welcome to use it. For those who insist on this more expansive definition, the argument of this essay could be easily restated as follows: China's overall industrial policies have been very effective in promoting economic development, but among those policies, the impact of targeted industrial policy interventions has been small, and perhaps zero or even negative. For all that, it is important to unravel the various parts of the story in order to have a clear view of China's overall development strategy.

## 1.5. Plan of the Essay

This essay is organized in chronological fashion. That means that readers who are most interested in today's industrial policies in China may wish to jump immediately to Chapter 4, which describes the rationale and magnitude of the "Innovation-Driven

Development Strategy” (IDDS), that was formally adopted in 2016, and Chapter 5, which describes the specific tools and instruments used to carry out the IDDS. Those interested in tracking the development of China’s approach to industrial policy and planning should continue straight on to Chapter 2, which discusses planning in the period from 1978 through the early 2000s, showing the extremely inconsistent nature of that planning, the reasons for its diminishing importance overall, and some of the lessons Chinese policy-makers may have gleaned from it. Chapter 3 describes the turning point, the gradual turn to techno-industrial policy that was initiated by Wen Jiabao shortly after he became premier in 2003, but was first formalized as policy in 2006. This then became the most important component of economic development policy after the 2008 Global Financial Crisis. Chapter 4 describes the way current industrial policy has changed in response to the perception of accelerating technological change. Sector-specific industrial policies have now been grouped together under the rubric of the Innovation-Driven Development Strategy. Chapter 5 then discusses in more detail the instruments and institutions developed as part of the IDDS. They underscore the novelty and ambition of the IDDS. This also justifies why I argue that the “government-steered market economy” (articulated by Chinese policy-makers) is taking shape as a distinctive set of institutions and deserves to be considered as a new type of economic system. While it is far too early to judge the feasibility or efficiency of this system, it is at least a new phenomenon of which note should be taken. A brief conclusion summarizes the main insights gained in the course of writing this essay.