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# Uneven Development and Beyond: Regional Development Theory in Post-Mao China\*

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From Maoist redistributive policies<sup>1</sup> to Deng's uneven development model to the current Ninth Five-Year Plan (1996–2000), Chinese regional policy has undergone several decades of trials, adjustments and readjustments. During the first three decades of the People's Republic of China (PRC), investments were diverted from the more developed coastal areas to the poorer interior, in order to 'correct' the inherent uneven regional development, to tap inland raw materials and resources, and for national defense purposes<sup>2</sup> (Falkenheim, 1985; Yang, 1990). Post-Mao evaluations of these redistributive policies criticized their neglect of economic efficiency and their failure to accelerate national economic growth. Then, Deng's rise to power brought about a stark reversal of regional development priorities. Specifically, the coastal region is designated to be developed first, with a host of open zones set aside for foreign investment and rapid economic growth. Deng's uneven development policy has led to a widening development gap between the coastal areas and the interior, contradicting Mao's attempt to narrow regional disparities but has indeed contributed to strong national economic growth. Yet the debate on regional development continues. Since the mid-1980s, criticisms of the uneven development policy have become more severe and alarming, culminating in the current Ninth Five-Year Plan, which advocates once again that investments be increased in inland areas.

The debates and shifts of Chinese regional policy are a product of politics as well as the prevailing philosophies and theories of development. This paper emphasizes the latter. While most existing studies focus on policy and outcome, a better understanding of the logic behind Chinese regional policy and its shifts requires scrutiny of prevailing and influential ideas. The best source of these ideas is the Chinese literature on regional development. This is especially so because many Chinese researchers are also planners or advisors of regional policies and projects. Their work reflects the very debates that occupy policy-makers, and plays an important role in the adjustments and readjustments of regional policy. English-language research on the post-Mao period tends to focus on

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- 1 Although Maoist regional policy also aimed at narrowing regional disparities, some scholars question the extent to which actual allocation of resources during the Maoist period did foster more even regional development (Zhou, 1993; Zhao, 1996).
- 2 In particular, the 'third front' (*sanxian*) program was implemented in the 1960s and 1970s, which entailed allocation of large investments to remote interior locations in order to create self-sufficient industrial bases away from the more vulnerable eastern coast. See Naughton (1988).

the empirical question of whether the regional development gap has widened,<sup>3</sup> rather than on the theoretical roots of regional policy. This paper reviews the Chinese literature on post-Mao regional development, and attempts to explore the prevailing thoughts and ideas which have influenced regional policy.

The Chinese literature on post-Mao regional development is rich and diverse, but is also confusing and is muddled by a multiplicity of theories, models and schools of thought (Peng, 1991; Yang and Liang, 1994). For example, similar ideas are often represented by different terminologies, and many notions are drawn or revised from existing Western theories. Another objective of this paper is therefore to provide an organizing framework to understanding this large body of work. I draw almost exclusively from publications in Chinese and in China, primarily by geographers, economists and planners between 1985 and 1995.<sup>4</sup> Several geographic and economic journals are especially representative of research on regional development.<sup>5</sup> Except for a few sources, I do not review reports by Chinese institutes that are often commissioned by state or local governments but are not publicly circulated. I do not intend to be exhaustive, and many studies are left out because they are less influential or because they have not provoked significant interest. But the studies cited here are representative of the most important thoughts on regional development during the post-Mao period. This article consists of seven sections. The next section outlines the background and strategies of uneven regional development, and the third section summarizes the findings on the regional development gap. Then the fourth and fifth sections review the criticisms on and alternatives to the uneven regional development policy. They are followed by a brief discussion of the Ninth Five-Year Plan, and a concluding section with some comments on China's regional development theory.

## Uneven regional development: background notions

The reversal from Maoist redistributive policies to post-Mao uneven regional development can be attributed to three background reasons — lessons from the past, the influence of Western theory, and the experience of developed countries (Zhang, 1989). Since the late 1970s, Chinese researchers have fervently expressed the view that Maoist redistributive policies did not emphasize factors of production, ignored scale and external economies, and above all slowed national economic growth (Yuan, 1987; Peng, 1991; Tu, 1995). To these critics, the 'third front' program which required large investment but produced low returns epitomized Mao's incorrect judgment (Shu and Huang, 1993). Some scholars argued that even development is simply not feasible nor appropriate in a country with low levels of income and development, and that spreading investment evenly would only dilute its effect (W. Yang, 1991; Zhu, 1994; Tu, 1995).

Secondly, the opening of China since the late 1970s has allowed Western theories of regional development to exert greater influence over their Chinese counterparts. In particular, neoclassical regional growth theories have popularized the notion that uneven regional development is an inevitable stage during the course of development. Among the most frequently cited authors are Hirschman (1958), Myrdal (1957) and Williamson (1965), who predicted concentration of growth in selected sectors or locations with higher

3 For example, Lakshmanan and Hua (1987), Lo (1990), Lyons (1991), Tsui (1991), Wei (1993a), Huo (1994) and Zhao (1996).

4 As much as possible both the English and romanized (*pinyin*) titles are included in the references. The published English title is used if available, otherwise English translations from the *pinyin* are done by the author.

5 For example, *Jingji lilun yu jingji guanli* [Economic Theory and Business Management], *Jingji yanjiu* [Economic Research], *Jingji dili* [Economic Geography], *Jingji guanli* [Economic Management], *Jingji wenti tansuo* [Inquiry into Economic Problems] and *Dili yanjiu* [Geographical Research].

efficiencies before diffusion to other sectors or areas takes place. Hirschman has introduced the notion of growth poles (*zengzhangji*), Myrdal the concepts of spread (*kuosan*) and backwash (*fanbo*), and Williamson the inverted-U (*dao-U*) model. Of these, Williamson's inverted-U model is most relevant for justifying uneven regional development policy. It suggests that regional inequality first rises during the initial stages of development and then declines at more advanced stages. The model is central to the prevailing view that China is at an early stage of development, that uneven regional development is inevitable and is simply a manifestation of an objective 'law' rather than a problem (Chen, 1986; Liu, 1993; Shu, 1994; Tu, 1995).

Finally, the experience of developed countries offers further support for considering uneven regional development as a natural product of development. Zhang (1989), for example, argued that uneven regional development is a function of development level; therefore, regional inequality is expected to be greater in developing countries than in developed countries. Similarly, citing the historical diffusion of industrialization in the United States and Japan, Yu and Chen (1985) predicted that diffusion of economic growth will occur in China once it becomes more developed. Most importantly, Western theories of regional development and the history of developed countries have helped to justify the notion of 'stage of development' and the argument that uneven regional development is a natural product of development and should therefore be tolerated.

To be sure, the concept that societies are moving through a series of developmental stages is not new but is indeed embodied in marxism (Brugger and Kelly, 1990: 19), and has been a prominent notion in the debates among Chinese intellectuals on how socialism would materialize in China. Su and Feng's (1979) paper is widely accepted as the origin of the theory of a 'primary stage of socialism'. They argued that China was a semi-colonial and semi-feudal country when it adopted socialism; and because it has not yet reached the socialist stage as defined by Marx and Lenin, the transition to socialism would entail a very long process. But it was not until the late 1980s, when party leaders desperately sought legitimization for the reform movement and the non-state economy, that Su and Feng's idea became popular and official (see below) (Ding, 1994: 172). This is one of many examples where 'theories' became an after-the-fact justification for policies that have already been implemented for pragmatic, political or other reasons.

The theory of the 'primary stage of socialism' was formally adopted by the Chinese Communist Party in 1987 (Zhao, 1987: 14), and quickly became a springboard to the notion of 'socialism with Chinese characteristics'. Deng (1993e) argued that classical marxism was designed for mature socialist societies but not for nations at a primary stage of socialism and with a low level of economic development. Instead, China should develop 'socialism with Chinese characteristics', that is, the application of socialism with respect to China's unique situation (Deng, 1993a). For example, scarcity of capital in China requires that it be concentrated in selected areas rather than allocated evenly across regions (R. Li, 1988). China's uniqueness is also underscored by large regional differences — eastern regions are superior in productivity, capital, human resources and skills, while western regions are better endowed in raw materials, energy and natural resources (Yu and Chen, 1985; Chen, 1986; Chen and Chen, 1988). Recognition of these differences, coined 'ladder-step (*tidu*)<sup>6</sup> differences' by Chinese researchers, underlay the post-Mao uneven regional development policy (Yuan, 1987).

The post-Mao period also distinguishes itself from the preceding period by its explicit endorsement of pragmatism. Although Maoist redistributive policies had practical goals — especially industrial development and national defense — equity and egalitarianism were among the considerations for diverting investments to the interior (Falkenheim, 1985; Riskin, 1987: 223). Post-Mao economics is, however, overwhelmingly dominated

6 *Tidu* can be translated as ladder-steps, which refers to the declining levels of factor endowments and economic development from the east to the west of China (Yang, 1990).

by pragmatism. Much research is devoted to searching for the 'nature of economics' or 'objective laws of development'. Functional economic analysis, which focuses on the methodology of planning and managing the economy, has replaced marxist ideology as a guide to national economic development (Hsu, 1991: x, 4). Rather than following orthodox ideas which emphasize state planning, many scholars argued for a 'socialist market economy' (Ma, 1992) whereby the market is not viewed as a monopolistic product of capitalism but as an instrument consistent with socialism and compatible with state guidance (*Beijing Review*, 1992a; Deng, 1993b, 1993d). Deng's famous quote 'If a cat catches mice, what does it matter if it's black or white?', best summarizes the prevailing pragmatism.

Deng's influence over regional development thoughts is perhaps nowhere more direct than his public endorsement of prioritizing efficiency over equity. Not only did he criticize Maoist redistributive policies, he also argued that some people and regions should get rich first so that they can provide 'demonstration effects' for other people and regions to follow (Deng, 1983; 1993c). During Deng's famous 'southern tour' of 1992, he once again reaffirmed the legitimacy of coastal areas to get rich first (Deng, 1993f). This process, Deng projected, would eventually lead to uniform wealth. This view seems to echo the marginal social product theory of income distribution, that is, those who contribute most to the creation of society's wealth and thereby set examples for others to follow deserve to get rich first (Hsu, 1991: 110). The notion that efficiency should be given a higher priority than equity is widely repeated in the regional development literature (Shu and Huang, 1993; Chen, 1994; Tu, 1995). Although Deng indicated that future state intervention may be required for narrowing the regional gap, he warned that an early intervention would only undermine economic growth. The appropriate time, he suggested, would be the end of the twentieth century when China has reached 'a comfortable level of living' (*xiaokang*) (Deng, 1993f). Similarly, some authors argued that the transition from uneven regional development to even regional development entails a long process, and that any state intervention to activate this transition should be timed wisely (Chen *et al.*, 1993; Xia, 1994).

## Uneven regional development: theories and strategies

Pragmatism, the search for objective laws, and emphasis on efficiency, provided the rationale for Chinese policy-makers to adopt 'comparative advantage' (*bijiao liyi*) as a guiding principle of regional policy. The literature frequently cites classical and neoclassical economists such as Adam Smith, David Ricardo, Eli Heckscher and Bertil Ohlin for supporting policies emphasizing regional comparative advantage (Chen, 1987; Tu, 1995). These policies foster regional division of labor based on differentials in regional endowments (Chen and Chen, 1988). The Sixth Five-Year Plan (1981–85) advanced the idea of regional division into east and west; and the Seventh Five-Year Plan (1986–90) formally adopted the 'three economic belts' (*sanda jingji didai*) division, comprising the eastern (coastal), central and western regions (Figure 1) (*Beijing Review*, 1986a). Based on these regions' endowments, they were assigned specific roles — export-oriented industrialization and foreign trade in the eastern region; agriculture and energy development in the central region; and animal husbandry and mineral exploitation in the western region (*Beijing Review*, 1986b). Along similar lines, some authors argued that the eastern region should specialize in high-technology, information-intensive and high value-added industries (Huang, 1993; Liao, 1993).

The principle of comparative advantage also underlies China's open-door and foreign trade policies since the late 1970s. The 'grand international cycle' (*guoji daxunhuan*) theory has been especially influential. Supporters of this theory argued that as developed



Figure 1 Early phases of post-Mao regional policy

countries move away from labor-intensive industries to specialize in more sophisticated sectors, China should take advantage of her large labor supply and engage in labor-intensive export-oriented industries, which will bring in foreign exchange and capital for infrastructure and technology improvement (W. Yang, 1991; Cheng, 1994). Classical Western theories such as the export base theory<sup>7</sup> are further used to justify an export-led growth strategy (Chen, 1987). The newly industrializing economies (NIEs) are frequently cited as successful examples of export-oriented industrialization, as well as a target for China's future growth (Lin, 1990: 19; *People's Daily*, 1992c).

Export-led growth in the eastern region has been greatly facilitated by the designation of open zones. Opening (*kai fang*) of these zones means that a favorable environment would be created for promoting foreign trade, including state funding for infrastructure development and various financial and legal inducements for attracting foreign investments. They include the special economic zones (SEZs) of Shenzhen, Zhuhai, Shantou, Xiamen (1979) and Hainan (1988); 14 open coastal cities (OCCs) (1984); free trade zones in coastal cities (1993) (*Beijing Review*, 1993); open economic zones such as the Pearl River, Minnan and Yangtze Delta, and other open cities and counties. These open zones constitute what is known as a 'golden coastline' (*huangjin haian*) in the eastern region (Figure 1) (*People's Daily*, 1992a).

Not only was the eastern region set aside for export-led industrialization, it was also designated the first region to experience speedy economic growth. Described as a Chinese version of the inverted-U model, the popular ladder-step theory (*tidu lilun*) (see note 6) holds that the eastern region which has high economic efficiency should be developed before the less efficient central and western regions (Chen, 1986; Yuan, 1987; Yang *et al.*, 1988; Peng, 1991). Supporters of this theory argued that this order of development is

7 The export base theory stresses the relationship between export activities and regional growth (Tiebout, 1956).

consistent with the principle of regional division of labor and would enable economic activities to be placed in optimal locations. Decentralization of investment and capital to central and western regions, they warned, would only slow the development process and offset national economic growth. Because of the emphasis on the eastern region, this is also known as the 'eastern mission' (*dongbu juezhan*) school of thought (Yang *et al.*, 1988).

The ladder-step theory is more elaborate on the regional order of development than on the process of regional diffusion of growth. Instead, researchers use Western theories to justify the projection that regional diffusion will take place in the future. Among the most frequently cited are Myrdal (1957), Hirschman (1958), Friedmann (1966) and Richardson (1976), and their discussion of polarized (*jihua*) or backwash effects and spread effects between the core and periphery regions and between growth poles and the hinterland (Tsao, 1990; Yang and Liang, 1994). Although these theories have varied degrees of success when applied to Western countries, they are used by supporters of the ladder-step theory to argue that in the future labor and capital will flow from the core to the periphery, and that economic growth will trickle down from more developed to less developed regions. The compatibility between Western theories and the Chinese reality is rarely discussed, and the mechanisms for bringing about diffusion have never been elaborated, but are considered an issue to be addressed in the future. Deng's statement of addressing the regional gap by the end of the twentieth century has clearly been influential and is frequently repeated in the literature (Yang *et al.*, 1988).

Adopting the ladder-step theory, Chinese leaders designed and implemented policies such as the 'coastal development strategy' (1988) (D. Yang, 1991) that focused development in the eastern region. But nowhere is the bias toward the eastern region more evident than a series of 'preferential policies' (*qingxie zhengce*)<sup>8</sup> that heavily favor the eastern region at the expense of inland China. At least six types of preferential policies may be identified (Xu, 1989; Zhang, 1989). First, the coastal region receives larger investments from the state, in the form of loans, subsidies, and via joint central and local projects. Second, open coastal areas such as SEZs enjoy higher foreign exchange retention rates. Third, some coastal provinces, especially Guangdong, have arranged to remit a lump sum to the state, which gives them greater fiscal autonomy as their revenue grows (Wei, 1996). Fourth, workers in coastal areas enjoy higher wages. Fifth, primary goods and agricultural products are priced substantially lower than finished goods and industrial products.<sup>9</sup> This 'scissors gap' (*jiandaocha*) in prices benefits coastal provinces at the expense of inland provinces: coastal provinces sell high-priced goods to and obtain low-priced goods from inland provinces; the latter, on the other hand, produce low-priced goods but have to purchase goods from the former at high prices. Sixth, coastal provinces and especially open zones enjoy greater freedom in terms of currency circulation, credits and loans, bonds and private financial institutions. Not surprisingly, supporters of the ladder-step theory and the 'eastern mission' school advocate preferential policies and the continuation of such policies (Chen, 1994; Shu, 1994).

8 The etymology of the Chinese word *qingxie* is tilting, slanting, sloping or gradient, and in the context of regional development it refers to the preferential treatment that some regions enjoy. The greater the 'degree' or 'angle' of *qingxie*, the greater the extent of preferential treatment. One may imagine a board on which are placed ingredients of economic growth; if the board is resting on a pivot and is sloping down to a particular region, the latter will receive some of the ingredients sliding down from the board; if the slope of the board is very steep, the region will receive even more of the ingredients of economic growth. Since in practice *qingxie zhengce* refers to the policies that aid the economic growth of particular regions, it is translated as preferential policies in this paper.

9 In the early 1990s, the government began to eliminate price controls on key producer goods, such as coal, oil and steel, and on sensitive consumer goods such as grain (Naughton, 1995: 289–91).

## Regional inequality

Increase in regional inequality is clearly an expected consequence of the post-Mao uneven regional development policy. But both the Chinese- and English-language literature reported mixed findings, due to variations in empirical specification such as geographic scale, indicators of development, measures of inequality and time period of study.<sup>10</sup> The following discussion focuses on the Chinese-language studies of regional inequality.

Many Chinese studies reported cursory observations of a widening gap in regional development (Kong, 1988; Chen, 1990; Lao, 1993; Lin, 1993; Tu, 1995; Xu, 1995). They suggested that China's level of regional inequality is high (Chen *et al.*, 1993); that the gap is widening between as well as within the three economic belts (Wang and Zeng, 1988); and that raw material-producing regions are lagging behind raw material-consuming regions (Huang and Yang, 1986). In short, the increase in inequality is due to the uneven regional development policy (Shu and Huang, 1993).

Studies that employ quantitative measures of inequality have produced more specific findings. The most popular indicators of development are income and output; and usual measures of inequality include the coefficient of variation, entropy index and dissimilarity index (Y. Hu, 1992; Z. Hu, 1992; Zeng and Liang, 1994; Yang, 1994b). Researchers who examined the absolute level of income and output indicators reported a widening gap between the east and the west (Xu, 1988; You, 1991; Huang, 1993). Yet analyses that measured the relative sizes of income or output indicators found that in the 1980s interprovincial inequality declined, although the gap between the three economic belts continued to widen (Z. Hu, 1992; Zeng and Liang, 1994; Yang, 1994b). One reason for the decline of interprovincial inequality is a possible diffusion of growth from Shanghai to other eastern provinces (Z. Hu, 1992); but more authors concluded that it is due to the slowing of economic growth in the old industrial core in the northeast and north of China, and to the rapid growth of other coastal provinces that were previously outside the old industrial core, especially Shandong, Jiangsu, Zhejiang, Fujian and Guangdong (Zeng and Liang, 1994; Yang, 1994b). The old industrial core's slower growth offset rapid growth of the newly developed coastal provinces, and the net result is an overall decline of interprovincial inequality.

To be sure, coastal provinces as a whole are indeed pulled further apart from inland provinces, and the development gap between the eastern region on one hand and the central and western regions on the other is increasing. Some authors also argued that attention should be given to the increasing inequalities within regions and within provinces (Wang and Zeng, 1988; Shu, 1994). By the late 1980s, the scholarly literature reflected a heightened concern with increases in regional inequality and with a perceived lack of equity, which were important bases for launching attacks against the uneven regional development policy.

10 Among English-language studies, Lakshmanan and Hua (1987) and Tsui (1991) reported an increase in regional inequality since the early 1980s; but Lo (1990), Lyons (1991), Wei (1993a), Huo (1994) and Zhao (1996) all found a decline in regional inequality during the same period. Fan (1995a) pointed out that the discrepancy in findings is due to differences in the scale of analysis. For example, Tsui aggregated the three centrally-administered municipalities with their adjoining provinces, while most other researchers examined all provincial-level units. Fan also argued that the decline in interprovincial inequality does not imply that post-Mao regional policy is equilibrating, but merely reflects empirically that rapid growth of eastern provinces like Jiangsu and Guangdong was offset by slower growth of the old industrial core in the north and the northeast. This finding supports the interpretation offered by the Chinese literature (see below). On the other hand, coastal provinces such as Jiangsu and Guangdong continued to diverge from inland provinces, and within these rapidly growing provinces there is evidence of an increase in spatial inequality (Fan, 1995a; 1995b).

## Criticisms of uneven regional development policy

Evidence and the perception of a widening regional gap have prompted many researchers to question the uneven development approach (Chen, 1987; Zhang, 1989; 1990; Zhu, 1992; Lao, 1993; Xu, 1985). They scrutinized and challenged the basic premises of uneven regional development. In particular, researchers criticized the three-economic-belts model for being too broad and simplistic and for ignoring the development of the central and western regions (Chen, 1987; Liu, 1991; W. Yang, 1991). The 'third front' industrial bases, they argued, are completely neglected (Xu, 1990).

A prediction of the ladder-step theory is that China will follow the footsteps of other large countries that have experienced regional diffusion of development, especially the United States. Critics of the theory argued that comparing China with the United States is problematic. They pointed out that while the discovery of gold in western USA had aided mass migrations from the core to the periphery, China's inland regions lack commensurate factor endowments and are unable to absorb large in-migrations of population (Chen, 1987; Wang and Zeng, 1988). Projecting China's regional development based on other countries' experience, therefore, is to ignore the historical and geographical contexts of the development process. As a whole, critics of the uneven regional development policy are skeptical toward the applicability of Western theories in the Chinese context (Xu, 1995).

Both the strategies of export-led growth and coastal development have been severely criticized. Their opponents argued that big countries like China should focus on the domestic market and on their own resource base (Wang and Zeng, 1988; Jiang, 1992). They predicted that the 'coastal development strategy' would retard the development of inland regions, which would in turn aggravate the scarcity of energy and raw materials and further constrain national industrial production (Zhang, 1990; Liu, 1991). The frequency of power outage and disruption of industrial production provides evidence for this view.

Yet the most heated criticisms are against the preferential price policy. Inland provinces that are dependent on the output of primary products sell them at low prices but have to purchase finished goods from coastal provinces at high prices (see note 9). This price structure has been described as 'unequal exchange' (*bupingdeng jiaohuan*), 'unfair competition' (*bupingdeng jingzheng*), and 'double losses' (*shuanchong lirun liushi*) for inland provinces (Huang and Yang, 1986; Li, 1991; Liu, 1991; Zhang, 1992; Zhu, 1992; Hua, 1995; Xu, 1995). Not only has this 'scissors gap' in prices unduly benefited coastal provinces that have a stronger industrial base, it has also led to declining incentives in food and primary products production. Therefore, some researchers argued that the distorted price structure is the key reason for uneven regional development (Peng, 1991; Tu, 1995). Most importantly, since this price structure distorts the measurement of output and efficiency, researchers have begun to question the conventional wisdom that eastern coastal provinces are more efficient than inland provinces, the very rationale of the uneven regional development policy (Liu, 1991).

Criticisms of the price structure have also led to a scrutiny of the concept of equity. Researchers argued that equity should reflect fairness and equal opportunities for competition rather than egalitarianism or equality of results (Huang and Yang, 1986; Liao, 1993; Liu, 1993; Shu and Huang, 1993). The uneven regional development policy, however, does not provide a 'level playing field' for coastal and inland regions — the preferential policies guaranteed coastal provinces better opportunities and greater returns (Jiang, 1992; Xu, 1995).

Although supporters of the uneven regional development policy anticipated future transfer of economic growth or resources from more developed areas to less developed areas, their critics observed that historically this type of transfer had been rare and that the

idea is too simplistic (Xu, 1988; W. Yang, 1991). On the contrary, researchers found evidence of outflows of primary products, scarce commodities, technology, capital and human resources from inland to coastal regions (Huang and Yang, 1986; Kong, 1988; Yang, 1994; Xu, 1995; Jiang, 1996). The 'scissors gap' price structure, some researchers argued, has led to a transfer of revenue from the west to the east of China (Xu, 1995). The 1990 census reported 3.5 million people migrating from the central and western regions to the eastern region during 1985 and 1990<sup>11</sup> (Fan, 1996). Guangdong, in particular, has become the most attractive location for migrants. Large migrations of labor from Guangxi and Sichuan into Guangdong, for example, reflect the desire for individuals to seek economic opportunities there, aptly described by the Chinese proverb 'peacocks flying to the south and east' (*kongque dongnan fei*) (Lin, 1993; Yang, 1994). Fan (1992) observed that there is a clear movement of educated individuals toward the eastern region, further contributing to the concentration of human capital there. Therefore, the more developed coastal areas benefited disproportionately from the uneven regional development policy, while less developed inland provinces benefited little or actually suffered from it. In the Chinese literature, this is commonly known as the 'Matthew effect' (*matai xiaoying*) cited from the Bible — those who have plenty will be given more; and those who have little will be stripped of what they already have (Liao, 1993; Tu, 1995).

Critics of the uneven regional development policy further pointed out other negative consequences of the policy. Because output is a key criterion of performance evaluation by the central government (Zhu, 1992), many regions rush to produce light industrial and consumer goods that are high-priced, even though they do not have the necessary industrial base, skills or technology for such production (Huang and Yang, 1986; Sai and Zhu, 1990). A result is small and scattered production with low efficiency and little scale economies. Some inland provinces, for example, Sichuan, are eager to jump on the 'open-door bandwagon' and establish open zones in order not to miss out on potential profits from foreign trade (*People's Daily*, 1992f). However, as provinces compete to produce high-priced goods in order to take advantage of the 'scissors gap' price structure, regional sectoral structures begin to converge (S. Li, 1988; Zhu, 1992). Ironically, regional competition has undermined comparative advantage and division of labor, the very principles that underlie the three-economic-belts model and the ladder-step theory.

Conflicts between the central and the local, and among regions, are another negative ramification of the uneven regional development policy (Zhang, 1989; W. Yang, 1991). Some inland provinces lobbied and pressured the central government to extend preferential policies to them, to designate open zones in the west, and to reduce the 'scissors gap' in prices (Zhu, 1992). In order to protect themselves from losses and unequal exchanges due to the 'scissors gap' price structure, inland provinces sought to promote 'self development', that is, local raw materials and resources would be kept for 'own production, use and sales'. To this effect, provincial and local authorities set up administrative barriers (*guanka*) to restrict flows of raw materials and primary products (Zhang, 1992; Huang, 1993; Liao, 1993). As a result, there were waves of competition over highly-demanded raw materials such as wool, ramie and silk, described as 'raw material wars' (*yuancailliao dazhan*) and 'commodity wars' (*zhiyuan dazhan*) (Feng, 1989; Li, 1991; Zhang, 1989; Zhu, 1992; Shu and Huang, 1993). These competitions jack up prices, aggravate inflation, discourage regional linkages and exacerbate regional conflicts. Therefore, the Chinese market remains segregated and fragmented, and regions tend to adopt models of development with little scale economies or linkages with other regions, described as 'small and comprehensive' (*xiao er quan*), 'large and

11 Official statistics do not capture the large magnitude of the 'floating population', whose estimates vary with sources and definitions but ranged up to 100 million in 1993 (Wan, 1995). They are primarily peasants, whose unprecedented mass movements pose a great challenge to the political and economic stability of Chinese society (Solinger, 1995; Chan, 1996).

comprehensive' (*dai er quan*) and 'cooking with own stoves' (*fenzao chifan*) (Zhang, 1989; Li, 1991; Shu and Huang, 1993). The uneven regional development policy has ironically resulted in the opposite of what it was intended to achieve: duplicate sectoral developments across regions rather than regional division of labor; and local protectionism and regional tensions rather than coordination among regions.

## Beyond uneven regional development: new models and alternatives

By the late 1980s and early 1990s, criticisms of the uneven regional development policy have triggered many suggestions of new models and alternatives to the existing regional policy. Some researchers argued that linkages between the three economic belts should be emphasized. For example, primary products from central and western regions should be transported to the eastern region for advanced processing, so that the final products can be exported to overseas markets for bringing in foreign exchange and new technology, which will in turn enable the development of both eastern and inland provinces (Hu, 1992; Liao, 1993; Shu, 1994). Many more researchers urged the state to activate the process of regional diffusion of economic growth by extending preferential policies to the central and western regions (Liu, 1986; Luo, 1986; Chen and Chen, 1988). Suggestions included greater state investments in transportation and resource development, open zones and SEZs, tax and loan incentives, and programs for alleviating poverty (*tuopin* or *fupin*) in inland provinces (Huang and Yang, 1986; Kong, 1988; Xu, 1989; Lu, 1992; Huang, 1993; Chen, 1994; *People's Daily*, 1994).

Researchers are eager to offer alternative views and models to the ladder-step theory. Yang (1994a) represents a neoclassical view, which downplays the regional order of development but advocates free movements of factors of production, free trade, integration of the national market, elimination of regional protectionism, maximization of comparative advantage and optimization of the location of economic activities. Other views highlight specific regional foci for development. The 'leapfrog' (*tiaoyue* or *chaoyue*) model, for example, holds that the abundant resources in western China should be given a top priority for development, so that that area may match, if not surpass, the eastern coast in economic growth (Chen, 1986; Luo, 1986; Wei, 1993b). Not only is this view 'anti-ladder step', it is also an antithesis to 'eastern mission'. Critics of this view, however, were quick to point out that China does not have the necessary capital for large-scale exploitation of resources in the underdeveloped western provinces (Xu, 1985; Xu, 1988).

A compromise between the ladder-step and 'leapfrog' models is the 'partial leapfrog' view, which accepts the development priority of the eastern region but emphasizes some degree of development in the west (Yu and Chen, 1985). Because this view prescribes a primary focus on the east and a lesser focus on the west, it is also known as the 'one-and-a-half focus' (*yigeban zhongdian*) model. Supporters of this model argued that the contribution of 'third front' industries should be recognized, and that development of the west is necessary for maintaining strong agricultural and energy bases, for addressing minority concerns, and for supporting the development of the east (Xu, 1985; 1990). Along similar lines is the 'two foci' (*liangge zhongdian*) model, which gives equal weight to the development of the east and west (Luo, 1986). Supporters of 'one-and-a-half focus', however, argued that a two-foci model would diffuse China's limited capital (Xu, 1985).

Other researchers emphasize the role of growth centers or growth poles. Their work reflects both influence from the Western growth pole theory and a strong desire to halt the widening regional gap of development (R. Li, 1988; Tsao, 1990; Peng, 1991; Zhu, 1991). The role of key enterprises in the growth pole, for example, is emphasized (Xu, 1988). Terminologies and analogies such as 'radiation' (*fushe*), 'inkblot effect' (*mozi kuosan*)

and 'from centers (*dian*) to surfaces (*mian*)' are frequently used to illustrate how economic growth may diffuse from a growth pole to its hinterland (Chen, 1986). Although development policies centering on growth poles have failed in some countries, defenders of the growth pole theory argued that rigorous government planning would ensure its success in China (Tsao, 1990). The notion of growth pole has indeed influenced urban policy-making — since the mid-1980s, the 'city leading county' (*shidaixian* or *shiguanxian*) policy, which enlarges the jurisdiction of the city over surrounding counties, also designates the city as the center of regional economy and an agent of diffusion of economic growth (Lin, 1985; Zheng, 1986).

Some researchers argued that growth poles should be scattered throughout the country, each sending out waves of economic growth to its hinterland (R. Li, 1988; Wang and Zeng, 1988). Similarly, the notion of 'opening of centers and axes' (*dianzhou kaifang*) emphasizes the development of growth poles along major rivers and railroads (Lu, 1987; Y. Hu, 1992; Chen, 1994). Transportation lines are widely accepted as instruments for diffusing economic development from the east to the west and from more developed to less developed regions (Yu, 1992). Xu (1995), for example, argued that greater attention should be given to the role of the four major rivers — Yangtze River, Yellow River, Xi Jiang and Heilong Jiang.

Transportation lines are also the key to a new family of models which aim at promoting coordination among regions. The most popular among them is the 'T model', with the top horizontal bar representing the north-south running coastline and the vertical bar representing the east-west running Yangtze River (Peng, 1991; Lao, 1993; Chen, 1994). Supporters of this model argued that development of the Yangtze valley should be simultaneous with that of the coastline, and that the former is a means to diffuse economic growth to western China. This view has clearly influenced policy-making. Specifically, an official plan in the 1990s is to develop the Yangtze River into a 'soaring dragon' — Pudong and other cities in the east are suppliers of technology and foreign trade opportunities; the middle reaches of Yangtze, including the approved Three Gorges Project, are the primary energy base; and the upper reaches provide the necessary natural resources (Chen *et al.*, 1993; *People's Daily*, 1993a; 1993b; Yao, 1993). Similar to the 'T model', other models in this family also identified major rivers and railroads extending from the eastern coast to inland regions as instruments of diffusion of growth.<sup>12</sup>

New forms of regionalization have been suggested as alternatives to the three-economic-belts division. As early as the mid-1980s, models of regional division into more zones have appeared (Liu, 1985). Wang and Zeng (1988), for example, argued for six economic regions: northeast, north, central, southeast, southwest and northwest, each having its own centers and path of development. In the late 1980s and early 1990s, a variety of regional division models have been developed, which have had some impacts on regional policy. In 1992, the State Council promoted a seven macro-regions plan (Yangtze Delta, Pearl River Delta, Bohai area, southwest, central, northwest and northeast), which aimed at promoting cooperation among localities within each region, by breaking down administrative divisions, encouraging joint development and integrating regional markets (*Beijing Review*, 1992b; *People's Daily*, 1992d; 1992e; Lu, 1992). This plan has however been criticized for its failure to cover the entire country (Hu, 1994), but has indeed inspired further research on large economic regions (Hu, 1994; Lao, 1993;

12 The ' $\pi$ model', for example, adds the Yellow River valley to the 'T model' (Shu, 1994). The '*kai* model', which uses the Chinese word *kai* as a graphic reference, builds on the  $\pi$  model by adding north-south running railroads linking Harbin, Beijing and Guangzhou (Yu, 1992). A variant of this family of models is the 'vertebral' (*qiji*) model, which suggests that a northeast-southwest belt from Aihui in Heilongjiang to Tengchong in Yunnan should become another focus of development. Advocates of this model argued that this belt incorporates large cities in association with 'third front' projects, makes use of the natural and agricultural resources in central China, provides access to a large labor force, and facilitates the development of western China (Luo, 1986).

Liao, 1993). By the early 1990s, it is clear that the 'three-economic-belts' paradigm has started to fade — it is being gradually replaced by development models and philosophies which once again call attention to western and inland China and which have given rise to the regional policy embodied in the Ninth Five-Year Plan.

## The Ninth Five-Year Plan (1996–2000)

In September, 1995, the Fifth Plenum of the 14th Central Committee of the Chinese Communist Party formally adopted the proposal of the Ninth Five-Year Plan. Unlike the Sixth and Seventh Five-Year Plans, the Ninth Five-Year Plan does not seek to revamp China's economy. It is nevertheless an important indicator of how Chinese policy-makers evaluate the past 17 years of reforms and how they project the nation's path of development for the next century. In addition to reaffirming Deng's vision and the reforms' success, the proposal continues to advocate 'socialism with Chinese characteristics'.

Yet the regional policy set forth in the Ninth Five-Year Plan clearly deviates from that of the 1980s — uneven regional development is to be corrected rather than tolerated. Narrowing the regional gap of development and promoting regional economic coordination constitute one of the nine main objectives of the Plan (State Council, 1995: 9). The Plan's specific guidelines for regional development reflect prevailing criticisms of the uneven regional development policy and new models of regional development. For example, the state promises to increase investment in the central and western regions, and urges the transfer of processing and labor-intensive production from coastal to inland provinces. The Plan no longer refers to the three economic belts, but in its replacement advocates large economic regions that are held together by 'central cities' (growth poles) and major transportation lines. The Plan recognizes that converging regional sectoral structures is a problem, and accordingly reaffirms the leadership's commitment to the principles of comparative advantage and regional coordination (State Council, 1995: 16–17).

These readjustments of regional policy seem to be as much a result of shifts in the prevailing thoughts and philosophies of development, as an indicator of the political complexities in the early and mid-1990s. Much of this paper has been devoted to explaining the former, which is, however, intertwined with the politics of regional development. Many of the criticisms of the uneven regional development policy have been raised by inland provinces, whose leaders are increasingly discontented. Their prevailing dissatisfaction with the central government, combined with continuous ethnic conflicts especially in the border provinces,<sup>13</sup> intensified the fear of regionalism. Wang and Hu (1993), two US-educated scholars, went as far as comparing the forces of disintegration to the situation in Yugoslavia before its breakup.<sup>14</sup> Whether policy-makers genuinely believe in even development or not, the political pressures and threat of regionalism call for a pragmatic response: revise the uneven regional development policy (Jiang, 1996). The mid-1990s is also a transitory and critical period for the Chinese leadership, as Deng's likely successors seek to gather support and consolidate power.<sup>15</sup> In the power struggle to become the next paramount leader of China, contenders are more

13 For example, in February 1997, reportedly hundreds were killed in the worst riot in 50 years in the northwestern province of Xinjiang (*Los Angeles Times*, 1997).

14 Wang and Hu's thesis was quickly challenged by researchers who argued that the central government has sufficient political control to curtail any disintegrating tendencies (Huang, 1996; Yang and Wei, 1996).

15 While reaffirming Deng's strategy of letting some regions get rich first, President Jiang Zemin (1995) stressed that efforts to narrow the regional development gap should begin with the Ninth Five-Year Plan. Similarly, Premier Li Peng (1995) reiterated the need for the state to support underdeveloped areas in the central and western regions.

concerned with their power base than with Deng's 'pet projects'. Therefore, merely four years after Deng's southern tour (1992), and five years earlier than his suggested time (2000) for addressing the regional development gap, the Ninth Five-Year-Plan is already signaling a post-Deng era where new leaders seek to correct the wrongs, actual or perceived, of Deng's uneven regional development policy.

## Conclusion

The debate on the uneven development policy occupies a central position in the Chinese theory of regional development. In the 1980s, uneven regional development became an acceptable and in fact popular notion because of the failure of Maoist redistributive policies, influence by Western theories and experience, and above all Deng's development philosophy. By endorsing 'socialism with Chinese characteristics' and emphasizing efficiency over equity, Deng has become a major force behind the reversal in regional policy. He supports the concept of 'stage of development', which legitimizes uneven regional development as a natural and inevitable outcome of the development process. Once the stigma about uneven regional development is removed, both the Chinese research and regional policy are then free to advocate comparative advantage, regional specialization, regional division of labor and export-led economic growth. The ladder-step three-economic-belts regionalization has become the most influential guide of regional development, and preferential policies the most prominent instruments generating rapid economic growth in selected coastal provinces and cities. As a result, uneven regional development has intensified, and is documented by research which reported a widening gap between the three economic belts and between the eastern and inland regions.

The widening regional gap has led to severe criticisms of the uneven regional development policy. Researchers questioned the basic notions of the ladder-step theory and the validity of the three-economic-belts model. The preferential policies are judged to be unfair, and many researchers urged for a level playing field for regions to compete. The uneven regional development policy is further blamed for the outflows of human, capital and material resources from the poorer west to the richer east, duplicate sectoral developments across regions, bottlenecks in energy and raw materials supply, regional conflicts, local protectionism and segregated markets. Many new ideas and alternatives to the uneven regional development policy have been suggested. Most influential among them are models that advocate economic development of the western region, variants of the growth pole theory, notions of using rivers and railroads as agents of regional diffusion, and new forms of regionalization. These ideas have apparently been incorporated in the formulation of the Ninth Five-Year Plan, which steers away from the ladder-step blueprint but instead emphasizes narrowing the regional development gap.

This review of post-Mao regional development research shows that the Chinese theory of regional development is rich and growing but continues to be constrained by several deep-rooted views and practices. First, among supporters as well as critics of the uneven regional development policy, there is an almost unanimous assumption of the overriding importance of state plans and intervention. Research in the early 1990s emphasized particularly the state's role in monitoring economic levers, providing rules and guidelines for the economy, resolving supply bottlenecks and alleviating poverty (Chen, 1990; Chen *et al.*, 1993; Shu and Huang, 1993; Shu, 1994). Little attention has been given to other agents of development, even though enterprises, firms and non-state businesses are playing an increasingly important role in the decollectivizing 'socialist market economy'. Guangdong provides a very good example: investors from cities and from overseas have begun to seek out low-cost alternate locations in rural counties, a

potential agent of diffusion of economic growth from the more developed Pearl River Delta to the poorer hinterland (*People's Daily*, 1992b).

Indeed, much of the recent Western research on regional development focuses on the firm and its operations. The Snowbelt-Sunbelt shift literature, for example, explains how the capitalist firm seeks out new locations with low labor and production costs, less unionization, and an attractive climate and amenities (Bourne, 1980; Bluestone and Harrison, 1982; Peet, 1983). The geography of production literature underscores the key role of industries 'generating their own conditions of growth in place, by making factors of production come to them or causing factor supplies to come into being ...' (Storper and Walker, 1989: 71). Massey's work (1984; 1988) highlights the capitalist firm's role in generating both social and spatial divisions of labor. The product cycle theory has been expanded for investigating the effect of stages of production on location of industrial activities (Norton and Rees, 1979). Research on postfordism, vertical disintegration and flexible accumulation also focuses on production relations within and between firms (Scott, 1986; 1988). These studies are rarely cited in the Chinese literature. Although the Chinese state remains and will continue to be the primary decision-maker of regional policy, a fuller understanding of the development process necessitates detailed analyses of the role of firms and enterprises.

Second, the Chinese theory of regional development relies heavily on spatial forms and organization, such as regional delineations, zones and belts. Very often, researchers and policy-makers focus on 'where' rather than 'what' and 'how'. The three-economic-belts division, for example, defines large regions and their roles, but does not elaborate how economic growth will diffuse from the east to the west. Similarly, advocates of the growth pole theory assumed but have not explained the diffusion from growth poles to their hinterland. Being constrained by spatial forms and regionalization, the Chinese theory of regional development tends to ignore the interplay between production and space. The conditions for social and spatial divisions of labor, internal and external economies of scale, and agglomeration economies should be given greater attention. The fixation on spatial forms and on the question of location also explains a lack of research on individual economic sectors, sectoral shifts and sectoral policy (Liu, 1993; Shu, 1994; Tu, 1995).

Third, the theoretical work on regional development is often constrained by its obligatory role — an instrument to legitimize official policy or development trends that require justification. When the mission of theory is to defend policy, there is little room for logical explanation and critical analysis. Nowhere is this dilemma more explicit than when the theory of a 'primary stage of socialism' was used for justifying the growth of the non-state sector. The popular saying 'the theory of the primary state of socialism is like a big basket: everything can be put in it' (*Chuji jieduan shi ge kuang, sheme dou keyi wang li zhuang*) (Ding, 1994: 173), summarizes very well the reaction to the practice of using theories to legitimize government policies, especially those that are disputable. These 'after-the-fact' applications of theories invite apathy rather than intellectual inquiry and debate, and ironically undermine the explanatory power of regional development theories. Sound theories which can enhance our understanding of China's regional development are only possible if they are given greater autonomy from the legitimization function and recognition in their own right.

In short, the Chinese theory of regional development is multifaceted, complex and growing, but also constrained and circumscribed. It as a whole has been influenced by Western theory, but above all it is a function of the politics of regional development and of debates about the development process with respect to the Chinese context. New thoughts and ideas have shaped regional policy, and vice versa. The Chinese theory will benefit from greater autonomy of intellectual development and from its obligation as a legitimization tool. While the Chinese theory highlights the importance of contextual factors and deserves greater attention by Western scholars, it will be enriched by a

scrutiny of recent Western research which focuses on agents of development other than and in addition to the state, and on the relationship between production and space.

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