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The Logic of the Successful Experience of China's Reform

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中国改革开放40年的历程，为经济学进行回顾总结、经验分析和理论提炼提供了丰富素材。但是，关于改革发展因素的一种流行研究范式，仍然是以新古典经济理论和话语作为圭臬作出的理论解释和评论。党的十九大强调，我国经济已由高速增长阶段转向高质量发展阶段。从中国实际出发，立足于历史逻辑与理论逻辑相统一的思想方法，有助于正确阐释改革开放发展进程中的相互关系和推进逻辑，在实践中扎实推进中华民族伟大复兴的历史进程。

关键词：中国经济　发展因素　改革开放

China's reform and opening up experience over the past 40 years has provided economics with rich material for review, summary, empirical analysis and theoretical refinement. However, the prevailing research paradigm about the developmental factors underlying the reforms still takes as its criterion theoretical interpretations and assessments that apply the doctrines of neoclassical economic theory and discourse. The 19th National Congress of the Communist Party of China stressed the transformation of China's economy from a stage of high-speed growth to one of high-quality development. Adopting an analytical approach that unifies historical and theoretical logic on the basis of Chinese realities will help elucidate the interrelationships and driving logic behind the progress of reform and opening up and promote the forward march of the great rejuvenation of the Chinese nation on a solid basis of practice.

Keywords: Chinese economy, developmental factors, reform and opening up

I. Introduction

In his report to the 19th National Congress of the Communist Party of China, Xi Jinping stated, "With decades of hard work, socialism with Chinese characteristics has crossed the threshold into a new era. This is a new historic juncture in China's development." He added that this new era has blazed "a new trail for other developing countries to achieve modernization. It offers a new option for other countries and nations who want to speed up their development while preserving their independence; and it offers Chinese wisdom and a

Chinese approach to solving the problems facing the mankind." To sum up China's successful experience of combining socialism with market economy over the past 40 years, we need to tell the China story well from different perspectives and angles, especially by unifying historical and theoretical logic.[1]

Two landmark events can be taken as milestones in the initiation of China's economic reform. Firstly, the Third Plenary Session of the Eleventh Central Committee of the Communist Party, held from 18 to 22 December, 1978, reestablished the Communist Party's ideological line of emancipating the mind and seeking truth from facts. The Central Committee made a decision to shift its focus to economic development, laying the theoretical foundation for reform and opening up. Secondly, at almost the same time, 18 farmers at Xiaogang Village in Anhui's Fengyang County decided to abandon collective farming based on the production team and fixed output quotas on a household basis, with each plot to be worked by an individual family. This practice, later known as the household responsibility system, spread nationwide and led to the abolition of the People's Commune system, in the first blow to the planned economy. Xiaogang Village's earth-shattering systemic innovation is naturally regarded as a pioneering step in China's economic reform practice.

Opening up and economic reform were also initiated simultaneously. In April 1979, Deng Xiaoping first put forward the idea of "special export zones" (later renamed "special economic zones"). In July that year, the Communist Party Central Committee and the State Council decided to establish such zones in Shenzhen, Zhuhai and Shantou in Guangdong and Xiamen in Fujian. This signaled the start of China's opening up to the outside world. At this stage, opening up was experimental and regional, but it was successively extended to other coastal cities and provinces. By the 1990s, China had embraced multi-dimensional economic globalization and was seeking to join the WTO. It can be seen that economic reform entailed opening up, and opening up was carried out in the course of reform. Domestic economic development and participation in economic globalization were interwoven.[2]

Exactly 40 years have passed since China's reform and opening up, from 1978 to 2018. Confucius once said, "At forty, I had no doubts." It is exactly 40 years since reform and opening up began. If we apply Confucius' saying to this subject, we can say that 40 years of successful experience undoubtedly verify the correctness of China's reform and opening up path with Chinese characteristics. The saying further implies that 40 years is a time span that merits serious review if we are to improve our understanding of reform and opening up into theories that can guide future reform. Unlike 20 or 30 years, having precisely 40 years of reform experience means that China has accumulated rich historical material, case studies

1 Xi Jinping, *Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era* (delivered at the 19th National Congress of the Communist Party of China), p. 10.

2 The International Monetary Fund takes 1979 as the initial year in China's economic take-off. See IMF, *World Economic Outlook*, p. 76.

and documentation, and is equipped to reflect on and look ahead to the country's reform and opening up in greater depth.

The process of China's reform and opening up has been described and abstracted by many economists. Generally speaking, research undertaken by economists abroad has had a wider impact on international economics, but their work has some significant flaws. Apart from the misreading of Chinese trends due to factual errors arising inadequate information and their not having been on the ground at the time, these economists have erred in the wholesale use of mainstream Western theory to judge Chinese experience, explaining China's practice in terms of neoliberal dogma.

In this way, some overseas scholars have negated the success of China's reform, repeatedly forecasting economic disaster;[3] others have viewed China's experience as exceptional, disregarding its general implications;[4] and still others have judged it in terms of some consensus based on mainstream Western economics (such as the Washington Consensus). For example, many economists are reluctant to believe that it is feasible combine socialism with a market economy; if they do acknowledge the success of China's reform and opening up, they automatically ascribe it to capitalism.

Steven N.S. Cheung boasts of being the first academic to "successfully" predict early on that China's reform would "go capitalist,"[5] and Yasheng Huang sums up the reform as a process of establishing capitalism with Chinese characteristics.[6] They cherry-pick facts that agree with a supposedly self-evident logic, citing them as reasons for the success of reform, while using facts that do not fit as the basis for pessimistic conclusions about reform. Using a similar framework, a monograph on Chinese reform (*How China Became Capitalist*) praises China's experience but attributes it to China's taking the capitalist path. The author argues that the economic transformation of China is a perfect example of what Hayek refers to as "the unintended consequences of human action."[7] Using that perspective to interpret China's economic reform means ignoring the institutional innovations of a myriad of participants (rural and urban residents and entrepreneurs and governments and their employees) with the same motives and goals. Not only does this methodology show historical nihilism, it is also close to dogmatism; it obviously fails to reflect the true orientation and course of China's actual reform, and any lessons it reflects would be likely to mislead would-be followers and imitators.

It is true that the reform of China's economic system was initiated without a blueprint, and the goal of a socialist market economy was not established until 1992 during the 14th

3 See Alwyn Young, "Gold into the Base Metals: Productivity Growth in the People's Republic of China during the Reform Period," pp. 1220-1261; Paul Krugman, "Hitting China's Wall."

4 Jeffrey Sachs, "Lessons for Brazil from China's Success."

5 Steven N.S. Cheung, *The Economic System of China.*

6 Yasheng Huang, *Capitalism with Chinese Characteristics: Entrepreneurship and the State*; Ronald Coase and Ning Wang, *How China Became Capitalist*.

7 Ronald Coase and Ning Wang, *How China Became Capitalist*.

National Congress of the Communist Party of China. However, given the clarity of the reform goals—increasing society's productive forces, enhancing overall national strength and improving people's standard of living—the logic of the problems to be solved at each stage and their sequence and process has always been clear. Therefore, an analytical approach that unifies historical and theoretical logic should be applied to reviewing reform and opening up so that assessments are consistent with both facts and logic. Seeking to solve the mysteries of the rise and fall of nations and finding ways for lagging economies to catch up with their advanced counterparts is the eternal task confronting economists. At this moment, when reform and opening up is 40 years old—when it has reached the stage of "no doubts"—it is theorists' responsibility to use the correct view of history and the correct methodology to refresh and further abstract previous understandings of the past.

This article aims to avoid the fragmentation of Chinese experience that comes with partial understanding, like that of the blind men feeling the elephant, on the basis of mastering and deploying a complete logical expository and analytical framework. On the premise of consulting and drawing on the relevant findings and starting from actual experience, we interpret the context of China's missed opportunities for catch-up with the developed world prior to reform and opening up and provide a brief description of the combination of theory and history in the course of reform. On this basis, we try to answer the following questions: 1) Given the initial conditions of the Chinese economy, how were factor accumulation and allocation improved and the potential growth rate increased once institutional constraints were removed? 2) How is the new stage of development changing the engine of growth; what areas of reform will deliver further growth momentum; and how can this be achieved?

II. Missed Opportunities for Convergence under the Planned Economy

In a country at a low income stage of development and consequently with great potential for catching up with its high-income counterparts, planning can provide a certain level of physical and human capital accumulation.[8] At times it may even be more effective in mobilizing resources than a free market model if the latter is adopted in circumstances where economic activities are not effectively regulated under law. Moreover, a planned economy that relies on regulation by administrative means is capable of meeting specific objectives like the developmental strategy of prioritizing heavy industry and realizing a certain degree of effective (though not efficient) resource allocation.

For instance, in 1980, China ranked fourth last among a hundred countries for which statistics are available in terms of per capita gross national income (GNI) and per capita GDP, but it ranked 62nd in terms of average years of schooling of the population aged 25 and above among 107 countries for which data are available and ranked 56th in terms of life expectancy

8 See Loren Brandt, Debin Ma and Thomas G. Rawski, "From Divergence to Convergence: Re-evaluating the History behind China's Economic Boom," p. 93.

at birth among 127 countries for which data are available.[9] Although its low per capita income represents a fairly low capital factor endowment, China did achieve a very high level of capital accumulation due to the planned economy's strong resource mobilization capacity. Over the period 1953-1978, China's rate of capital accumulation averaged 29.5 percent, significantly higher than the world average.[10]

The planned economy, however, lacked the necessary institutional conditions for efficient resource allocation and effective incentives. Both economic history and growth theory on the rise and fall of nations show that the successes and the failures of economic development are all closely related to resource allocation choices and incentive mechanisms, and thus to the efficiency of resource allocation and effectiveness of incentives. China's experience of planning shows that a traditional planning system that denies a role for markets leads to inefficient allocation in the economy as whole, while a lack of incentives renders micro-economic activities ineffective and the absence of rewards and penalties depresses the morale of workers, farmers and managers. The growth in production factors (including human capital) mobilized by strong administrative efforts was not translated into positive economic growth, because much of it was offset by negative growth in total factor productivity (TFP). In particular, resource misallocation distorted the industrial structure and the achievements in science and technology were not exploited in sectors relevant to people's livelihood; improvements in their standard of living failed to keep pace with economic development.

After the foundation of the PRC, alongside the development of the planned economy, China experienced a transition beginning in the early 1950s from a demographic pattern of a high birth rate, high mortality rate and low population growth to a high birth rate, low mortality rate and high population growth, leading to a build-up of surplus labor in traditional sectors. Logically, the Chinese economy should have then entered the dual economy developmental stage. In line with Lewis's definition, China was at the time a typical dual economy, with a marked labor surplus in the agricultural sector. Thereafter, in the late 1960s, fertility began to decline and the natural growth rate of the population decreased substantially, indicating the development of demographic conditions conducive to economic growth in the form of a potential demographic dividend. On the one hand, surplus labor was transformed into a low-cost factor of production in the course of capital accumulation and industrialization, a situation that could have been translated into comparative and competitive advantage once the conditions for opening up existed. On the other hand, the endless supply of labor constituted another series of factors that could have supported high speed catch-up economic growth.

However, the strategy chosen was to prioritize heavy industry through coercive accumulation and build an institutional model that relied on centralized planning to allocate

9 See Fang Cai, *Demystifying China's Economy Development*; Thomas G. Rawski, "Human Resources and China's Long Economic Boom," pp. 33-78.

10 See Justin Yifu Lin, Cai Fang and Li Zhou, *The China Miracle: Development Strategy and Economic Reform.*

resources. This was due to a strong desire to promote industrialization and catch up with advanced countries and to a misunderstanding of industrialization and of the constraints imposed by an inadequate capacity for accumulation and consumption in an agrarian economy. This strategy inevitably meant that China's economic development in this period defied rather than followed its potential comparative advantage. Hence the grave defects in the pre-reform planned economy were misallocation of resources due to a series of institutional factors in concert with ineffective incentive mechanisms, resulting in a vicious circle of low productivity and low growth.

Spence argues that the global economy started an era of great convergence around 1950.[11] China missed this chance to catch up with the developed economies. A simplistic view of the figures would seem to show that the planned economy delivered a barely passable performance in terms of economic growth. According to Maddison, between 1952 and 1978, China's annual GDP growth was 4.4 percent calculated in 1990 US dollars using international purchasing power parity. However, from the 1950s on, many backward countries and regions enjoyed rapid growth that enabled them to catch up with their developed counterparts. Between 1952 and 1978, the average annual growth rate was 4.3 percent in "rich countries" and 4.9 percent in the "other countries" group, with a world average of 4.6 percent. In 1952, China's per capita GDP was only 8.7 percent of the average "rich country" level; 46.5 percent of the average "other country" level; and 23.8 percent of the average world level. In 1978, these three percentages were 6.8, 42.1 and 22.1 percent respectively. Thus during the first three decades of post-1949 economic development, China missed its chance to catch up with the developed countries and lagged further behind the rest of the world.[12]

Viewed from both the domestic perspective in terms of improving people's standard of living and international comparisons of national power, China's development performance in this period was unsatisfying. Due to rapid population growth and a serious imbalance between accumulation and consumption, the per capita income growth rate remained low until reform and opening up in 1978. In addition, the Chinese economy in this period was almost completely isolated from the outside world. In 1978, the share of exports plus imports in GDP was only 9.7 percent. Exports contributed 47.2 percent of this figure, and more than half of exports were of primary products. Data on the volume of foreign investment and foreign direct investment only became available in 1983, when they were only US$ 2.26 billion and US$ 920 million respectively.

Changes in productivity and the economic structure can provide a stronger explanation of the inefficient allocation of resources and poor performance in economic development under the planned economy model at this time. In 1952, 82.5 percent of the labor force worked in agriculture. According to the developmental logic of the dual economy, an abundant labor force delays diminishing returns to capital, helping to maintain a high rate of return to

11 Michael Spence, *The Next Convergence: The Future of Economic Growth in a Multispeed World*.
12 Angus Maddison, *Chinese Economic Performance in the Long Run, 960-2030 AD*, p. 108.

capital. In the course of industrialization, surplus labor can be transferred from agricultural to other sectors, raising allocative efficiency. At the same time, around the mid-1960s, the demographic dependency ratio began to decrease, largely owing to a decline in the proportion of people younger than working age; this provided a demographic dividend that could theoretically have been conducive to capital accumulation and improved human resources.

III. The Logic and Process of Reform and Opening Up

In general, to be successful in economic development, a country needs to deal with problems in the accumulation and allocation of physical and human capital, which in turn involves problems of mechanisms, signals, efficiency and incentives. Initiating reform in a planning system that is incapable of solving those problems is therefore only feasible politically and practically if a minimum of the following three requisites is met. First, the basic impetus for the launch of reform should bring benefits for workers, micro-level work units and society. Second, the reform should not conflict with the interests of any other groups in society; that is, it should be a Pareto Improvement. Third, the reform should potentially be launched in a key location, whence the logic of its momentum can be transmitted to other areas.

China's rural reform, characterized by the introduction of the household responsibility system and the abolition of the People's Communes, could not have been better fitted to meeting these conditions. As early as the late 1970s, the household responsibility system had been quietly piloted in some areas. Such spontaneous experiments could be observed not only in Xiaogang Village or Fengyang County, but also in a large number of areas in provinces like Anhui, Sichuan and Inner Mongolia even before the Third Plenary Session of the Eleventh Central Committee of the Communist Party. Rural reform was rapidly concluded in a few years in the early 1980s, during which central policy on reform moved from tacit acquiescence to allowing pilots in poor and remote areas and thence to nationwide promulgation. By the end of 1984, all production teams and 98 percent of households in rural China had adopted the household responsibility system form of management. Concurrently, People's Communes were officially abolished.

This reform immediately solved the longstanding problem of improving incentives for agricultural production and operation, granting rural households residual claimant rights and subsequently empowering them and expanding their autonomous allocation of the factors of production and operation. In the few years after the household responsibility system was introduced (from 1978 to 1984), grain yield per unit area grew by 42.8 percent, total grain output increased by 33.6 percent, and real agricultural value grew by 52.6 percent. Statistical analysis shows that 46.9 percent of the increase in agricultural output over this period can be attributed to the introduction of the household responsibility system.[13] In the same period,

13 Justin Yifu Lin, "Rural Reforms and Agricultural Growth in China," pp. 34-51.

farmers' nominal average income per capita increased by 166 percent, and the number of rural residents living in absolute poverty dropped from 250 million to 128 million even though the poverty line had risen from 100 yuan to 200 yuan per person per year.[14] This led to a great increase in the supply of agricultural products in urban markets and prepared the country for the abolition of the grain rationing system.

The reforms launched in state-owned enterprises (SOEs) took a similar approach and had similar effects. The reintroduction in 1978 of an SOE bonus system tackled the relationship between enterprises and their employees; this actually decentralized and reformed the wage system, thus improving work incentives for workers and managers. At the same time, SOE reforms introducing enterprise autonomy and retention of profits were launched to deal with incentives for enterprises and their managers; these tackled the relationship between enterprises and the market and between enterprises and the state. To sum up, SOE reform, as the core of urban reform, was carried out through the following routes.

First, having started by granting and expanding SOE autonomy and creating dynamic managerial bodies, the reform ended up building a modern enterprise system through corporatization. The initial granting of autonomy to enterprises occurred in 1979, when pilot programs were conducted; it quickly expanded to more regions, and then spread to the whole country. The SOEs were granted the power to determine the level of wages and bonuses, to hire and fire workers, to purchase and sell commodities, to price products and to utilize their own capital. In order to further explore and institutionalize these reforms, a variety of management forms were successively introduced, including managerial responsibility, enterprise contracts, asset leasing and shareholding. By the late 1990s, under the policy of "grasping large enterprises and freeing up small enterprises," corporatization of the SOEs in line with the demands of modern enterprise systems became the basic goal of SOE reform.

Second, the relationship between SOEs and government was redefined. Early reform was characterized by the profit sharing between the state and enterprise through a host of measures such as profit retention, tax-for-profits and transforming subsides into loans. These measures all strengthened the accountability of enterprises as market players and altered the way the state managed the SOEs. In 1988, the State Council established the State-owned Assets Administration Bureau, renamed the State-owned Assets Supervision and Administration Commission (SASAC) in 2003. Acting on behalf of the state, SASAC is responsible for supervising the state-owned assets of central government enterprises (excluding financial enterprises). Similar organizations were established at the local government level to supervise the state assets for which they were responsible. Ongoing reform is oriented to strengthening the supervision of state assets through the supervision of state-owned capital and reform of the authorization and management of such capital. It aims to establish a number of state capital operating companies, and to assist the transformation of qualified SOEs into state-

14 Cai Fang, *Demystifying the Economic Growth in Transitional China*, p. 5.

owned capital investment companies.

Third, the development of non-public enterprises has been permitted and encouraged. The policies of "grasping large enterprises and freeing up small enterprises" and introducing foreign direct investment have subjected SOEs to competitive pressures and given them an operational impetus. With the reform of the property rights system and governance structure, competition between enterprises with different forms of ownership and the formation of mixed ownership enterprises have been crucial in making SOEs major market players in the market and increasing their efficiency. Statistics show that coexistence and competition between enterprises with different forms of ownership, including mixed ownership, has already come into being. As of 2015, among industrial enterprises with yearly revenue from their principal business of 20 million yuan or more, only 4.1 percent of total revenue was generated by registered SOEs; the rest (95.9 percent) was generated by 29 categories of registered industrial enterprises including private enterprises, limited liability corporations, foreign-funded enterprises and joint ventures.

With the gradual formation of an incentive mechanism for enterprises and rural households came the need to give the right market signals, signals that would establish their actual status as major market players and drive the rational circulation and reallocation of production factors and resources. That is, the logical next step for reform was to correct distorted price signals by developing commodity and factor markets. All these crucial changes—from planned commodity pricing to market pricing, from the planned distribution of products and the means of production to free market transactions and from unified allocation of the factors of production to free circulation—were accomplished by means of the "dual track system"; that is, the incremental transition from the planning track to market mechanisms and the rise of one as the other receded.

As China followed the logic of the transition from a planned to a market economy, the course of reform saw the gradual establishment of incentives for physical and human capital accumulation and market allocation mechanisms, with a corresponding macro-policy environment. China's economic reforms were multifaceted and comprehensive; however, the important reforms in many other areas can all be regarded as revolving around this logic. The reform process brought new problems and new responses that were handled and concluded in an appropriate manner.

What is particularly noteworthy is the transformation of the government's role in economic development, that is, the changing relationships between the government and enterprises and the government and the market. Overall, the role of Chinese governments has changed from direct involvement in economic activity to fostering social development through redistribution. However, the eagerness of governments (especially local governments) to promote economic growth means that local governments have competed with one another to pursue GDP growth and grow their finances. This governmental role has had the positive effect of converting the incentives unleashed by reform into high-speed growth, but at

the same time it has also had the negative effect of excessive government involvement in resource allocation, to the detriment of market forces. As the Chinese economy entered the "new normal" and government streamlining and decentralizing progressed, governments have transferred more of their functions to the provision of public goods in areas such as education, social security, market regulation and macroeconomic policy.

The two processes of China's opening up and the economic reforms described above exhibit four features. 1) They have been carried forward with a consistent logic; 2) their timing was synchronous; 3) in terms of effects, each provided conditions for and facilitated the other; and 4) each was promoted in the same way, sequentially and incrementally. By expanding its imports and exports, attracting foreign direct investment, investing overseas, becoming involved in global governance, and, more recently, implementing the Belt and Road Initiative, China has participated to the utmost in economic globalization. This process has helped China strengthen enterprise competitiveness, adopt advanced foreign technologies and management practices, capitalize on the demographic dividend's contribution to economic growth, and obtain a comparative advantage in industry development, as well as achieving a series of other reform and development goals.

IV. Capitalizing on the Demographic Dividend in Reform and Opening Up

China's success in reform and opening up has disproved the forecasts of the Western mainstream economics paradigm. Like the proponents of the Washington Consensus, who design a priori institutional targets for developing and transition economies, economists who subscribe to neoclassical growth theory assess China's reform and development on the basis of a priori dogmas that accord with Western economic development, which is why much of the literature that seeks to explain the achievements of Chinese reform fails to give convincing answers.

For instance, following a consistent theoretical framework and empirical methodology, Young and Krugman hold that like the East Asian economies they critiqued many years ago, Chinese growth was driven solely by increased inputs of capital and labor without any increase in productivity, and as such was extensive in nature and unsustainable.[15] This assessment totally disregarded the nature of China's dual economy stage and has been disproved by the facts in the same way as their assessment of the East Asian economies. In addition, many researchers have failed to recognize the mode and the starting point of Chinese reform: it is guided by the goal of improving people's livelihood and its developmental path

15 As Alwyn Young bluntly put it, "With minimal sleight of hand, it is possible to transform the recent growth experience of the People's Republic of China from the extraordinary into the mundane." On the basis of this preconception, he denies that there has been any significant growth of productivity and rejects its contribution to the growth of the Chinese economy. See Alwyn Young, "Gold into the Base Metals: Productivity Growth in the People's Republic of China during the Reform Period," pp. 1220-1261.

focuses on increasing employment and reallocating labor, leading to an economy with "shared" development.[16]

China's reform and opening up commenced at a time when the planned economy's potential for mobilizing resources had been exhausted. The developmental potential of the dual economy and China's demographic dividend, as general prerequisites for growth, as well as the human capital accumulated under the planned economy, were only released through reform and opening up, when they became sources of growth.

It was this potential that allowed the Chinese economy to translate the demographic dividend into a high potential growth rate and then a high actual growth rate when reform and opening up provided the conditions for doing so. Anyone not blinkered by a priori theoretical dogma cannot deny that the past 40 years of reform and opening up have helped to foster development and sharing, and equally cannot reject the fact that Chinese practice is consistent with economic logic.

First, the fact that a low and declining dependency ratio helped to form a high savings rate and that an unlimited labor supply delayed the emergence of diminishing capital returns made capital accumulation a major engine of economic growth. An early study by the World Bank found that capital accumulation contributed 37 percent to China's GDP growth in 1978-1995,[17] and some later research estimates are even higher.[18] The experience of China and other East Asian economies in the Lewis dual economy stage of development has been that an unlimited labor supply did indeed delay the fall in returns to capital for some time. For example, research by Bai Chong-En *et al*. suggests that in most of China's reform period, the return to capital investment remained extraordinarily high, but it diminished rapidly when the unlimited supply of labor ceased.[19]

Second, advantageous population factors ensure that the quantity and quality of the labor force make a significant contribution to economic growth. An adequate supply of labor is widely recognized as conducive to economic growth, but the contribution of improvements in human capital is often neglected. A favorable demographic structure ensures a steady flow of new labor; for developing countries, especially China, this is the main means of comprehensively improving human capital. Cai Fang and Zhao Wen have estimated the contribution of labor to be 8 percent and that of human capital to be 4 percent.[20] Whalley *et al*, estimate the contribution of human capital to be 11.7 percent, or as high as 38 percent if one

16 For details, see Fang Cai, ed., *Transforming the Chinese Economy, 1978-2008*, "Introduction."
17 World Bank, *China 2020: Development Challenges in the New Century*.
18 See Fang Cai and Wen Zhao, "When the Demographic Dividend Disappears: Growth Sustainability of China," in Masahiko Aoki and Jinglian Wu, eds., *The Chinese Economy: A New Transition*.
19 See Chong-En Bai, Chang-Tai Hsieh and Yingyi Qian, "The Return to Capital in China"; Chong-En Bai and Zhang Qiong, "The Return to Capital in China and Factors Affecting It."
20 Fang Cai and Wen Zhao, "When the Demographic Dividend Disappears: Growth Sustainability of China."

adds the effect of education on productivity.[21]

Third, according to the principle governing the raising of productivity, labor mobility between rural and urban areas and among sectors and regions—whether from new entrants to the workforce or from the long accumulation of urban and rural surplus labor—brings about an efficient reallocation of resources that contributes significantly to total factor productivity and labor productivity. For instance, the World Bank further breaks down TFP into resource reallocation efficiency and a residual, with the former representing the productivity growth resulting from labor mobility from relatively low productivity sectors (surplus agricultural labor and redundant SOE labor) to high productivity sectors (non-agricultural sectors and newly established enterprises), and calculates that increased labor productivity contributed 16 percent to GDP growth.[22] The latest research shows that 55.1 percent of the increase in labor productivity in 1978-2015 came from the industrial sector and 44.9 percent from structural readjustment in industry.[23]

It can been seen that the high-speed growth of the Chinese economy has resulted from the stimulus given to advantageous factor endowment at a specific stage of development by reform and opening up; that is, through improving micro-management incentive mechanisms, correcting price signals, developing commodity markets, dismantling institutional barriers to the mobility of factors of production, changing the role of government, introducing foreign technology, capital and competition, and exploring world markets. This has enabled China to translate its demographic dividend into high potential growth and to realize high-speed real growth. Taking into account factors such as the supply capacity of factors of production and resource allocation efficiency, Cai Fang and Lu Yang estimate that the potential GDP growth rate was 9.7 percent in 1979-1995 and 10.4 percent in 1997-2010.[24]

Finally, contrary to employment trends in developed countries like the US,[25] in the course of the rapid economic growth fostered by reform and opening up, China has witnessed the massive expansion of employment, a significant reallocation of the labor force, and a balanced increase in jobs between tradable and non-tradable sectors. Despite a widening income gap, three approaches or effects at different stages have helped the Chinese, rural and urban, to share in the fruits of reform, opening up and growth, which has in turn won

21 John Whalley and Xiliang Zhao, "The Contribution of Human Capital to China's Economic Growth."

22 World Bank, *China 2020: Development Challenges in the New Century.*

23 Cai Fang, "Reform Effects in China: A Labor Reallocation Perspective," pp. 4-17.

24 Fang Cai and Yang Lu, "The End of China's Demographic Dividend: The Perspective of Potential GDP Growth," in Ross Garnaut, Fang Cai and Ligang Song, eds., *China: A New Model for Growth and Development*, pp. 55-74.

25 Spence *et al*. find that in the period 1990-2008, a great number of manufacturing firms at the lower end of the US value chain moved overseas, with consequent loss of jobs. Almost all jobs created over this period were attributable to non-tradable sectors, mainly the service sector. They conclude that industry offshoring has destroyed the US economy. See Michael Spence and Sandile Hlatshwayo, "The Evolving Structure of the American Economy and the Employment Challenge."

their support for reform and opening up and created mass demand in domestic consumption. The first of the three is the effect of the increase in employment. The development of labor-intensive industries has created more jobs, enabling all income groups to raise their incomes though it has at the same time enlarged the income gap. The second is the effect of increases in the wage rate and employment quality. Since the advent of the Lewis turning point,[26] the wages of ordinary workers and the incomes of low-income households have grown faster. Since 2009, the Gini coefficient of residents' income and the income gap between rural and urban households have steadily declined. The third is the effect of the intensified redistributive policy, seen in the efforts made by the central and local governments to promote the equalization of public service provisions. The logic and progress of reform and opening up have created a virtuous circle.

V. A New Stage of Development and Unfinished Tasks

The majority of economists acknowledge that over the past 40 years, China has made two important transitions: in terms of the economic system, there has been a transition from a planned to a market economy, and in terms of growth category or developmental stage, there has been a transition from dual economy development to neoclassical growth. In reality, these transitions have been accompanied by a rapid demographic transition from high to a low phase of fertility, with the latter phase being sustained at a stable level. These transitions have brought a great variety of changes in their wake.

The high-speed growth brought about by reform and opening up can be seen as a process in which reform created an appropriate institutional environment for the accumulation and effective allocation of production factors that made it possible to capitalize on the demographic dividend. So far, reforms to incentive mechanisms, enterprise governance structure, price formation mechanisms, the resource allocation model, the macro-policy environment and systems for opening up to the outside world have all been initiated and advanced in response to the unique institutional demands of each stage of development. As we examine the present and look to the future, we need to readjust the emphases, the difficulties and the way ahead for further reform in accordance with changes in our developmental stage. On the one hand, as China transitions from upper-middle income to high income status, its growth pattern needs to change to one driven by productivity. On the other, as the socialist market economy system matures and attains its final form, reform will become more difficult.

Once the Chinese economy passed the Lewis turning point, characterized by labor shortages and wage increases, the demographic dividend fell rapidly; all the factors that

26 Lewis characterizes dual economy development as a process in which surplus labor in agriculture shifts to non-agricultural sectors at a constant wage rate. The Lewis turning point is reached once labor becomes scarce and the wage rate begins to increase. For discussion of China's arrival at the Lewis turning point, see Fang Cai, *Demystifying China's Economy Development*.

previously drove growth weakened. As a consequence, the potential growth rate has declined and exceptionally high-speed growth will be unsustainable. We can already see several factors that drive down the potential growth rate. 1) Labor shortages are boosting wage increases too fast to support labor productivity growth; 2) The rapid rise in the capital-labor ratio is leading to a sharp fall in return on investment; 3) The decline in new entrants to the work force is slowing down improvements in human capital; 4) The deceleration of the shift in rural labor is attenuating resource reallocation efficiency, resulting in a slowdown in TFP growth. The Chinese economy has thus entered a "new normal" stage characterized by a slower pace of growth, structural readjustment in industry and acceleration of changes in the mode of development.

Cai Fang and Lu Yang estimate that China's potential growth rate was reduced from about 10 percent prior to 2010 to 7.6 percent under the 12th Five-Year Plan (2011-2015) and 6.2 percent under the 13th Five-Year Plan (2016-2020).[27] Thereafter, the rate will continue to decrease and will have regressed to the mean by the time China has completely modernized."[28] The trajectory, pace and trend of the slowdown in the actual growth rate testify to the correctness of this prediction. This imposes urgent requirements on industry structural readjustment; meeting this challenge demands the deepening of economic reform.

In accordance with growth theory forecasts and different countries' developmental experience, a growth slowdown is almost inescapable in the course of a country's transition from dual economy development to neoclassical growth at the frontiers of technology.[29] However, the pace at which potential growth declines and the extent to which the actual growth rate deviates from the potential growth rate may be very different in different countries and may lead to totally divergent long-term results.[30] As far as China is concerned, it is only by deepening economic reform, transforming the growth pattern, exploring the potential dynamism of traditional growth and fostering the dynamism of new growth that China can maintain its potential growth at a reasonable rate and achieve actual medium- to high-speed growth, avoid falling into the middle-income trap and accomplish its goal of modernization.

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27 Cai Fang and Lu Yang, "The End of China's Demographic Dividend: The Perspective of Potential GDP Growth," pp. 55-74. Although the predictions of different scholars and institutions may vary, the mainstream judgment is that China's potential growth rate has declined.

28 Pritchett and Summers hold that any growth rate exceeding the world average is abnormal, and, therefore, will "regress to the mean" eventually. According to them, the "mean" here is the average growth rate of the world economy. Nevertheless, Cai Fang and Lu Yang estimate that China's potential growth rate will remain at a level of higher than three percent until 2050. See Lant Pritchett and Lawrence H. Summers, "Asiaphoria Meets Regression to the Mean"; Fang Cai and Yang Lu, "Take-Off, Persistence, and Sustainability: The Demographic Factor in Chinese Growth," pp. 203-225.

29 For instance, see Robert J. Barro, "Economic Growth and Convergence, Applied Especially to China"; Barry Eichengreen, Donghyun Park and Kwanho Shin, "Growth Slowdowns Redux: New Evidence on the Middle-Income Trap."

30 Barry Eichengreen, Donghyun Park and Kwanho Shin, "When Fast-Growing Economies Slow Down: International Evidence and Implications for China."

From the viewpoint of China's current realities, further reform faces several hurdles. First, since reform inevitably requires a substantial readjustment of interest patterns, it faces resistance and interference from vested interests. Second, in the course of developing a competitive environment of creative destruction where only the fittest survive, some workers and managers will encounter real difficulties. Third, those bearing the costs of a reform are not necessarily those who benefit from it, which leads to incompatible incentives. To tackle these challenges, the Chinese government needs to utilize reform dividends and share reform costs, including redefining responsibility for the fiscal expenditures required by new systems and providing the necessary compensation for parties who lose out. In particular, workers must be provided with a social policy safety net.

Many studies show that whether reform is progressed will make a great difference to prospects for future economic growth. For example, taking China's economic performance in 1966-1975 and 1978-2012 as reference points, Cheremukhim *et al*. conducted a simulation of what Chinese economic growth would be with and without reform in 2050, and found a substantial difference.[31] In general, there is no trade-off between reform and growth; reform is a clear driver of economic growth. The experience and logic of China's reform and opening up show that the reform dividend does after all spur economic growth and improve people's standard of living. For instance, Cai Fang and Lu Yang have examined the impact that reforms in the household registration system, SOEs, family planning policy and the education and training system would have on improving the labor force participation rate, raising TFP growth, lowering enterprise costs, increasing the fertility rate, and improving human capital, and found that these outcomes would lead to a significant increase in the potential growth rate of the Chinese economy.[32]

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31 Anton Cheremukhim *et al*., "The Economy of People's Republic of China from 1953."

32 Fang Cai and Yang Lu, "Take-Off, Persistence, and Sustainability: The Demographic Factor in Chinese Growth," pp. 203-225.

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