

Carnegie PAPERS

Reinterpreting China's Success Through the New Economic Geography

Yukon Huang

Forces are starting to reshape China's socioeconomic landscape in ways that should help harmonize its growth with the global economy.

CARNEGIE ENDOWMENT

FOR INTERNATIONAL PEACE

WASHINGTON DC ▪ MOSCOW ▪ BEIJING ▪ BEIRUT ▪ BRUSSELS

Asia Program

Number 115 ▪ November 2010

© 2010 Carnegie Endowment for International Peace. All rights reserved.

The Carnegie Endowment does not take institutional positions on public policy issues; the views represented here are the author's own and do not necessarily reflect the views of the Endowment, its staff, or its trustees.

No part of this publication may be reproduced or transmitted in any form or by any means without permission in writing from the Carnegie Endowment. Please direct inquiries to:

Carnegie Endowment for International Peace
Publications Department
1779 Massachusetts Avenue, NW
Washington, D.C. 20036
Tel. +1 202 483 7600
Fax: +1 202 483 1840
www.CarnegieEndowment.org

This publication can be downloaded at no cost
at www.CarnegieEndowment.org/pubs.

Contents

Summary	1
Introduction	2
Creating an Export-Oriented Economy	4
The Role of Exchange Rates During the Deng Era	10
Dealing With Emerging Disparities: Spatial and Welfare Aspects	11
Looking to the Future: Policy Priorities	13
The Relevance of Exchange Rate Policy Today	15
Notes	19
References and Bibliography	21
About the Author	23
Carnegie Endowment for International Peace	24

Summary

China has in recent years capitalized on its huge, diverse population and geographical expanse to transform itself into the world's most efficient assembler and exporter of a wide range of manufactured goods. In achieving this development, it has followed a strategy essentially based on the New Economic Geography, which explains how lower transportation costs and concentration of economic activities foster economies of scale and explosive urbanization.

But now China's transformation has reached a turning point. Various forces are starting to reshape China's socioeconomic landscape in ways that should help harmonize its growth with that of the global economy and that will influence the answers provided to four major policy questions concerning growth, equity, and exchange rates that are now dominating the debate over China's future. If China can build on its recent success in stimulating its economy to also put in place a more flexible exchange rate system that will allow the yuan to adjust gradually to market forces—as an additional tool to manage its economy—these four questions can be answered as follows:

- **Will China's growth be driven by exports, investment, or consumption?** A healthier balance between all three will be restored as wages and consumption rise as a share of income, investment declines to more sustainable levels, and trade surpluses moderate but remain positive.
- **Will China's economic growth slow down in the coming years?** Lower investment rates and reduced trade surpluses point to a slower growth of gross domestic product, but if China can increase productivity and consumption, the decline will be modest, and outcomes will be more sustainable and beneficial to workers.
- **Can China maintain its growth objective while also reducing income inequalities?** As growth centers gradually shift inward geographically, poor rural inhabitants move to the cities, and wages rise, income disparities will decline.
- **Is an appreciation of the yuan in the interest of the United States or China?** A major one-time revaluation of the yuan would not now be in the interests of the United States or China, but greater flexibility—in both directions—is in the interests of China and indirectly of America and the rest of the world.

Introduction

Much has been made of China's impressive growth record, but with 1.3 billion people spread unevenly across thirty-one ecologically and economically diverse provinces, China also offers a valuable case study of the importance of economic geography (box 1). In 1950, after half a century of economic decline, China was an unevenly developed country with industries concentrated in the Yangtze River Delta, several provinces in the northeast, and a few pockets inland. Under central planning, the country followed a deliberate policy of more "balanced" industrial growth, which involved establishing and transferring large industrial complexes to the inner provinces, irrespective of natural advantages. By 1980, after the Great Leap Forward and the Cultural Revolution, China was still a desperately poor but, by international standards, an exceptionally equitable society. With this experience in mind, Deng Xiaoping, the newly anointed Communist Party chairman, launched a series of reforms that, in opening the country to the outside world, also foreshadowed the basic tenets underpinning the new economic geography and trade theories that were then only just becoming prominent in the literature.¹

These theories help explain what goods are produced and where, in particular the occurrence of intra-industry trade in parts and components throughout East Asia with final assembly in China. Cross-country specialization in production of parts and components makes possible economies of scale from mass production that diminishes the cost per unit produced. Together, these principles form the basis of the New Economic Geography and help explain the explosive urbanization process that is under way in China and elsewhere. By taking this development path, Deng launched structural changes that transformed China

Box 1. Key Facts About China's Economic Geography

China's geography has been fundamental in shaping its five thousand years of economic history and influencing settlement patterns. Although the country's land mass is large by global standards, 80 percent of its population is concentrated on 20 percent of the land, in its more fertile central plains and major river valleys and along its urbanized coast. It has three regions. The Western Region, which is home to the majority of its ethnic minorities, includes twelve provinces whose large tracts of uninhabitable mountainous terrain and deserts make them less suited to commercial activities. The Central Region, with eight provinces, has large concentrations of population along its river basins and accounts for a large portion of agricultural production. (Several northeastern provinces are classified as part of the Central Region for general purposes but they are also discussed separately at times because the government has made them the focus of a special regional development program.) Finally, the Coastal Region of eleven provinces is home to China's major industrial and commercial activities and has historically been linked to the outside world through trade and external migration. China's population is divided roughly equally across these three regions.

into the world's most efficient assembler and exporter of a wide range of manufactured goods. But Deng also foresaw that even this transformation would eventually reach a turning point. Thus, forces are now coming into play that will reshape China's economic landscape during the coming years in ways that should help harmonize the impact on the global economy of China's growth, which currently is rattling global trade and commodity markets.

These forces will influence the four major policy questions that dominate the current debate over the future of China:

- Will China's growth slow down in the coming years?
- Will China's growth be driven by exports, investment, or consumption?
- Can China maintain rapid growth while also reducing income inequalities?
- Is an appreciation of the yuan in the interests of either the United States or China?

The answers to these questions are related to the nature of the spatial transformation process that underpins China's success and how this process is likely to unfold over the coming years.

The story of China during the past quarter century centers on a series of pragmatic and at times trial-and-error reforms, which worked with rather than against the country's geographic and inherited advantages. These policies had three distinct consequences: (1) They reshaped the spatial dimensions of development, both in terms of regional concentration and the dynamism of urban and rural areas; (2) they broke the gridlock in terms of the mobility of labor, capital, and goods, both internally across provinces and between urban and rural areas, and externally between China and the rest of

Forces are now coming into play that will reshape China's economic landscape during the coming years in ways that should help harmonize the impact on the global economy of China's growth.

Box 2. The Three "D's" of Development

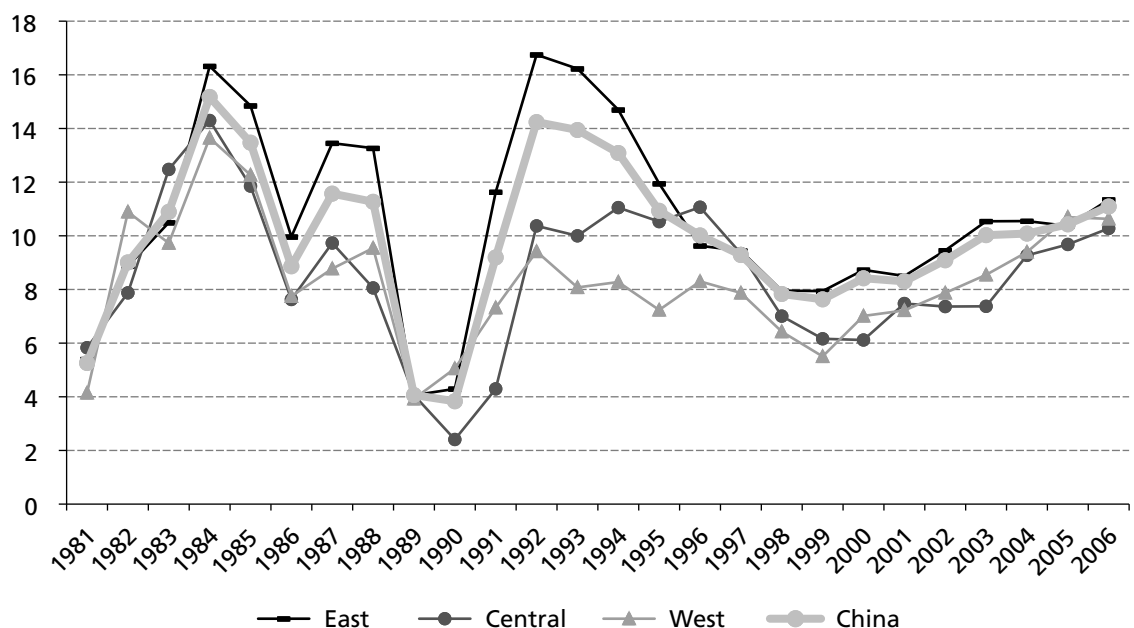
- Density refers to the geographic "compactness" of economic activity and is measured by the level of output produced or income generated per unit of land area. It is thus highly correlated with both employment and population density. This is the defining characteristic of urbanization.
- Distance refers to the ease or difficulty of moving goods and factors of production between two locations. It is not just related to the physical distance between two locations but is also influenced by factors such as quality and mode of transport and regulatory barriers.
- Division refers mainly to the negative consequences of political barriers separating countries or localities within countries that restrict movement of goods, people, and services.

the world; and (3) they also, however, set in motion forces that increased disparities across regions and between as well as within urban and rural areas. In the process, China emerged with an exceptionally competitive and trade-oriented economy, having dealt successfully with the three “D’s” of development (see box 2)—whereby “China increased the ‘density’ of economic activity by concentrating production in a few coastal cities geared to exports, ... cut the ‘distance’ between markets through an expansion of transport services, and ... undertook to reduce barriers to the movement of goods, helping to eliminate ‘divisions’” (Huang 2010)—in realizing the benefits from “agglomeration economies.”² Thus, China’s success came from achieving a higher *density* of economic activities in its major urban centers; from overcoming the *distance* factor with a concerted effort to improve its regional transportation and communications infrastructure; and from eliminating its internal and external *divisions* to enhance the mobility of labor and goods across administrative borders and facilitate its participation in the global economy.³

Creating an Export-Oriented Economy

Since the advent of China’s economic reforms in the late 1970s, for the past quarter century, the country has seen a period of unprecedented growth. Looking at the period up to the recent global financial crisis, the growth of gross domestic product (GDP) averaged nearly 10 percent a year, lifting half a

Figure 1. Annual Growth Rate of China’s GDP, 1981–2006 (percent)



Source: Huang and Luo 2009

billion people out of poverty. This record of rapid growth, however, was marked by periods of considerable variation (figure 1). The major factors underpinning this growth performance have been well documented. Growth increased sharply in the 1980s, initially as constraints were lifted on household-based farming, and later in the early 1990s, as township-and-village enterprises and the restructuring of state-owned enterprises sowed the seeds of a rapid, urban-based industrialization process.

This urbanization process was integral to the process of industrial agglomeration in China and was influenced by the uniqueness of the country's transition from a planned to a market economy. This transition was initially supported by an "open-door policy" that strengthened the investment climate in the coastal provinces and that began with the establishment of the first special economic zones in 1980 in four cities in Guangdong and Fujian provinces (see figure 2), with variants extended to the

The story of China during the past quarter century centers on a series of pragmatic and at times trial-and-error reforms, which worked with rather than against the country's geographic and inherited advantages.

Figure 2. China's Special Economic Zones Began Along the Coast and Spread to Other Areas

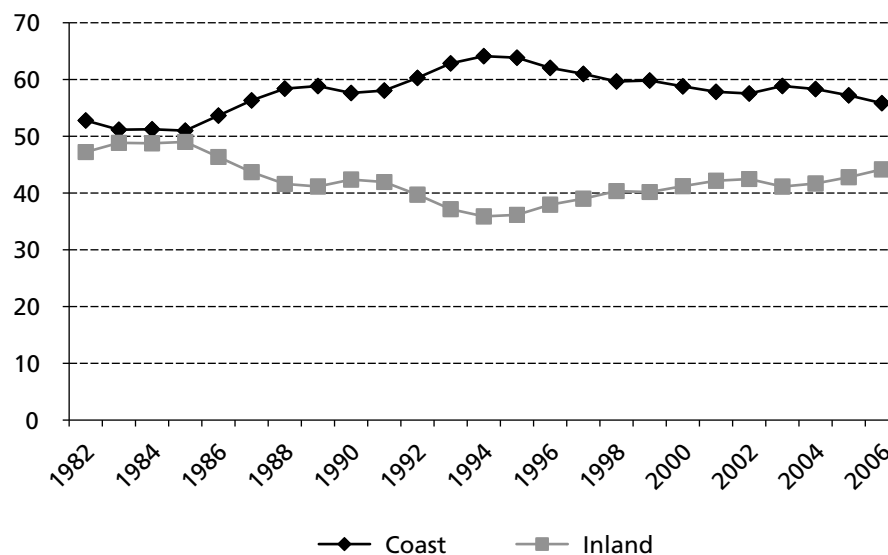


Source: World Bank 2007

other coastal provinces, eventually reaching all the provincial capitals during the 1990s. In the early 1990s, Deng Xiaoping's famous southern tour gave a strong boost to the Chinese economy in reasserting the open-door policy and giving formal status to the "gradient development model." This model—which considers the Coastal, Central, and Western regions as three ladders of economic growth, with growth starting from the coast—gave the Coastal Region large benefits as the first mover of reforms. This was supported by a strategy of "big inputs, big exports," which was centered in the Coastal Region, to stimulate the materials-processing trade and attract foreign direct investment. Foreign trade and investment not only provided the coast with capital but also advanced technology and management, which enhanced productivity. By 2005, the Coastal Region accounted for more than 90 percent of total exports and imports, and it received 85 percent of foreign direct investment, which by then exceeded \$70 billion annually. With the Coastal Region's natural advantages of geographical location supported by these preferential policies, the region took off as the nation's economic center, while the Western Region in particular lagged behind at the periphery.

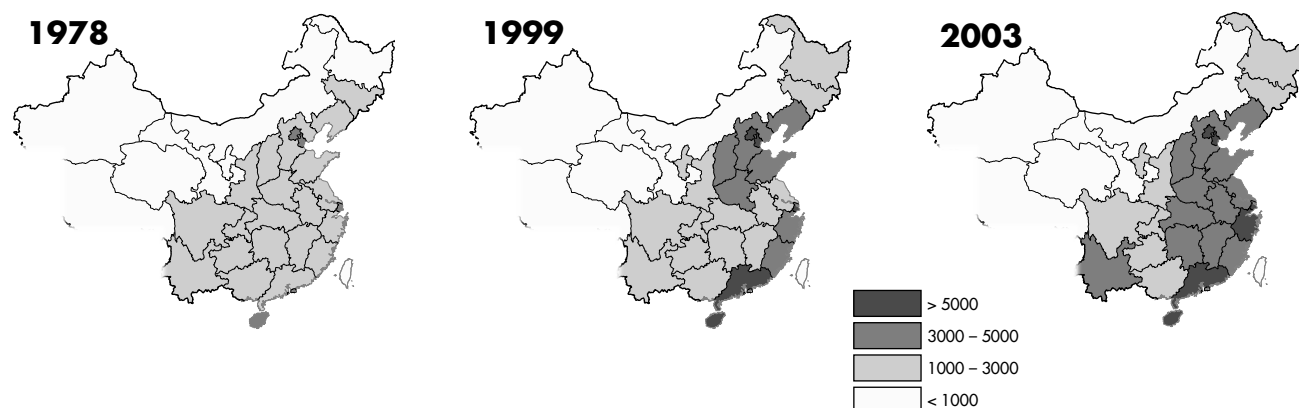
The open-door policy was also supported by shifting fiscal policies, which, although far from meeting modern needs, did selectively provide the coastal provinces of Guangdong and Fujian with the incentives to experiment at an early stage with reforms. This was reinforced by incentives that favored the allocation of public investment to provinces with greater financing capacity. As

Figure 3. Increasing Investment in China's Coastal Areas, 1982–2006 (percent)



Source: China National Bureau of Statistics

Figure 4. Expanding China's Highway Network to Meet Growth Needs



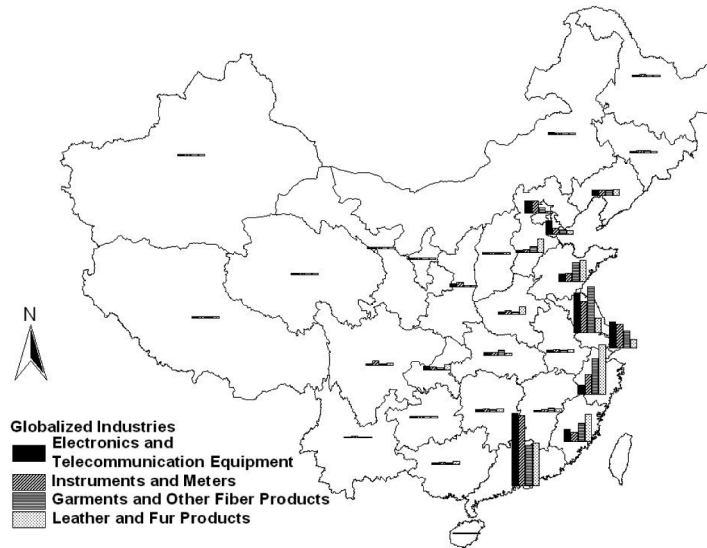
Source: World Bank 2007

a result, the share of public capital expenditures going to the coastal provinces increased from about 50 percent in the mid-1980s to nearly 65 percent by the mid-1990s (figure 3).

Much of the increase in financial resources supported a major expansion in the country's transportation and communication networks, initially along the coastal areas and then gradually spreading inland (figure 4). This sharply reduced the effective distances between major internal markets and allowed competitive forces to reshape interprovincial industrial structures. By cutting transportation costs as a percentage of the final price of traded goods, this helped link major production centers to internal and external consumer markets. China has been spending more than 5 percent of its GDP annually on transportation investments (some \$100 billion in recent years), which is unprecedented by global standards in relation to the size of its economy. In the early 1990s, attention was also given to upgrading logistics services in the coastal cities to improve connectivity with the outside world. After 2000, more priority was given to infrastructure investments in the Western and Central regions, as reflected, for example, in an expansion of highway mileage by 45 percent from 1999 to 2004, compared with 30 percent for the Coastal Region.

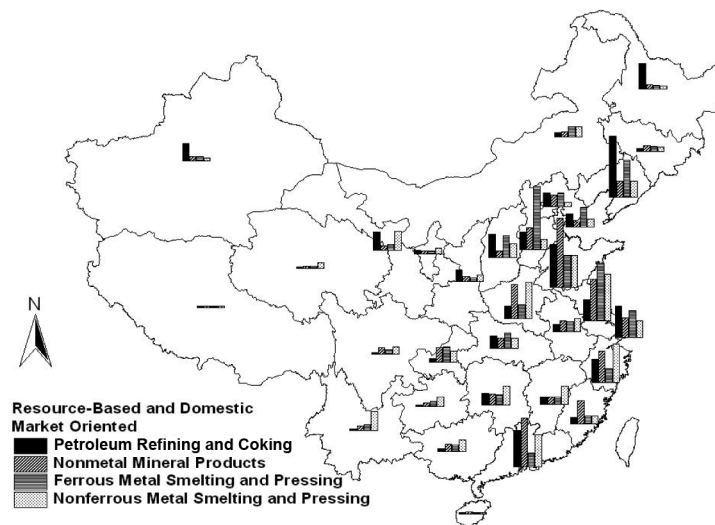
These investments have narrowed the large regional differences in wages and prices that were previously nurtured by artificial provincial boundaries and vast distances. As market integration deepened, provincial industrial structures have become more specialized, with the more service-oriented or higher-technology industries concentrated along the coastal urban areas and the resource-based and domestically oriented industries spread more widely (figures 5 and 6).

Figure 5. The Location of Globalized Industries in China, Largely Along the Coast



Source: He 2009

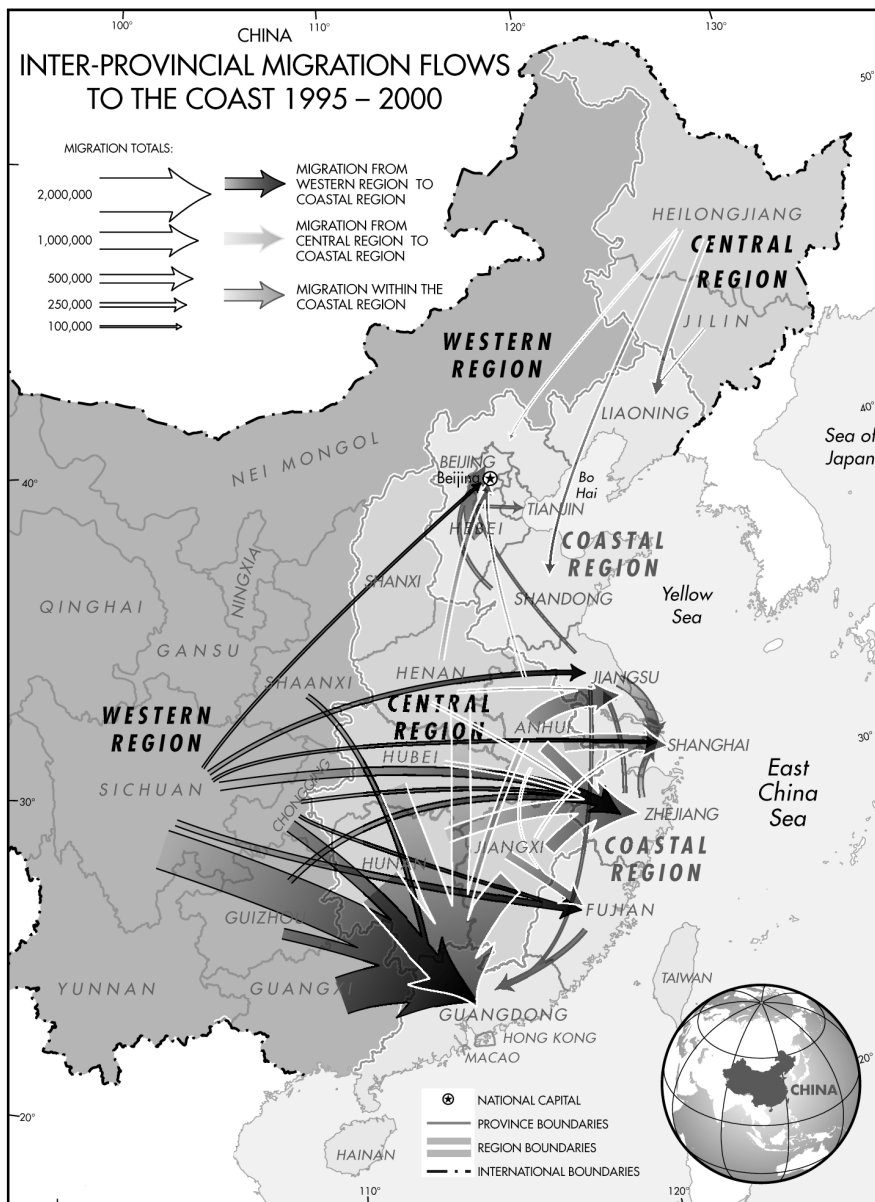
Figure 6. The Location of Resource-Based and Domestically Oriented Industries Is More Widespread in China



Source: He 2009

Integral to these policies was the urbanization process, which began with agrarian reforms and township-and-village enterprises and drew vast numbers of the surplus rural labor force into more urbanized wage-earning activities. This eventually spawned a large migrant labor population, now estimated at 150 to 180 million, which has flowed across regional boundaries and is now concentrated in the major commercial centers around the Pearl River Delta (Guangzhou and Shenzhen), the Yangtze River Delta (Shanghai), and the Bohai River Delta (Beijing/Tianjin) (figure 7).

Figure 7. Map Showing the Migration of Labor to China's Coastal Growth Centers



Source: World Bank 2007

In the aftermath of the open-door policies, selective fiscal incentives, and an influx of migrant workers, the spatial transformation of industrial production was spurred by the globalization process. These forces stimulated competitive industries to locate along the coast to exploit economies of scale. Market integration encouraged specialization and agglomeration benefits and contributed to increases in productivity within sectors and improved resource allocation between sectors. As the coastal cities became more linked to the global economy, the benefits became more obvious, as exemplified by rapid employment creation, pressures on enterprises to restructure to compete, and a much-improved domestic and external financial position. These outcomes provided the basis for popular support for China's trade liberalization and its joining the World Trade Organization (WTO) in the late 1990s and broke down the divisions that had formerly isolated it from the rest of the world. The remarkable changes in the degree of openness of its economy are illustrated by the increase in the ratio of trade to GDP—from 10 percent in 1978 to more than 70 percent today. Much of the country's trade liberalization took place during the past decade, as reflected in a decline of trade-weighted statutory tariffs from 40 percent in 1992 to an estimated 7 percent after WTO accession.

The Role of Exchange Rates During the Deng Era

Also worth noting is that for much of this period, China's exchange rate was fixed. Early on, China operated a multiple exchange rate system with differential rates depending on purpose. The net effect was a rate that was generally overvalued, as exemplified by the higher exchange rate for the U.S. dollar in unofficial markets. Rather than rely on movements in the exchange rate to send price signals, China, like many other East Asian countries, relied on a complex set of fiscal and institutional incentives to encourage exports. Thus, for much of this period, when China was building up its export capacity, the official exchange rate was not the instrument for shaping incentives and the yuan was overvalued.

Only in about 2003–2004—after the Asian financial crisis and China's WTO accession—was the yuan perceived as being undervalued rather than overvalued.

Although China's productive structure had been generating trade surpluses steadily for much of the period from 1990 to 2005, these were relatively modest—and in line with the need to build up a reserve cushion, given the increasing volume of trade relative to GDP. Ironically, by the time China allowed the yuan to appreciate, from 2005 to 2008—in response to global political pressures—the trade surplus only became larger rather than smaller. Only after

Factors other than the exchange rate are the primary determinants of China's trade balances.

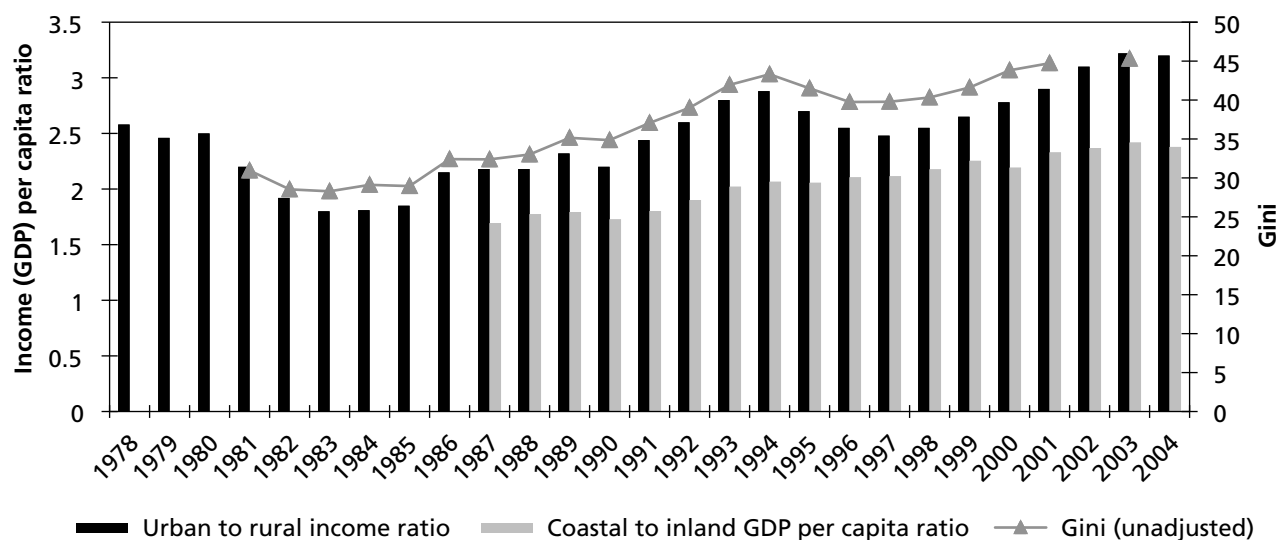
the yuan was repegged to the U.S. dollar in 2008 did China's trade surpluses begin to moderate. This implies that factors other than the exchange rate are the primary determinants of China's trade balances. From a national accounts approach, the forces that shape savings and investment decisions are more important than the impact of exchange rate changes on trade balances, particularly as they affect the flows between the United States and China, which are the focus of current trade tensions (as discussed below).

Dealing With Emerging Disparities: Spatial and Welfare Aspects

As successful as China's growth experience has been, a deliberately "unbalanced" growth strategy has also fostered increasing income disparities. Regional disparities now show up in two ways: in widening income gaps between the coastal and inland provinces, and in widening income gaps both between and within urban and rural areas. These disparities are not the result of stagnant growth in certain segments of society or regions but rather the consequence of unusually high and sustained growth in urban areas and along the coast. During the past twenty-five years, the Gini coefficient has increased by about 50 percent, from about 30 to 45 (figure 8). Currently, the ratio of urban to rural per capita income is more than 3, and per capita GDP in

As successful as China's growth experience has been, a deliberately "unbalanced" growth strategy has also fostered increasing income disparities.

Figure 8. Income Inequality in China, 1978–2004



the Coastal Region is more than twice that in the Western Region. The shifts in the urban-to-rural income ratio as well as the Gini are largely explained by the performance of the rural economy. Rural incomes have been increasing by 4 to 5 percent during the past twenty-five years—which is remarkable by international standards—but this is only about half the rate of growth in urban incomes. As a result, the trend lines for disparity indicators have either leveled off or reversed during periods of sharply rising rural incomes—notably in the early 1980s, with the household responsibility reforms; in the middle 1990s, with agrarian marketing reforms; and more recently, with the reduction of rural-based taxes and higher commodity and agriculture output prices.

Studies vary in attributing inequalities to either regional differences or intraprovincial factors, but the key point is that urban–rural disparities tend to be much greater in the poor provinces than in the rich coastal areas. Thus, a large part of the inequality between regions is in fact associated with the differences between their respective rural areas and is related to the uneven degree of urbanization across provinces. Inequality within provinces, in rural areas, and especially in urban areas has accounted for a larger share of total inequality over time (World Bank 2009). Rural inequality continues to be higher than urban inequality, but the latter has intensified in recent years, which is typical

of the impact of agglomeration effects. Regional factors also matter, however, because the larger urban–rural differences in the Western provinces are structural, given that ecological conditions militate against higher agricultural productivity in those areas and that the lower level of urbanization and more isolated settlements raise the cost of providing public services.

It is unclear how much of the recent convergence in regional growth rates is due to the government's regional development initiatives—notably the “Go West” program launched in 1999, the “Revive the northeastern provinces” strategy implemented in 2003, and the more recent “Center Rising” themes. But during the past decade, there

has been more balance in the regional pattern of investment rates and visible improvements in infrastructure services in the interior provinces. Some of the convergence may also be due to trade- and agriculture-related reforms, which removed distortions affecting agriculture and disseminated the benefits of an improved incentive regime more evenly across regions. Recent efforts to reduce rural–urban disparities by trying to increase agricultural productivity to levels that are comparable to those in the industrial and services sectors should be pursued cautiously, however, given differing regional endowments and cost-effectiveness considerations.

As measured by nonincome or social indicators, China's performance has been favorable, with achievements exceeding what would be predicted in

Recent efforts to reduce rural–urban disparities by trying to increase agricultural productivity to levels that are comparable to those in the industrial and services sectors should be pursued cautiously given differing regional endowments and cost-effectiveness considerations.

relation to income levels. Its Human Development Index (as measured by the United Nations Development Program,⁴ has risen continuously during the past quarter century. However, disparities in social indicators between regions and rural and urban areas are substantial. The proportion of people in rural areas with no education is about three times that in urban areas. Child and maternal mortality is twice as high in rural areas as in cities. Moreover, nonincome disparities between urban and rural areas appear to be greater in the poorer provinces, particularly in the west. With the increased attention to regional differences, interregional gaps at the primary educational levels have narrowed. However, urban–rural disparities in health conditions may have widened since the late 1990s, due to unrelenting income inequalities and the slow development of rural health care insurance systems.

The persistence of such disparities in welfare indicators illustrates how much further fiscal policies need to go to moderate trends (Lou and Wang 2008). Although the equalization grant that was established in 1995 to ease the widening regional disparities has increased, it is still relatively modest. Operating funds per primary school student are 50 percent higher in urban districts than in rural counties. Less-developed provinces do not systematically receive more total central transfers in per capita terms. Solutions lie not only in further deepening the distributional impact of centralized transfers but also in reforming how social expenditures are assigned to local levels along with associated funding.

Looking to the Future: Policy Priorities

Recent growth trends suggest a process of gradual convergence between China's coastal provinces and its interior. But the advantages of location will likely persist, even if narrowed, with agglomeration effects that will continue to favor the larger and more globalized urban areas along the east coast. What, then, should be the course of future policies, given public pressures to deal with increasing disparities?

Both theory and experience indicate that government initiatives should not try to “balance the location of productive capacity” across regions. However, a strategy to “moderate differences in economic welfare” between the coastal and inner provinces and between rural and urban areas would involve a three-pronged approach that builds upon China's past successes by (1) strengthening the distributional aspects of the fiscal system so that regional and rural/urban differences in access to social services are reduced and allocations of public investment projects are less constrained by the limited financing capacity at the poorer subprovincial levels; (2) eliminating jurisdictional and institutional barriers that continue to inhibit the mobility of labor, financial resources, and goods while strengthening infrastructure and logistics links so that the regions and rural/urban areas are better connected; and (3) encouraging complementary regional development policies that recognize and build on the uniqueness

of geographical and inherited differences rather than trying to work against them. Such region-specific policies, for example, include recognizing that the priority for the Western Region is defined by its fragile ecological conditions and the need to strengthen its human capital base; for the northeastern provinces, to encourage more aggressive enterprise restructuring with supportive social protection systems and tapping its natural agriculture-based advantages; and for the Central Region, to strengthen intermodal transportation links and the logistics infrastructure as commercial activities shift inward to serve major population centers as growth becomes more domestically driven.

Cutting across all these policy themes is the role that more flexible internal labor migration policies can play. Access to housing and social services for migrant families without urban residency status remains unequal, although restrictions have become more flexible in some jurisdictions. However, for many migrants, security is still linked to their *hukou*⁵ in their home province, which provides use rights to rural land. In the absence of more formal land use markets, the equally contentious issue of granting residency to migrant laborers in the cities is difficult to resolve. The most effective instrument for dealing with rural/urban disparities would be to reform the *hukou* system. Understandably, elements of the system have served China well in avoiding the urban slums

The most effective instrument for dealing with rural/urban disparities would be to reform the *hukou* system.

characteristic of many other major Asian cities. Thus, the issue is more about managing rather than halting the process of rural–urban migration to moderate social tensions, given the pressures for a more urbanized China.

Policy makers continue to be reluctant to liberalize the *hukou* system because of fears that China's cities will become even larger and potentially unmanageable. A quarter century since the reforms began, China's urbanization

rate has more than doubled and is now rapidly approaching 50 percent. At the current stage of development in metropolitan areas, positive agglomeration effects dominate negative congestion effects, although China's cities face major environmental challenges and urban transportation systems need to be improved. Contrary to popular perceptions, in relation to its population and land mass, China's major cities are in fact too small rather than too large (Bertaud et al. 2007). Building new “secondary” towns on the edges of existing cities may be effective only if there is a strong demographic, economic, and environmental rationale. Fragmentation in large cities (for example, leading to the existence of agricultural/vacant land within the otherwise contiguously built-up city), resulting from China's typical multi-ring spatial format of city development, has created less densely utilized enclaves, unnecessarily increasing the costs of urban transportation and the provision of social services. More efficient urban planning, which would lead to infill development in such heretofore “leapfrogged” areas, will be an important issue as urban population growth continues to accelerate.

The second issue that requires more attention is center–local fiscal relations. With the major tax reform of 1994, the discretion-based revenue-sharing system was replaced with a more rule-based fiscal assignment system, allowing the central authorities to use fiscal policy more actively for redistribution. Although revenues have since grown rapidly—from 10 percent of GDP in the mid-1990s to nearly 25 percent today—the impact of the fiscal system in providing a more equitable access to social services is still modest, in part because of the way expenditures assignments cascade down to local levels without providing commensurate funding. The level of subnational expenditures, at more than two-thirds of total spending, is very high by international standards; and in a country with such wide regional disparities, getting the right mix of revenue and expenditure assignments at each level of government is especially difficult. These consequences are more significant in the poorer inland provinces, which partially explains why urban–rural disparities are greater there relative to the coastal areas.

The government faces strong political pressures in trying to deal with these issues. Taken together, such initiatives would promote the agglomeration benefits from higher *density*, help minimize the *distance* factor that impedes more efficient location of economic activity, and break down the *divisions* that limit factor mobility and discourage sustainable development outcomes. How China handles this complex set of issues will have profound implications for the shaping of the location of future economic activity and its impact on social disparities and growth.

More efficient urban planning will be an important issue as urban population growth continues to accelerate.

The Relevance of Exchange Rate Policy Today

If Deng Xiaoping were alive today, he would be puzzled by the singular attention given to the issue of the need to appreciate the value of the yuan to moderate U.S.-China trade deficits. He would have responded, as the current leadership has done, by reaffirming that China is gradually moving toward a more flexible exchange rate system as its financial system develops. But he would have emphasized that China faces a number of other more pressing issues for which adjusting the yuan's value is not the most effective instrument.

For more than a quarter century, China has been reshaping its economic geography to develop a trade-oriented productive structure. The result has been a major relocation and concentration of industrial activity along the coastal areas, which has been nurtured by institutional, price, and financial incentives. But the tide is now turning, with the China of tomorrow transitioning to a more domestically oriented and consumption-driven economy that will drive

equally profound structural shifts with spatial implications. This process is already under way—and, though a more flexible exchange rate system would facilitate it, as discussed below, major fluctuations and one-way appreciation scenarios would do more harm than good.

Given the fragility of the global economy, China's major concern is to maintain rapid growth. But equally vexing for its political leadership are the excessive income inequalities that have come with its unbalanced growth process. Although the country has been extraordinarily successful in raising incomes across all segments of society, disparities have widened dramatically. Thus China needs another transformation—with major spatial implications—to realize its triple objectives of sustained growth with job creation, reduced income disparities, and more manageable current account balances.

Balancing these objectives has been made more difficult by recent policies encouraging more investment relative to consumption. Though this has spurred growth, it has also led to a dramatic decline in the share of wages in total income. The government recognizes that such trends are both undesirable and unsustainable. Meeting these multiple objectives requires an economy that is more domestically oriented and consumption driven. This will be made easier if the distribution of activity is more balanced between the Coastal and Inland regions. The regional development programs that have been launched during the past decade to revitalize the Western Region, several northeastern provinces, and the Central Region, along with the augmented social programs focused on rural areas, are beginning to stimulate more consumption as a share of national income.

Consumption will also be elevated by the emergence of a significant middle class, rapid urbanization, and an aging population—which together

herald a surge in demand for services. A more vibrant service sector, with its higher employment potential, will also moderate China's dependence on labor-intensive exports that are now seen as adding little value. Coupled with the reality that the U.S. and European appetite for East Asian exports is limited, China's growth will inevitably be driven more by domestic than external demand.

More by accident perhaps than design, China's policy of stable exchange rates has been nudging along this transformation. With fixed exchange rates, large current account

surpluses have been inflating wages and property prices in the coastal growth centers more than in the interior (table 1). Consistent with Paul Krugman's theories, the rising costs of production along the coast, coupled with continuing declines in transportation costs linking markets, are motivating coastal companies to relocate further inland. Relocation is more likely if the affected industries are oriented toward domestic production rather than global markets

Coupled with the reality that the U.S. and European appetite for East Asian exports is limited, China's growth will inevitably be driven more by domestic than external demand.

Table 1. Average Annual Growth of Real Wages in China, by Region, Selected Periods (percent)

Region	1997–2001	2002–2008
Central	8.0	9.4
West	7.7	8.6
East	6.5	10.2

Source: China National Bureau of Statistics

and are less dependent on the sophisticated services that flourish in more diversified urban settings. This spatial “rebalancing” of production centers is being driven by changes in market conditions—higher costs and shifting demand—rather than just a desire to be more balanced in the location of firms, which was the misplaced rationale for government intervention during the centrally planned period under Mao Zedong.

Over time, escalating wages, the movement of production inland, and continued rural–urban labor migration will trigger the desired decline in income disparities. Deng had foreseen this “reverse” transformation when he originally launched his reform policies—realizing that the gaps between the interior and coastal incomes would first widen before they would narrow. And this, in fact, has been the pattern—with the GDP growth of the coastal provinces becoming much higher than the inland ones from 1990 to 2000, then equalizing, and recently reversing, with the inland provinces now growing faster than the coastal ones.

Would a major appreciation of the exchange rate have been more effective in facilitating this reverse transformation? Because the adjustment would have been regionally neutral in its pricing consequences, there would not have been any clear signal to move inland. In contrast, what has unfolded more recently in terms of regionally differentiated inflationary pressures on wages and property has provided a more powerful incentive for firms to relocate. Moreover, the interior is only now catching up with the coastal areas in the quality of its infrastructure and management practices, and a much stronger yuan early on would have made it much harder for them to compete. These provinces are more agrarian and less dependent on scale economies. The “right” exchange rate for the coast would not have been right for the interior in giving it enough time to build up the necessary institutions and lower logistics costs to counterbalance the excessive focus on the coast during the early stages of the reform process.

As an additional tool to manage its economy, China also needs to put in place a more flexible exchange rate system that will allow the yuan to adjust gradually to market forces.

A “shock” approach involving a large exchange rate appreciation would have been more disruptive, with heavier social and political consequences than what is now likely to evolve. It would also have negated China's recent efforts to stimulate its economy, which has benefited not only China but also Asia and the world. But as an additional tool to manage its economy, China also needs to put in place a more flexible exchange rate system that will allow the yuan to adjust gradually to market forces.

If China succeeds, then the coming transformation will provide answers to the four major questions raised at the outset of this paper:

- **Will growth be driven by exports, investment, or consumption?** A healthier balance between all three will be restored. Wages and consumption will rise as a share of income, with investment declining to more sustainable levels. In the process, trade surpluses will moderate but remain positive.
- **Will economic growth slow down in the coming years?** Lower investment rates and reduced trade surpluses point to slower GDP growth, but if China can increase productivity and jack up consumption, the decline will be modest, with outcomes becoming more sustainable and beneficial to workers.
- **Can China maintain its growth objective while also reducing income inequalities?** As growth centers shift gradually inward, poorer rural inhabitants move to the cities, and wages rise, income disparities will decline.
- **Is an appreciation of the yuan in the interest of the United States or China?** Right now, a major one-time large revaluation of the yuan is not in the interests of the United States or China, but greater flexibility—in both directions—is in the interests of China and indirectly of the United States and the rest of the world.

Notes

- 1 These theories were the basis for the Nobel Prize in Economics awarded to Paul Krugman in 2008.
- 2 Agglomeration economies are the dynamic benefits coming from the interaction of firms, labor, and knowledge-related activities when economic agents are concentrated in a specific locality.
- 3 For a fuller discussion of the three D's concept that underpins the New Economic Geography and its implications for China, see Huang and Luo 2009.
- 4 See UNDP 2009 and the *Human Development Reports* at <http://hdr.undp.org/en/statistics>.
- 5 *Hukou* is a household registration system that establishes a person's official place of residency and gives them the right of access to social services and other rights including housing and land use. Changing one's official residency is tightly controlled by local authorities. Thus without a *hukou*, most migrant workers do not have access to the services or employment rights that are available to local residents. This makes it more difficult for them to bring their families or to make permanent a work-related move.

References and Bibliography

- Bertaud, A., D. Webster, J. Cai, Z. Yang, and A. Gulbrandson. "Urban Land Use Efficiency in China: Issues and Policy Recommendations." Unpublished paper, World Bank, 2007.
- Bhattasalli, Deepak, Shantong Li, and Will Martin, eds. *China and the WTO*. Washington, D.C.: World Bank, 2004.
- Bourguignon, François. "Growth, Inequality, and Fiscal Policy from a Historical Perspective: Are There Lessons for China?" In *Public Finance in China: Reform and Growth for a Harmonious Society*, Jiwei Lou and Shulin Wang, eds. Washington, D.C.: World Bank, 2008.
- Catin, M., X. Luo, and C. Van Huffel. *Openness, Industrialization and Geographic Concentration of Activities in China*. Policy Research Working Paper 3706. Washington, D.C.: World Bank, 2005.
- Chen, Zhao, and Ming Lu. "Is China Sacrificing Growth When Balancing Inter-regional and Urban–Rural Development?" In *Reshaping Economic Geography in East Asia*, Yukon Huang and Alessandro Magnoli Bocchi, eds. Washington, D.C.: World Bank, 2009.
- Dollar, David, and Bert Hofman. "Intergovernmental Fiscal Reforms, Expenditure Assignment, and Governance." In *Public Finance in China: Reform and Growth for a Harmonious Society*, Jiwei Lou and Shulin Wang, eds. Washington, D.C.: World Bank, 2008.
- Economist*. "Rushing by Road, Rail and Air: China's Infrastructure Splurge." February 16, 2010.
- He, Canfei. "Industrial Agglomeration and Economic Performance in Transitional China." In *Reshaping Economic Geography in East Asia*, Yukon Huang and Alessandro Magnoli Bocchi, eds. Washington, D.C.: World Bank, 2009.
- Huang, Jikun, Yu Liu, Will Martin, and Scott Rozelle. "Agricultural Trade Reform and Rural Prosperity: Lessons From China." Unpublished paper, World Bank, 2007.
- Huang, Yukon. "Watch China's Coasts, Not Its Currency." *Financial Times*, August 10, 2010, <http://www.ft.com/cms/s/0/2c1c83c2-a4b4-11df-8c9f-00144feabdc0.html>.
- Huang, Yukon, and Alessandro Magnoli Bocchi, eds. *Reshaping Economic Geography in East Asia*. Washington, D.C.: World Bank, 2009.
- Huang, Yukon, and Xubei Luo. "Reshaping Economic Geography in China." In *Reshaping Economic Geography in East Asia*, Yukon Huang and Alessandro Magnoli Bocchi, eds. Washington, D.C.: World Bank, 2009.

- Li, Shantong, and Zhaoyuan Xu. "The Trend in Regional Income Disparity in China." Unpublished paper, Asian Development Bank Institute, Tokyo, 2007.
- Lou, Jiwei. "The Reform of Intergovernmental Fiscal Relations in China: Lessons Learned." In *Public Finance in China: Reform and Growth for a Harmonious Society*, Jiwei Lou and Shulin Wang, eds. Washington, D.C.: World Bank, 2008.
- Lou, Jiwei, and Shulin Wang, eds. *Public Finance in China: Reform and Growth for a Harmonious Society*. Washington, D.C.: World Bank, 2008.
- Luo, Xubei. "La mesure de la distance dans le modèle de gravité: Une application au commerce des provinces chinoises avec le Japon." *Région et Développement* 13, 2001: 163–180.
- . *The Role of Infrastructure Investment Location on China's Western Development*. Policy Research Working Paper 3345. Washington, D.C.: World Bank, 2004.
- . *Growth Spillover Effects and Regional Development Patterns: The Case of Chinese Provinces*. Policy Research Working Paper 3652. Washington, D.C.: World Bank, 2005.
- Ma, J., and J. Norregaard. "China's Fiscal Decentralization." Unpublished paper. Washington, D.C.: International Monetary Fund, 1998.
- UNDP (United Nations Development Program). *China Human Development Report 2009*. New York: United Nations, 2009.
- Wang, S. "China's 1994 Fiscal Reform: An Initial Assessment." *Asian Survey* 37, no. 9, September 1997: 801–817.
- World Bank. *China Transport Sector Review, 2007*. Washington, D.C.: World Bank, 2007.
- . *China Poverty Assessment, 2009*. Washington, D.C.: World Bank, 2009.
- Yao, Yang. "The Political Economy of Government Policies Toward Regional Inequality in China." In *Reshaping Economic Geography in East Asia*, Yukon Huang and Alessandro Magnoli Bocchi, eds. Washington, D.C.: World Bank, 2009.
- Yusuf, Shahid, and Kaoru Nabeshima. "Optimizing Urban Development." In *China Urbanizes*, Shahid Yusuf and Tony Saich, eds. Washington, D.C.: World Bank, 2008.

About the Author

YUKON HUANG is a senior associate in the Carnegie Asia Program, where his research focuses on China's economic development and its impact on Asia and the global economy.

Previously he was the World Bank's country director for China (1997–2004) and Russia and the former Soviet Republics of Central Asia (1992–1997). Earlier he served as lead economist for Asia and chief for Country Assistance Strategies. He has also held positions at the U.S. Treasury and various universities in the United States, Tanzania, and Malaysia.

Huang has published widely on development issues, recently co-editing the book *East Asia Visions*, a collection of papers by noted Asian scholars on future prospects for the region. He also just completed a volume entitled *Reshaping Economic Geography in East Asia*.

Carnegie Endowment for International Peace

The Carnegie Endowment for International Peace is a private, nonprofit organization dedicated to advancing cooperation between nations and promoting active international engagement by the United States. Founded in 1910, its work is nonpartisan and dedicated to achieving practical results.

The Endowment—currently pioneering the first global think tank—has operations in China, the Middle East, Russia, Europe, and the United States. These five locations include the centers of world governance and the places whose political evolution and international policies will most determine the near-term possibilities for international peace and economic advance.

The Carnegie Endowment's **Asia Program** in Beijing and Washington provides clear and precise analysis to policy makers on the complex economic, security, and political developments in the Asia-Pacific region. The Carnegie–Tsinghua Center for Global Policy is a joint U.S.–China research center based at Tsinghua University in Beijing, China. The Center brings together senior scholars and experts from the United States and China for collaborative research on common global challenges that face the United States and China.