Paulson Policy Memorandum

Easing China's Transition to a Services Economy

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Introduction

After thirty years of nearly double-digit growth, the Chinese economy has slowed significantly in the past few years. From 2001 to 2007, China's average GDP growth rate was 10.8 percentage points. After 2008, by contrast, the average growth rate has been on a downward trend, and in 2015 China's GDP growth fell to its lowest point in a generation—just 6.9 percent. As a corollary to this slowdown, a growing number of industrial sectors in China are under stress.

Amid this continuing downward pressure on the economy, Beijing has gradually expanded government-backed stimulus through a combination of fiscal, industrial, and credit policies. As a result, investment—which has played an unsustainably large role in China's economy—has, in fact, become even more important. Investment accounted for around 40 percent of China's GDP during the period from 2001 to 2007, and this ratio has averaged more than 45 percent in the period since.

The general slowdown of China's economic growth and the stagnation of its industrial sector are the natural consequence of China's new status as a middle-income country.

Despite all of Beijing's efforts, therefore, there is no sign of a V-shaped economic recovery in China today. On the contrary, the economy seems more unsustainable than ever and is also vulnerable to crisis. For example, from 2001 to 2007, there had been almost no increase in China's debt to GDP ratio. From 2007 to 2015, however, this ratio rose from 172 percent to more than 250 percent. The large proportion of corporate sector debt together with a rapid increase in debt levels nationwide have yielded widespread concern about the potential for a financial crisis.[1]

But this paper offers a distinct, unconventional perspective on China's economic slowdown. For one thing, both the general slowdown of China's economic growth and the stagnation of its industrial sector are the natural consequence of China's new status as a middle-income country. The experience of advanced economies has shown that services play a more prominent role in the economy once per capita income reaches a certain level. And since productivity growth is generally lower in service-related sectors, such an economy will inevitably slow down as these sectors become engines of growth.

Second, many barriers and bottlenecks to the development of services in China remain, and these obstacles are further slowing down the economy.

Third, instead of tackling these barriers, Beijing has devoted most of its attention

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and resources to helping the industrial sector, not services. But since the relative decline of China's industrial sectors will be a natural consequence of continued economic development, such attempts by the government to fight this trend will unavoidably lead to distortions. That is why, for example, Beijing's efforts to stimulate the industrial sector have resulted in low-efficiency investment and overcapacity even as credit and debt have expanded out of control.

This memorandum builds out these arguments in four parts:

The first section offers a review of the transition toward a services economy, including the mechanisms behind the rise of service-related sectors and the decline of manufacturing once a country's per capita income reaches a certain level. The experience of advanced economies and China's own economic statistics suggest that China has already entered into this transition.

The second section of the memo discusses problems and issues that have hindered China's transition to a services economy.

Section 3 reviews recent government economic stimulus efforts. This section argues that these stimulus programs have actually complicated and delayed China's transition toward a services-oriented economy.

The concluding section provides some policy prescriptions aimed at facilitating the transition process and making China's economic growth more sustainable in the long run.

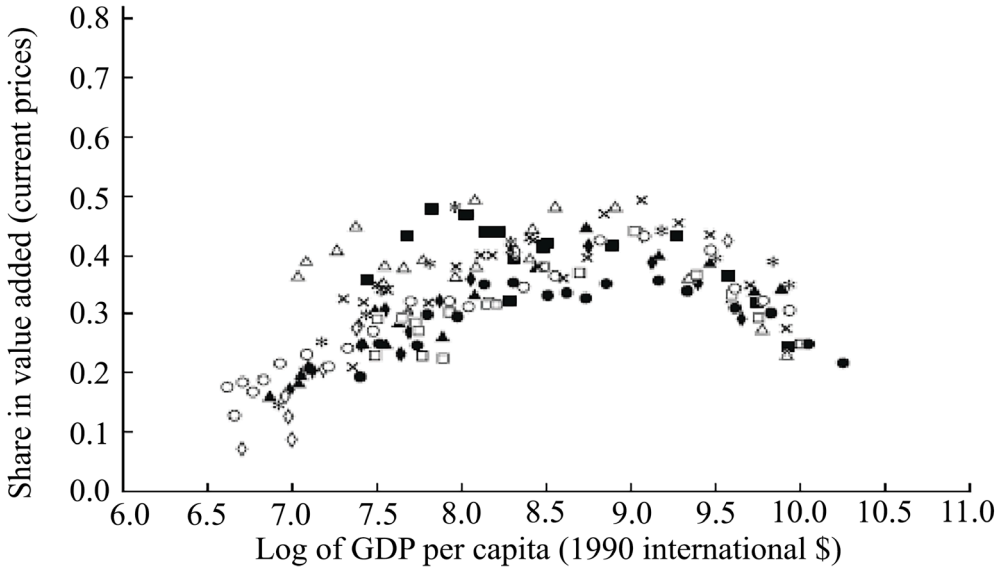
The Advent of a Post-Industrial Society

Economic transition is a universal phenomenon, manifest in any country's economic development process. It is the only pathway toward a higher stage of economic development.

The late American sociologist, Daniel Bell, has argued that American society experienced three phases of development: pre-industrial, industrial, and post-industrial. Bell argued that a post-industrial society typically features a transition from an industrial to a services economy, accompanied by shifts in occupational distribution, governing forces, and societal decision-making mechanisms.

Of course, when Bell developed this thesis in 1973, he considered the United States to be the only country that had entered into this post-industrial stage. But other countries soon encountered some of these dynamics. Early in the 1970s, Western European countries, including France and Germany, as well as Japan, saw the share of manufacturing in overall economic activity decline while the role of their services sectors increased. And Taiwan and South Korea subsequently began to experience such a transition toward "post-industrial society" after the mid-1980s. Today, all developed nations have entered this post-industrial stage.

Figure 1. Share of Manufacturing in Value Added and GDP Per Capita



Source: Herrendorf et al. (2014).

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Figures 1 and 2 document the inverted U-shaped relationship between the contribution to GDP of industrial sectors and income levels. These two charts demonstrate that once average income surpasses 8,000 international dollars,[2] the share of industry in an economy will begin to decline while services account for an increasing share of this economy. And China's per capita income is already 10,745 international dollars. This suggests that the transition to a services economy is very likely already underway in China.

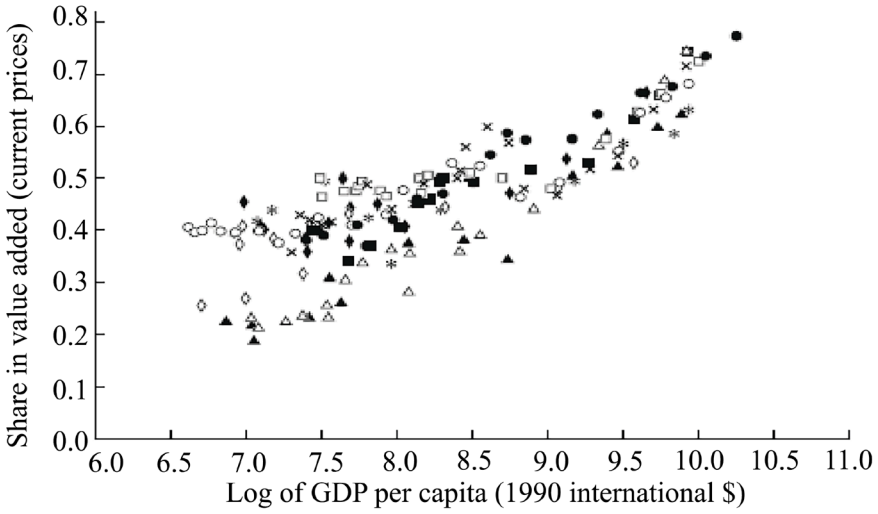
Why does such a transition happen? It is because when income levels reach a certain threshold, economies begin to face the effects and consequences of this transition.

Cross-national studies have shown that two forces, specifically, drive such a transition:[3]

- As income levels rise, the share of expenditure on services increases while the demand for manufactured goods declines. As a result, services come to account for a larger share of an economy.

- The Total Factor Productivity (TFP) growth rate in services is lower than that of the industrial sector. Consider, for example, how much more productive a manufacturing worker has become over the past century, while a doctor still sees, generally speaking, the same number of patients per day as in the past. As a result, the supply of services is not as responsive to demand increases as is manufacturing. And this relatively inelastic supply of services means that demand growth will mostly be reflected through price inflation and the increase in the relative price between services and

Figure 2. Share of Services in Value Added and GDP Per Capita



Source: Herrendorf et al. (2014).

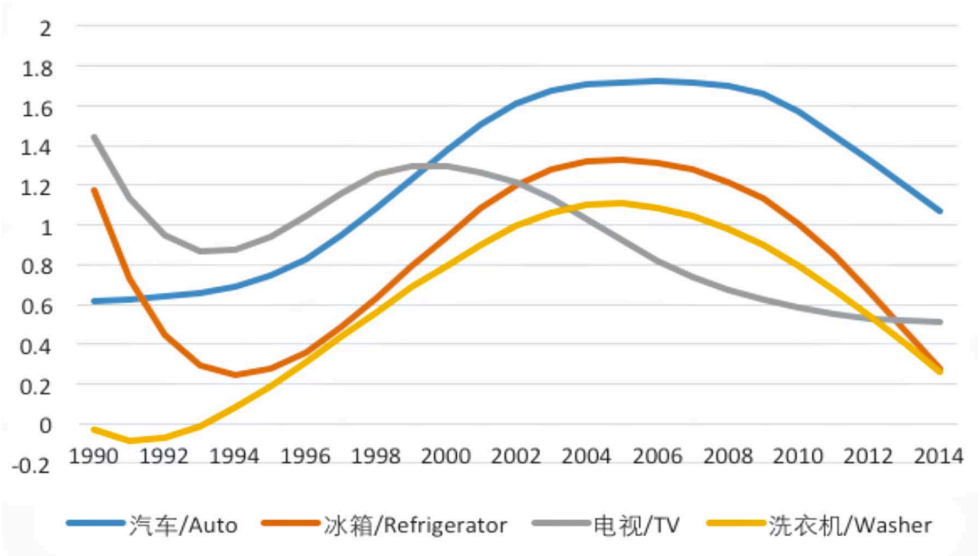
manufactured goods. As services become relatively more expensive compared to manufactured goods, the proportion of service sectors in GDP will inevitably rise.[4]

China's Transition to a Services Economy

China is now in the midst of precisely this process: the industrial sector occupies a shrinking share of the total economy, falling from 41.8 percent in 2006 to 35.8 percent in 2014, while the contribution of the services sector increased to 48.2 percent during the same period. Other economic indicators, including for example, the share of services in employment, also indicate that China had already become a services-oriented economy by at least 2013. Indeed, the industrial sector's share of total employment in China has been declining since 2012. And the share of migrant workers working in the manufacturing sector peaked in 2008, and has dropped by 6 percent since then.

On the demand side, the share of manufactured goods in urban household expenditure has been declining since 2011, primarily because of increasing expenditure on services. Income elasticity of demand for manufactured goods—a measure of how much demand for certain representative manufacturing products such as color televisions grows when personal income increases—has declined since 1998. In China, for instance, income elasticity of demand for refrigerators, washing machines, and cars also declined after 2007 (see Figure 3). With Chinese personal income continuing to rise, it is reasonable to assume that the overall demand for industrial goods will continue to slow.

Figure 3. Income Elasticity of Demand for China's Major Industrial Products[5]



Sources: Wind; author's calculations.

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Barriers to a Successful Transition to Services

In theory, an increase in the demand for services relative to manufactured goods will lead to price appreciation for services products relative to that of industrial products. And in response to this changed relative price, market forces *should* direct more resources to the services sector. In other words, the expansion of the service sector will accelerate while the industrial sector will stagnate.

Reality, however, can be quite different from theory. In China, for instance, certain institutional barriers and flaws have complicated this theoretical adjustment process.

Photo: Flickr/Drew Bates

Based on the above analysis, service sectors should play a more prominent role in China's future economic growth. But barriers to their development have been many and frequent.

For ease of understanding, it is easiest to group China's service-related sectors into two categories, distinguished from each other by the role government plays. The first group would include service industries, such as logistics and real estate, which have both private and state-owned players. The second group would include services that are primarily provided or funded by the Chinese state, including public transportation, education, and healthcare.

Mixed Sectors

State capital still plays a very large role in China's service sector. Indeed, compared to their private counterparts, state entities usually enjoy more favorable treatment from Chinese regulators. State-owned enterprises (SOEs) also benefit from access to various forms of explicit or implicit subsidies, such as free land or fiscal subsidies.

But such an environment raises fairness concerns (as private capital is crowded out by state capital) and also has negative implications for both efficiency and productivity.

China's SOEs still resemble bureaucracies rather than real market players. Various studies have demonstrated that Chinese SOEs lack incentives to improve the quality of their products or to develop new products to meet the needs of their consumers. In other words, state players are not

especially responsive to the demands of Chinese consumers and have missed many profitable business opportunities in the bargain.

The fact that SOEs have dominated so many service sectors has magnified the scale of this problem. If, for example, private capital were allowed to exploit these untapped business opportunities, then the distortions introduced by SOEs would be offset by more disciplined market-oriented players. However, the existence of excessive administrative barriers to firm entry, as well as heavy regulation, make it difficult and in some cases impossible for private capital to obtain the necessary permits to operate in these services sectors.

As a consequence, potential investment opportunities have been left untapped. The presence of low productivity state players not only constrains the growth of services in China but has also taken a toll on the Chinese economy writ large. That is because some services, such as logistics, function as necessary inputs for the rest of the economy.

A less efficient service sector means the rest of the economy ends up burdened with lower quality and more expensive services. That, in turn, makes final products more costly. And more expensive products ultimately reduce demand, which then limits the scale of these sectors. In other words, a more efficient service sector could stimulate China's overall economic growth.

Insufficient and Inefficient Public Services Provision

In every country, one important component of the service sector involves services provided by the state, including, in many instances, education, health and medical services, social security, environmental protection, public housing, mass transportation, and so on. The state provides these services in many economies either because they are viewed as public goods or else on account of fairness concerns.

Yet China faces two specific challenges that hinder the efficient supply of public services: The first challenge is distorted incentives. Local governments in China have prioritized GDP and revenue growth over all other factors,[6] a straightforward calculus since performance in these categories is closely tied to the prospects for promotion and other benefits that directly affect local officials' careers.[7]

Indeed, that is one reason that the provision of public services is deemed to be a burden by Chinese local governments—it is an investment that yields few political or personal returns to local officials. But the result of these distorted incentives has been a serious shortage of both political will and commitment to improve public services at the local level. These problems are compounded by the lack of effective external oversight from higher levels of government.

A second challenge involves information. Because China lacks public participation in decision-making, even if local governments were willing to improve public services, they would still face difficulties as they seek to determine which services or infrastructure are most needed, as well as how to most efficiently provide them.

The demand for public services arises from the complex and diverse needs of local residents. And since their needs tend to reflect local concerns, services need to reflect specifically local conditions.

For this reason, only by comprehensively collecting information at the local level—and then following that collection with careful analysis—can any government be sure that it has sufficient information to improve services delivery. In the real world, then, as opposed to theory, China simply lacks the necessary institutions to meet this demand.

A less efficient service sector means the rest of the economy ends up burdened with lower quality and more expensive services.

The Industrial Sector

To be sure, the emergence of services in a maturing economy does not mean that industrial sectors become irrelevant to economic growth.

Demand for industrial products will slow but the rapid increase in productivity and wages provided by the industrial sector is a necessary precondition to the expansion of services in the first place.

In addition, if an economy produces more industrial goods with fewer workers, then that frees up more people to work in the services sector and thus facilitates the overall transition toward a services economy. The challenge for the industrial sector, then, is to become more efficient and productive rather than simply to pursue rapid and extensive growth.

In China, the major bottleneck for industrial development lies upstream. After the prior round of SOE reforms in the 1990s, SOEs mostly exited downstream sectors.

However, upstream sectors including energy and resources are still monopolized by SOEs, which allows them to extract rents from China's downstream sectors.[8] This means that downstream industrial firms are forced to purchase overpriced inputs from upstream SOEs. And the whole system has had negative trickle-down effects on all of China's industrial sectors, bringing distortions to the overall economy in their wake.

Outdated Financial System Is Incompatible with a Services Economy

Two unique features of the service sector make China's current bank-dominated financial system ill suited to finance the growth of the service sector:

One is a lack of physical collateral. In contrast to what tends to happen in the industrial sector, the biggest asset of service sector firms is their human capital. But that lack of physical, as opposed to human, collateral makes it difficult to apply for bank loans in China.

Second, Chinese services firms are smaller in scale than industrial firms. In fact, the majority are small enterprises or even micro enterprises.

These two characteristics mean that, for Chinese banks, lending to a service sector firm is riskier than to an industrial firm. So although the Chinese service sector does have considerable opportunities for growth, in China's present bank-dominated financial system, the development of services nonetheless faces a serious financing bottleneck.

Recent Policy Mistakes

China's transition has also been handicapped by excessive government stimulus, which has intensified structural imbalances and financial market risks. But poorly designed stimulus policies have distorted resource allocation, delaying the transition to a service-oriented economy, and, paradoxically, exacerbating the pressure from structural imbalances.

There have, in fact, been limited reforms in recent years but Beijing's stimulus efforts have mostly targeted the industrial sector in an attempt to support distressed industrial firms and help them stave off bankruptcy. As a result, too much stimulus money has ended up as wasteful investment.

China urgently needs public services, including infrastructure that is much more carefully tailored to the needs of the people.

But beyond this wasteful support to the industrial sector, recent stimulus programs have also been heavily laden with imprudent infrastructure investment. Over the past two decades, China's massive investment in fixed infrastructure assets has brought transformative change to the country, making logistics and travel easier.

But the effect of the latest round of infrastructure building—since 2008—has been much more mixed.

The lesson that Beijing should derive is that it needs to be more cautious as it contemplates large-scale infrastructure investment in the future.

One reason for that caution should be that China is already running out of low-hanging fruit for infrastructure investment. There has been so much construction already undertaken that there must inevitably be a decline in returns on new infrastructure projects.

Another reason for caution is that the deceleration of growth in China's industrial sector and transition toward service will naturally slow the demand for more infrastructure. For instance, a new steel mill might well create demand for freight transportation, but a new shopping mall would require less supporting infrastructure.

Finally, China urgently needs public services, including infrastructure that is much more carefully tailored to the needs of people, as opposed to infrastructure designed from the top down as was the national high-speed rail network. One problem, then, is that limited public participation in the budgeting process will make such investment more difficult.

As a consequence, most of the stimulus money in China ends up in projects with a low social return on investment.

The negative consequences of China's recent ill-designed stimulus effort are perhaps most readily apparent when one looks at productivity statistics. The growth of China's TFP has slackened from 3.78 percent during the 1979-2007 period to just 1.4 percent afterward.[9]

Regulatory barriers are another important factor. They will stand in the way as China's services sectors attempt to realize their growth potential. Stimulus programs have simply directed capital to industrial sectors that were already burdened with overcapacity. So the necessary economic transition process has been delayed.

That has meant, for example, that resources that should have been devoted to service-related sectors have instead been directed to industrial sectors. China's recent stimulus programs barely prevented industrial sectors from collapsing yet yielded only very limited economic growth. As inefficient investments increased, there was a concomitant and rapid rise in the ratio of capital formation to GDP. In other words, China now needs ever-increasing new investment to generate an additional unit of GDP.

Cross-national studies have found that the incremental capital-output ratio (ICOR) should be around three. Yet China's ICOR stood between 3.5 and 4 before the 2008 financial crisis.[10] And this figure rose sharply after the crisis to more than six since 2012.

With the benefit of hindsight, it is now clear that Beijing's efforts to help distressed firms only exacerbated existing and underlying distortions in the economy. Any future stimulus designed in this way would likely come at a high cost in terms of resource misallocation and further accumulation of financial vulnerabilities.

Laying the Foundation for China's Transition To Services

For Chinese policymakers aiming to foster the growth of services, several prescriptions follow.

Refrain from Economic Stimulus

The economic transition process will inevitably result in distress for the industrial sector. But any effort to prop up distressed industrial firms will likely result in the further accumulation of debt and the addition of even more vulnerabilities to the Chinese economy.

Beijing should take such tradeoffs into consideration as it contemplates whether and how to introduce any prospective new stimulus program.

This means that attention should be primarily devoted to stabilizing the Chinese labor market and ensuring that inflation does not persistently deviate from targets. In the near term, such a strategy probably will mean more economic volatility, but the fact is, Beijing needs to learn to cope with more economic uncertainty.

Wanted: A New Development Strategy

What is truly needed is to alter China's longstanding reliance on an outdated national development strategy. The foundation of this strategy has been the humiliating history of China's past century. As Chinese leaders have viewed it, a primary cause of this was China's low level of industrialization and consequent inability to stand up for itself.

After 1949, therefore, the new government concentrated heavily on industrial development and on achieving industrialization as quickly as possible. Whether under the planned economy before the onset of reforms in 1978, or under the conditions of market reforms that have prevailed since, the most important goal has been to increase the strength of China's industrial sector.

What is truly needed is to alter China's longstanding reliance on an outdated national development strategy.

Today, China is a world leader in manufacturing and possesses the world's second largest economy by nominal GDP. China has also become a pivotal force in the international community. So by any concrete measure of comparison, the gap between China and developed countries has shrunk. In some areas, China could even be said to be a world leader.

In this new context, therefore, existing development principles—and the policies arising from these principles that have aimed to protect or support China's industrial sector—waste a large amount of resources and run counter to the needs of economic restructuring.

What people in China generally lack now is not technology or even status in the world, but rather high quality healthcare and education, clean air, and public services and policies to support their personal livelihood and welfare. These are the ends to which policy and resources must now be directed.

Going forward, principles such as "civic rights," "livelihood," "social justice," "harmonious society," and "inclusive development" should be given greater weight.

Introducing More Checks and Balances

Without effective checks and balances—through which the public checks the government—any government will gradually degenerate to a state where it serves only special interest groups.

Photo: Flickr/Danny Pang

There are indeed checks and balances that restrain the Chinese government today. These include the use of existing laws, supervision of lower levels of government by higher levels, competition among various bureaucracies and groups within the government, pressure from the media, the weight of public opinion, the People's Congress legislative system at various levels of government, and the Political Consultative Conference system.

But these existing checks and balances are inadequate to the task of correcting dislocations and deficiencies in government functions.

To correct this, China should dig for additional checks and balances hidden within the existing institutional system—for example, giving the local legislatures a bigger role in overseeing the executive arms of local governments.

Or China could adopt proven practices, such as participatory budgeting, that could help to solve problems with public services. Local experimentation has played a central role in China's process of economic reform since 1978.[11] Beijing should be encouraging local governments to find better ways to improve local governance.

Effective checks and balances on the government will require increased civic awareness and the active participation of citizens in public affairs. It is illusory to believe that government can rely solely on its own strength to promote reform and achieve transformation. No such government exists.

Successful transformation of the government would benefit the vast majority of Chinese people. Yet it will also require contributions from the vast majority of Chinese citizens.

In particular, individuals need to contribute to the public interest.

If every action that concerns and contributes to public affairs is viewed as a drop of water, then it is only when enough drops of water converge that a better system, and better policies, may be achieved and dislocations and deficiencies in government functions corrected.

Endnotes

[1] Li Yang, Zhang Xiaojing, Chang Xin, *China's 2013 National Balance Sheet*, China Social Sciences Press, December 2013.

[2] The international dollar is a hypothetical unit of currency that has the same purchasing power parity that the US dollar had in the United States. Here the unit is 1990 international dollars.

[3] Herrendorf, Berthold M., Richard Rogerson, and Ákos Valentinyi, "Growth and Structural Transformation," *Handbook of Economic Growth* 2 (2014): 855-941.

[4] Baumol W. J., "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis," *The American Economic Review*, 1967: 415-426; Ngai, L. Rachel, and Christopher A. Pissarides, "Structural Change in a Multisector Model of Growth," *The American Economic Review* 97.1 (2007): 429-443.

[5] Income elasticity of demand uses growth of an industrial product's sales divided by growth in urban per capita disposable income, using the Hodrick-Prescott (HP) filter value.

[6] Zhou Li'an, "A Study of the Local Government Official Promotion Model," *Economic Research*, 2007 (7): 36-50.

[7] Xu, Xianxiang and Wang Xianbin, "Growth Behavior in the Appointment Economy," *China Economic Quarterly*, Vol. 9, No. 4 (2010): 1447-1466.

[8] Li, Xi, Liu, Xuewen, and Yong Wang, "A Model of China's State Capitalism," *HKUST IEMS Working Paper No. 2015-12*.

[9] Bai, Chong-en and Zhang Qiong, "The Slowdown of The Chinese Economy: A TFP Perspective," *Comparative Studies* (in Chinese), Vol.4, 2014.

[10] Walters, A. A., "Incremental Capital-Output Ratios," *The Economic Journal*, 1966: 818-822. ICOR is calculated by dividing incremental capital by incremental output, equivalent to the ratio of capital formation to output divided by output growth. This is an indicator of capital productivity, where higher values indicate lower capital productivity.

[11] Xu, Chenggang, "The Fundamental Institutions of China's Reforms and Development," *Journal of Economic Literature* (2011): 1076-1151.

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For this reason, the Institute's initial focus is the United States and China—the world's largest economies, energy consumers, and carbon emitters. Major economic and environmental challenges can be dealt with more efficiently and effectively if the United States and China work in tandem.

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- To support urban growth, including the promotion of better environmental policies.
- To encourage responsible executive leadership and best business practices on issues of international concern.

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